

2008

The SMALL
BUSINESS
ECONOMY

A REPORT TO THE PRESIDENT

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Washington: 2009

Dear Mr. President:

It is a pleasure to present the U.S. Small Business Administration (SBA) Office of Advocacy's 2008 edition of *The Small Business Economy: A Report to the President*. The American entrepreneurial spirit continues to be the strength of our economy. In the face of economic challenges, small businesses are developing new ideas, employing additional workers, and producing innovative products and services.

Over the past year, the Office of Advocacy has continued to conduct research documenting the importance of entrepreneurship to the American economy and highlighting policy issues of relevance to small firms.

Many Advocacy reports in 2007 affirmed the significance of the small business owner in the American economy. A report released in February by Donald Bruce, John Deskins, Brian Hill, and Jonathan Rork found that small business establishment births are the most important factor in growing gross state product, state personal income, and total state employment. They conclude their work with the following statement: "... our results indicate that the most fruitful policy option available to state governments is to establish and maintain a fertile environment for new establishment formation." Kathryn Kobe of Economic Consulting Services confirmed that the small business share of private, nonfarm gross domestic product remains around 50 percent, which is similar to the findings of previous reports on this topic.

The Office of Advocacy released several studies that examined regional economic development issues. Whitney Peake and Maria Marshall wrote in January that certain state expenditures, particularly investments in human capital and roads, affected the number of new businesses. In March, Robert Fairlie examined entrepreneurship in the Silicon Valley relative to the rest of the United States.

The Office of Advocacy also benefited from the release of data from the U.S. Census Bureau's Survey of Business Owners (SBO) for 2002. In April, the office released *Minorities in Business: A Demographic Review of Minority Business Ownership*, a follow-up

to the August 2006 release of a report on women-owned businesses. The 2007 edition of *The Small Business Economy* featured a long-awaited discussion of veteran and service-disabled veteran business ownership by Jules Lichtenstein and Joseph Sobota. These reports relied heavily on the 2002 SBO data and other sources.

Other reports also dealt with owner demographics. In January, Open Blue Solutions examined self-employment trends among veterans and service-disabled veterans, and I wrote a working paper in December finding that the self-employed tend to have attained higher levels of education, to own their own home, and to have served in the military. The study also confirmed that the self-employed are more likely to be older, white, married, Internet-savvy, and rural. Erin Kepler and Scott Shane in September observed that among nascent entrepreneurs, gender did not affect new venture performance; however, several factors—such as differing expectations, reasons for starting a business, motivations, and opportunities sought and types of businesses—varied across men- and women-owned businesses.

Other studies released in 2007 are worthy of mention. Karl Wennberg, Timothy Folta, and Frederic Delmar, in a working paper released in June, found that many people enter into self-employment gradually, and Brian Headd and Bruce Kirchoff observed various “stylized facts” from the U.S. Census Bureau’s firm size data, including the conclusion that growing firms are generally a constant share of the economy. Two papers focused on employment benefits—one by Econometrica and the other by John Hope and Patrick Mackin of SAG Corporation. Both found that small businesses are less likely to offer benefits to their workers, and the offering of such benefits improves employee retention.

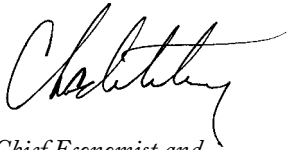
Larry Plummer, at the University of Colorado at Boulder, found that new business entrants provide long-term benefits to the local economy; the increased competition might be painful in the short term, but with time, collaborative efforts accrue to everyone’s betterment. These and other studies can be found on the Office of Advocacy’s research page at <http://www.sba.gov/advo/research>.

This edition of *The Small Business Economy* features chapters on small businesses in international trade and their training of the work force. Contributors Donald Bruce and Paul Reynolds focus, respectively, on tax issues of concern to small business and groundbreaking new data on small business creation.

This report also summarizes the economic and small business financial climate in 2007 and examines small business procurement. The Office of Advocacy, through its implementation of the Regulatory Flexibility Act of 1980 and Executive Order 13272, has helped to reduce the regulatory compliance costs of proposed rules and this year began a Regulatory Review and Reform (r3) initiative to begin addressing the cumulative burden of regulation.

In sum, the 27 million small businesses in the United States play a vital role in the economic well-being of our nation. The Office of Advocacy's research contributes to the understanding of the importance of small businesses and the entrepreneurial spirit in generating economic growth, hiring and training new workers, and creating innovative products and services that will strengthen America's competitiveness in an increasingly global economy.

Chad Moutray

A handwritten signature in black ink, appearing to read 'Chad Moutray', with a stylized, flowing script.

*Chief Economist and
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Acknowledgments

The Small Business Economy: A Report to the President was prepared by the U.S. Small Business Administration, Office of Advocacy. The Chief Counsel for Advocacy was Thomas M. Sullivan; the Chief Economist is Chad Moutray. The project was managed by Senior Editor Kathryn J. Tobias. Specific chapters were written or prepared by the following staff and outside contributors:

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Contents

EXECUTIVE SUMMARY		1
CHAPTER 1	<i>The State of Small Business</i>	7
	Macroeconomic Trends	7
	Small Business Trends	19
	State Macroeconomic Trends	20
CHAPTER 2	Small Business Financing <i>in 2007</i>	27
	Economic and Credit Conditions in 2007	28
	The Nonfinancial Sector's Use of Funds in Capital Markets	29
	Lending by Financial Institutions to Small Businesses	35
	Small Business Investment	39
CHAPTER 3	Federal Procurement <i>from</i> Small Firms	47
	Small Business Procurement Data	48
	Federal Contracting with Small Firms in FY 2007	49
CHAPTER 4	Profile <i>of</i> Small Businesses <i>and</i> International Trade	67
	Exporting and Importing Trends	67
	Competitiveness in World Markets	85
	Supporting Small Business Exports	95
CHAPTER 5	Small Business Training <i>and</i> Development	107
	Worker Characteristics and Business Size	111
	Key Training Issues	116
	Types of Training	117
	Training Types Provided to Workers in Small and Large Firms	118
	Trends in Training in Small and Large Firms	125
	Use of Training Received	138
	Business Owners and Training	140

CHAPTER 6	A Tax Policy Update <i>for</i> America's Small Businesses	147
	Federal Tax Issues Faced by Small Businesses	148
	State and Local Tax Issues Faced by Small Businesses	153
	Looking Ahead: Tax Issues on the Horizon	161
CHAPTER 7	Business Creation <i>in the</i> United States: Entry, Startup Activities and the Launch <i>of</i> New Ventures	165
	Conceptions of Entrepreneurship	167
	Why Care about Firm Creation?	169
	Resources for Tracking Business Dynamics	171
	Identifying Entrepreneurial Activity	173
	PSED Conceptual Model	176
	PSED Research Protocol	178
	Entry into the Business Startup Process	179
	Who Becomes a Nascent Entrepreneur?	184
	Nascent Entrepreneur Profile	185
	Nascent Enterprise Profile	194
	The Startup Process	202
	Startup Outcomes	206
	Which Nascent Enterprises Become New Firms?	210
	Informal Investments in Business Creation	213
	Cross-national Comparisons	217
	Overview and Implications	220
CHAPTER 8	An Overview <i>of the</i> Regulatory Flexibility Act <i>and</i> Related Policy	241
	The RFA Then and Now	242
	Federal Agency Compliance and the Office of Advocacy's Role, FY 2007	244
	Regulatory Flexibility in the States: The: Model Legislation Initiative	262

APPENDIX A	Small Business Data	269
APPENDIX B	Research Published <i>by the</i> Office of Economic Research, 2007	303
APPENDIX C	RFA Supporting Documents	321
CONTENTS OF PREVIOUS EDITIONS		337
INDEX		344

Executive Summary

The Small Business Economy for Data Year 2007 reviews how small firms fared in the economy, the financial markets, and the federal procurement marketplace in 2007. The report provides new information about small businesses in international trade and small firm uses of formal and informal training. Donald Bruce reviews upcoming tax issues for small businesses at the federal, state, and local levels. Paul Reynolds provides an in-depth look at business creation using data from the Panel Study of Entrepreneurial Dynamics. The SBA Office of Advocacy continued its oversight of Regulatory Flexibility Act implementation and introduced the r3 initiative in fiscal year 2007. Appendices provide additional data on small businesses, summaries of small business research from the Office of Advocacy, and background documents on the Regulatory Flexibility Act.

The State of Small Business, 2007

Small businesses, which provide half of the nation's nonfarm, private real gross domestic product (GDP) weather the same storms as the rest of the economy, and in 2007, they faced an economic slowdown. The economy experienced solid growth in the first and fourth quarters, but began and ended the year with real GDP up only slightly. Housing starts, which had increased rapidly since 1990, dropped to 1 million homes by December 2007—a 56.4 percent decline. The price of gasoline passed \$100 a barrel near year's end.

In the midst of the economic challenges, exporting was among the stronger positive factors. Aided by a weaker dollar, American goods and services were more competitive than in previous years. The U.S. trade deficit was down in 2007; real exports rose 8.1 percent, while real imports increased by 1.9 percent.

Increases in service sector employment more than offset declines in the goods-producing sectors. The economy generated 1.1 million net new jobs in 2007. In the first quarter of 2007, 74 percent of the net new jobs were in small firms with fewer than 500 employees and 22 percent were in firms with fewer than 20 employees. Third quarter data showed declining net employment change in all firm size classes.

Self-employment trends were mixed. Incorporated self-employment rose from 5.5 million in 2006 to 5.8 million in 2007, while unincorporated self-employment averages fell from 10.6 million to 10.4 million over the period.

Inflationary trends were modest, especially core inflation, which excludes energy and fuel costs. Nonetheless, with consumer prices rising between 2 and 3 percent, the Federal Reserve was free to aggressively lower interest rates to spur economic growth. The Economic Stimulus Act of 2008 was proposed and debated in the final months of 2007 before being signed into law by President Bush in February 2008.

Small Business Financing

The effects of a decelerating housing market and increasing energy prices were felt to some extent in the financial markets of 2007. Total net borrowing grew at a slower rate than in the previous year. Large declines in home mortgage borrowing were offset by increased borrowing by governments and nonfinancial businesses.

Credit conditions remained supportive for most small business financing. Interest rates in all small business loan size categories declined. Small business lending activity strengthened for all loan sizes through June 2007, particularly for loans of \$100,000 to \$1 million. Large lending institutions with assets of \$10 billion or more continued to dominate the small business loan market, accounting for more than half of loans under \$100,000, as well as two-thirds of total business loans and three-quarters of the domestic assets of U.S. depository institutions.

The number and value of new initial public offering (IPO) issues were up in 2007 as the IPO market continued to recover. Angel investing was also up—by 12 percent, as more than 57,000 entrepreneurial ventures received angel funding in 2007.

Federal Procurement from Small Firms

In FY 2007, the SBA's Office of Government Contracting reported that of more than \$378.5 billion in small-business-eligible federal contracts, small businesses received a total of \$83 billion in prime contract awards and about \$64 billion in subcontracts. Women-owned small firms received 3.4 percent of the

available contract dollars, and small disadvantaged businesses received almost 6.6 percent. Service-disabled veteran-owned businesses were recipients of \$3.81 billion, or 1.01 percent, and historically underutilized business zones were awarded \$8.5 billion, or 2.2 percent. A total of more than \$23 billion has been awarded in the 25 years of the Small Business Innovation Research program.

Profile of Small Businesses and International Trade

A bright spot in the U.S. economy of 2007 was the increase in U.S. real exports, up by 7.9 percent over the 2006–2007 period, compared with a 2.2 percent increase in real GDP. Although most U.S. exporting firms are small (because most U.S. firms are small), the level of small business exporting has considerable room for growth. Small businesses with fewer than 500 employees constitute 97.3 percent of identified U.S. exporting companies. The total known value of their exports has increased, while their share has declined from 31.1 percent of the \$500.7 billion in total known 1996 exports to 28.9 percent of \$910.5 billion in 2006.

Behind these numbers is the portrait of U.S. competitiveness on world markets. In the short term, the fall in the dollar's value relative to other currencies made American exports more competitive on world markets and contributed to a declining net trade deficit in 2007. Longer term, U.S. competitiveness has benefited from investments in research and development and other aspects of the American economy that contribute to quality and innovation. The Global Competitiveness Index notes that the United States is among countries at the highest stages of development that are competitive only when they can innovate and produce new and different goods using the most sophisticated production processes. Small firms play a particular role in U.S. innovation.

The chapter also highlights challenges and opportunities for small firms interested in exporting.

Small Business Training and Development

As well as being primary job generators in the U.S. economy, small businesses are major trainers of American employees, and give many workers their first job training. The small firm work force includes more young and entry-level

workers, and the training offered in small firms tends to be more general, informal, and flexible than that provided by large firms. Small firms provide as much total training—formal and informal together—as large firms, and when they provide on-the-job training, it is often as extensive.

Evidence from the 1996, 2001, and 2004 Surveys of Income and Program Participation (SIPP) shows decreases in employer-provided training between 1996 and 2004. Training for workers in firms with fewer than 100 employees dropped 6.1 percentage points, while that for workers in larger firms with 100 or more employees fell 11.6 percentage points.

The SIPP also indicates that almost one-third of the owners of U.S. businesses had received training in the last ten years and almost 15 percent had received job skills training in the past year.

A Tax Policy Update for America's Small Businesses

Taxes are perennially listed as a significant concern of America's small businesses, and advances in data availability and econometric models have spawned a growing body of knowledge about the effects of tax policies on small firms. Small businesses face several prominent federal, state, and local tax issues. Leaving aside the revenue impacts, it is critical to be able to discuss possible changes to the tax landscape.

At the federal level, the individual income tax, the alternative minimum tax (AMT), the corporate income tax, and the estate tax are all concerns. Policy issues include the possible extensions of the 2001 and 2003 federal income tax rates, solutions to the burgeoning AMT filing population, depreciation rules, health insurance costs, and carried interest.

At the state and local levels, a number of nonrate tax issues are under discussion, including the taxation of variants of gross receipts instead of net business profit, streamlining of state sales tax rules leading toward more efficient multi-state sales taxes, decoupling of states from federal rules, and the determination of "nexus" from multi-state tax purposes.

Emerging themes include the aging of the population, rapidly expanding technology for tax planning, and increasing environmentally conscious tax policies.

Business Creation in the United States

The Panel Study of Entrepreneurial Dynamics (PSED) offers a unique capacity to explore the initial stages of the business creation process, as well as the outcomes—new firms. The firm creation process is complex—many distinct activities are involved. In 2005, more than 12 million people were involved in trying to start new firms.

For 90 percent of these beginning or “nascent” entrepreneurs, it takes more than five years after the process has begun for an outcome to be determined. By that time, about one-third have implemented a new firm, one-third have disengaged from the process, and one-third are continuing in the startup mode.

Nascent entrepreneurs devoted a significant amount of unpaid time working on their startup firms—an amount that was equal to about 2.1 percent of all U.S. hours worked in 1999 and about 2.7 percent in 2005. It was close to one-half the total work time of self-employed workers.

All kinds of individuals start new firms. Those likely to be more active in the process are men, 24–54 years old, with full- or part-time work or self-employment, African American or Hispanic, and with a high school diploma. When it comes to succeeding, though, individual backgrounds and personal attributes are less significant. The most important factors associated with successful completion of the business creation process are related to knowing the industry and aggressively pursuing the opportunity.

In cross-national comparisons, the U.S. prevalence rates for “total entrepreneurial activity” are the highest on the chart. The United States is more than holding its own with respect to the emergence of growth-oriented entrepreneurs, according to this assessment.

The Regulatory Flexibility Act in Fiscal Year 2007

Enacted in 1980, the Regulatory Flexibility Act (RFA) requires federal agencies to determine the impact of their rules on small entities, consider alternatives that minimize small entity impacts, and make their analyses available for public comment. President Bush’s Executive Order 13272, signed in August 2002, gave agencies new incentives to improve their compliance with the RFA. The SBA’s Office of Advocacy oversees implementation of the law.

Advocacy efforts helped result in FY 2007 savings to small entities of \$2.6 billion in regulatory costs. These figures are just one important measure of the effectiveness of the law's implementation, but they do not capture the totality of Advocacy's efforts. Often, confidential preproposal communications are where the greatest benefits are achieved in agency compliance with the RFA and in the choice of alternatives that reduce a rule's impact on small firms. To further enhance implementation of Section 610 of the RFA, which requires review of the cumulative burden of regulations, the Office of Advocacy introduced the Regulatory Review and Reform (r3) initiative in 2007.

Since 2002 in response to Advocacy's model state legislation initiative, 23 states had implemented regulatory flexibility by executive order or legislation as of 2007. All told, including those with previously passed provisions, 42 states had full or partial regulatory flexibility initiatives in effect. Thirteen states introduced regulatory flexibility legislation in 2007. Bills were signed into law in Arkansas, Hawaii, Maine, Tennessee, Texas, and Washington. The importance of state regulatory flexibility for small businesses is demonstrated in a real-life example from Puerto Rico, which has an active regulatory flexibility statute. There, businesses and government worked together, revising onerous regulations to allow ice manufacturers to legally place their logo on an ice bag and still allow enough visible surface to ensure the cleanliness of the bag's contents.

1 *The STATE of* SMALL BUSINESS

Synopsis

Small businesses faced growing challenges in the economy of 2007. The year began with solid growth in the second and third quarters, but ended with fourth quarter GDP down an annualized 0.2 percent. Housing starts fell, gas prices increased, and sagging consumer optimism was reflected in fewer purchases.

The economy nevertheless generated 1.1 million net new jobs, largely in the service sectors, offsetting lost employment in manufacturing and construction. First quarter 2007 data showed that 74 percent of the new jobs were in small firms with fewer than 500 employees and 20 percent were in firms with fewer than 20 employees. By the third quarter, however, all firm sizes were shedding jobs.

A bright spot in 2007 was a better market for exports as the value of the dollar dropped against other currencies (*see Chapter 4 for details*).

The number of small firms continued to increase, but self-employment trends were mixed: average monthly incorporated self-employment increased between 2006 and 2007, while unincorporated self-employment declined. The highest rates of increase in self-employment over the 2000–2006 period were seen among Hispanics and in the younger and older ends of the working age spectrum.

The Kauffman Index of Entrepreneurial Activity found the highest rates of entrepreneurial activity occurring in the construction and services sectors and regionally in the Midwest and West.

Macroeconomic Trends

Small businesses provide half of the nation's nonfarm, private real gross domestic product (GDP), and half of all Americans work for a small firm. Despite the considerable contributions made by entrepreneurs, much of the current economic data do not take into account firm size factors. As a result, to get a sense of the state of the economy for small business, it is necessary to

examine larger macroeconomic trends. In general, smaller firms weather the same economic storms as their larger counterparts, and in 2007, many small business owners faced significant anxieties as the economy slowed. There were also some new opportunities—especially in the export markets—which were open to both large and small firms.

The U.S. economy experienced solid growth in the second and third quarters of 2007, but it ended the year with real GDP down an annualized 0.2 percent. The overall growth rate of real GDP was 2.0 percent, lower than in the previous four years (*Table 1.1*). One culprit for the slower increases in real GDP is the downturn in the housing market, which continues to have ripple effects throughout the economy. Housing starts have increased rapidly since 1990, peaking at 2.3 million homes on an annualized basis at the beginning of 2006 (*Figure 1.1*). After that, housing starts plummeted to 1 million homes by December 2007—a 56.4 percent decline. In 2007, real gross private fixed investment fell 5.4 percent, with real private residential fixed investment falling 17.9 percent and the nonresidential component up 4.9 percent.

A secondary drain on the American economy was the dramatic increase in the price of gasoline (*Figure 1.2*). Petroleum prices hovered between \$19 and \$35 for much of the beginning of the decade, bottoming out at \$19.33 per barrel in December 2001. After 2004, the figure trended upward. The average price for a barrel of West Texas crude oil in 2007 was \$72.36; the December 2007 average was \$91.73. Toward the end of the year, the price passed \$100 a barrel and then dropped down.¹

Higher gasoline prices affected the economy in two ways. First, the increases had an impact on the American psyche. Americans have an affinity for their automobiles and they pay close attention to the price they pay at the pump. The daily commute is a way of life, and sharp increases in the cost of gasoline cut into the bottom line for many people. In political terms, it is a pocketbook issue. Moreover, economists argue that the demand for gasoline is inelastic in the short term: most Americans have few options other than to pay the higher price. Advocacy research has shown that small businesses are disproportionately affected by rising energy costs, especially

1 The rise continued into 2008, surpassing \$145 per barrel by July before falling 60 percent.

Table 1.1 Real Gross Domestic Product and Components, 2001–2007

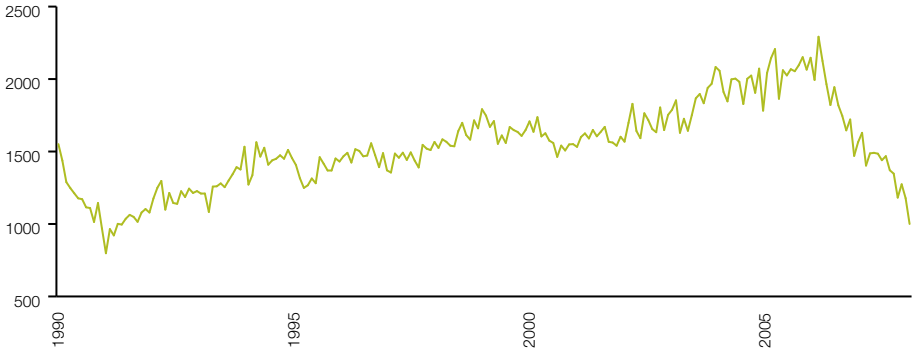
	Annual data							Quarterly data (2007)			
	2001	2002	2003	2004	2005	2006	2007	Q1	Q2	Q3	Q4
Real gross domestic product*											
Level (trillions of dollars)	9.89	10.05	10.30	10.68	10.99	11.29	11.52	11.36	11.49	11.63	11.62
Annual change (percentage)	0.8	1.6	2.5	3.6	2.9	2.8	2.0	0.0	4.8	4.8	-0.2
Real personal consumption expenditures*											
Level (trillions of dollars)	6.91	7.10	7.30	7.56	7.79	8.03	8.25	8.20	8.24	8.28	8.30
Annual change (percentage)	2.5	2.7	2.8	3.6	3.0	3.0	2.8	3.9	2.0	2.0	1.0
Real government consumption and gross investment*											
Level (trillions of dollars)	1.78	1.86	1.90	1.93	1.94	1.97	2.01	1.99	2.01	2.03	2.03
Annual change (percentage)	3.4	4.4	2.5	1.4	0.4	1.7	2.1	0.9	3.9	3.8	0.8
Real gross private fixed investment*											
Level (trillions of dollars)	1.60	1.56	1.61	1.77	1.87	1.91	1.81	1.80	1.82	1.84	1.78
Annual change (percentage)	-7.9	-2.6	3.6	9.7	5.8	2.1	-5.4	-9.6	6.2	3.5	-11.9
Real exports of goods and services*											
Level (trillions of dollars)	1.04	1.01	1.03	1.13	1.20	1.30	1.41	1.36	1.39	1.47	1.48
Annual change (percentage)	-5.4	-2.3	1.3	9.7	7.0	9.1	8.4	0.6	8.8	23.0	4.4
Real imports of goods and services*											
Level (trillions of dollars)	1.44	1.48	1.55	1.72	1.82	1.93	1.97	1.98	1.96	1.98	1.97
Annual change (percentage)	-2.7	3.4	4.1	11.3	5.9	6.0	2.2	7.7	-3.7	3.1	-2.3

* Chained 2000 dollars.

Note: Seasonally adjusted.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

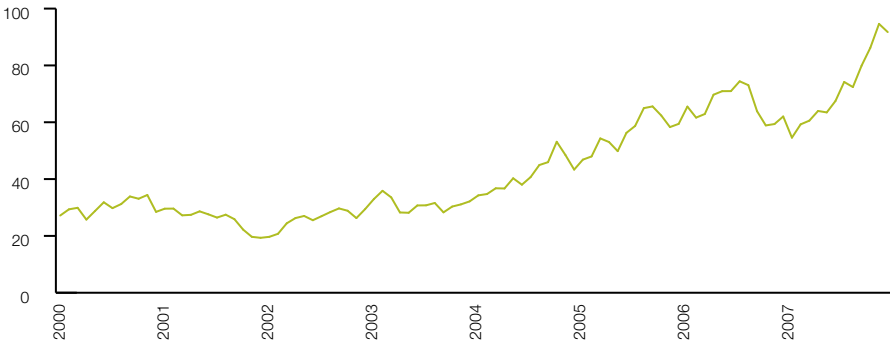
Figure 1.1 New Privately Held Housing Units Started, 1990–2007 (thousands)



Note: Seasonally adjusted annual rate

Source: U.S. Department of Commerce

Figure 1.2 Price of West Texas Crude Oil per Barrel, 2000–2007 (dollars)



Source: Dow Jones & Company, Inc.

in the manufacturing and commercial sectors of the economy.² This effect tends to show up on confidence surveys.

Overall optimism in the economy has fallen dramatically. The National Federation of Independent Business (NFIB) small business optimism index averaged 96.7 in 2007, down from 98.9 in 2006 (*Table 1.2*). This measure averaged 104.6 in 2004—a sign of growing output for the small business sector; index readings under 100 usually indicate sluggishness in the sector. The monthly NFIB surveys also illustrated a declining willingness to expand, hire new workers, or invest in new capital equipment in 2007 (*Table 1.2*). The University of Michigan’s consumer sentiment survey mirrored these results.

With rising pessimism and concerns about housing and energy, the American consumer has curtailed spending to a degree, although not drastically. Growth in real personal consumption expenditures averaged a moderate 2.8 percent in 2007, down from the high growth rate of 3.6 percent in 2004. Growth in American consumption slowed with each quarter in 2007 to an annual growth rate of 1.0 percent in real personal consumption in the fourth quarter (*Table 1.1*).

Exporting has been among the stronger factors in the economy recently. Aided by a weaker dollar, American goods and services were significantly cheaper and more competitive than in previous years. The U.S. trade deficit, at \$560 billion, was down in 2007; real exports rose 8.4 percent, with real imports increasing 2.2 percent (*Table 1.1*). The export sector experienced solid growth each year from 2004 to 2007, and was up nearly 38 percent over the period. This economic climate offers real opportunities for small businesses to engage in international trade.³ Manufacturing output was mixed in 2007. Industrial production, as measured by the Federal Reserve Board, rose from an average of 109.6 in 2006 to 111.4 in 2007, an increase of 1.6 percent (*Table 1.2*). Growth in industrial production stalled in the second half of 2007, remaining around 112.0 from July to December. A separate indicator, the Institute for Supply Management (ISM) purchasing managers’ index for manufacturing, declined by 3.8 percent from 2006 to 2007. The ISM measure grew steadily from 49.3 in January to 53.4 in June, but declined from July on; it was 48.4 in December.

2 A. Ballman, 2008, *Characterization and analysis of small business energy costs*, prepared for the U.S. Small Business Administration, Office of Advocacy, under contract no. SBAHQ-06-M-0475, at <http://www.sba.gov/advo/research/rs322tot.pdf>.

3 See Chapter 4.

Table 1.2 Various Monthly Macroeconomic Indicators, 2006–2007

	Monthly data (2007)												Averages		Percent change from 2006
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2006	2007	
Consumer price index (all urban consumers and all items; 1982=84=100)*	203.6	204.2	205.1	205.8	206.7	207.2	207.7	207.7	208.5	209.1	210.9	211.7	201.6	207.3	↑ 2.9
Consumer price index (all urban consumers, all items except food and energy; 1982=84=100)*	208.0	209.1	209.9	210.3	210.3	210.5	210.8	211.1	211.6	212.3	212.4	212.4	205.9	210.7	↑ 2.3
Producer price index (1982=100)	164.0	166.8	169.3	171.4	173.3	173.8	175.1	172.4	173.5	174.7	179.0	178.6	165.6	178.6	↑ 7.9
NFIB Small Business Optimism Index (1986=100)	98.9	98.2	97.3	96.8	97.2	96.0	97.6	96.3	97.3	96.2	94.4	94.6	98.9	96.7	↓ 2.2
NFIB: next 3 months "good time to expand" (percent of respondents)	17.0	18.0	12.0	12.0	12.0	13.0	16.0	12.0	14.0	14.0	13.0	14.0	17.4	13.9	↓ 20.1
NFIB: net percent planning to hire in the next 3 months	17.0	13.0	12.0	13.0	13.0	12.0	13.0	15.0	14.0	11.0	11.0	11.0	14.6	12.9	↓ 11.6
NFIB: net percent with borrowing needs satisfied in the last 3 months (borrowers only)	31.0	35.0	30.0	34.0	33.0	32.0	32.0	31.0	32.0	30.0	28.0	25.0	32.3	31.1	↓ 3.7
NFIB: percent planning a capital expenditure in next 3 to 6 months*	30.0	30.0	33.0	29.0	29.0	28.0	27.0	27.0	29.0	27.0	27.0	30.0	30.3	28.8	↓ 5.0
University of Michigan consumers' sentiment (1966=100)	96.9	91.3	88.4	87.1	88.3	85.3	90.4	83.4	83.4	80.9	76.1	75.5	87.3	85.6	↓ 1.9

Industrial production (2002=100)*	109.8	110.5	110.4	111.0	111.0	111.4	112.0	112.0	112.3	111.8	112.3	112.4	109.6	111.4	↑ 1.6
ISM purchasing managers index — manufacturing composite*	49.3	51.5	50.7	52.8	52.8	53.4	52.3	51.2	50.5	50.4	50.0	48.4	53.1	51.1	↓ 3.8
Unemployment rate*	4.6	4.5	4.4	4.5	4.5	4.6	4.7	4.7	4.7	4.8	4.7	5.0	4.6	4.6	0
Civilian employment — 16 years and older (millions)*	145.9	145.9	146.1	145.7	145.9	146.1	146.0	145.8	146.3	146.0	146.6	146.2	144.4	146.0	↑ 1.1
Civilian unemployed — 15 weeks and over (millions)*	2.1	2.2	2.2	2.3	2.2	2.3	2.4	2.4	2.4	2.4	2.4	2.5	2.3	2.3	↑ 2.2
Self-employed, incorporated (millions)	5.7	5.9	5.7	5.7	5.7	5.7	5.6	5.8	5.7	5.8	5.9	5.8	5.5	5.8	↑ 5.5
Self-employed, unincorporated (millions)	10.2	10.3	10.5	10.5	10.6	10.8	10.7	10.6	10.5	10.3	10.1	9.9	10.6	10.4	↓ 1.9
New privately owned housing units started (millions, annual rate)*	1.4	1.5	1.5	1.5	1.4	1.5	1.4	1.3	1.2	1.3	1.2	1.0	1.8	1.3	↓ 26.0
Spot oil price per barrel: West Texas intermediate crude	54.57	59.26	60.56	63.97	63.46	67.48	74.18	72.39	79.93	86.20	94.62	91.73	66.10	72.36	↑ 8.6

* Seasonally adjusted.

Sources: Board of Governors of the Federal Reserve System; Current Population Survey, U.S. Bureau of Labor Statistics; Dow Jones Energy Service; U.S. Department of Commerce, Bureau of the Census; Institute for Supply Management; University of Michigan, Survey of Consumers.

The ISM manufacturing index is unique in that any measurement under 50 signifies that the manufacturing sector is experiencing declining output.

These findings are mirrored in employment statistics. The goods-producing sector struggled in 2007. The manufacturing sector lost 261,000 jobs, continuing a long-term trend of falling employment (and increased productivity) in manufacturing. Manufacturing employed 20.3 percent fewer workers in 2007 than in 1997 (*Table 1.4*). The construction sector, where 86.1 percent of businesses are considered small, declined over the course of 2006 and into 2007 (*Table 1.5*). In previous years, construction growth had been strong, but the bursting of the housing bubble meant that the economy lost 232,000 construction jobs in 2007, after picking up nearly 1 million jobs between December 2002 and December 2006.

The U.S. economy did generate 1.1 million net new jobs in 2007, with service sector employment more than offsetting declines in the goods-producing sector. Each of the major service sector industries saw employment gains in 2007, with the exception of information and financial activities (*Tables 1.4 and 1.5*). The fastest growth in employment between 2006 and 2007 was seen in education and health services, leisure and hospitality, professional and business services, and wholesale trade. These industries, except wholesale trade, also experienced rapid growth over the 1997 to 2007 period, with 30.1 percent more jobs in education and health services, for example. Financial activities, other services, and government also had double-digit employment growth over the period.

Self-employment trends were mixed in 2007. Average monthly incorporated self-employment rose from 5.5 million in 2006 to 5.8 million in 2007, while unincorporated self-employment averages fell from 10.6 million to 10.4 million (*Table 1.2*). Month to month, unincorporated self-employment was volatile, growing from 10.2 million in January 2007 to 10.8 million in June, then falling to 9.9 million by year's end. Longer-term trends showed steady growth in both incorporated self-employment, which grew from an average of 4.6 million in 2002 to 5.8 million in 2007, and unincorporated self-employment, which rose from 9.9 million in 2002 to 10.4 million in 2007.⁴

Private sector wages and salaries grew 3.4 percent from 2006 to 2007, and private sector benefits rose 2.4 percent (*Table 1.3*).

⁴ See *Quarterly indicators*, <http://www.sba.gov/advo/research/sbei.html>.

Table 1.3 Various Quarterly Macroeconomic Indicators

	Last five years					Last five quarters					Percent change from 2006
	2003	2004	2005	2006	2007	Q4-06	Q1-07	Q2-07	Q3-07	Q4-07	
Business bankruptcy filings (thousands)	35.0	34.3	39.2	19.7	28.3	5.6	6.3	6.7	7.2	8.0	↑ 43.7
Proprietors income (billions of current dollars)*	811.3	911.1	970.7	1015.1	1042.6	1009.8	1027.4	1038.4	1048.7	1055.9	↑ 2.7
Corporate profits after tax (billions of dollars)*	749.9	923.9	979.9	1099.8	1128.6	1178.8	1095.2	1152.2	1152.5	1114.6	↑ 2.6
Nonfarm business sector output per hour for all persons (1992=100)*	128.0	131.6	134.1	135.4	137.9	135.6	136.1	137.0	139.0	139.6	↑ 1.8
Employment cost index: private sector wages and salaries (2005=100)*	94.2	96.8	99.2	102.0	105.5	103.2	104.3	105.1	105.9	106.7	↑ 3.4
Employment cost index: private sector benefits (2005=100)*	88.8	94.8	99.2	102.1	104.5	103.4	103.1	104.2	105.0	105.8	↑ 2.4
Rates for the smallest loans (less than \$100,000)											
Variable rate loans, repricing terms of 2 to 30 days	4.4	4.4	6.0	7.7	7.7	7.9	7.8	8.0	7.8	7.2	0
Variable rate loans, repricing terms of 31 to 365 days	6.4	6.2	7.1	8.4	8.6	8.6	8.8	8.7	8.6	8.1	↑ 2.4
Senior loan officers (percent of respondents)											
Net small firm commercial and industrial (C&I) loans (those whose standards were eased minus those tightened)	-7.1	13.1	9.0	4.6	-4.3	1.8	0	-1.9	-7.7	-9.6	↓ 193.5
Net small firm demand for C&I loans (those whose demand was stronger minus those weaker)	-14.7	25.9	27.3	0.2	-11.0	-13.0	-5.3	-19.2	-11.8	-7.7	↓ 5600.0

* Seasonally adjusted

Sources: Administrative Office of the U.S. Courts; U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Labor, Bureau of Labor Statistics; Board of Governors of the Federal Reserve System.

Table 1.4 Annual Employment on Nonfarm Payrolls by Major Sector (millions), 1997–2007

	Annual averages											Percent change		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	1997– 2007	2001– 2007	2006– 2007
Nonfarm payrolls	122.77	125.92	128.99	131.79	131.83	130.34	130.00	131.42	133.69	136.09	137.62	12.10	4.39	1.12
Goods-producing industries	23.88	24.35	24.47	24.65	23.87	22.55	21.82	21.88	22.19	22.53	22.22	-6.96	-6.92	-1.39
Natural resources and mining	0.65	0.65	0.60	0.60	0.61	0.58	0.57	0.59	0.63	0.68	0.72	10.59	19.25	5.63
Construction	5.81	6.15	6.54	6.79	6.83	6.72	6.74	6.97	7.33	7.69	7.62	31.02	11.56	-1.00
Manufacturing	17.42	17.56	17.32	17.27	16.44	15.26	14.51	14.32	14.23	14.16	13.88	-20.30	-15.56	-1.94
Service-producing industries	98.88	101.57	104.53	107.14	107.96	107.79	108.18	109.54	111.51	113.56	115.40	16.70	6.89	1.62
Trade, transportation, and utilities	24.70	25.19	25.77	26.23	25.99	25.50	25.29	25.53	25.96	26.28	26.60	7.71	2.38	1.24
Wholesale trade	5.66	5.80	5.89	5.93	5.77	5.65	5.61	5.66	5.76	5.90	6.03	6.43	4.41	2.11
Retail trade	14.39	14.61	14.97	15.28	15.24	15.03	14.92	15.06	15.28	15.36	15.49	7.63	1.62	0.86
Information	3.08	3.22	3.42	3.63	3.63	3.39	3.19	3.12	3.06	3.04	3.03	-1.78	-16.53	-0.27
Financial activities	7.18	7.46	7.65	7.69	7.81	7.85	7.98	8.03	8.15	8.33	8.31	15.77	6.42	-0.23
Professional and business services	14.33	15.14	15.95	16.67	16.48	15.97	15.99	16.39	16.95	17.57	17.97	25.35	9.02	2.24
Education and health services	14.09	14.45	14.79	15.11	15.64	16.20	16.59	16.95	17.37	17.83	18.33	30.09	17.15	2.81
Leisure and hospitality	11.02	11.23	11.54	11.86	12.03	11.99	12.18	12.49	12.81	13.11	13.47	22.27	11.95	2.77
Other services	4.82	4.98	5.09	5.17	5.26	5.37	5.40	5.41	5.39	5.44	5.49	13.81	4.43	0.97
Government	19.66	19.91	20.31	20.79	21.12	21.51	21.58	21.62	21.81	21.97	22.20	12.93	5.11	1.05

Notes: Seasonally adjusted. See www.bls.gov/ces/cesuper.htm for NAICS code equivalents for each sector.

Sources: U.S. Department of Labor, Bureau of Labor Statistics.

Table 1.5 Monthly Employment on Nonfarm Payrolls by Major Sector (millions), 2007

	Percent small business	2007 Monthly data												2007 Avg
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Nonfarm payrolls	50.38	137.11	137.13	137.31	137.36	137.52	137.63	137.68	137.76	137.84	137.98	138.04	138.08	137.62
Goods-producing industries	57.88	22.45	22.32	22.36	22.30	22.27	22.27	22.24	22.18	22.14	22.10	22.05	21.98	22.22
Natural resources and mining	61.93	14.02	13.99	13.95	13.92	13.91	13.89	13.88	13.84	13.82	13.80	13.79	13.77	13.88
Construction	86.14	7.73	7.62	7.69	7.66	7.64	7.66	7.63	7.61	7.59	7.58	7.52	7.47	7.62
Manufacturing	44.18	0.71	0.71	0.72	0.72	0.72	0.72	0.73	0.73	0.73	0.73	0.74	0.74	0.72
Service-producing industries	48.72	114.66	114.81	114.95	115.06	115.25	115.36	115.44	115.58	115.70	115.88	115.99	116.10	115.40
Trade, transportation, and utilities	45.27	26.49	26.52	26.58	26.57	26.59	26.60	26.62	26.64	26.65	26.64	26.69	26.66	26.60
Wholesale trade	60.94	5.97	5.98	5.98	6.00	6.01	6.03	6.04	6.05	6.06	6.07	6.08	6.07	6.03
Retail trade	41.12	15.45	15.46	15.52	15.49	15.50	15.48	15.49	15.50	15.49	15.47	15.51	15.49	15.49
Information	26.16	3.03	3.04	3.03	3.03	3.04	3.03	3.03	3.02	3.03	3.03	3.02	3.02	3.03
Financial activities	41.88	8.35	8.35	8.33	8.32	8.32	8.32	8.33	8.31	8.29	8.28	8.26	8.25	8.31
Professional and business services	43.88	17.85	17.87	17.88	17.90	17.94	17.94	17.96	17.98	18.00	18.07	18.08	18.13	17.97
Education and health services	47.84	18.07	18.11	18.15	18.21	18.24	18.31	18.36	18.42	18.45	18.49	18.52	18.57	18.33
Leisure and hospitality	60.89	13.31	13.33	13.35	13.38	13.43	13.46	13.48	13.49	13.55	13.60	13.63	13.64	13.47
Other services	85.57	5.46	5.47	5.48	5.49	5.50	5.50	5.50	5.50	5.50	5.50	5.51	5.51	5.49
Government	0	22.10	22.13	22.14	22.16	22.19	22.20	22.17	22.21	22.23	22.26	22.28	22.33	22.20

Notes: Seasonally adjusted. See www.bls.gov/ces/cesuper.htm for NAICS code equivalents for each sector. The small business percentage by sector is based on 2005 firm size data. See www.sba.gov/advoc/research/us05_n6.pdf.

Sources: U.S. Small Business Administration, Office of Advocacy, using data from the U.S. Department of Commerce, Bureau of the Census; U.S. Department of Labor, Bureau of Labor Statistics.

Inflationary trends in the economy were modest in 2007, especially core inflation, which excludes energy and food costs (*Table 1.2*). Consumer prices were 2.9 percent higher in 2007 than in 2006; core inflation was 2.3 percent higher. Producer prices, however, were up significantly—7.9 percent—suggesting that businesses have grappled with higher costs of production, much of which they have not yet passed on to the consumer. Behind many of these statistics, of course, was the rapid run-up in the cost of petroleum.

Nonetheless, with consumer prices rising between 2 and 3 percent, the Federal Reserve was free to lower interest rates aggressively to spur economic growth. The prime rate—the rate on which many other interest rates, such as credit cards and some mortgages, are based—was 8.25 percent for much of 2007. After successive monetary policy actions from September 2007 onward, it was 7.25 percent on December 31, 2007, and 5.00 percent on April 30, 2008.⁵ Through aggressive action, the Federal Reserve was intent on averting a recession (or shortening it, if it was already under way).^{6,7} Consumers and small businesses, therefore, ended the year with much lower borrowing costs, and policymakers expected this to help stimulate economic activity. As long as inflationary pressures remained under control, interest rates were expected to remain low.

Fiscal policymakers were proactive and began discussing methods of stimulating the slowing economy. The Economic Stimulus Act of 2008, signed by President Bush on February 13, 2008, was proposed and debated in the executive and legislative branches—in a sign of bipartisan cooperation—in the final months of 2007. Thus, if the economy ended the year in a recession, fiscal policy action was timed to help blunt its effects. As part of the stimulus package, many Americans received tax rebates, and small businesses were able to expense a larger portion of their capital expenses in the year of the expenditure (\$250,000 compared with \$125,000 previously). In addition, these firms received a 50 percent bonus depreciation allowance in 2007. These provisions were expected to increase real GDP in 2008, particularly in the second half of the year; however, the recession continued.

5 While this chapter is primarily about 2007, for completeness the policy actions that began in late 2007 and ended in early 2008 are discussed.

6 In early 2008, the Federal Reserve took even more dramatic actions when it helped engineer the takeover of Bear Stearns by J.P. Morgan Chase and introduced new monetary policy tools for investment banks.

7 The National Bureau of Economic Research (NBER) is the official arbiter for dating U.S. recessions. NBER has declared that a recession began in December 2007.

Small Business Trends

In the first quarter of 2007, 74 percent of the net new jobs were in small firms with fewer than 500 employees, and 22 percent were in firms with fewer than 20 employees, suggesting that most of the net new jobs were in the smaller number of firms with 20 to 499 employees, according to Bureau of Labor Statistics data (*Table A.12 in Appendix A*).⁸ Third quarter data show declining net employment change in all firm size classes.⁹

For comparison purposes, the Office of Advocacy also estimates the number of small firms for 2007 using Statistics of U.S. Business data from the U.S. Census Bureau. An estimated 6.1 million employers and 21.1 million nonemployers operated in the United States in 2007 (*Table A.1*). The employer number is the product of an estimated 637,100 employer firm births and 560,300 employer terminations on top of the previous year's total (*Table A.2*). In the most recent data available from the U.S. Census Bureau (2005), nearly 80 percent of the net new jobs came from small businesses with fewer than 500 employees (*Table A.10*).

A look at the characteristics of the self-employed using the March 2007 supplement to the Current Population Survey suggests that men are more likely to be self-employed than women by a two-to-one margin, and 88 percent of the self-employed are White (*Table A.13*). Women's self-employment grew 10.6 percent between 2000 and 2006. Minorities continue to make great strides in business ownership. Hispanics saw a 91.3 percent increase in the number of self-employed between 2000 and 2006, and Black self-employment was up 27.6 percent. Asian and American Indian self-employment grew by 12.7 percent over the period.

Age and education have become major determinants of self-employment as well. Younger and older Americans have seen large gains in self-employment in this decade: the number of self-employed individuals under 25 years of age or between 55 and 64 years old increased 30.9 and 44.6 percent, respectively, between 2000 and 2006. Being one's own boss has become an attractive option for more young people; and more "lifestyle" entrepreneurs are starting businesses as they reach the upper end of the age spectrum. By 2006, 12.1 percent

8 Quarterly net job change data by firm size as measured by the Business Employment Dynamics database from the Bureau of Labor Statistics are shown for 1992–2006 in Appendix A.

9 As of mid-2008, fourth quarter data for 2007 had not yet been released.

more people claimed to be self-employed and 65 years old or older, although this rate is below the 15.1 percent national increase in self-employment over the period. The fastest growth in the self-employed by level of educational attainment was among those with a bachelor's degree (26.2 percent) or with a master's or higher degree (24.6 percent).

Self-employment figures are further analyzed in the annual Kauffman Index of Entrepreneurial Activity, prepared by Robert W. Fairlie for the Ewing Marion Kauffman Foundation.¹⁰ In 2007, an average of 0.30 percent of the adult population created a new business each month, up slightly from 0.29 percent in 2006. This ratio has remained stable, ranging between 0.29 and 0.30 percent of the population since 2002. Between 2006 and 2007, men's entrepreneurial activity increased significantly, from 0.35 to 0.41 percent of their population and that of Hispanic Americans grew from 0.33 to 0.44 percent. Immigrant entrepreneurship also increased and now stands at 0.46 percent of the immigrant population—significantly higher than the 0.27 percent ratio for the native-born population. By industry, the highest rates of entrepreneurial activity were in construction (1.23 percent) and services (0.41 percent).

To assess small business owner opinion, NFIB surveys its membership each month on various economic indicators related to their businesses. In 2007, these owners were more pessimistic about the economy and less willing to expand, hire, or invest in their firms as the year progressed. An interesting side note is these owners' assessment of their "single most important problem." For much of this decade, their answer was simple—the cost and availability of health insurance; but in 2007, while insurance remained a top issue, the most important issue was taxes. Rounding out the top issues were the quality of the labor force, government regulations and red tape, and poor sales. These responses were consistent throughout the year.

State Macroeconomic Trends

Some state economies have done better than others in the past year. Hawaii, Idaho, Nebraska, South Dakota, Utah, Virginia, and Wyoming had average unemployment rates of 3 percent or less in 2007, and another dozen states had rates between 3.1 and 4.0 percent (*Table 1.6*). Each of these states, in essence, was operating at "full employment." In comparison, three states

10 See http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1124683.

had unemployment rates of 6 percent or higher—Alaska, Michigan, and Mississippi—suggesting weakness in their job market. New Mexico saw the largest decline in its average unemployment rate, which fell from 4.3 percent in 2006 to 3.5 percent in 2007, and three states—Florida, Minnesota, and Nevada—experienced 0.6 percentage point gains in their average unemployment rate during that period.

A different survey that analyzes establishment data finds that only three states lost employment between 2006 and 2007—Michigan, New Jersey, and Vermont (*Table 1.6*). Of the remaining states, Utah had the highest growth rate in employment, 3.6 percent.

Aside from employment statistics, the most common tool for assessing a state's economic health is overall output measured in real GDP (*Table 1.6*).¹¹ While several states had minimal or flat growth over the 2006-2007 period, only two had negative change in real GDP—Delaware and Michigan. Some of the states with the strongest growth in real GDP may surprise some, as they are not always seen as “high-growth” states. Real GDP growth of 3 percent or higher was seen in the District of Columbia, Hawaii, Montana, New York, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington. The state with the fastest growing real GDP between 2006 and 2007 was Utah, at 5.3 percent—more than 2½ times the national average.

Not surprisingly, states with more output growth also experienced rapid increases in personal income. Louisiana's personal income per capita rose the fastest—9.2 percent—likely related to its recovery from the August-September 2005 Hurricanes Katrina and Rita, from which the entire Gulf region continues to recover.

These findings mirror those of other studies on firm creation. The Kauffman Index of Entrepreneurial Activity found more entrepreneurship taking place in the Midwest and West, with the highest entrepreneurial activity rates in Idaho, the District of Columbia, Arizona, Tennessee, and Louisiana. In general, researchers have tended to show more small business creation in the South and West (where the population is also increasing more rapidly), but states with high levels of innovative capacity also do well. The Office of Advocacy has studied the linkage between innovation and entrepreneurship for several years and concluded that regions that devote more

11 These figures are not seasonally adjusted, making comparisons with national GDP figures in Table 1.1 difficult.

Table 1.6 Various State-level Macroeconomic Indicators, 2006–2007

	Unemployment rate			Number of employed (thousands)			Real GDP by state (billions of chained 2000 dollars)			Per capita personal income (dollars)		
	2006	2007	Percent change	2006	2007	Percent change	2006	2007	Percent change	2006	2007	Percent change
	United States	4.6	4.6	--	144,427	146,047	1.1	11,240.1	11,467.5	2.0	36,714	38,611
Alabama	3.5	3.5	--	2,082	2,106	1.2	134.6	137.0	1.8	30,894	32,404	4.9
Alaska	6.5	6.2	-0.3	328	331	1.0	30.5	30.6	0.3	38,138	40,352	5.8
Arizona	4.1	3.8	-0.3	2,848	2,914	2.3	209.6	213.3	1.8	31,936	33,029	3.4
Arkansas	5.3	5.4	0.1	1,288	1,294	0.5	77.6	78.8	1.5	28,473	30,060	5.6
California	4.9	5.4	0.5	17,030	17,209	1.1	1,526.2	1,549.0	1.5	39,626	41,571	4.9
Colorado	4.3	3.8	-0.5	2,536	2,602	2.6	194.4	198.4	2.0	39,491	41,042	3.9
Connecticut	4.4	4.6	0.2	1,756	1,780	1.4	176.9	181.8	2.8	50,762	54,117	6.6
Delaware	3.5	3.4	-0.1	424	428	0.9	49.7	48.9	-1.6	39,131	40,608	3.8
District of Columbia	5.9	5.7	-0.2	301	307	2.0	71.3	74.4	4.3	57,746	61,092	5.8
Florida	3.4	4.0	0.6	8,634	8,779	1.7	609.8	609.9	0.0	36,720	38,444	4.7
Georgia	4.6	4.4	-0.2	4,516	4,603	1.9	327.3	336.6	2.8	32,095	33,457	4.2
Hawaii	2.5	2.6	0.1	632	632	--	48.4	49.9	3.0	37,023	39,239	6.0
Idaho	3.2	2.7	-0.5	718	734	2.2	43.7	44.7	2.4	29,920	31,197	4.3
Illinois	4.6	5.0	0.4	6,273	6,362	1.4	501.1	508.6	1.5	38,409	40,322	5.0
Indiana	4.9	4.5	-0.4	3,073	3,066	0.2	207.0	207.6	0.3	32,288	33,616	4.1
Iowa	3.8	3.8	--	1,595	1,598	0.2	105.3	107.0	1.7	33,038	35,023	6.0
Kansas	4.3	4.1	-0.2	1,407	1,419	0.9	93.8	96.5	2.9	34,799	36,768	5.7
Kentucky	5.8	5.5	-0.3	1,911	1,932	1.1	125.9	128.8	2.3	29,729	31,111	4.7
Louisiana	3.9	3.8	-0.1	1,894	1,921	1.4	147.2	151.0	2.6	31,821	34,756	9.2

Maine	4.6	4.7	0.1	671	671	--	39.4	39.9	1.3	32,095	33,722	5.1
Maryland	3.8	3.6	-0.2	2,862	2,874	0.4	218.2	222.5	2.0	43,788	46,021	5.1
Massachusetts	4.8	4.5	-0.3	3,241	3,256	0.5	298.0	305.4	2.5	46,299	49,082	6.0
Michigan	6.9	7.2	0.3	4,722	4,660	-1.3	334.7	330.8	-1.2	33,788	35,086	3.8
Minnesota	4.0	4.6	0.6	2,793	2,797	0.1	210.4	214.9	2.2	38,859	41,034	5.6
Mississippi	6.7	6.3	-0.4	1,213	1,232	1.6	70.2	71.4	1.7	27,028	28,845	6.7
Missouri	4.8	5.0	0.2	2,871	2,878	0.2	189.1	191.6	1.3	32,789	34,389	4.9
Montana	3.3	3.1	-0.2	479	486	1.5	26.1	27.0	3.6	30,790	32,458	5.4
Nebraska	3.0	3.0	--	945	954	1.0	64.4	65.8	2.1	34,440	36,471	5.9
Nevada	4.2	4.8	0.6	1,230	1,271	3.3	102.5	103.2	0.6	38,994	40,480	3.8
New Hampshire	3.5	3.6	0.1	706	712	0.8	49.2	49.2	-0.1	39,753	41,512	4.4
New Jersey	4.7	4.2	-0.5	4,284	4,277	-0.2	386.9	391.3	1.1	46,763	49,194	5.2
New Mexico	4.3	3.5	-0.8	897	910	1.4	59.3	61.0	2.8	29,929	31,474	5.2
New York	4.6	4.5	-0.1	9,057	9,087	0.3	906.6	946.3	4.4	44,027	47,385	7.6
North Carolina	4.7	4.7	--	4,248	4,309	1.4	328.4	335.7	2.2	32,247	33,636	4.3
North Dakota	3.2	3.2	--	350	354	1.1	21.5	22.2	3.0	32,763	34,846	6.4
Ohio	5.4	5.6	0.2	5,625	5,640	0.3	388.9	390.3	0.4	33,320	34,874	4.7
Oklahoma	4.1	4.3	0.2	1,648	1,658	0.6	102.5	106.6	4.0	32,391	34,153	5.4
Oregon	5.4	5.2	-0.2	1,800	1,827	1.5	139.2	143.7	3.2	33,299	34,784	4.5
Pennsylvania	4.6	4.4	-0.2	6,003	6,013	0.2	430.4	437.1	1.6	36,825	38,788	5.3
Rhode Island	5.1	5.0	-0.1	546	548	0.4	38.6	38.7	0.1	37,523	39,463	5.2
South Carolina	6.4	5.9	-0.5	1,982	2,011	1.5	124.9	127.4	2.0	29,767	31,013	4.2
South Dakota	3.1	3.0	-0.1	423	429	1.4	27.7	28.3	2.3	32,030	33,905	5.9
Tennessee	5.1	4.7	-0.4	2,854	2,894	1.4	206.0	207.7	0.9	32,172	33,280	3.4

(continued, next page)

Table 1.6 Various State-Level Macroeconomic Indicators, 2006–2007 (continued)

	Unemployment rate			Number of employed (thousands)			Real GDP by state (billions of chained 2000 dollars)			Per capita personal income (dollars)		
	2006	2007	Percent change	2006	2007	Percent change	2006	2007	Percent change	2006	2007	Percent change
	Texas	4.9	4.3	-0.6	10,816	10,993	1.6	867.8	903.4	4.1	35,166	37,187
Utah	3.0	2.7	-0.3	1,279	1,325	3.6	82.3	86.7	5.3	29,406	31,189	6.1
Vermont	3.7	3.9	0.2	343	340	-0.9	20.9	21.2	1.5	34,871	36,670	5.2
Virginia	3.0	3.0	--	3,874	3,931	1.5	314.9	321.0	1.9	39,540	41,347	4.6
Washington	4.9	4.5	-0.4	3,170	3,253	2.6	250.4	261.1	4.3	38,212	40,414	5.8
West Virginia	4.7	4.6	-0.1	768	772	0.5	45.1	45.1	0.1	28,206	29,537	4.7
Wisconsin	4.7	4.9	0.2	2,924	2,938	0.5	193.4	195.4	1.0	34,405	36,047	4.8
Wyoming	3.3	3.0	-0.3	274	279	1.8	20.7	21.1	1.8	40,655	43,226	6.3

Note: These figures have not been seasonally adjusted. These 2006-2007 data are not available for U.S. territories.

Source: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis.

dollars to research and development and adequately support their “knowledge economy” do well in promoting more small business creation.¹²

Conclusion

The economic picture for small businesses in 2007 was cloudy, especially in the second half of the year. Real gross domestic product slowed considerably, and a variety of factors—such as rising oil prices, the downturn in the housing market, and credit issues—caused anxiety among business leaders and consumers. Amid these concerns, international trade provided an enormous opportunity for new business markets, as a falling U.S. dollar facilitated a more competitive economic environment for American exports.

Monthly NFIB surveys found small business owners pessimistic about the future and less willing to expand their businesses, hire new workers, or invest in new capital and equipment. The Federal Reserve’s Senior Loan Officer Opinion Survey suggested that they were also less willing to borrow, as small firm lending demand was off for the year; small business owner sentiments mirrored those of consumers in this regard. The result was an economic slowdown in which many key players curtailed spending as they waited for the economic picture to improve.

Employment growth slowed in 2007, especially in the goods-producing sectors of construction and manufacturing. The 1.1 million net new jobs that were created were from industries in the service sector—education and health services, leisure and hospitality, professional and business services, and wholesale trade. The self-employment picture was mixed, with men, Hispanics, and African Americans seeing gains, while the number of self-employed women, Asians, and American Indians grew more slowly.

Policymakers took steps to shorten the economic slowdown to a matter of months, not years. Actions by President Bush and the Congress to pass an economic stimulus package in early 2008 and dramatic declines in interest rates and other actions by the Federal Reserve were designed to stimulate

12 BJK Associates, 2002, *The influence of R&D expenditures on new firm formation and economic growth*, prepared for the U.S. Small Business Administration, Office of Advocacy, under contract no. SBAHQ-00-M-0491, at <http://www.sba.gov/advo/research/rs222tot.pdf> and S. M. Camp, 2005, *The innovation-entrepreneurship nexus: A national assessment of entrepreneurship and regional economic growth*, prepared for the U.S. Small Business Administration, Office of Advocacy, under contract no. SBAHQ-03-M-0353, at <http://www.sba.gov/advo/research/rs256tot.pdf>.

economic activity and reinstate a sense of economic optimism. As of mid-2008, it was too early to tell whether these actions served their purpose.

One thing is certain, however. Small businesses will continue to play a major role in revitalizing the American economy. Office of Advocacy research documents the importance of entrepreneurship to innovation and to the prosperity of the nation, the states, and economic regions. Areas with a healthy business climate and a positive entrepreneurial attitude will continue to remain competitive globally and to achieve higher levels of economic output, income, and employment gains.

2 SMALL BUSINESS FINANCING *in* 2007

Synopsis

Americans felt the effects of a decelerating housing market and increasing energy prices in the U.S. economy and to some extent in the financial markets of 2007.¹ U.S. economic activity held up fairly well, but growth had slowed considerably by the third quarter of the year. Credit conditions remained supportive for most small business financing, but deteriorating conditions led the Federal Open Market Committee to lower the federal funds rate after September. Overall, small business loan rates in all loan size categories declined.

Total net borrowing grew, although at a slower rate than in the previous year. The large declines in home mortgage borrowing were offset by increased borrowing by governments and especially nonfinancial businesses. Nonfinancial corporations in particular increased net business borrowing by more than 47 percent over 2006 levels, while nonfarm, noncorporate business borrowing increased by 16 percent.

Analysis of small business lending trends through June 2007 shows stronger activity for small business loans of all sizes in 2007, particularly in the \$100,000–\$1 million category. Loans under \$100,000 also increased over the June 2006–June 2007 period in both the dollar amount and number, as banks continued to promote small business credit cards. Large lending institutions with assets of \$10 billion or more continued to dominate the small business loan market, accounting for more than half of the value of loans under \$100,000, as well as two-thirds of total business loans and three-quarters of the domestic assets of U.S. depository institutions.

The initial public offering market continued to recover: the number and value of new issues were up from 2006. The value of new commitments to venture capital funds increased almost 25 percent over the previous year and was the highest amount raised in six years. More than 57,000 entrepreneurial ventures received angel funding in 2007, up 12 percent over the previous year.

1 Note that this chapter is a discussion of the general market for small business financing in 2007 and does not refer to the specific types of loans backed by the U.S. Small Business Administration.

Economic and Credit Conditions in 2007

The U.S. economy experienced slow and uneven growth in 2007—with growth rates of 3.8 and 4.9 percent in the second and third quarters bracketed by very slow growth in the first and last quarters of the year. The slowdown in the final quarter was substantial, at 0.6 percent, as rising energy prices, deteriorating household wealth caused by falling housing prices, and emerging turmoil in the credit markets created uncertainty among consumers, businesses, and investors. For the year, economic growth was sustained by rising exports (stimulated by the declining dollar and by continued strength in business investment) and private investment. Real gross domestic product grew at a rate of 2.2 percent in 2007, compared with 2.9 percent in 2006. Inflation in consumer prices increased, but the core inflation rate remained slightly lower than in 2006.

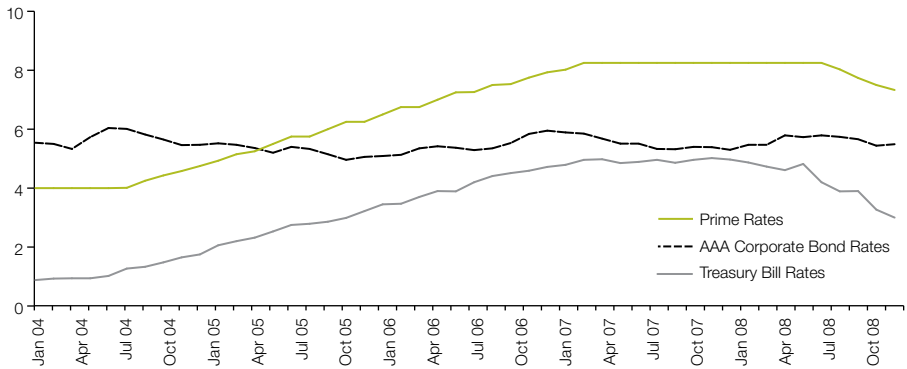
Credit conditions remained supportive for most small business financing in spite of uncertainty in the capital and credit markets. Rapidly deteriorating conditions in the credit markets pressured the Federal Open Market Committee (FOMC) to begin easing credit after September by reducing the federal funds rate.

Interest Rate Movements

The year 2007 started with a target federal funds rate of 5.25 percent. As the economy decelerated in the fall, the Federal Reserve took action to ease the availability of credit. To prevent potential financial disruptions in economic activities, the FOMC lowered the target federal funds rate by 50 basis points at its September meeting, and responded to further credit market deterioration by lowering the rate by an additional 25 basis points in both the October and December meetings. By the end of the year, the federal funds rate was down by 1 percentage point—from 5.25 to 4.25 percent. Treasury securities ended the year by declining almost 200 basis points below their earlier levels, from 4.96 percent to 3.00 percent in December 2007. Trends in corporate bond rates were mixed, moving more in line with overall economic activity (*Figure 2.1*).

Overall, small business loan rates in all loan size categories declined by 50-60 basis points between February and November 2007—the month in which data on small business loan rates were collected and made available by

Figure 2.1 Movements in Interest Rates, 2004–2007



Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, various issues.

the Federal Reserve Board² (*Table 2.1*). The prime rate, on which rates for most small business loans with adjustable rate provisions are based, declined by almost 100 basis points from 8.25 percent in August to 7.33 percent at the end of the year. Because the full effects of falling short-term rates on adjustable-rate loans were yet to be felt, fixed and adjustable rates showed similar movements between November 2006 and November 2007 (*Figure 2.2*).

The Nonfinancial Sector's Use of Funds in Capital Markets

The economy's uneven growth was apparent in the capital credit markets in 2007, as indicated by the use of funds in the nonfinancial sectors—government, business, and households. Total net borrowing and lending in the credit markets continued to grow from \$2.32 trillion in 2006 to \$2.34 trillion in 2007, a slower growth rate—1.1 percent—compared with 3.3 percent in the previous year (*Table 2.2*). Large declines in home mortgage borrowing, from \$988 billion in 2006 to \$655 billion in 2007—down 34 percent—were more than offset by large increases in borrowing by federal and state governments and especially nonfinancial businesses (*Table 2.2*).

2 Statistical release E.2, Survey of business loan rates, November 2007, Commercial and industrial loans made by all commercial banks.

Table 2.1 Loan Rates Charged by Banks by Loan Size, February 2005–February 2007 (percent)

	Loan size (thousands of dollars)	Fixed-rate term loans	Variable-rate loans (2–30 days)	Variable-rate loans (31–365 days)
November 2007	1.0-99	8.12	7.22	8.09
	100-499	7.58	7.03	7.66
	500-999	7.19	6.69	6.95
	Minimum-risk loans	5.72	5.69	5.23
August 2007	1.0-99	8.70	7.81	8.61
	100-499	7.98	7.60	8.09
	500-999	7.71	7.37	7.52
	Minimum-risk loans	6.86	6.03	6.03
May 2007	1.0-99	8.11	7.96	8.69
	100-499	8.08	7.57	8.12
	500-999	7.65	7.51	7.62
	Minimum-risk loans	8.21	5.84	5.85
February 2007	1.0-99	8.68	7.82	8.81
	100-499	8.17	7.69	8.01
	500-999	7.91	7.32	7.69
	Minimum-risk loans	7.32	5.89	6.64
November 2006	1.0-99	8.76	7.92	8.61
	100-499	8.06	7.67	8.00
	500-999	7.77	7.40	7.91
	Minimum-risk loans	6.90	5.89	6.27
August 2006	1.0-99	8.97	7.96	8.69
	100-499	8.28	7.81	7.77
	500-999	7.62	7.64	7.53
	Minimum-risk loans	7.57	5.93	6.35
May 2006	1.0-99	8.38	7.71	8.14
	100-499	8.00	7.38	7.61
	500-999	7.61	7.25	7.35
	Minimum-risk loans	5.65	4.54	5.77
February 2006	1.0-99	8.43	7.19	8.28
	100-499	7.64	7.1	7.31
	500-999	7.34	6.83	7.36
	Minimum-risk loans	6.94	5.09	6.22
November 2005	1.0-99	8.07	6.69	7.72
	100-499	7.48	6.65	7.41
	500-999	6.70	6.38	7.00
	Minimum-risk loans	4.98	4.51	4.88
August 2005	1.0-99	7.90	6.09	7.09
	100-499	6.89	6.23	6.52

Table 2.1 Loan Rates Charged by Banks by Loan Size, February 2005–February 2007 (percent) (continued)

	Loan size (thousands of dollars)	Fixed-rate term loans	Variable-rate loans (2–30 days)	Variable-rate loans (31–365 days)
	500-999	6.39	5.82	5.65
	Minimum-risk loans	4.24	4.12	4.15
May 2005	1.0-99	7.48	5.74	7.13
	100-499	6.44	5.71	6.27
	500-999	5.74	5.49	5.27
	Minimum-risk loans	3.9	3.79	3.83
February 2005	1.0-99	7.05	5.25	6.61
	100-499	6.38	5.08	6.09
	500-999	5.82	4.52	5.05
	Minimum-risk loans	6.58	3.24	4.42

Source: Board of Governors of the Federal Reserve System, Survey of Terms of Lending, Statistical Release E.2, various issues, and special tabulations prepared by the Federal Reserve Board for the Office of Advocacy.

Federal, State and Local Government Borrowing

Federal government borrowing increased by \$54 billion, or 29 percent to \$237 billion in 2007, as tax revenues slowed (*Table 2.2*). The increased need for financing may have been generated by U.S. Department of the Treasury cash management requirements, as the federal budget deficit had declined for the fourth consecutive year and was \$162 billion in 2007, compared with \$248 billion in 2006.³

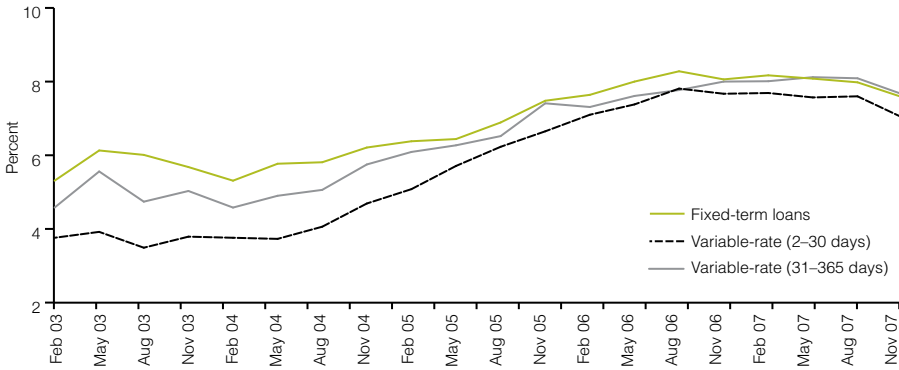
Borrowing by state and local governments increased by 22 percent, from \$151 billion in 2006 to an all-time high of \$184 billion in 2007. Continued spending on capital projects and a slowdown in state revenues relative to outlays contributed to the rise.

Borrowing by the Household Sector

Household spending maintained healthy growth, considering the dampening of home prices and declines in home equity, which have sliced away a portion

3 Based on the national income account estimates from the Federal Reserve Bank of St. Louis, Government revenues, spending, and debt, *National Economic Trends*, May 2008, 16.

Figure 2.2 Bank Loan Rates for Loans of \$100,000-<\$500,000, 2003–2007



Source: Board of Governors of the Federal Reserve System, Survey of Terms of Lending, Statistical Release E.2, various issues, and special tabulations prepared by the Federal Reserve Board for the Office of Advocacy.

of U.S. household net worth. As a result, the ratio of household wealth to disposable income was below that of the previous year.

Lenders, concerned about the creditworthiness of the household sector, tightened credit standards for many types of loans. Nonetheless, except for mortgage-related loans, consumer credit remained available to most borrowers.⁴ By the end of 2007, net household borrowing totaled \$877 billion, about 27 percent below the previous year's level of \$1.19 trillion (*Table 2.2*). Total net household borrowing accounted for slightly more than one-third of total net borrowing by the nonfinancial sector, compared with more than 50 percent over the previous four years.

Business Borrowing

With corporate profits remaining flat, albeit at a high level, and continued healthy growth in capital expenditures by nonfinancial businesses, business borrowing, especially by corporate businesses, grew significantly in 2007. Total business borrowing increased by almost one-third, from \$791 billion in 2006 to \$1.0 trillion in 2007 (*Table 2.2*).

Net business borrowing by nonfinancial corporations increased significantly, from \$426 billion in 2006 to \$627 billion in 2007, and accounted for 60 percent of total business borrowing (*Table 2.3*).

4 Federal Reserve Board, *Monetary policy report to the Congress*, February 2008, Part II.

Table 2.2 Credit Market Borrowing by the Nonfinancial Sector, 1994–2007 (billions of dollars)*

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 ¹	2004 ¹	2005 ¹	2006 ¹	2007 ¹
Total domestic borrowing	580.7	690.9	701.5	773.3	1,017.4	1,028.6	853.6	1,159.8	1,403.0	1,669.5	1,959.0	2,244.9	2,319.7	2,344.1
Government														
Federal	155.9	144.4	145.0	23.1	-52.6	-71.2	-295.9	-5.6	257.6	396.0	361.9	306.9	183.4	237.1
State and local	-46.2	-51.5	-6.8	56.1	67.7	38.5	15.5	105.7	143.9	120.3	115.3	171.6	151.2	184.2
Business														
Farm	4.4	2.9	4.8	6.2	8.0	5.5	11.3	10.5	7.7	-1.6	6.1	12.7	18.4	15.1
Nonfarm noncorporate	3.3	30.6	81.4	94.7	159.7	189.4	196.8	162.2	148.0	92.1	244.7	331.6	346.8	403.2
Nonfinancial corporate	142.3	243.7	148.8	291.1	408.4	371.6	341.8	215.2	12.9	82.2	167.2	243.4	425.7	627.4
Total	150.0	277.2	235.0	392.0	576.1	566.5	549.9	387.9	168.6	172.7	418.0	587.7	790.9	1,045.7
Households	321.0	320.8	328.3	302.1	426.2	494.8	584.1	671.8	832.9	980.5	1,063.8	1,178.7	1,194.2	877.1
Home mortgages ²	167.4	153.8	205.5	216.2	301.7	380.1	385.7	506.9	708.4	856.1	940.4	1,028.5	987.8	654.8
Nonmortgages	153.6	167.0	122.8	85.9	124.5	114.7	198.4	164.9	124.5	124.4	123.4	150.2	206.4	222.3
Foreign borrowing in the United States	-13.9	71.1	88.4	71.8	31.2	13.0	63.0	-13.7	92.9	36.9	124.8	102.8	250.4	97.8

¹ Annual revision of statistics from 2003 to 2007.

² Includes loans made under home equity lines of credit and home equity loans secured by junior liens. Home mortgage information was obtained from Table F.100, Households and Nonprofit Organizations, line 40.

Source: Board of Governors of the Federal Reserve System, Flow of Funds Accounts, First Quarter 2008: Z1, Flows and Outstandings.

Table 2.3. Major Sources and Uses of Funds by Nonfarm, Nonfinancial Corporate Businesses, 1996–2007 (billions of dollars)

	1997	1998	1999	2000	2001	2002	2003*	2004*	2005*	2006*	2007*
Before-tax profit	494.5	460.1	456.7	421.9	309.9	336.4	424.3	660.1	935.5	1,040.6	1,036.8
Domestic undistributed profit	120.2	65.1	63.2	2.5	-45.0	-12.9	-1.4	105.7	476.4	307.8	234.8
Depreciation with inventory valuation adjustment	548.2	570.6	598.1	617.7	643.8	718.7	718.4	807.6	1,025.1	846.4	782.3
Total internal funds, on book basis	659.9	635.7	660.4	631.8	632.5	720.9	732.0	850.7	1,061.3	882.7	819.9
Net increase in liability	283.5	616.0	987.6	1,237.4	95.2	84.9	13.4	609.0	961.2	191.7	416.7
Funds raised in credit markets	291.9	408.4	371.6	341.8	215.2	12.9	82.2	167.2	243.4	425.7	627.4
Net new equity issues	-114.4	-215.5	-110.4	-118.2	-48.1	-41.6	-42.0	-126.6	-363.4	-614.1	-896.6
Capital expenditures	760.2	826.5	866.7	928.5	802.6	737.1	749.9	825.7	915.0	1,032.9	1,036.2
Net financial investment	-11.1	-46.1	-17.7	-28.2	82.4	45.2	69.2	174.1	-3.4	183.2	116.3

* Annual revision for statistics from 2003 to 2007.

Source: Board of Governors of the Federal Reserve System, Flow of Funds Accounts, First Quarter 2008: Z1, Flows and Outstandings.

Nonfarm noncorporate borrowing increased by 16.3 percent, from \$347 billion to \$403 billion in 2007 (*Table 2.4*). Net income for nonfarm noncorporate businesses increased from \$1.04 trillion in 2006 to \$1.07 trillion in 2007, a 2.8 percent gain.

Lending by Financial Institutions to Small Businesses

In the first half of the year, the economy held up well and facilitated financing activity in the business loan markets, as reflected in small business borrowing from lending institutions. Financing remained available to small firms, although borrowing costs continued to rise as lenders tightened lending standards on C&I loans to large, middle-market, and small firms; lenders later eased some of their lending terms.⁵

A slower second half and the crisis in the subprime mortgage and related credit markets took a toll on bank earnings. Net income for all Federal Deposit Insurance Corporation (FDIC) institutions declined in the third quarter and plunged in the fourth quarter of 2007, from \$28.8 billion to \$5.8 billion, the lowest level since the fourth quarter of 1991, when earnings reported by the banking industry totaled \$3.2 billion.⁶ Decreases in noninterest income and gains in securities sales, along with increases in loan loss provision and noninterest expenses, resulted in a record low for earnings of financial institutions. Consequently, tighter lending standards were close to or above historical highs for nearly all loan categories, according to the Senior Loan Officer Opinion Survey.⁷

5 Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices, January/April 2008, 1.

6 See *FDIC Quarterly*, Quarterly banking profile, Fourth Quarter 2007.

7 Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices, January/April 2008, 1.

Table 2.4. Major Sources and Uses of Funds by Nonfarm, Noncorporate Businesses, 1997–2007 (billions of dollars)

	1997	1998	1999	2000	2001	2002	2003*	2004*	2005*	2006*	2007*
Net income	609.9	656.5	710.6	767.3	820.0	817.4	836.2	925.7	983.8	1,044.2	1,073.5
Gross investment	118.5	125.0	148.7	168.7	149.2	151.5	161.4	176.7	211.5	197.0	207.5
Fixed capital expenditures	118.8	123.9	185.8	215.3	195.5	181.9	192.2	195.0	224.3	267.3	288.5
Changes in inventories	3.0	3.6	3.5	2.9	-1.6	0.7	0.7	2.5	1.9	2.4	0.1
Net financial investments	-3.3	-2.5	-40.6	-49.5	-44.6	-31.1	-31.5	-20.9	-14.7	-72.8	-81.1
Net increase in credit											
Market debt	94.7	159.7	189.4	196.8	162.2	148.0	92.1	244.7	331.6	346.8	403.2
Mortgages	47.7	117.7	135.1	137.5	121.2	121.0	75.5	219.0	171.2	266.6	265.3
Net investment by proprietors	-55.1	-64.8	-82.3	-44.9	-16.1	-85.1	38.0	-26.3	-137.1	-46.8	-59.6

* Annual revision for statistics from 2003 to 2007.

Source: Board of Governors of the Federal Reserve System, Flow of Funds Accounts, First Quarter 2008: Z1, Flows and Outstandings.

Developments in Small and Micro Business Lending⁸

Small business activity in the loan markets for June 2006-June 2007 was stronger than in the previous year (June 2005-June 2006).⁹ The total value of small business loans outstanding (loans of less than \$1 million) made by lending institutions totaled \$684.6 billion as of June 2007, up from \$634 billion in June 2006, an increase of about 8.0 percent, compared with 5.5 percent over the previous period (*Tables 2.5 and 2.6*). Increases in both the amount and number came from all small business loan sizes, but the number of small business loans of \$100,000 to \$1 million increased the most over the period (*Tables 2.5 and 2.7*). Borrowing by larger corporations was moderate, as they increased their use of internally generated funds and lessened their need for investment in 2007. Increases in the dollar amount of business loans over \$1 million were smaller than in the previous year: 11.7 percent compared with 12.4 percent (*Table 2.6*). Large corporations nevertheless continued to account for the largest share of total business borrowing over the period, stemming from needs related to ongoing merger and acquisition activity.

Micro business loans (loans of less than \$100,000) were robust over this period, with increases in both the dollar amount and number, as major business credit card lenders continued to promote small business credit cards. The most significant change in micro business lending occurred in the number of loans, which was up 13.7 percent over the June 2006-June 2007 period after remaining flat in the previous period (*Table 2.7*).

Over this period, the smallest loans (those of less than \$100,000) accounted for the most change in dollar amount. The dollar amount of micro business loans increased by 9.4 percent, compared with 7.6 percent for loans of \$100,000 to under \$1 million, and with about 8.0 percent for all small business loans under \$1 million (*Table 2.6*).

The relative importance of banks of various sizes in the small business loan markets continues to be affected by bank consolidations. The number of lending institutions with financial services holding companies and independent institutions filing Call Reports continued to decline, from 7,563 in June 2006 to 7,465 in June 2007 (*Table 2.8*). In particular, the number of lenders with

8 As discussed in the 2005 edition of *The small business economy*, lending institutions include commercial banks, federal savings banks, and savings and loan associations, but exclude credit unions.

9 Small business lending is analyzed for the period ending June 2007, as data are available only as of June 30 each year. Banks were required to report lending to small businesses in terms of small loans once a year in their June quarterly Call Reports. Reports required under the Community Reinvestment Act (CRA) cover small business lending information for the previous calendar year.

Table 2.5 Dollar Amount and Number of Small Business Loans, June 2005–June 2007, by Loan Size (dollars in billions, numbers in millions)

Loan size		2005	2006	2007	Percent change June 2006– June 2007
Under \$100,000	Dollars	138.4	146.0	159.7	9.4
	Number	19.02	19.0	21.6	13.7
\$100,000 to under \$1 million	Dollars	462.3	487.9	524.9	7.6
	Number	1.98	2.2	2.9	31.8
Under \$1 million	Dollars	600.8	634.0	684.6	8.0
	Number	21.00	21.3	24.5	15.0
Total business loans	Dollars	1,680.8	1,848.4	2,023.9	9.5

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various years, and special tabulations of the June 2007 Call Reports (Consolidated Reports of Condition and Income for U.S. banks and thrift institutions prepared for the Office of Advocacy by James Kolari, Texas A&M University, College Station, Texas).

Table 2.6 Percent Change in the Dollar Amount of Business Loans by Loan Size, June 2003–June 2007

Loan size	June 2003– June 2004	June 2004– June 2005	June 2005– June 2006	June 2006– June 2007
Under \$100,000	-0.5	1.9	5.5	9.4
\$100,000 to under \$1 million	7.2	4.8	5.5	7.6
Under \$1 million	5.3	4.1	5.5	8.0
\$1 million and above	4.6	11.1	12.4	11.7

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various years, and special tabulations of the June 2007 Call Reports (Consolidated Reports of Condition and Income for U.S. banks and thrift institutions prepared for the Office of Advocacy by James Kolari, Texas A&M University, College Station, Texas).

Table 2.7 Percent Change in the Number of Small Business Loans by Loan Size, June 2003–June 2007

Loan size	June 2003– June 2004	June 2004– June 2005	June 2005– June 2006	June 2006– June 2007
Under \$100,000	-11.1	24.8	0	13.7
\$100,000 to under \$1 million	6.6	5.0	12.8	31.8
Under \$1 million	-9.4	22.6	1.2	15.0

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various years, and special tabulations of the June 2007 Call Reports (Consolidated Reports of Condition and Income for U.S. banks and thrift institutions prepared for the Office of Advocacy by James Kolari, Texas A&M University, College Station, Texas).

assets of less than \$500 million was down by 147.¹⁰ The number of the largest lending financial holding institutions—those with domestic assets exceeding \$10 billion—declined from 108 to 106, but they accounted for larger shares of total business loans—65.2 percent—and of total assets—75.6 percent.

These giant lenders dominated the market for micro business loans under \$100,000, where they accounted for two-thirds of the number of loans, and 58.2 percent of the loan value in this period (*Table 2.8*). The value of small loans made by these giants increased steadily, from 49.8 percent in 2005 to 58.2 percent in 2007. The largest lenders' share of the number of loans has fluctuated.

The market for larger loans between \$100,000 and \$1 million issued by these giants was somewhat less active. For example, the share of the dollar amount outstanding in this category barely increased, in line with the meager increase in the total assets share of these large institutions over the June 2006–June 2007 period (*Table 2.8*). The share of the number of loans made in this category has declined constantly since 2005, from 42.1 percent in 2005 to 37.8 percent in 2006 to 32.3 percent in 2007.

Lending by Finance Companies

The growth of finance companies continued to be dominated by the banking industry. Nonetheless, the market for business receivables rose moderately in 2007. Finance companies expanded their lending to businesses by 4.3 percent in 2007 (*Table 2.9*). Business receivables in 2007 totaled \$520 billion, up from \$498 billion in 2006. The lending patterns of finance companies and the extent to which they are lending to small and large businesses continues to be hampered by lack of data. Consequently, little can be said about these lending patterns.

Small Business Investment

Equity Borrowing in the Public Issue Markets

Overall, the initial public offering (IPO) market continued to recover (*Table 2.10*): 217 new issues were valued at \$51 billion in 2007, compared with \$46 billion for

10 The table is derived by combining the files for reporting institutions and consolidated holding companies—consolidated members of a holding company. Many noncommercial bank members of holding companies may not be consolidated in the data because of missing ID links. The number of lending institutions as of June 2007 was 7,465 including 2,418 non-BHCs and 5,047 bank and other financial services holding companies.

Table 2.8 Share of Total Assets and Business Loans by Size of All U.S. Depository Institutions, June 2005–June 2007 (percent, except figures for number of institutions)*

	Asset size of institutions							All institutions and BHCs
	Over \$50 billion	\$10 billion to \$50 billion	Over \$10 billion	\$1 billion to \$10 billion	\$500 million to \$1 billion	Under \$500 million		
June 30, 2007								
Number of institutions	32	74	106	498	617	6,244	7,465	
Micro business loans (under \$100,000)	Amount	41.51	16.67	58.18	14.00	21.80	100.0	
	Number	49.00	17.40	66.39	19.85	6.14	100.0	
Small business loans (\$100,000–\$1 million)	Amount	32.48	12.17	44.65	22.27	23.10	100.0	
	Number	23.57	8.75	32.32	21.71	38.73	100.0	
Total small business loans (under \$1 million)	Amount	34.59	13.22	47.81	20.33	22.81	100.0	
	Number	46.00	16.38	62.38	20.07	9.98	100.0	
Total business loans	Amount	51.31	13.90	65.21	17.57	11.32	100.0	
Total domestic assets	Amount	61.31	14.27	75.58	12.29	8.14	100.0	
June 30, 2006								
Number of institutions	34	74	108	473	591	6,391	7,563	
Micro business loans (under \$100,000)	Amount	38.98	13.67	52.65	14.55	25.63	100.0	
	Number	53.11	17.74	70.85	12.44	7.23	100.0	
Small business loans (\$100,000–\$1 million)	Amount	30.29	11.99	42.28	22.46	25.00	100.0	
	Number	27.48	10.36	37.84	20.37	33.00	100.0	
Total small business loans (under \$1 million)	Amount	32.30	12.37	44.67	20.66	25.22	100.0	
	Number	50.42	16.96	67.38	13.28	9.94	100.0	
Total business loans	Amount	50.68	13.33	64.02	17.56	12.31	100.0	
Total domestic assets	Amount	60.88	14.35	75.23	12.25	8.56	100.0	

June 30, 2005

Number of institutions		31	70	101	449	541	6,533	7,624
Micro business loans (under \$100,000)	Amount	36.49	13.33	49.82	15.05	6.62	28.51	100.0
	Number	52.00	17.98	69.98	13.86	8.83	7.33	100.0
Small business loans (\$100,000-\$1 million)	Amount	30.23	11.76	41.99	21.96	9.95	26.10	100.0
	Number	30.72	11.33	42.05	21.25	9.35	27.36	100.0
Total small business loans (under \$1 million)	Amount	31.67	12.13	43.80	20.37	9.18	26.65	100.0
	Number	49.99	17.35	67.34	14.55	8.88	9.22	100.0
Total business loans	Amount	48.99	13.39	62.37	18.18	6.11	13.33	100.0
	Number	58.77	15.00	73.77	13.06	3.92	9.25	100.0

* All members of a holding company are consolidated to the extent the linked IDs permit. Credit unions excluded.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various years, and special tabulations of the June 2006 Call Reports (Consolidated Reports of Condition and Income for U.S. banks and thrift institutions prepared for the Office of Advocacy by James Kolari, Texas A&M University, College Station, Texas).

**Table 2.9 Business Loans Outstanding from Finance Companies,
December 31, 1980–December 31, 2007**

	Total receivables outstanding		
	Billions of dollars	Change from previous year (percent)	Annual change in chain-type* price index for GDP (percent)
December 31, 2007	519.5	4.3	2.7
December 31, 2006	498.0	3.9	3.2
December 31, 2005	479.2	1.5	3.2
December 31, 2004	471.9	3.2	2.9
December 31, 2003	457.4	0.5	2.1
December 31, 2002	455.3	1.9	1.7
December 31, 2001	447.0	-2.5	2.4
December 31, 2000	458.4	16.3	2.2
December 31, 1999	405.2	16.6	1.4
December 31, 1998	347.5	9.1	1.1
December 31, 1997	318.5	2.9	1.7
December 31, 1996	309.5	2.6	1.9
December 31, 1995	301.6	9.7	2.0
December 31, 1994	274.9	NA	2.1
December 31, 1993	294.6	-2.3	2.3
December 31, 1992	301.3	1.9	2.3
December 31, 1991	295.8	0.9	3.5
December 31, 1990	293.6	14.6	3.9
December 31, 1989	256.0	9.1	3.8
December 31, 1988	234.6	13.9	3.4
December 31, 1987	206.0	19.7	2.7
December 31, 1986	172.1	9.3	2.2
December 31, 1985	157.5	14.3	3.0
December 31, 1984	137.8	21.9	3.8
December 31, 1983	113.4	12.9	3.9
December 31, 1982	100.4	0	6.1
December 31, 1981	100.3	11.1	9.4
December 31, 1980	90.3		

* Changes from the fourth quarter of the previous year.

NA = Not available.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, Table 1.51, various issues; U.S. Department of Commerce, Bureau of Economic Analysis, *Business Conditions Digest*, various issues; and idem., Survey of Current Business, various issues.

Table 2.10 Common Stock Initial Public Offerings by All and Small Issuers, 1997–2007

	Common stock		
	Number	Amount (millions of dollars)	Average size (millions of dollars)
Offerings by all issuers			
2007	217	50,693.1	233.4
2006	207	46,176.3	223.1
2005	209	38,238.1	183.0
2004	249	48,185.7	193.5
2003	85	16,087.3	189.3
2002	86	25,716.3	299.0
2001	99	37,526.0	379.1
2000	387	60,871.0	157.3
1999	512	63,017.4	123.1
1998	366	38,075.3	104.0
1997	623	45,785.0	73.5
Offerings by issuers with assets of \$25 million or less			
2007	15	776.4	51.8
2006	16	960.4	60.0
2005	19	783.8	41.3
2004	32	1,567.1	49.0
2003	8	532.3	66.5
2002	11	420.4	47.6
2001	14	477.2	34.1
2000	56	3,323.9	59.4
1999	207	10,531.0	50.9
1998	128	4,513.7	35.3
1997	241	5,746.1	23.8
Offerings by issuers with assets of \$10 million or less			
2007	5	92.7	18.5
2006	5	307.0	61.4
2005	7	368.8	52.7
2004	15	661.1	44.1
2003	4	34.8	8.7
2002	5	160.9	32.2
2001	5	54.9	11.0
2000	13	407.2	31.3
1999	87	3,556.9	40.9

Table 2.10 Common Stock Initial Public Offerings by All and Small Issuers, 1997–2007 (continued)

	Common stock		
	Number	Amount (millions of dollars)	Average size (millions of dollars)
1998	62	2,208.0	35.6
1997	132	2,538.6	19.2

Note: Excludes closed-end funds. Registered offerings data from the Securities and Exchange Commission are no longer available; data provided by Securities Data Company are not as inclusive as those registered with the SEC.

Source: Special tabulations prepared for the U.S. Small Business Administration, Office of Advocacy, by Thomson Financial Securities Data, May 2008.

207 new issues in 2006. However, the IPO markets for smaller companies—those with assets of less than \$25 million and less than \$10 million—remained weak. The dollar value of IPOs in companies with assets under \$25 million declined by 19.2 percent from \$960 million in 2006 to \$776 million in 2007, and the number declined by one, from 16 to 15, during the same period. Investors' interest in the smallest companies—those with assets of less than \$10 million—remained below levels reached in 2004. Five of the smallest IPOs were issued in 2007—the same as in 2006—and their value was \$92.7 million—\$214 million less than in 2006.

Venture Capital

In 2007, the number of venture capital funds raising money increased to 248; the amount of new commitments raised by these funds totaled \$39.7 billion, an increase of almost 25 percent over the previous year, and the highest amount raised in six years (*Table 2.11*). Total capital under management declined by almost 8 percent from 2006, and was \$257 billion in 2007. Commitments to venture capital funds represented 19 percent of the total private equity capital commitment in 2007, which is lower than the historical average of 20-30 percent. The venture capital industry preferred later-stage ventures, which received 41.5 percent or \$12.4 billion of the \$29.9 billion in disbursements going to later-stage companies. Venture capital investment in U.S. companies increased for the fourth consecutive year and more than 3,200 companies received funding in 2007. Of this number, 1,279 received a first round of capital. Venture-backed IPOs performed well in both number and amount, and the number of merger and acquisitions exits declined in 2007.

Angel investors continued to provide the equity financing hoped for by many new ventures in 2007. According to the Center for Venture Research,

Table 2.11 New Commitments, Disbursements, and Total Capital Pool of the Venture Capital Industry, 1982–2007 (billions of dollars)

	Commitment	Disbursement	Initial round	Follow-on	Capital under management
2007	39.7	29.9	7.37	22.51	257.1
2006	31.9	26.6	6.08	20.51	278.7
2005	28.3	23.0	5.75	17.25	265.4
2004	19.8	22.5	4.83	17.64	260.7
2003	11.6	19.8	3.94	15.81	255.2
2002	9.5	22.0	4.37	17.61	256.2
2001	38.8	40.6	7.43	33.20	255.8
2000	105.2	105.0	28.88	76.16	227.8
1999	56.4	54.1	15.95	38.12	145.9
1998	29.9	21.1	7.22	13.91	91.4
1997	19.7	14.9	4.88	10.00	63.6
1996	11.8	11.3	4.33	6.95	49.3
1995	9.9	8.0	4.05	3.98	40.7
1994	8.9	4.1	1.71	2.42	36.1
1993	4.1	3.7	1.41	2.28	32.2
1992	5.3	3.6	1.32	2.25	30.2
1991	2.0	2.2	0.57	1.68	29.3
1990	3.3	2.8	0.85	1.92	31.4
1989	4.9	3.3	0.95	2.34	30.4
1988	4.4	3.3	1.09	2.22	27.0
1987	4.4	3.3	1.00	2.27	24.4
1986	3.8	3.0	0.91	2.11	20.3
1985	4.0	2.8	0.73	2.04	17.2
1984	3.0	3.0	0.87	2.14	13.9

Source: Venture Capital Journal (various issues) and “National Venture Capital Association Yearbook 2008,” Prepared by Venture Economics.

the angel investor market maintained reasonable growth in activity in 2007, although investment dollars showed little change from the previous year. Investments in 2007 totaled \$26.0 billion, an increase of 1.8 percent. According to the Center for Venture Research, the number of entrepreneurial ventures that received angel funding in 2007 was 57,120, an increase of 12 percent.

Conclusion

Overall, borrowing in the financial markets was resilient in 2007, despite uneven growth in the economy. Declines in home mortgage borrowing were offset by large increases in borrowing by federal and state governments and nonfinancial businesses. Although lenders tightened their lending standards, there was no indication that small businesses were constrained by the supply of funds. Interest rates—including the prime rate, the rate for most small business loans—continued to decline by year's end, as the FOMC dropped the target funds rate.

Small business lending remained healthy in both the number and amount of loans. Larger small business loans accounted for the most growth in the number of business loans for the period studied. Multi-billion-dollar lending institutions continue to dominate small business lending.

The initial public offering and venture capital markets remained weak for smaller companies as the market continued to recover.

3 FEDERAL PROCUREMENT *from* SMALL FIRMS

Synopsis

America's more than 27 million small businesses represent 99.7 percent of all employer firms, generate 60 to 80 percent of net new jobs annually, and create more than one-half of the nonfarm private gross domestic product.¹ As one of the largest single sources of contracting opportunities, the U.S. federal government reaches out in its procurement of goods and services to small and disadvantaged businesses. In fiscal year (FY) 2007, more than \$378.5 billion in contracts were identified as small business-eligible. The Small Business Administration's (SBA) Office of Government Contracting (GC) reports that in FY 2007 small businesses received a total of \$147 billion in contract dollars—\$83 billion in direct prime contract awards and about \$64 billion in subcontracts (up \$4 billion from FY 2006).²

Small businesses also hire 40 percent of high technology workers (such as scientists, engineers, and computer workers), produce 13 times more patents per employee than large patenting firms, and their patents are twice as likely to be among the 1 percent most cited.³ By supporting this small business capacity for innovation, the Small Business Innovation Research (SBIR) program, over its quarter century in existence, has been among the most productive programs for the nation's international innovative competitive advantage. SBIR is among the most important sources of early-stage technology financing. The total federal SBIR and Small Business Technology Transfer (STTR) program funding in FY 2007 was \$2.315 billion, and the Department of Defense (DOD) accounted for nearly half of the program.⁴

1 The Small Business Administration, Office of Advocacy, *Frequently asked questions* may be accessed at <http://www.sba.gov/advo/stats/sbafaq.pdf>. (Accessed November 13, 2008.)

2 For more detailed data, see <http://www.sba.gov/aboutsba/sbaprograms/goals/index.html>. (Accessed November 13, 2008.)

3 *Foreign patenting behavior of small and large firms: An update*, prepared by Mary Ellen Mogege under contract with the U.S. Small Business Administration, Office of Advocacy (Springfield, VA: National Technical Information Service, 2003), http://www.sba.gov/advo/research/rs228_tot.pdf.

4 See www.dodsbir.net. (Accessed November 13, 2008.)

Small Business Procurement Data

An SBA Office of Advocacy-sponsored study published in December 2004 found coding problems with small business contracts related to a number of companies found to be other than small in the FY 2002 procurement data.⁵ The coding issues could have resulted from errors in the companies' size identification or from companies growing to—or having been acquired by—larger firms during the course of the contract. Efforts by the SBA and the Office of Federal Procurement Policy (OFPP) to achieve greater transparency in federal procurement data continue. In a March 9, 2007, memorandum, OFPP Administrator Paul Denett required agency chief acquisition officers to establish agencywide statistically valid procurement data verification and validation procedures, as well as a certification of data accuracy and completeness each year.⁶ The SBA Procurement Scorecard rates 24 agencies green, yellow, or red, based on whether they reached their annual small business contracting goals and on their progress in efforts to make contracting opportunities available to small businesses.⁷ Agencies are also graded on their compliance with the March 2007 OFPP memorandum.

Another tool to reduce inaccuracies in the small business count is SBA's recertification regulation, which became effective on June 30, 2007. The regulation requires a small business holding a contract for more than five years to recertify its size status after the fifth year and any option extension thereafter.⁸ Historically, SBA's regulations called for determination of small business size status when firms submitted their initial offers; firms maintained the initial size status for the duration of contracts.

5 *Analysis of type of business coding for the top 1,000 contractors receiving small business awards in FY 2002*, is available at <http://www.sba.gov/advo/research/rs246tot.pdf>.

6 See http://www.whitehouse.gov/omb/procurement/memo/fpds_itr_030907.pdf. (Accessed November 13, 2008).

7 The scorecard is available at <http://www.sba.gov/aboutsba/sbaprograms/goals/index.html>. (Accessed November 13, 2008.)

8 See http://www.sba.gov/aboutsba/sbaprograms/goals/SBGR_2006_SRR.html. (Accessed November 13, 2008.)

Federal Contracting with Small Firms in FY 2007

In FY 2007, the dollar amount in contracts available for small business participation totaled \$378.5 billion, and the percentage awarded to small businesses was 22.0 percent (*Table 3.1*). Of the \$378.5 billion total in FY 2007, small businesses were the recipients of \$83.3 billion in direct prime contract dollars, up from the revised \$77.7 billion in FY 2006, according to SBA.⁹

The Electronic Subcontracting Report System (ESRS) is now in full operation. According to the FY 2007 subcontracting data, small businesses were awarded \$64 billion in subcontracting dollars.¹⁰ In total, the federal government and its prime contractors awarded small businesses a total of \$147 billion in contract dollars in FY 2007.

Sources of Small Business Awards by Department/Agency

The largest share of all federal purchases in contracts has historically come from DOD (*Tables 3.2–3.4*). In FY 2007 DOD awarded small businesses \$55.0 billion in contract dollars—20.4 percent of the Defense Department’s \$269.3 billion total of dollars available for small business competition, according to the SBA (*Table 3.4*). Of the \$83.3 billion awarded to small businesses by all federal agencies, 66 percent were in DOD awards (*Table 3.3*).

The next largest source of federal contracting dollar awards to small businesses was the Department of Veterans Affairs, which awarded \$3.85 billion or 32.8 percent of its total contract dollars to small businesses in FY 2007. Third was the Department of Homeland Security, which awarded \$3.83 billion or 35.8 percent to small businesses. The Department of Housing and Urban Development again sent the largest share of its contracting dollars to small firms—63.6 percent of its \$881 million total, or \$560 million (*Table 3.4*).

9 For information on the goaling program, see <http://www.sba.gov/aboutsba/sbaprograms/goals/index.html>.

10 For information on subcontracting goals and reports, see http://www.sba.gov/aboutsba/sbaprograms/goals/SBGR_2006_SCGR.html.

Table 3.1 Total Federal Prime Contract Dollars, FY 2004–FY 2007

Fiscal year	Thousands of dollars		Small business share (percent)
	Total	Small business	
2007	378,507,759	83,274,930	22.00
2006	340,212,001	77,670,193	22.82
2005	320,309,252	75,000,000	23.41
2004	299,886,098	69,228,771	23.09

Note: In 2004, the GSA and the OMB/OFPP introduced the fourth generation of the FPDS. The FPDS-NG data shown here, unless otherwise noted, reflect all contract actions available for small business competition (excluding some categories).

Source: General Services Administration, Federal Procurement Data System.

Table 3.2 Shares of Total Federal Prime Contract Dollars by Major Agency Source, in Contract Actions over \$25,000 for FY 1984–FY 2003, and in Total for FY 2004–FY 2007

Fiscal year	Total (thousands of dollars)	Percent of total						
		DOD	DOE	NASA	HHS	VA	DHS	All other
2007*	378,507,759	71.2	6.0	3.4	3.6	3.1	2.8	9.9
2006*	340,212,001	69.1	6.6	3.8	3.5	2.9	4.1	10.0
2005*	320,309,252	69.7	7.3	3.9	2.9	3.1	3.2	9.9
2004*	299,886,098	70.3	7.3	4.2	2.6	2.9	1.5	11.2
2003	292,319,145	67.9	7.2	4.0	2.1	2.3	1.2	15.3
2002	258,125,273	65.1	7.4	4.5	2.1	1.8	—	19.2
2001	248,985,613	58.2	7.5	4.5	—	—	—	29.8
2000	207,401,363	64.4	8.2	5.3	1.9	1.9	—	18.4
1999	188,846,760	66.4	8.4	5.8	2.3	1.4	—	17.7
1998	184,178,721	64.1	8.2	5.9	—	—	—	21.8
1997	179,227,203	65.4	8.8	6.2	1.6	1.6	—	16.3
1996	183,489,567	66.5	8.7	6.2	1.3	1.3	—	16.1
1995	185,119,992	64.3	9.1	6.3	1.6	1.4	—	17.2
1994	181,500,339	65.4	9.9	6.3	—	—	—	18.4
1993	184,426,948	66.7	10.0	6.4	1.2	1.4	—	14.2
1992	183,081,207	66.3	10.1	6.6	1.3	1.3	—	14.3
1991	193,550,425	70.2	9.5	6.1	0.8	0.7	—	12.7
1990	179,286,902	72.0	9.7	6.4	0.3	0.8	—	10.8
1989	172,612,189	75.0	8.8	5.7	0.7	0.9	—	8.9
1988	176,544,042	76.9	8.2	4.9	0.6	1.2	—	8.2
1987	181,750,326	78.6	7.7	4.2	0.5	1.1	—	7.9
1986	183,681,389	79.6	7.3	4.0	0.6	1.0	—	7.4
1985	188,186,597	80.0	7.7	4.0	0.6	0.8	—	6.9
1984	168,100,611	79.3	7.9	4.0	0.6	1.2	—	7.2

*In 2004, the General Services Administration and the Office of Federal Procurement Policy (OFPP) introduced the fourth generation of the FPDS. The FPDS-NG data shown here for FY 2004–FY 2007 reflect all contract actions available for small business competition (excluding some categories), not just those over \$25,000. The figures are not strictly comparable with those shown for previous years. DOD = Department of Defense; DOE = Department of Energy; NASA = National Aeronautics and Space Administration; HHS = Department of Health and Human Services; VA = Department of Veterans Affairs; DHS = Department of Homeland Security.

—No data available. Also, no data are available prior to 2002 for DHS, which was created that year.

Note: Percentages shown are the agencies' percentages of total contract dollars, not just small business contract dollars. See Table 3.3 for the agencies' share of dollars in small business contracts.

Source: General Services Administration, Federal Procurement Data System.

Table 3.3 Distribution of the Small Business Share of Dollars by Procuring Agency Source, FY 2006 and 2007

Funding Department	Total small business (thousands of dollars)		Small business distribution (percent)		Rank	
	FY 2006	FY 2007	FY 2006	FY 2007	FY 2006	FY 2007
Abraham Lincoln Bicentennial Commission (0938)	0	14	0.0	0.0	77	85
Advisory Commission on Intergovernmental Relations (5500)	584	265	0.0	0.0	57	67
Agency for International Development (1152)	858	882	0.0	0.0	53	60
Agency for International Development (7200)	51,126	22,325	0.1	0.0	24	33
Agriculture, Department of (1200)	2,032,089	2,509,215	2.6	3.0	5	5
Architectural and Transportation Barriers Compliance Board (9532)	116	216	0.0	0.0	70	71
Armed Forces Retirement Home (84AF)	8,246	18,666	0.0	0.0	40	35
Broadcasting Board of Governors (9568)	33,039	38,029	0.0	0.0	29	28
Chemical Safety and Hazard Investigation Board (9565)	1,057	1,741	0.0	0.0	50	54
Commerce, Department of (1300)	1,041,421	993,918	1.3	1.2	11	11
Commission on Civil Rights (9517)	0	217	0.0	0.0	78	70
Committee for Purchase from People who are Blind or Severely Disabled (9518)	927	75	0.0	0.0	51	78
Commodity Futures Trading Commission (9507)	2,976	3,121	0.0	0.0	46	47
Consumer Product Safety Commission (6100)	5,670	6,172	0.0	0.0	43	42
Corporation for National and Community Service (9577)	10,868	8,093	0.0	0.0	38	41
Court Security (1025)	144	0	0.0	0.0	68	88
Defense, Department of (9700)	51,316,934	55,047,209	66.1	66.1	1	1
Defense Nuclear Facilities Safety Board (9516)	2,356	2,983	0.0	0.0	47	49

Denali Commission (9572)	283	1,087	0.0	0.0	0.0	65	59
Education, Department of (9100)	174,020	225,239	0.2	0.3	0.3	19	20
Election Assistance Commission (9523)	0	262	0.0	0.0	0.0	79	68
Energy, Department of (8900)	1,206,386	1,420,660	1.6	1.7	1.7	10	10
Environmental Protection Agency (6800)	678,599	601,718	0.9	0.7	0.7	14	15
Equal Employment Opportunity Commission (4500)	11,353	12,265	0.0	0.0	0.0	37	38
Executive Office of the President (1100)	30,022	33,658	0.0	0.0	0.0	31	30
Farm Credit Administration (7800)	233	274	0.0	0.0	0.0	67	66
Federal Communications Commission (2700)	36,591	20,731	0.0	0.0	0.0	28	34
Federal Election Commission (9506)	1,444	4,243	0.0	0.0	0.0	49	44
Federal Emergency Management Agency (5800)	59,897	121,418	0.1	0.1	0.1	22	21
Federal Energy Regulatory Commission (8961)	4,637	2,092	0.0	0.0	0.0	44	51
Federal Financial Institutions Examination Council (9562)	427	500	0.0	0.0	0.0	61	64
Federal Housing Finance Board (9540)	815	93	0.0	0.0	0.0	54	76
Federal Labor Relations Authority (5400)	524	164	0.0	0.0	0.0	60	72
Federal Maritime Commission (6500)	577	700	0.0	0.0	0.0	59	61
Federal Mine Safety and Health Review Commission (9504)	27	28	0.0	0.0	0.0	73	84
Federal Public Defenders (1023)	0	54	0.0	0.0	0.0	80	81
Federal Reserve System, Board of Governors (9559)	0	0	0.0	0.0	0.0	81	89
Federal Trade Commission (2900)	15,447	16,279	0.0	0.0	0.0	33	37
General Services Administration (4700)	1,751,894	1,674,122	2.3	2.0	2.0	7	8
Government Accountability Office (0500)	0	73	0.0	0.0	0.0	82	79
Government Printing Office (0400)	866	24,966	0.0	0.0	0.0	52	32

Table 3.3 Distribution of the Small Business Share of Dollars by Procuring Agency Source, FY 2006 and 2007 (continued)

Funding Department	Total small business (thousands of dollars)		Small business distribution (percent)		Rank	
	FY 2006	FY 2007	FY 2006	FY 2007	FY 2006	FY 2007
Health and Human Services, Department of (7500)	2,780,278	2,959,570	3.6	3.6	4	4
Homeland Security, Department of (7000)	4,410,174	3,832,163	5.7	4.6	2	3
Housing and Urban Development, Department of (8600)	744,377	560,456	1.0	0.7	13	16
Interior, Department of the (1400)	1,389,190	1,594,490	1.8	1.9	9	9
International Trade Commission (3400)	0	447	0.0	0.0	83	65
J. F. Kennedy Center for the Performing Arts (3352)	588	3,382	0.0	0.0	56	46
Justice, Department of (1500)	1,570,552	1,759,706	2.0	2.1	8	7
Labor, Department of (1600)	575,049	604,682	0.7	0.7	16	14
Library of Congress (0300)	10	1,983	0.0	0.0	74	52
Merit Systems Protection Board (4100)	691	684	0.0	0.0	55	62
Millennium Challenge Corporation (9543)	13,767	11,888	0.0	0.0	34	39
Mississippi River Commission (9668)	0	55	0.0	0.0	84	80
National Aeronautics and Space Administration (8000)	1,938,444	1,967,411	2.5	2.4	6	6
National Archives and Records Administration (8800)	32,795	31,774	0.0	0.0	30	31
National Capital Planning Commission (9502)	389	1,505	0.0	0.0	62	56
National Commission on Libraries and Information Science (9527)	128	129	0.0	0.0	69	74
National Endowment for the Arts (5920)	1,554	144	0.0	0.0	48	73
National Endowment for the Humanities (5940)	0	1,864	0.0	0.0	85	53
National Foundation on the Arts and the Humanities (5900)	0	664	0.0	0.0	86	63

National Gallery of Art (3355)	76	2,340	0.0	0.0	71	50
National Labor Relations Board (6300)	6,145	3,017	0.0	0.0	41	48
National Mediation Board (9524)	2	41	0.0	0.0	76	82
National Science Foundation (4900)	39,367	39,463	0.1	0.0	26	27
National Transportation Safety Board (9508)	3,433	4,131	0.0	0.0	45	45
Nuclear Regulatory Commission (3100)	49,868	68,580	0.1	0.1	25	23
Occupational Safety and Health Review Commission (9514)	12,658	16,518	0.0	0.0	35	36
Office of Federal Inspector for Alaska Natural Gas Transportation System (5200)	0	4	0.0	0.0	87	87
Office of Government Ethics (9549)	29	83	0.0	0.0	72	77
Office of Personnel Management (2400)	157,048	352,452	0.2	0.4	20	18
Office of Special Counsel (6201)	290	117	0.0	0.0	64	75
Peace Corps (1145)	29,120	61,057	0.0	0.1	32	25
Railroad Retirement Board (6000)	5,761	5,415	0.0	0.0	42	43
Securities and Exchange Commission (5000)	37,109	41,433	0.0	0.0	27	26
Selective Service System (9000)	368	1,724	0.0	0.0	63	55
Small Business Administration (7300)	55,803	64,552	0.1	0.1	23	24
Smithsonian Institution (3300)	112,602	103,896	0.1	0.1	21	22
Social Security Administration (2800)	258,709	250,413	0.3	0.3	18	19
Special Rail Reorganization Court (1037)	0	10	0.0	0.0	88	86
State Justice Institute (4817)	0	1,192	0.0	0.0	89	57
State, Department of (1900)	901,350	902,596	1.2	1.1	12	12
The Judicial Branch (1000)	577	1,108	0.0	0.0	58	58
The Legislative Branch (0000)	12,143	33,756	0.0	0.0	36	29

Table 3.3 Distribution of the Small Business Share of Dollars by Procuring Agency Source, FY 2006 and 2007 (continued)

Funding Department	Total small business (thousands of dollars)		Small business distribution (percent)		Rank	
	FY 2006	FY 2007	FY 2006	FY 2007	FY 2006	FY 2007
Transportation, Department of (6900)	607,719	755,742	0.8	0.9	15	13
Treasury, Department of the (2000)	566,812	553,970	0.7	0.7	17	17
U.S. Claims Court (1005)	0	231	0.0	0.0	90	69
U.S. Court of International Trade (1004)	5	-1	0.0	0.0	75	91
U.S. Court of Veteran Appeals (9593)	281	35	0.0	0.0	66	83
U.S. Tax Court (2300)	0	0	0.0	0.0	91	90
United States Trade and Development Agency (1153)	9,529	9,608	0.0	0.0	39	40
Veterans Affairs, Department of (3600)	2,862,900	3,854,688	3.7	4.6	3	2
Total, all agencies	77,670,194	83,274,930	100.0	100.0		

Note: Data were obtained from SBA's website. Some funding departments were deleted based on the following criteria. Removed from 2006 lists are records that had no dollar value in FY 2006 or FY 2007. Removed from the FY 2007 list are records that had no dollar amount FY 2007 and were nonexistent in FY 2006.

Table 3.4 Small Business Share of Dollars by Top 25 Major Procuring Agencies, Fiscal Years 2006 and 2007

Agency	FY 2006			FY 2007			FY 2006		FY 2007	
	Total (thousands of dollars)	Small business (thousands of dollars)	Total (thousands of dollars)	Small business (thousands of dollars)	Small business share (percent)	Small business share (percent)	Small business share (percent)	Small business share (percent)	Share rank	Share rank
Department of Housing and Urban Development	1,122,217	744,377	880,999	560,456	66.3	63.6	63.6	1	1	
Department of the Interior	2,503,550	1,389,190	2,684,950	1,594,490	55.5	59.4	59.4	3	2	
Department of Agriculture	4,119,558	2,032,089	4,603,949	2,509,215	49.3	54.5	54.5	5	3	
Smithsonian Institution	197,699	112,602	201,334	103,896	57.0	51.6	51.6	2	4	
Department of Transportation	1,478,177	607,719	1,485,258	755,742	41.1	50.9	50.9	6	5	
Department of Commerce	2,097,398	1,041,421	2,160,395	993,918	49.7	46.0	46.0	4	6	
Nuclear Regulatory Commission	135,839	49,868	159,304	68,580	36.7	43.0	43.0	11	7	
Department of State	2,300,050	901,350	2,147,046	902,596	39.2	42.0	42.0	8	8	
Environmental Protection Agency	1,704,470	678,599	1,452,849	601,718	39.8	41.4	41.4	7	9	
Department of Homeland Security	13,954,853	4,410,174	10,703,911	3,832,163	31.6	35.8	35.8	15	10	
General Services Administration	5,437,701	1,751,894	4,892,095	1,674,122	32.2	34.2	34.2	13	11	
Securities and Exchange Commission	99,149	37,109	122,159	41,433	37.4	33.9	33.9	9	12	
Department of Veterans Affairs	9,972,595	2,862,900	11,735,412	3,854,688	28.7	32.8	32.8	18	13	
Social Security Administration	814,667	258,709	783,589	250,413	31.8	32.0	32.0	14	14	
Department of Labor	1,736,453	575,049	1,940,055	604,682	33.1	31.2	31.2	12	15	
Department of the Treasury	1,928,622	566,812	1,926,096	553,970	29.4	28.8	28.8	16	16	
Department of Justice	4,266,358	1,570,552	6,763,711	1,759,706	36.8	26.0	26.0	10	17	
Federal Emergency Management Agency	506,498	59,897	482,236	121,418	11.8	25.2	25.2	24	18	
Office of Personnel Management	542,660	157,048	1,402,367	352,452	28.9	25.1	25.1	17	19	

Table 3.4 Small Business Share of Dollars by Top 25 Major Procuring Agencies, Fiscal Years 2006 and 2007 (continued)

Agency	FY 2006		FY 2007		FY 2006		FY 2007	
	Total (thousands of dollars)	Small business (thousands of dollars)	Total (thousands of dollars)	Small business (thousands of dollars)	Small business share (percent)	Small business share (percent)	Share rank	Share rank
Department of Health and Human Services	11,838,822	2,780,278	13,580,806	2,959,570	23.5	21.8	19	20
Department of Defense	234,951,480	51,316,934	269,312,095	55,047,209	21.8	20.4	20	21
Department of Education	1,415,217	174,020	1,437,744	225,239	12.3	15.7	23	22
National Aeronautics and Space Administration	13,049,292	1,938,444	12,811,828	1,967,411	14.9	15.4	21	23
Agency for International Development	379,373	51,983	283,981	23,208	13.7	8.2	22	24
Department of Energy	22,465,121	1,206,386	22,803,051	1,420,660	5.4	6.2	25	25
Total	339,017,818	77,275,405	376,757,220	82,778,952	22.8	22.0		

Note: The FPDS-NG data shown here reflect all contract actions available for small business competition (excluding some categories), not just those over \$25,000. Source: General Services Administration, Federal Procurement Data System and Global Computer Enterprises, Inc.

Small Business Innovation Research

The Small Business Innovation Development Act requires the federal departments and agencies with the largest extramural research and development (R&D) budgets to award a portion of their R&D funds to small businesses.¹¹ Ten government agencies with extramural research and development obligations over \$100 million initially participated in this program: the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, and Transportation, and the Environmental Protection Agency, the National Aeronautics and Space Administration, and the National Science Foundation. A total of about \$23.2 billion has been awarded to small businesses over the 25 years of the Small Business Innovation Research (SBIR) program (*Table 3.5*).¹²

The SBIR program continues to be successful, not only for small businesses and participating federal agencies, but for the American public, which benefits from the new products and services developed. A number of important innovations have been developed by small businesses in the program, for example:

- **Time Domain Corporation** is a leader in ultra-wideband radio frequency technology.
- **Impact Technologies'** Smart Oil Sensor (SOS) monitors contaminants in lubricants such as water, fuel, and soot.
- **Thermacore** is a leader in heat pipe technology, with more than 2 million heat pipes using powder metal wicks built into computer processors since the SBIR innovation. Thermacore's technology is found in almost all laptop computers sold today and has been used successfully to cool many other types of electronics, industrial drives, telecommunications equipment, and automotive and consumer electronics. Customers for Thermacore's innovative heat pipe technology include Intel, the maker of the Pentium II and III processors, and Compaq.¹³

11 Public Law 97-219, Public Law 102-564.

12 FY 2007 figures for the Small Business Innovation Research program are preliminary.

13 These companies are examples; in no way is their mention here a direct or implied endorsement of their products by the U.S. Small Business Administration. More extensive listings of SBIR accomplishments may be seen at these websites: DOD, <http://www.dodsbir.net/SuccessStories/default.htm>; National Aeronautics and Space Administration, <http://sbir.nasa.gov/SBIR/successes/techcon.html>; Health and Human Services (National Institutes of Health), http://grants1.nih.gov/grants/funding/sbir_successes/sbir_successes.htm.

Table 3.5 Small Business Innovation Research Program, FY 1983 – FY 2007

Fiscal year	Phase I		Phase II		Total awards (millions of dollars)
	Number of proposals	Number of awards	Number of proposals	Number of awards	
Total	481,915	72,255	57,631	28,384	23,228.6
2007*	22,278*	3,909*	2,912*	1,615*	1,777.6*
2006	24,305	3,836	3,267	2,026	2,113.9
2005	26,003	4,300	4,180	1,871	2,029.8
2004	30,766	4,638	3,604	2,013	1,867.4
2003	27,992	4,465	3,267	1,759	1,670.1
2002	22,340	4,243	2,914	1,577	1,434.8
2001	16,666	3,215	2,566	1,533	1,294.4
2000	17,641	3,172	2,533	1,335	1,190.2
1999	19,016	3,334	2,476	1,256	1,096.5
1998	18,775	3,022	2,480	1,320	1,100.0
1997	19,585	3,371	2,420	1,404	1,066.7
1996	18,378	2,841	2,678	1,191	916.3
1995	20,185	3,085	2,856	1,263	981.7
1994	25,588	3,102	2,244	928	717.6
1993	23,640	2,898	2,532	1,141	698.0
1992	19,579	2,559	2,311	916	508.4
1991	20,920	2,553	1,734	788	483.1
1990	20,957	2,346	2,019	837	460.7
1989	17,233	2,137	1,776	749	431.9
1988	17,039	2,013	1,899	711	389.1
1987	14,723	2,189	2,390	768	350.5
1986	12,449	1,945	1,112	564	297.9
1985	9,086	1,397	765	407	199.1
1984	7,955	999	559	338	108.4
1983	8,814	686	127	74	44.5

* FY 2007 figures are preliminary.

Note: Phase I evaluates the scientific and technical merit and feasibility of an idea. Phase II expands on the results and further pursues the development of Phase I. Phase III commercializes the results of Phase II and requires the use of private or non-SBIR federal funding. The Phase II proposals and awards in FY 1983 were pursuant to predecessor programs that qualified as SBIR funding.

Source: U.S. Small Business Administration, Office of Innovation, Research, and Technology (annual reports for FY 1983 – FY 2007).

Procurement from Minority- and Women-owned Businesses

Small women-owned businesses' share of federal procurement dollars was 3.4 percent in both FY 2006 and FY 2007 (*Table 3.6*). The actual dollars awarded in FY 2007 increased from \$11.6 billion in FY 2006 to \$12.9 billion in FY 2007 (*Table 3.7*). Small disadvantaged businesses were awarded \$24.9 billion, or 6.58 percent of FY 2007 contracting dollars. Participants in the SBA 8(a) program were awarded 3.6 percent or \$13.5 billion of FY 2007 contracting dollars.¹⁴ In FY 2006 they were awarded 3.7 percent of the total procurement dollars or \$12.5 billion (*Table 3.8*).

Veteran and Service-Disabled Veteran Business Owners

Service-disabled veteran business owners are now among the socioeconomic groups monitored in the federal procurement marketplace. Public Law 106-50 established a statutory goal of 3 percent of all prime and subcontracting dollars to be awarded to service-disabled veterans. Public Law 108-183 fortified this requirement by providing the contracting officer with the authority to sole source and restrict bidding on contracts to service-disabled veteran-owned businesses. In FY 2007, service-disabled veteran-owned small businesses won \$3.81 billion, or 1.01 percent of prime contract awards, up from 0.87 percent in FY 2006.

Historically Underutilized Business Zones

Historically underutilized business zone (HUBZone) small business owners were awarded \$8.46 billion, or 2.2 percent of the FY 2007 procurement dollars toward the statutory HUBZone goal of 5 percent.

14 The 8(a) program, named for Section 8(a) of the Small Business Act, is a business development program created to help small disadvantaged businesses compete in the marketplace. The procurement aspect of the program allows SBA to accept a competitive procurement offering on behalf of the 8(a) program or a sole-source procurement on behalf of an 8(a)-qualified firm. For more information about the 8(a) program, see <http://www.sba.gov/aboutsba/sbaprograms/8abd/>.

Table 3.6 Prime Contract Awards by Recipient Category (billions of dollars)

	FY 2005		FY 2006		FY 2007	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Total awards to all businesses	320.31	100.00	340.21	100.00	378.50	100.00
Small businesses	75.00	25.35	77.67	22.82	83.27	22.00
Small disadvantaged businesses (SDBs)	20.98	6.55	22.95	6.75	24.9	6.58
8(a) businesses*	11.79	3.68	12.47	3.86	13.46	3.56
HUBZone businesses	6.18	1.93	7.16	2.10	8.46	2.24
Women-owned small businesses	10.18	3.18	11.61	3.41	12.92	3.41
Service-disabled veteran-owned small businesses	1.94	0.6	1.95	0.87	3.81	1.01

*8(a) contracts are a subset of the small disadvantaged business category.

Source: General Services Administration, Federal Procurement Data System.

Conclusion

Small businesses continue to be a primary source of new firms, new jobs, and innovation, and are the economic backbone of the nation. In FY 2007, the federal government and its prime contractors awarded more than \$147 billion in federal prime contracts and subcontracts to small firms. Small businesses are eager to compete for a share of the federal procurement marketplace and will continue to win their share of federal contract dollars, given a level playing field.

Table 3.7 Annual Change in the Dollar Volume of Contract Over \$25,000 Awarded to Small, Women-Owned, and Minority-Owned Businesses, FY 1980 – FY 2003 and in Total, FY 2005–FY 2007* (thousands of dollars)

	Total, all business			Small business			Women-owned business			Minority-owned business		
	Change from prior year			Change from prior year			Change from prior year			Change from prior year		
	Total (thousands of dollars)	Thousands of dollars	Percent	Total (thousands of dollars)	Thousands of dollars	Percent	Total (thousands of dollars)	Thousands of dollars	Percent	Total (thousands of dollars)	Thousands of dollars	Percent
2007*	378,507,759	38,295,758	11.3	83,273,930	5,604,737	7.2	12,925,553	1,309,473	11.3	24,906,169	1,915,758	8.3
2006*	340,212,001	19,902,749	6.2	77,670,193	2,670,193	3.6	11,616,080	1,428,610	14.0	22,990,411	2,007,843	9.6
2005*	320,309,252	20,423,154	6.8	75,000,000	11,396,111	16.7	10,187,470	1,402,383	15.4	20,982,568	3,177,081	17.1
2004*	299,886,098	--	--	68,228,772	--	--	9,091,919	--	--	18,538,012	--	--
2003	292,319,145	47,740,664	19.5	59,813,330	12,587,280	26.7	8,212,453	1,534,833	23.0	18,903,087	3,595,020	23.5
2002	244,578,481	21,476,465	9.6	47,226,050	461,545	1.0	6,677,620	-3,595	-0.1	15,308,067	754,369	5.2
2001	223,338,280	17,490,979	8.5	46,764,505	7,983,057	20.6	6,681,215	2,226,212	50.0	14,553,698	1,966,900	15.6
2000	205,847,301	20,722,610	11.2	38,781,448	3,036,256	8.5	4,455,003	427,264	10.6	12,586,798	727,575	6.1
1999	185,124,691	1,013,686	0.6	35,745,192	1,485,753	4.3	4,027,739	485,838	13.7	11,859,223	414,203	3.6
1998	184,111,005	5,186,111	2.9	34,259,439	-7,013,742	-17.0	3,541,901	-48,406	-1.3	11,445,020	312,398	2.8
1997	178,924,894	-4,558,799	-2.5	41,273,181	8,082,760	24.4	3,590,307	621,845	20.9	11,132,622	491,851	4.6
1996	183,483,693	-1,636,299	-0.9	33,190,421	1,383,158	4.3	2,968,462	148,214	5.3	10,640,771	121,302	1.2
1995	185,119,992	3,619,653	2.0	31,807,263	3,384,230	11.9	2,820,248	508,700	22.0	10,519,469	1,459,981	16.1
1994	181,500,339	-2,926,609	-1.6	28,423,033	475,592	1.7	2,311,548	262,828	12.8	9,059,488	255,468	2.9
1993	184,426,948	1,345,741	0.7	27,947,441	-282,308	-1.0	2,048,720	56,155	2.8	8,804,020	1,007,913	12.9
1992	183,081,207	-10,469,218	-5.4	28,229,749	-617,609	-2.1	1,992,565	227,399	12.9	7,796,107	1,309,818	20.2
1991	193,550,425	14,263,523	8.0	28,847,358	3,445,732	13.6	1,765,166	287,272	19.4	6,486,289	796,229	14.0

Table 3.7 Annual Change in the Dollar Volume of Contract Over \$25,000 Awarded to Small, Women-Owned, and Minority-Owned Businesses, FY 1980 – FY 2003 and in Total, FY 2005-FY 2007* (thousands of dollars) (continued)

	Total, all business			Small business			Women-owned business			Minority-owned business		
	Total (thousands of dollars)	Change from prior year		Total (thousands of dollars)	Change from prior year		Total (thousands of dollars)	Change from prior year		Total (thousands of dollars)	Change from prior year	
		Thousands of dollars	Percent		Thousands of dollars	Percent		Thousands of dollars	Percent		Thousands of dollars	Percent
1990	179,286,902	6,674,713	3.9	25,401,626	1,685,455	7.1	1,477,894	74,955	5.3	5,690,060	356,172	6.7
1989	172,612,189	-3,931,853	-2.2	23,716,171	-1,955,147	-7.6	1,402,939	75,215	5.7	5,333,888	141,382	2.7
1988	176,544,042	-5,206,284	-2.9	25,671,318	-2,256,401	-8.1	1,327,724	74,839	6.0	5,192,506	343,381	7.1
1987	181,750,326	-1,931,063	-1.1	27,927,719	-852,373	-3.0	1,252,885	56,034	4.7	4,849,125	563,200	13.1
1986	183,681,389	-4,505,240	-2.4	28,780,092	2,077,397	7.8	1,196,851	102,643	9.4	4,285,925	401,286	10.3
1985	187,985,466	20,085,235	12.0	26,702,695	1,196,672	4.7	1,094,208	238,077	27.8	3,884,639	-119,500	-3.0
1984	167,933,486	12,513,288	8.0	25,506,023	3,425,999	15.5	856,131	244,755	40.0	4,004,139	817,048	25.6
1983	155,588,106	3,190,222	2.1	22,080,024	-1,478,539	-6.3	611,376	60,775	11.0	3,187,091	328,180	11.5
1982	152,397,884	23,533,140	18.3	23,558,563	3,489,774	17.4	550,601	-534,772	-49.3	2,858,911	223,903	8.5
1981	128,864,744	27,971,359	27.7	20,068,789	4,742,668	30.9	1,085,373	297,844	37.8	2,635,008	813,087	44.6
1980	100,893,385	-	-	15,326,121	-	-	787,529	-	-	1,821,921	-	-

-- Less than 0.05 percent.

* For FY 2004 and subsequent years, the new FPDS-NG data reflect all contract actions available for small business competition (excluding some categories), not just those over \$25,000. The figures are not strictly comparable with those shown for previous years; therefore, the FY 2003-FY 2004 change is not shown.

Source: Federal Procurement Data System, "Special Report S89522C" (prepared for the U.S. Small Business Administration, Office of Advocacy, June 12, 1989); and Idem., Federal Procurement Report (Washington, D.C.: U.S. Government Printing Office, July 10, 1990, March 13, 1991, February 3, 1994, January 13, 1997, 1998, 1999, 2000), Eagle Eye Publishers, and Federal Procurement Data System, FPDS-NG.

Table 3.8 Contract Actions Over \$25,000, FY 1984–FY 2003, and FY 2006 Total* with Annual 8(a) Set-Aside Breakout

Fiscal year	Thousands of dollars		8(a) share (percent)
	Total	8 (a) set-aside	
2007*	378,507,759	13,462,752	3.6
2006*	340,212,001	12,478,606	3.7
2005*	320,309,252	11,790,162	3.7
2004*	299,886,098	8,438,046	2.8
2003	292,319,145	10,043,219	3.4
2002	258,125,273	7,868,727	3.0
2001	248,985,613	6,339,607	2.5
2000	207,537,686	5,785,276	2.8
1999	188,865,248	6,125,439	3.2
1998	184,176,554	6,527,210	3.5
1997	179,227,203	6,510,442	3.6
1996	183,489,567	6,764,912	3.7
1995	185,119,992	6,911,080	3.7
1994	181,500,339	5,977,455	3.3
1993	184,426,948	5,483,544	3.0
1992	183,081,207	5,205,080	2.8
1991	193,550,425	4,147,148	2.1
1990	179,286,902	3,743,970	2.1
1989	172,612,189	3,449,860	2.0
1988	176,544,042	3,528,790	2.0
1987	181,750,326	3,341,841	1.8
1986	183,681,389	2,935,633	1.6
1985	188,186,629	2,669,174	1.4
1984	168,101,394	2,517,738	1.5

*For FY 2004–FY 2007, the new FPDS-NG data shown here reflect all contract actions available for small business competition (excluding some categories), not just those over \$25,000. The figures are not strictly comparable with those shown for previous years.

Source: General Services Administration, Federal Procurement Data System.

4 PROFILE *of* SMALL BUSINESSES *and* INTERNATIONAL TRADE

Synopsis

In 2007 U.S. real exports rose by 7.9 percent—compared with an increase of 2.2 percent in real GDP. Much of the U.S. surge in exports was attributable to the strength of other currencies relative to the U.S. dollar. The increase helped to lessen the existing U.S. trade deficit, as real imports, although at a higher level, increased at a lower rate of 2.0 percent.

How are small businesses faring in this international trade climate? Clearly, there is room for growth. Small firms with fewer than 500 employees make up 97.3 percent of identified U.S. exporting companies. The total known value of exports has continued to increase, nearly doubling to \$910.5 billion over the 1996–2006 decade. The small firm share of that value has declined slightly over the past decade, from 31.1 percent in 1996 to 28.9 percent in 2006.

What equips small firms for exporting? Some international indices pinpoint innovation as a strength of U.S. companies, and studies by the Office of Advocacy have found that small firms can play a pivotal role in innovation.

The challenges are also there for small firm competitiveness in a global marketplace. They include exchange rate risk, strong global competition, a variety of regulatory and legal frameworks, and intellectual property concerns, among others.

Small businesses have often ignored the international marketplace because they could. In a globalized economy, more and more small firms will need to consider export opportunities as an important key to survival and growth, and a variety of tools are available to help them make the transition to world-class business success.

Exporting and Importing Trends

Growth in the U.S. economy has stemmed from what might seem an unlikely source in the last few years: rising exports. While real gross domestic product (GDP) grew 2.2 percent between 2006 and 2007, real exports increased 7.9 percent. The previous three years saw real exports up 9.7, 6.9, and 8.4 percent

in 2004, 2005, and 2006, respectively. Much of the positive news on exporting—especially in 2007, but in the prior years as well—was a result of lower exchange rates on the dollar relative to other currencies. The cheaper dollar has made U.S. goods and services more competitive. The faster growth in real exports than in real imports, which rose just 2.0 percent, helped to improve the trade balance in 2007.

Americans still consume \$560 billion more in imports than they export—five times more than 10 years ago. Table 4.1 illustrates the growth in real exports and imports from 1997 to 2007. For much of that time, real import growth outstripped increases in real exports. Moreover, trade has become an ever larger portion of U.S. real GDP. Real exports have grown from 10.8 percent of real GDP in 1997 to 12.2 percent in 2007. The challenge for the United States is that real imports have grown even faster as a proportion of real GDP—from 12.0 percent in 1997 to 17.0 percent 10 years later. To shrink the trade deficit with the rest of the world, it will be important either to curtail the growth of real imports or to encourage rapid increases in real exports or both. A cheaper dollar helps, but the solution lies with finding new markets for American goods and services. The innovative capacities of many new and small firms have an important role to play.

Figures 4.1 through 4.4 show trends since 1999 in the international trade of goods from the United States. The largest gains have stemmed from non-automotive sector capital goods (including machinery, computers, and civilian aircraft) and industrial supplies and materials (including raw agricultural goods, energy products, textiles, chemicals, and metal products). Between 1999 and 2007, American companies increased exports of nonautomotive sector capital goods by 52 percent to \$114.7 billion, while imports of these goods were up 61.7 percent to \$112.8 billion. Exports of U.S. industrial supplies grew 138.4 percent to \$81.8 billion, and imports increased 239.2 percent to \$161.0 billion over the same timeframe. Two other sectors also saw increases, but on a smaller scale. Exports in foods, feeds, and beverages expanded from \$11.0 billion to \$22.7 billion, with imports moving from \$10.6 billion to \$20.9 billion. Automotive vehicle exports and imports were \$32.2 billion and \$67.1 billion, respectively, in 2007—up from \$18.3 billion and \$42.6 billion in 1999.

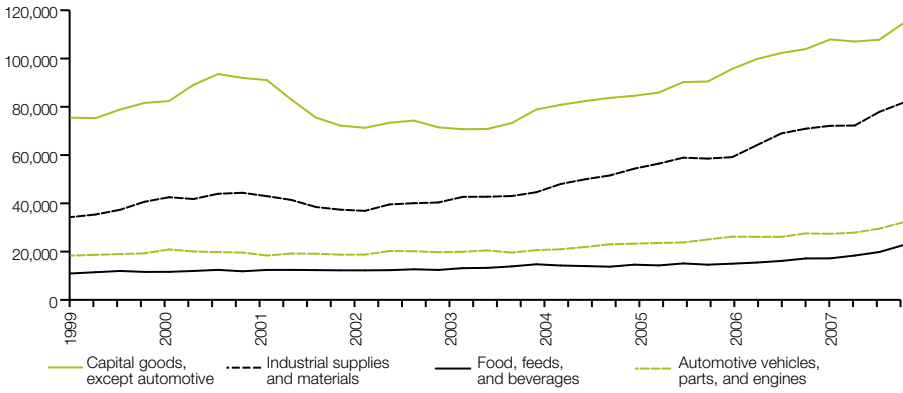
Asia and the Pacific traded the largest volume of goods with the United States. Indeed, the biggest story was the rapid rise of imports from Asia, from \$89.8 billion in 1999 to \$186.8 billion in 2007. Imports from China accounted for 46.4 percent of all imports from Asia and the Pacific in 2007, \$86.6 billion.

Table 4.1 U.S. Real Gross Domestic Product (GDP), Exports, and Imports, 1997-2007 (billions of chained 2000 dollars; annual growth rates in parentheses)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Real GDP (percent)	8,703.5 (4.5)	9,066.9 (4.2)	9,470.4 (4.5)	9,817.0 (3.7)	9,890.7 (0.8)	10,048.9 (1.6)	10,301.1 (2.5)	10,675.7 (3.6)	11,003.5 (3.1)	11,319.4 (2.9)	11,567.3 (2.2)
Real exports (percent)	943.7 (11.9)	966.5 (2.4)	1,008.2 (4.3)	1,096.3 (8.7)	1,036.7 (-5.4)	1,013.3 (-2.3)	1,026.1 (1.3)	1,126.1 (9.7)	1,203.4 (6.9)	1,304.1 (8.4)	1,407.6 (7.9)
Real imports (percent)	1,048.4 (13.6)	1,170.3 (11.6)	1,304.5 (11.5)	1,475.8 (13.1)	1,435.8 (-2.7)	1,484.6 (3.4)	1,545.0 (4.1)	1,720.0 (11.3)	1,821.5 (5.9)	1,928.6 (5.9)	1,967.6 (2.0)
Net real exports	-104.6	-203.8	-296.3	-379.5	-399.1	-471.3	-518.9	-593.9	-618.0	-624.5	-560.0
Real exports as a percent of real GDP	10.8	10.7	10.6	11.2	10.5	10.1	10.0	10.5	10.9	11.5	12.2
Real imports as a percent of real GDP	12.0	12.9	13.8	15.0	14.5	14.8	15.0	16.1	16.6	17.0	17.0

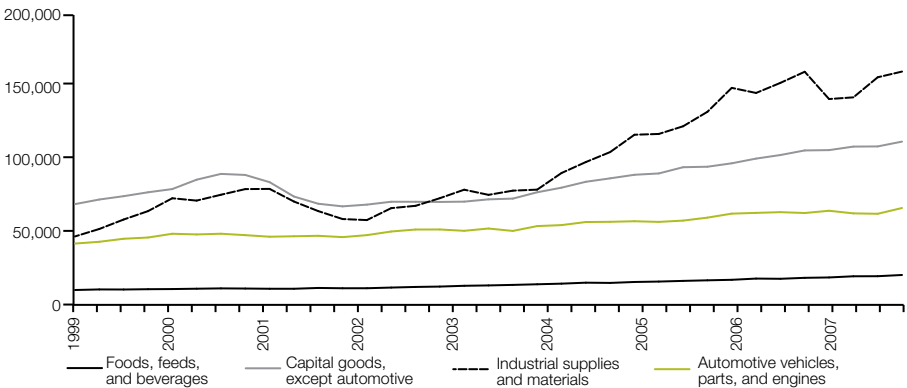
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Figure 4.1 Export of Goods by Category, 1999–2007 (millions of dollars, seasonally adjusted)



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Figure 4.2 Imports of Goods by Category, 1999–2007 (millions of dollars, seasonally adjusted)

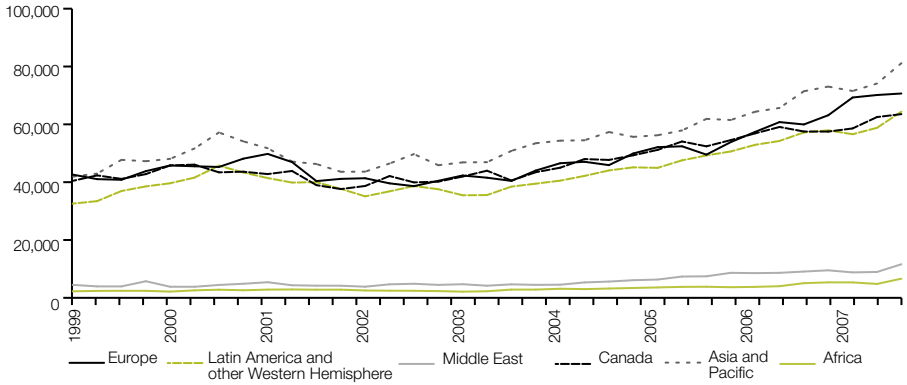


Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Exports of goods to Asia and China rose 93.6 and 506.5 percent, respectively, to \$81.1 billion and \$16.8 billion. Even with the large gains in exports to China, the United States had a trade deficit with China of \$69.8 billion at the end of 2007. Other regions also saw their exports and imports rise over the period, including Europe, Canada, and Latin America.

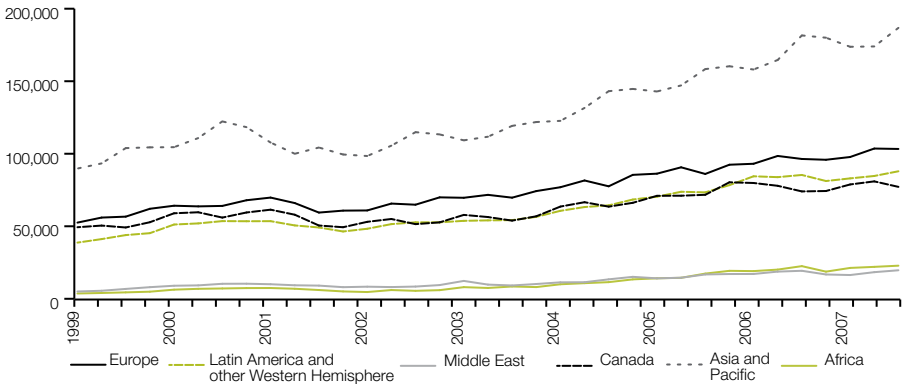
Services is one area in which the United States maintained a trade surplus as service-based exports and imports grew over the past 10 years (*Figure 4.5*).

Figure 4.3 Geographic Regions for U.S. Exported Goods, 1999–2007 (millions of dollars, seasonally adjusted)



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Figure 4.4 Geographic Regions of Origin for U.S. Imported Goods, 1999–2007 (millions of dollars, seasonally adjusted)

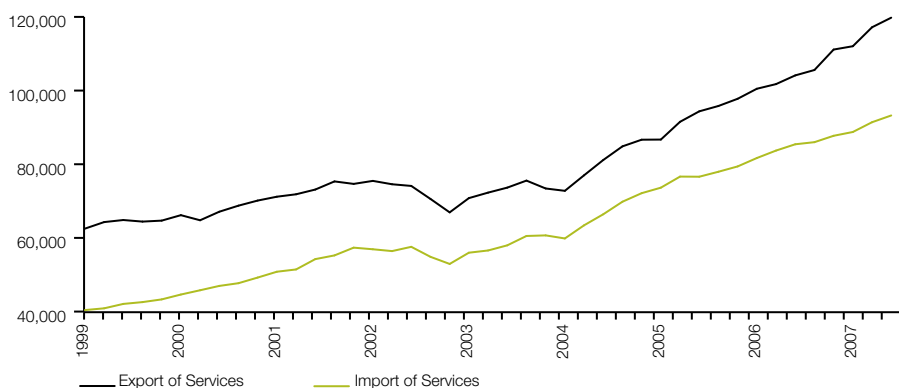


Source: U.S. Department of Commerce, Bureau of Economic Analysis.

The export of services from the United States averaged \$63.9 billion in 1997 and \$116.3 billion in 2007; service-based imports were \$41.5 billion and \$91.1 billion in 1997 and 2007, respectively.

Small firms play a vital role in the global marketplace, but their individual transactions are less likely than those of larger enterprises to garner much attention in the media. Collectively, 239,287 small businesses are known to have been involved in the export business in 2006, the most recent year

Figure 4.5 Exports and Imports of Services, 1997–2007 (millions of dollars, seasonally adjusted)



Notes: These figures include some goods, such as major equipment, supplies, and petroleum products purchased abroad by U.S. military agencies and fuels purchased by airline and steamship operators.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. international transactions*.

with data by firm size. These companies constitute 97.3 percent of all known exporters, and they engage in \$263.0 billion in known transactions—28.9 percent of the total (*Table 4.2*).¹ Small business exporters are diverse: one-third of small firm exports were in manufacturing, compared with three-fourths of all large business exports.

The known number of exporting companies grew steadily over the 1990s, peaking in 2000 (*Table 4.3 and Figures 4.6 and 4.7*). Following the recession in 2001, the number of known exporters fell and then rose gradually over the next few years, returning in 2006 to the 2000 level. Wholesalers generated much of the recent growth in the number of both all and small known exporters.

The known value of exports grew from \$500.7 billion in 1996 to \$910.5 billion in 2006. Small firms have seen their share of the total known value fall from 31.1 to 28.9 percent over that time period, reflecting slower small firm than large firm export growth. This suggests that small businesses have not fully exploited their potential in global exports. The decreasing small business share was especially pronounced for wholesalers, whose share of the known value of exports declined from 74.1 to 53.6 percent (*Figure 4.7*).

1 The use of the term “known” implies that not all trade data can be linked to particular firms. For example, in profiling exporting companies, the U.S. Census Bureau uses “known export value” to mean the portion of U.S. total exports that could be matched to specific companies.

Table 4.2 U.S. Exports by Employment Size, 2006

	Total	Employment size of firm						Percent		
		0	1-19	20-99	100-499	<500	500+	<20	<500	500+
Number of identified exporters										
All identified companies	245,945	76,115	101,254	45,702	16,216	239,287	6,658	72.1	97.3	2.7
Manufacturers	67,757	12,869	21,696	21,734	8,693	64,992	2,765	51.0	95.9	4.1
Wholesalers	82,323	21,995	43,948	12,607	3,000	81,550	773	80.1	99.1	0.9
Other companies	88,669	34,408	35,434	11,302	4,460	85,604	3,065	78.8	96.5	3.5
Unclassified companies	7,196	—	—	—	—	—	—	—	—	—
Known value of exports (millions of dollars)										
All identified companies	910,465	63,022	61,850	58,049	80,078	262,999	647,466	13.7	28.9	71.1
Manufacturers	578,475	22,192	5,817	18,819	43,754	90,582	487,893	4.8	15.7	84.3
Wholesalers	203,094	19,984	38,967	25,791	24,052	108,795	94,299	29.0	53.6	46.4
Other companies	122,897	17,252	16,533	13,028	11,645	58,457	64,440	27.5	47.6	52.4
Unclassified companies	5,999	—	—	—	—	—	—	—	—	—

Notes: Firms with zero employees includes observations with missing employment data, nonemployers, and companies that reported annual payroll but did not report any employees on their payroll during specified period(s) in 2006. The known value of exports is defined as the portion of U.S. total exports that could be matched to specific companies.

Source: U.S. Census Bureau, Foreign Trade Division, *Profile of U.S. exporting companies*.

Table 4.3 U.S. Exports for All Identified Companies, 1996–2006

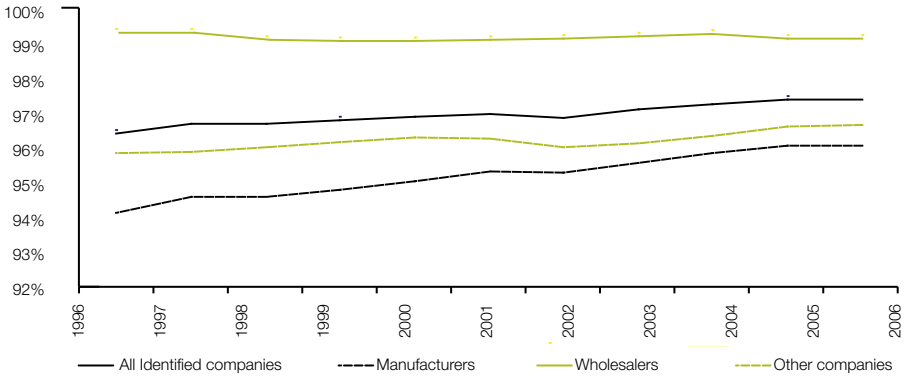
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number of identified exporters											
All identified companies	189,762	213,664	215,259	231,420	246,452	241,762	223,933	227,300	232,828	240,376	245,945
Manufacturers	61,665	63,756	64,001	65,795	69,253	69,699	63,268	65,045	67,051	67,684	67,757
Wholesalers	62,330	66,024	65,381	68,100	72,323	73,186	71,059	73,777	77,336	80,229	82,323
Other companies	60,962	67,172	74,118	84,578	90,331	87,815	81,153	80,337	80,499	85,276	88,669
Unclassified companies	4,715	16,712	11,759	12,947	14,545	11,062	8,453	8,141	7,942	7,187	7,196
All identified small companies	182,719	206,321	207,851	223,681	238,529	234,124	216,646	220,435	226,200	233,855	239,287
Manufacturers	57,946	60,202	60,452	62,286	65,733	66,341	60,198	62,086	64,177	64,926	64,992
Wholesalers	61,848	65,512	64,728	67,399	71,574	72,456	70,391	73,137	76,699	79,469	81,550
Other companies	58,351	64,322	71,066	81,214	86,876	84,428	77,822	77,134	77,437	82,296	85,604
Known value of exports (millions of dollars)											
All identified companies	500,671	566,821	559,641	584,724	668,310	626,084	605,025	634,692	713,157	789,877	910,465
Manufacturers	339,865	385,240	379,417	407,214	471,692	447,468	397,578	430,119	482,931	509,008	578,475
Wholesalers	69,271	70,947	82,704	82,188	96,628	93,706	123,772	119,182	133,667	171,494	203,094
Other companies	74,686	80,275	86,656	84,966	85,426	75,903	76,734	76,882	90,328	106,190	122,897
Unclassified companies	16,850	30,359	10,864	10,356	14,564	9,007	6,941	8,508	6,231	3,185	5,999

All identified small companies	155,887	174,393	164,584	168,541	192,857	180,051	160,494	173,491	204,033	230,851	262,999
Manufacturers	48,381	52,595	54,346	57,496	66,813	65,789	52,929	62,886	72,734	79,379	90,582
Wholesalers	51,357	54,071	52,308	50,756	61,885	61,389	59,086	63,357	79,092	93,340	108,795
Other companies	41,926	43,662	49,558	51,520	54,144	45,936	43,689	41,516	48,381	55,071	58,457

Note: The known value of exports is defined as the portion of U.S. total exports that could be matched to specific companies.

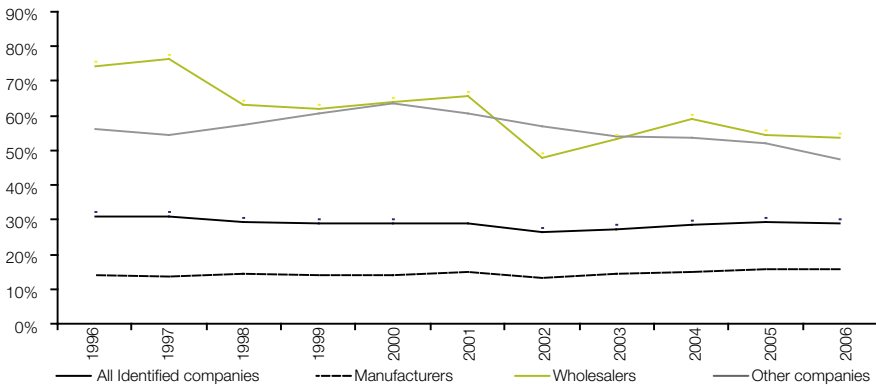
Source: U.S. Census Bureau, Foreign Trade Division, *Profile of U.S. exporting companies*.

Figure 4.6 Small Business Exporters as a Percentage of All Identified Exporting Companies, 1996–2006



Source: U.S. Census Bureau, Foreign Trade Division, *Profile of U.S. exporting companies*.

Figure 4.7 Known Value of Small Business Exports as a Percentage of the Total from All Identified Exporting Companies, 1996–2006



Source: U.S. Census Bureau, Foreign Trade Division, *Profile of U.S. exporting companies*.

The most recent Survey of Business Owners from the U.S. Census Bureau provides some information about the characteristics of exporting firms, both employers and nonemployers (*Table 4.4*).² In 2002, there were 17.4 million nonemployer firms (no employees other than the owners), of which 249,010

2 This table stems from information obtained from special tabulations requested by the Office of Advocacy. It contains data for both employer and nonemployer firms.

or 1.4 percent identified themselves as exporters. Of firms with employees, 104,680—1.9 percent—were exporters. Most of these exporters were very small: 86,780, or 82.9 percent of the exporting firms with employees had fewer than 20 employees. Not surprisingly, revenues increased with employment: 84.3 percent of employer firms had receipts of \$100,000 or higher; in comparison, 83.8 percent of nonemployer firms had receipts of less than \$100,000.

Employer exporters are more likely to be corporations: nearly 80 percent of exporters with employees were organized as corporations in 2002, 10.9 percent as sole proprietorships, and 6.8 percent as partnerships. Of nonemployer exporters, 84.3 percent were sole proprietors; 11.1 percent were corporations.

Nonemployer exporting companies were younger: 36.1 percent of them began in 2000, 2001, or 2002. Of the employer businesses, 17.0 percent were created after 1999 and 40.2 percent were established before 1990.

Exporting firms are engaged in a variety of industries (*Table 4.5*). Among employer firms, more than three-fifths of all exporters are in three industries—manufacturing; wholesale trade; and professional, scientific, and technical services. Three-fifths of all exporters with no employees are in five industries—wholesale trade; retail trade; transportation and warehousing; professional, scientific, and technical services; and other services (except public administration).

One might expect nonemployers to be engaged as exporters in different industries than employers, and in some cases that is true: more manufacturers with employees than without are engaged in exporting, for example. In general, however, employer and nonemployer firms have the same industries with high concentrations of exporters. In addition to manufacturing and wholesale trade, industries that export more intensively include agriculture, forestry, fishing, and hunting; transportation and warehousing; and information. Employer firms also have a high concentration of exporters in the management of companies and enterprises.

Exporting firms are geographically diverse (*Table 4.6*). According to the Survey of Business Owners, states with the highest percentage of exporting firms with employees include Florida, Washington, California, Alaska, Hawaii, Massachusetts, Texas, Oregon, Connecticut, and Utah. Many of these states are not surprises given their location and proclivity toward technology and other export-based products. States with the lowest percentages of employer firms engaged in exporting are Mississippi, West Virginia, Kentucky, Alabama, and Arkansas. The top five states for exporting by nonemployer firms are Alaska,

Table 4.4 Exporter Characteristics from the U.S. Census Bureau's Survey of Business Owners, 2002

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
United States	5,524,784	104,680	1.89	17,449,871	249,010	1.43	353,690
Employment size of the firm							
Nonemployers	—	—	—	17,449,871	249,010	1.43	249,010
0	810,950	12,248	1.51	—	—	—	12,248
1-4	2,600,314	45,431	1.75	—	—	—	45,431
5-9	948,715	16,644	1.75	—	—	—	16,644
10-19	581,596	12,457	2.14	—	—	—	12,457
20-99	484,857	13,294	2.74	—	—	—	13,294
100-249	60,773	2,722	4.48	—	—	—	2,722
250 +	37,579	1,884	5.01	—	—	—	1,884
Receipts size of the firm							
< \$10,000	121,053	1,466	1.21	7,574,310	85,660	1.71	87,125
\$10,000–\$49,999	534,004	6,700	1.25	6,373,606	87,403	2.28	94,102
\$50,000–\$99,999	627,518	8,270	1.32	1,759,931	35,608	3.56	43,878
\$100,000–\$249,999	1,283,740	17,063	1.33	1,199,885	25,897	4.27	42,960
\$250,000–\$999,999	1,798,618	29,520	1.64	515,480	13,696	7.57	43,215
\$1 million–\$4.9 million	872,916	25,961	2.97	26,659	747	7.02	26,708
\$5 million +	286,935	15,702	5.47	—	—	—	15,702
Legal form of organization							
Corporations	3,646,357	83,325	2.29	1,064,442	27,640	2.60	110,966
Partnerships	453,032	7,118	1.57	1,081,892	11,454	1.06	18,573
Sole proprietorships	1,093,907	11,410	1.04	15,094,138	209,916	1.39	221,326
Other	331,487	2,931	0.88	191,949	0	0.00	2,931
Year business acquired							
Before 1980	1,043,279	19,247	1.84	1,898,691	29,766	1.57	49,013
1980–1989	1,299,177	22,848	1.76	2,802,829	35,527	1.27	58,375

Table 4.4 Exporter Characteristics from the U.S. Census Bureau's Survey of Business Owners, 2002 (continued)

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
1990–1998	1,909,397	38,370	2.01	5,560,451	77,456	1.39	115,826
1999	314,952	6,333	2.01	1,175,380	16,323	1.39	22,656
2000	347,760	6,954	2.00	1,537,035	25,925	1.69	32,879
2001	334,637	6,085	1.82	1,785,673	24,325	1.36	30,410
2002 (New firm birth)	275,583	4,719	1.71	2,689,812	39,688	1.48	44,407
Owner status							
Only one owner	2,892,854	45,247	1.56	12,292,989	155,535	1.27	200,782
Family-owned	1,593,906	32,995	2.07	3,976,610	73,647	1.85	106,642
Not family-owned	1,038,024	28,266	2.72	1,180,272	21,373	1.81	49,639

Notes: Employer firms can have zero employees if they have no one on the payroll on March 12 but have had annual payroll at some point in the year. Corporations include those that are tax-exempt.

Source: U.S. Small Business Administration, Office of Advocacy, from special tabulations of U.S. Census Bureau, Survey of Business Owners data (extracted from Table A2a from a working paper by Brian Headd and Radwan Saade, *Do business definition decisions impact small business research results?*, released in 2008).

Hawaii, Washington, Utah, and Wyoming; the bottom five are West Virginia, South Carolina, Vermont, Virginia, and North Carolina.

Such analysis examines only the number of exporting firms relative to the total. Another way of examining which states and localities are engaged in international trade is to look at the known value of exports by state or metropolitan statistical area (MSA) (*Tables 4.7 and 4.8*). In 2006, Texas led the nation with \$135.5 billion in known exports, followed by California with \$115.2 billion, Washington with \$51.4 billion, New York with \$48.5 billion, and Illinois with \$38.9 billion. Most of the states with greater export volume are larger states with large populations. Others rise to the top by virtue of specific industries. Washington state, for instance, is home to Boeing and Microsoft, two large exporters, and Michigan (ranked sixth) is still a major producer of automobiles. The Detroit MSA exported \$28.2 billion in transportation equipment (NAICS 336), and the Seattle MSA sold \$1.9 billion in

Table 4.5 Exporting Firms by Major Industry from the U.S. Census Bureau's Survey of Business Owners, 2002

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
United States	5,524,784	104,680	1.89	17,449,871	249,010	1.43	353,690
Agriculture, forestry, fishing and hunting	29,250	1,570	5.37	220,040	10,209	4.64	11,780
Mining	19,324	523	2.71	82,705	1,743	2.11	2,266
Utilities	6,223	0	0.00	12,673	249	1.96	249
Construction	729,842	3,873	0.53	2,050,481	12,700	0.62	16,573
Manufacturing	310,821	21,669	6.97	290,360	7,968	2.74	29,637
Wholesale trade	347,319	28,787	8.29	363,764	21,913	6.02	50,700
Retail trade	745,872	7,851	1.05	1,838,817	28,636	1.56	36,487
Transportation and warehousing	167,865	8,688	5.18	808,961	28,885	3.57	37,574
Information	76,443	2,722	3.56	232,674	5,478	2.35	8,200
Finance and insurance	241,120	1,780	0.74	660,248	5,478	0.83	7,258
Real estate and rental and leasing	266,161	1,466	0.55	1,879,993	12,202	0.65	13,667
Professional, scientific, and technical services	727,893	13,294	1.83	2,552,734	43,826	1.72	57,120
Management of companies and enterprises	28,351	1,256	4.43	0	0	—	1,256
Administrative and support and waste management and remediation services	305,462	3,350	1.10	1,262,583	12,451	0.99	15,800
Educational services	65,251	628	0.96	344,473	3,735	1.08	4,363
Health care and social assistance	564,299	3,245	0.58	1,456,816	9,960	0.68	13,205
Arts, entertainment, and recreation	103,824	837	0.81	865,917	12,949	1.50	13,786
Accommodation and food services	434,441	3,454	0.80	241,675	1,992	0.82	5,447

Table 4.5 Exporting Firms by Major Industry from the U.S. Census Bureau's Survey of Business Owners, 2002 (continued)

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
Other services (except public administration)	392,656	3,873	0.99	2,284,957	28,636	1.25	32,509
Industries not classified	29,593	105	0.35	0	0	—	105

Source: U.S. Small Business Administration, Office of Advocacy, from special tabulations of U.S. Census Bureau, Survey of Business Owners data (extracted from Table A2c from a working paper by Brian Headd and Radwan Saade, *Do business definition decisions impact small business research results?* released in 2008).

Table 4.6 Exporting Firms by State from the U.S. Census Bureau's Survey of Business Owners, 2002

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
United States	5,524,784	104,680	1.89	17,449,871	249,010	1.43	353,690
Alabama	74,827	942	1.26	234,717	2,739	1.17	3,681
Alaska	15,548	419	2.69	46,597	1,743	3.74	2,162
Arizona	94,613	1,780	1.88	286,567	3,735	1.30	5,515
Arkansas	49,988	628	1.26	159,022	1,992	1.25	2,620
California	673,401	19,575	2.91	2,235,357	42,581	1.90	62,156
Colorado	117,062	1,989	1.70	347,920	3,735	1.07	5,724
Connecticut	75,328	1,780	2.36	226,243	2,490	1.10	4,270
Delaware	19,589	419	2.14	43,981	747	1.70	1,166
District of Columbia	13,515	314	2.32	33,657	498	1.48	812
Florida	360,179	11,934	3.31	1,179,028	23,407	1.99	35,340
Georgia	158,665	2,826	1.78	515,856	5,976	1.16	8,803
Hawaii	23,517	628	2.67	75,707	2,241	2.96	2,869
Idaho	33,106	628	1.90	88,454	1,245	1.41	1,873
Illinois	244,352	4,397	1.80	713,768	9,213	1.29	13,610
Indiana	109,771	1,675	1.53	324,136	3,486	1.08	5,161
Iowa	62,314	1,047	1.68	174,201	3,237	1.86	4,284
Kansas	58,804	942	1.60	160,574	1,992	1.24	2,934
Kentucky	68,736	837	1.22	231,949	2,490	1.07	3,328
Louisiana	78,420	1,256	1.60	250,336	3,984	1.59	5,240
Maine	33,676	523	1.55	101,734	1,743	1.71	2,266

Table 4.6 Exporting Firms by State from the U.S. Census Bureau's Survey of Business Owners, 2002 (continued)

	Employer firms			Nonemployer firms			Total exporters
	Total	Exporters	Percent of total	Total	Exporters	Percent of total	
Maryland	104,106	1,780	1.71	339,434	3,984	1.17	5,764
Massachusetts	142,507	3,454	2.42	421,032	5,478	1.30	8,933
Michigan	185,739	3,036	1.63	549,792	6,225	1.13	9,261
Minnesota	113,797	1,989	1.75	330,030	4,482	1.36	6,471
Mississippi	45,630	419	0.92	141,972	1,494	1.05	1,913
Missouri	115,163	1,780	1.55	324,322	3,735	1.15	5,515
Montana	28,248	419	1.48	72,154	747	1.04	1,166
Nebraska	40,224	733	1.82	105,156	1,494	1.42	2,227
Nevada	42,176	733	1.74	127,329	1,992	1.56	2,725
New Hampshire	31,760	733	2.31	93,628	996	1.06	1,729
New Jersey	199,426	4,397	2.20	509,411	7,719	1.52	12,116
New Mexico	34,500	628	1.82	102,211	1,245	1.22	1,873
New York	414,480	8,270	2.00	1,292,688	15,688	1.21	23,957
North Carolina	157,986	2,303	1.46	484,611	4,980	1.03	7,283
North Dakota	16,645	209	1.26	40,136	747	1.86	956
Ohio	201,515	3,036	1.51	616,178	6,972	1.13	10,008
Oklahoma	67,427	1,047	1.55	224,183	2,988	1.33	4,035
Oregon	83,217	1,989	2.39	216,288	2,988	1.38	4,977
Pennsylvania	226,585	4,083	1.80	647,670	7,221	1.11	11,304
Rhode Island	24,780	523	2.11	62,666	996	1.59	1,519
South Carolina	75,352	1,151	1.53	217,632	1,992	0.92	3,144
South Dakota	20,158	314	1.56	49,378	747	1.51	1,061
Tennessee	96,113	1,361	1.42	358,253	4,482	1.25	5,843
Texas	363,331	8,688	2.39	1,371,178	19,423	1.42	28,111
Utah	49,192	1,151	2.34	143,811	2,988	2.08	4,140
Vermont	18,485	314	1.70	53,836	498	0.93	812
Virginia	136,042	2,303	1.69	393,478	3,984	1.01	6,287
Washington	135,590	4,187	3.09	331,700	7,719	2.33	11,907
West Virginia	30,787	314	1.02	82,300	747	0.91	1,061
Wisconsin	112,589	1,884	1.67	280,652	3,735	1.33	5,619
Wyoming	16,145	209	1.30	36,958	747	2.02	956

Source: U.S. Small Business Administration, Office of Advocacy, from special tabulations of U.S. Census Bureau, Survey of Business Owners data (extracted from Table A2b from a working paper by Brian Headd and Radwan Saade, *Do business definition decisions impact small business research results?* released in 2008).

Table 4.7 Known Value of Exports by State and Some Territories, 2006 (millions of dollars)

State	Export value	Rank	State	Export value	Rank	State	Export value	Rank
Alabama	\$12,896	23	Louisiana	\$22,590	11	Oklahoma	3,609	39
Alaska	3,841	35	Maine	2,176	45	Oregon	14,290	22
Arizona	16,206	17	Maryland	6,602	31	Pennsylvania	23,494	10
Arkansas	3,829	36	Massachusetts	22,516	12	Puerto Rico	15,018	20
California	115,158	2	Michigan	37,208	6	Rhode Island	1,229	47
Colorado	7,336	30	Minnesota	14,964	21	South Carolina	12,793	24
Connecticut	11,058	27	Mississippi	4,356	34	South Dakota	998	48
Delaware	3,707	37	Missouri	11,882	26	Tennessee	20,504	14
District of Columbia	447	53	Montana	764	49	Texas	135,450	1
Florida	34,194	8	Nebraska	3,370	41	Utah	6,172	32
Georgia	18,051	16	Nevada	4,995	33	Vermont	3,671	38
Hawaii	645	51	New Hampshire	2,439	44	Virginia	12,231	25
Idaho	3,576	40	New Jersey	24,131	9	Virgin Islands	605	52
Illinois	38,868	5	New Mexico	2,660	43	Washington	51,354	3
Indiana	20,984	13	New York	48,466	4	West Virginia	3,070	42
Iowa	7,831	29	North Carolina	19,437	15	Wisconsin	15,701	19
Kansas	8,075	28	North Dakota	1,356	46	Wyoming	750	50
Kentucky	16,026	18	Ohio	34,560	7	Unallocated	2,326	—

Note: The known value of exports is defined as the portion of U.S. total exports that could be matched to specific companies. The total known value for all exports in the U.S. is \$910.5 billion; the unallocated amount includes transactions not reported by state, low-value estimates, Canadian revisions, and timing adjustments.

Source: U.S. Census Bureau, Foreign Trade Division, *Profile of U.S. exporting companies*.

fishing, hunting, and trapping goods (NAICS 114)—presumably salmon and other fish and seafood.

Table 4.8 Known Value of Exports by Top 10 and Bottom 10 Metropolitan Statistical Areas (MSAs), 2006, including the Top Three Exporting Industries by 3-Digit NAICS for Each MSA (millions of dollars)

Top 10 MSAs by known export value		Bottom 10 MSAs by known export value	
MSA	Export value	MSA	Export value
New York-Northern New Jersey-Long Island, NY-NJ-PA	66,228.9	Farmington, NM	7.1
339 – Miscellaneous manufactured commodities	12,927.3	333 – Machinery, except electrical	5.4
325 – Chemicals	11,793.9	334 – Computer and electronic products	0.2
334 – Computer and electronic products	6,384.1	336 – Transportation equipment	0.1
Houston-Sugar Land-Baytown, TX	53,281.0	Lawton, OK	9.7
325 – Chemicals	18,907.2	333 – Machinery, except electrical	0.7
324 – Petroleum and coal products	10,106.8	336 – Transportation equipment	0.5
333 – Machinery, except electrical	10,003.1	332 – Fabricated metal products	0.3
Los Angeles-Long Beach-Santa Ana, CA	48,718.1	Gadsden, AL	10.7
334 – Computer and electronic products	11,714.2	333 – Machinery, except electrical	2.8
336 – Transportation equipment	10,048.7	32A – Manufacturing (321-327)	1.4
339 – Miscellaneous manufactured commodities	3,119.0	334 – Computer and electronic products	1.0
Seattle-Tacoma-Bellevue, WA	46,309.2	San Angelo, TX	11.1
334 – Computer and electronic products	2,290.7	311 – Food and kindred products	1.5
114 – Fishing, hunting, and trapping	1,901.4	333 – Machinery, except electrical	0.8
333 – Machinery, except electrical	1,491.5	325 – Chemicals	0.7
Detroit-Warren-Livonia, MI	43,273.5	Cheyenne, WY	12.6
336 – Transportation equipment	28,196.6	325 – Chemicals	3.3
333 – Machinery, except electrical	3,865.9	333 – Machinery, except electrical	2.6
334 – Computer and electronic products	2,596.1	321 – Wood products	1.0
Chicago-Naperville-Joliet, IL-IN-WI	29,218.6	Missoula, MT	20.2
325 – Chemicals	6,139.0	32A – Manufacturing (321-327)	7.0
334 – Computer and electronic products	5,157.9	336 – Transportation equipment	6.6
333 – Machinery, except electrical	3,406.5	333 – Machinery, except electrical	2.1

Table 4.8 Known Value of Exports by Top 10 and Bottom 10 Metropolitan Statistical Areas (MSAs), 2006, including the Top 3 Exporting Industries by 3-Digit NAICS for Each MSA (millions of dollars)

Top 10 MSAs by known export value		Bottom 10 MSAs by known export value	
MSA	Export value	MSA	Export value
San Jose-Sunnyvale-Santa Clara, CA	28,171.3	Santa Fe, NM	20.3
334 – Computer and electronic products	19,022.0	334 – Computer and electronic products	6.3
333 – Machinery, except electrical	6,554.5	332 – Fabricated metal products	3.1
335 – Electrical equipment, appliances, and components	611.8	333 – Machinery, except electrical	1.8
Miami-Fort Lauderdale-Miami Beach, FL	23,491.3	St. George, UT	20.7
334 – Computer and electronic products	7,798.7	334 – Computer and electronic products	5.7
336 – Transportation equipment	3,202.5	335 – Electrical equipment, appliances, and components	3.1
333 – Machinery, except electrical	2,952.7	333 – Machinery, except electrical	2.5
Dallas-Fort Worth-Arlington, TX	22,461.6	Palm Coast, FL	25.8
334 – Computer and electronic products	9,582.3	336 – Transportation equipment	9.7
336 – Transportation equipment	3,475.6	333 – Machinery, except electrical	7.0
325 – Chemicals	2,289.9	331 – Primary metal manufacturing	5.1
Boston-Cambridge-Quincy, MA-NH	20,267.4	Punta Gorda, FL	28.2
334 – Computer and electronic products	7,628.7	334 – Computer and electronic products	11.0
325 – Chemicals	3,494.7	333 – Machinery, except electrical	5.7
333 – Machinery, except electrical	2,454.4	32A – Manufacturing (321-327)	4.9

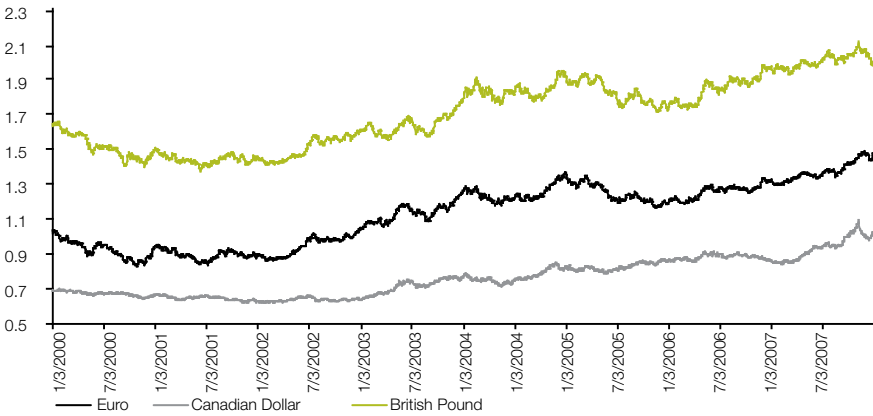
Notes: The known value of exports from non-MSA (rural) regions equaled \$79.7 billion in 2006. In addition, \$42.6 billion in exports could not be assigned to any MSA based on insufficient data. This ranking does not include MSAs where the export value was listed as not applicable in 2006 – Decatur, Illinois, and Tuscaloosa, Alabama.

Source: U.S. Department of Commerce, International Trade Administration from data obtained by the U.S. Census Bureau.

Competitiveness in World Markets

Behind many of these numbers is the issue of U.S. competitiveness. Rising exports can be attributed to several factors. First among them, at least recently, was the improvement in the terms of trade as the dollar's value fell relative to other currencies from 2000 to 2007 (*Figure 4.8*). At the beginning of 2000, one

Figure 4.8 Exchange Rates, U.S. Dollar to Select Currencies, 2000–2007



Source: Board of Governors of the Federal Reserve System.

euro cost \$1.0155; at the end of 2007, Americans needed to spend 43.8 percent more to purchase one euro, or \$1.4603. Over the same period, exchanging the U.S. dollar for a Canadian dollar cost 46.4 percent more—with the two currencies ending 2007 on par with one another for the first time since 1976. Likewise, the British pound sold for nearly 22 percent more.

In Asia, the story was somewhat different (*Figures 4.9 and 4.10*). In Japan, the exchange rate was more volatile; at one point in 2002, for example, the dollar strengthened, peaking at nearly 135 yen to the dollar.³ At the end of 2007, the dollar purchased roughly 112 yen. Meanwhile, the Chinese currency remained fixed relative to the dollar until July 2005, with one dollar purchasing around 8.2765 yuan (as it was kept within a narrow range). Since that time, the yuan has floated relative to the dollar. The yuan sold for 7.2946 to the dollar at the end of 2007, depreciating the dollar by 13.5 percent. Despite these recent movements, however, many U.S. policymakers believed that the Chinese currency remained overvalued relative to the dollar and other currencies. Treasury Secretary Henry Paulson, for example, actively engaged Chinese officials to win concessions on trade issues, including a more competitive dollar-yuan exchange rate for American companies.

The U.S. dollar's decline relative to other currencies made American exports more competitive, while also raising the prices of imports. Indeed, the country

³ Note that the dollar would have purchased 357 yen in the early 1970s.

Figure 4.9 Exchange Rates, Japanese Yen to the U.S. Dollar, 2000–2007



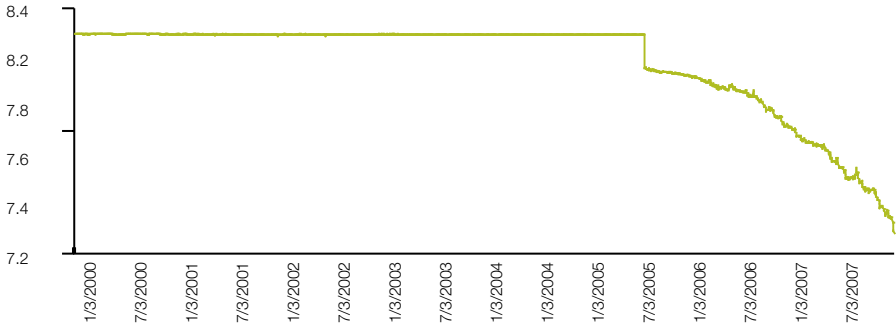
Source: Board of Governors of the Federal Reserve System.

experienced a declining net trade deficit in 2007 in large part because of rising exports attributed to a more competitive dollar. This weaker dollar meant that American purchases of foreign-made goods and services were more expensive. Because petroleum, one of the largest imports into the United States, is priced in dollars, the price of crude oil skyrocketed.⁴ West Texas crude oil futures rose from less than \$30 per barrel in 2000 to nearly \$100 in late 2007 (*Figure 4.11*) and continued to soar in 2008. Such drastic price increases for petroleum have major implications in driving up both inflation and the nation's trade deficit; in 2006, U.S. imported petroleum was valued at \$302.4 billion.

Increasing American productivity is a second factor contributing to the rise in U.S. exports. Companies able to use fewer worker hours to manufacture their products are more competitive both locally and globally. Much has been made of the decline in manufacturing employment over the past few decades. In 1980, 19.3 million people worked in the manufacturing sector. That number fell to 17.2 million in 1995 and 13.8 million at the end of 2007. Steep declines in manufacturing employment have been offset by rises in overall productivity (*Figure 4.12*). Growth in manufacturing output per worker averaged 4.3 percent over the 1997–2007 period and exceeded 6 percent in 2002 and 2003. Overall, nonfarm business productivity growth

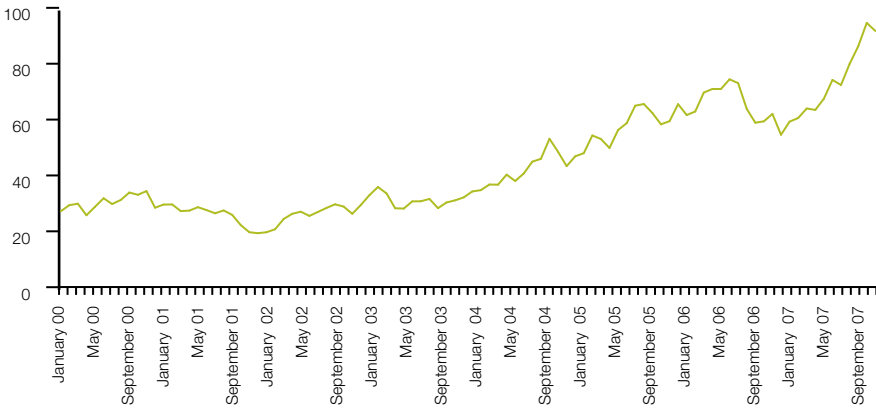
4 Among other factors at play in the run-up of crude oil prices were rising global demand, supply-related capacity problems (some of which were weather-related), and political tensions, especially in the Middle East.

Figure 4.10 Exchange Rates, Chinese Yuan to the U.S. Dollar, 2000–2007



Source: Board of Governors of the Federal Reserve System.

Figure 4.11 Price of a Barrel of West Texas Crude Oil, 2000–2007 (dollars)



Source: St. Louis Federal Reserve Bank using data obtained from Dow Jones & Company.

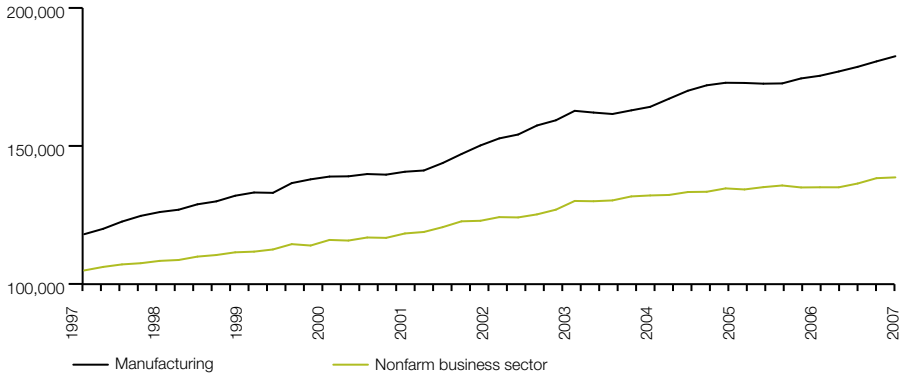
averaged 2.6 percent over the period. Meanwhile, manufacturing output continued to grow, with industrial production up nearly 3 percent annually on average between 1997 and 2007 (*Figure 4.13*).⁵

The Role of Quality and Innovation in Competitiveness

No discussion of American competitiveness would be complete without some mention of quality and innovation. The perceived quality of U.S. products

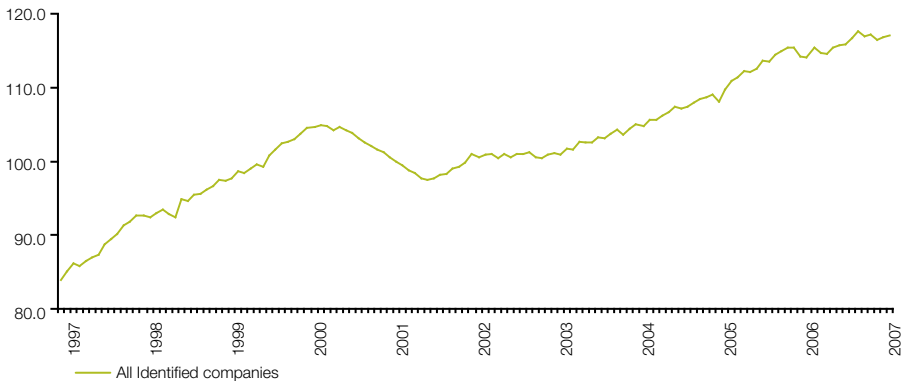
⁵ Excluding the recession year of 2001, industrial production grew 3.7 percent over the period.

Figure 4.12 Measures of U.S. Productivity: Output Per Hour for All Persons, 1997–2007



Source: U.S. Department of Labor, Bureau of Labor Statistics.

Figure 4.13 Industrial Production, 1997–2007



Source: Board of Governors of the Federal Reserve System.

has improved over recent decades. Starting in the early to mid-1980s, U.S. companies both large and small began focusing on quality improvements necessary in a global marketplace, and along the way, phrases such as “six sigma” and “ISO 9000” entered the management lexicon. In business schools across the country, operations management coursework became an essential component for any MBA curriculum.

The International Organization for Standardization (ISO) offers standards for management systems that function as tools for reaching objectives such as the following:

- Providing assurance about quality in supplier-customer relationships;
- Operating in an environmentally friendly manner;
- Unifying quality, environmental, or information security requirements in areas of activity;
- Assisting in the economic progress of developing nations;
- Transferring good managerial practice;

The ISO survey, one possible indicator of progress, found that certifications to ISO standards for quality management (ISO 9001:2000) increased by 16 percent from 2005 to 2006. The United States ranked sixth, with 44,883 certificates. Certification to the more recent standards for the automotive and medical devices sectors increased by more than 60 percent, and the United States ranked second and first, respectively for the numbers of these certificates.⁶

Quality and innovation go hand in hand, and the United States has invested more in research and development than any other nation. *R&D Magazine*, in association with Battelle, estimated that U.S. research and development spending totaled \$353 billion in 2007, or 31.4 percent of the total global investment in R&D.⁷ That said, other nations have significantly increased their R&D spending. According to the September 2007 issue of the magazine, “Much of [the growth in R&D spending] continues to be fueled by a rapid expansion of R&D in China, whose spending is expected to grow by nearly 24 percent in 2008 to \$216.8 billion—about 18 percent of global spending, up from 14 percent just two years ago.” Indeed, overall R&D investments in Asia accounted for 38.8 percent of the total global investments in R&D, and this figure was expected to continue growing.

Various studies continue to document the preeminence of the American economy relative to other nations in innovation; these same studies (like the

6 ACNielsen (2007), *The ISO Survey-2006*, accessed at <http://www.iso.org/iso/survey2006.pdf>, June 10, 2008.

7 Battelle (2007), Globalization distributes more of the R&D wealth, *R&D Magazine*, Sept., G3, [www.rdmag.com/pdf/RD79Global Report.pdf](http://www.rdmag.com/pdf/RD79Global%20Report.pdf).

R&D Magazine analysis) show a growing trend toward R&D and entrepreneurship around the world.

Indices of Global Competitiveness and Innovation

According to the 2007-2008 edition of the *Global Competitiveness Report* published by the World Economic Forum, the United States ranked first among 131 major and emerging economies on a variety of measures of “the set of institutions, policies, and factors that set the sustainable current and medium-term levels of economic prosperity.”⁸

To measure competitiveness, the creators of the Global Competitiveness Index (GCI) group the attributes to be measured in nine “pillars”—institutions, infrastructure, macroeconomy, health and primary education, higher education and training, market efficiency, technological readiness, business sophistication, and innovation. The nine attributes all matter to some extent in every country’s competitiveness, but the relative importance of each depends on the country’s stage of development.⁹

The GCI divides countries into three developmental stages: factor-driven, efficiency-driven, and innovation-driven, each with a successively more advanced degree of efficiency in the economy’s operation. In the first, factor-driven stage, countries compete primarily on their unskilled labor and natural resources. At this stage of development, lower productivity is reflected in lower wages. Competitiveness at this stage is based on the first four of the nine pillars of competitiveness—well-functioning public and private institutions; appropriate infrastructure for communications, transport, and other needs; macroeconomic stability; and good health and primary education.

At the second, efficiency-driven stage, countries are developing more efficient production processes and improving product quality. Competitiveness is measured in higher education and training; efficient markets for goods, labor, and financing; and an ability to harness the benefits of existing technologies.

At the innovation-driven stage, countries are competitive only if they can produce new and different goods using only the most sophisticated production processes and if they innovate. Firms at this stage must design cutting-edge

8 World Economic Forum, *Global Competitiveness Report 2007-2008*, <http://www.gcr.weforum.org/>.

9 World Economic Forum, “Part 1 The competitiveness indexes” in *Global Competitiveness Report 2006-2007* from <http://www.gcr.weforum.org/>, accessed April 25, 2008, at akgul.bilkent.edu.tr/WEF/2006/chapter_1_1.pdf.

technologies to maintain a competitive advantage and sustain higher wages. Thus, countries like the United States that compete well at the third developmental stage are agile innovators.

How is innovation measured? It turns out that innovation requires innovative measures, and a climate that encourages innovation is a complex mix of factors. “Overall there is consensus that simply promoting and supporting large, isolated R&D projects has not proven to be a successful strategy.” The GCI report says, “Indeed, cumulative small improvements, along with informal innovation, can have similar growth effects to large R&D projects.” The report concludes that rather than focus on national champions, innovation policies would be better served to foster an environment that promotes entrepreneurship and innovation.¹⁰

In 2007, *World Business* magazine and INSEAD released a Global Innovation Index (GII). Countries in the GII were ranked according to various factors including human capacity, infrastructure, institutions and policies, technical sophistication, business markets and capital, competitiveness, and wealth.¹¹ In this measure too, the United States tops the list, although other studies show that its dominance may not last without continued and substantial innovation equal to or greater than that of its trade rivals. Earlier in 2008, the Institute for Innovation and Information Productivity released its Innovation Confidence Index for 2007, noting, “Despite its reputation for innovation and entrepreneurship, the United States falls approximately midway in the innovation confidence index, the same as China, but behind fast-growing economies with young populations like Brazil, India, Ireland, and the United Arab Emirates.”¹²

Small and Large Firm Roles in Innovation

Small businesses play a large and significant role in U.S. innovation efforts. New entrepreneurial firms account for much of the net job creation in the

10 Id., 11.

11 The Global Innovation Index was prepared by Soumitra Dutta and Simon Caulkin, and it was released on January 17, 2007. For a complete listing of “The World’s Top Innovators,” see <http://www.worldbusinesslive.com/search/article/625441/the-worlds-top-innovators/>. A brief explanation of methodology can be found at: <http://www.worldbusinesslive.com/search/article/625442/the-worlds-top-innovators-index/>.

12 This quote is taken from the press release dated January 22, 2008, which can be found at: <http://www.iii-p.org/news/iiip-080122.html>. A free copy of the report, which was written by Jonathan Levie, can be requested from the Institute for Innovation and Information Productivity at <http://www.iii-p.org/research/results.html>.

United States, and one reason often cited is their ability to innovate and find new niches for products and services.

Office of Advocacy research by Scheirer (1986) documents the interactive roles of large and small firms in the process of turning new ideas into products and processes that increase national productivity:

Large firms tend to be more than mere scaled-up versions of small ones: they cut the work up finer, narrow each employee's responsibility and further reduce the scope of vision. Small firm employees, understanding more of what is going on, are more able to contribute to the improvement of products and processes. In small firms, too, each worker's influence is greater, and suggestions have more chance of acceptance.

According to a growing body of research, small businesses—and the economies that best support them—have key roles in generating innovation. Research by Acs, Morck, and Yeung (1999) identifies several important roles that small firms play in globalization:

- Small firms may become indispensable partners in team competition. Large and small firms can create synergies to globalize their market reach and mutually enhance their respective firm value.
- Small firms are more likely than large firms to create radical innovations. They are more inclined to search in uncovered corners of the technology landscape. Therefore, small and large firms together provide a more comprehensive coverage in the supply of innovations.
- Smaller firms equipped with niche technological innovations are motivated to internationalize on their own. The successful ones become large multinational firms possessing the coordination skills and become team leaders in globalization.

In a synergistic relationship between large and small firms, the report notes, the earnings of smaller firms increase because their innovations are diffused internationally by larger firms, which in turn gain in competitiveness and earnings because of the smaller firms' worthy and profitable innovations.

Baumol (2005) also discussed the important role small firms play in innovation. He argued that many large firms tend to innovate in small, incremental steps—securing a patent at each step. Tweaks to existing products often differ from patents by newer, entrepreneurial ventures in which the innovations tend to be “breakthrough” technologies, of which some will succeed as blockbusters and others will not. These newer ventures are often led by “inventor-entrepreneurs,” who take significant risks in the hope that a patent will bring tremendous success.

Kirchhoff and Armington (2002) demonstrated a significant increase in the number of new firm formations resulting from university research and development expenditures. Shane (2004) examined the positive contributions of university spin-offs to the economy, and CHI Research (2003) found that small businesses produce 13 to 14 times more patents per employee than their larger counterparts, and that these patents are more likely to be cited in other patenting applications.

Melissa Schilling studied firm size and the rates of innovation with emphasis on formal social networks through interfirm collaboration.¹³ Her research finds that interfirm relationships are important engines of innovation because they enable firms to pool, exchange, and create new information and other resources. Results of studies suggest that the structure of networks affects innovation and that a rich mix of both large and small firms benefits from the structure.

Investments in innovation should pay off in the global marketplace, where more small businesses have been focusing their attention. Export volume has been rising for smaller businesses (*Table 4.2*), and the Global Entrepreneurship Monitor (GEM) in 2007 found that in some GEM countries, “40 percent of early-stage entrepreneurs expected 25 percent or more of their customers to come from outside the country.”¹⁴ It is clear from this analysis that more and more businesses around the world are counting on international trade to nurture and grow their businesses.

13 See, for example, U.S. Small Business Administration, Office of Advocacy, *Entrepreneurship in the 21st Century: Conference Proceedings*, March 26, 2004, 17.

14 Bosma et al., 2008. See Figure 25 and page 7 of the Executive Summary for more details. The GEM 2007 report can be found online at http://www3.babson.edu/ESHIP/research-publications/upload/GEM_2008_Executive_Report.pdf. Note that the source of this quote is from 1997, but no newer statistic could be found for this chapter.

Supporting Small Business Exports

Small businesses interested in trading their wares overseas have many options, and policymakers have aggressively championed new markets for American products and services.

Free Trade Agreements

Free trade agreements (FTAs) are designed to create trade benefits for both the United States and its trading partners. Issues addressed in an FTA can include provisions as diverse as lowering barriers to trade, such as customs administration, encouraging innovation by protecting intellectual property rights, providing access to services and financial services, promoting investment, creating transparency and fairness in procurement, improving regulation, clarifying rules, establishing dispute resolution processes, and adopting international standards.¹⁵

The United States has negotiated and signed numerous trade agreements around the world. The North American Free Trade Agreement (NAFTA) between the United States, Canada, and Mexico became effective in 1994. In an effort to expand NAFTA within the Western Hemisphere, President Bush negotiated with seven countries as part of the Central American–Dominican Republic–United States Free Trade Agreement (CAFTA-DR). The CAFTA-DR countries include the United States, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. The U.S. Congress approved CAFTA-DR in 2005, and it was subsequently approved by all of the other signatories except Costa Rica.¹⁶

In addition to regional agreements, the United States has negotiated bilateral agreements with a number of nations including Australia (effective 2005), Bahrain (2006), Chile (2004), Israel (1985), Jordan (2001), Morocco (2006), and Singapore (2004). Other agreements were negotiated but awaited approval as of 2008 by both parties' governments, including those with Colombia, Oman, Panama, and South Korea. The Peru trade agreement, approved by the United States in 2007, awaited approval by the government of Peru. As of mid-2008, the U.S. trade representative was negotiating agreements with Ecuador (part of the Andean Free Trade Agreement, which includes Colombia and Peru);

15 Trade Promotion Coordinating Committee, *The 2007 National Export Strategy*, 2007, 31.

16 As of mid-2008, CAFTA-DR was awaiting approval by the legislature of Costa Rica.

the Free Trade Area of the Americas; the South African Customs Union (which includes Botswana, Lesotho, Namibia, South Africa, and Swaziland); Thailand; and the United Arab Emirates. The United States has participated in the World Trade Organization's numerous rounds of negotiations to lessen trade barriers worldwide; however, the latest round of negotiations stalled over various issues, including agriculture supports and other subsidies.¹⁷

Table 4.9 shows U.S. exports to nations with existing free trade agreements (FTAs) from 2001 to 2006, with exports from small and medium-sized enterprises (SMEs) broken out for each. For all FTA countries, U.S. exports swelled from \$258.0 billion in 2001 to \$364.4 billion in 2006—up 41.2 percent. SME exports to those same nations went from \$73.6 billion to \$90.6 billion—up 23.2 percent. Trade to the NAFTA-participating countries of Canada and Mexico grew from \$216.6 billion to \$296.7 billion, and SME exports to those nations rose 15.6 percent to \$69.6 billion.

The data indicate that U.S. small businesses (and their larger counterparts) have benefited from increased trade with these nations. The percentage of total U.S. exports attributable to SMEs varies widely by FTA country, with SME sales ranging from 19.1 percent of all exports to Singapore, to 64.6 percent of exports to Nicaragua. Generally, a larger proportion of exports to smaller nations stem from small businesses, and many smaller nations have given SMEs their largest percentage gains over the six-year period. For example, U.S. exports to Morocco have risen 228.8 percent overall, and SME exports to Morocco have grown 116.7 percent. While the data do not suggest that these gains were entirely attributable to the free trade agreements, the potential markets for American exports are large, with opportunities for U.S. firms.

The U.S. government created the Trade Promotion Coordinating Committee (TPCC) in 1990, and further strengthened it in the Export Enhancement Act of 1992. President Clinton further outlined the role of the TPCC with Executive Order 12870 in 1993. This executive order stated that the TPCC's overall purpose is "to provide a unifying framework to coordinate the export promotion and export financing activities of the United States Government and to develop a governmentwide strategic plan for carrying out such programs." The secretary of the U.S. Department of Commerce chairs the TPCC, which prepares an annual report outlining the

17 Up-to-date detailed information on U.S.-negotiated trade agreements can be found at <http://www.export.gov/fta>.

Table 4.9 U.S. Total and Small and Medium Enterprise (SME) Known Exports to Free Trade Agreement Nations, 2001–2006 (millions of dollars, followed by percents in parentheses)

	2001		2002		2003		2004		2005		2006		Percent change, 2001-2006	
	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)		
Australia	9,581.7	2,456.8 (25.6)	11,746.4	2,196.6 (18.7)	11,742.9	2,666.8 (22.7)	12,540.8	3,130.2 (25.0)	13,969.4	3,618.1 (25.9)	15,575.1	4,248.9 (27.3)	62.6	73.0
Bahrain	233.0	109.9 (47.2)	179.2	62.8 (35.1)	380.3	80.3 (21.1)	212.2	80.3 (37.8)	239.8	64.7 (27.0)	342.1	121.8 (35.6)	46.8	10.8
Canada	127,357.7	36,806.4 (28.9)	121,618.0	26,014.1 (21.4)	130,076.7	27,420.2 (21.1)	142,812.6	30,333.4 (21.2)	157,557.4	33,354.9 (21.2)	178,530.9	37,134.4 (20.8)	40.2	0.9
Chile	2,762.0	95.1 (34.6)	2,370.1	776.9 (32.8)	2,480.6	894.2 (36.3)	3,323.9	1,128.8 (34.0)	4,585.1	1,430.1 (31.2)	5,898.2	1,674.5 (28.4)	113.6	75.3
Dominican Republic	3,838.1	1,919.0 (50.0)	3,765.2	1,666.5 (44.3)	3,700.8	1,716.1 (46.4)	3,862.8	2,019.1 (52.3)	4,229.9	2,264.3 (53.5)	4,879.1	2,730.8 (56.0)	27.1	42.3
El Salvador	1,569.3	696.1 (44.4)	1,464.5	506.6 (34.6)	1,562.0	750.7 (48.1)	1,600.1	867.4 (54.2)	1,592.8	840.8 (52.8)	1,882.8	895.1 (47.5)	20.0	28.6
Guatemala	1,519.1	748.8 (49.3)	1,753.2	815.3 (46.5)	1,926.2	895.3 (46.5)	2,280.0	1,159.2 (50.8)	2,492.6	1,268.2 (50.9)	3,155.4	1,500.1 (47.5)	107.7	100.3
Honduras	2,119.1	895.5 (42.3)	2,296.5	749.3 (32.6)	2,593.4	1,057.6 (40.8)	2,779.7	1,274.2 (45.8)	2,889.3	1,173.3 (40.6)	3,312.8	1,249.2 (37.7)	56.3	39.5
Israel	5,443.4	2,457.2 (45.1)	5,347.4	2,456.0 (45.9)	5,132.1	2,402.9 (46.8)	6,780.3	3,059.3 (45.1)	7,069.8	3,195.6 (45.2)	8,002.2	3,384.1 (42.3)	47.0	37.7
Jordan	254.2	106.0 (41.7)	307.9	120.2 (39.0)	297.6	126.5 (42.5)	453.2	166.1 (36.6)	513.8	220.6 (42.9)	514.7	231.1 (44.9)	102.5	118.1
Mexico	87,287.4	23,436.7 (26.9)	85,710.8	21,239.1 (24.8)	85,362.1	20,888.1 (24.5)	97,404.9	27,789.6 (28.5)	105,640.0	30,614.5 (29.0)	118,167.7	32,496.1 (27.5)	35.4	38.7

Table 4.9 U.S. Total and Small and Medium Enterprise (SME) Known Exports to Free Trade Agreement Nations, 2001–2006 (millions of dollars, followed by percents in parentheses) (continued)

	2001		2002		2003		2004		2005		2006		Percent change, 2001–2006	
	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME (percent of total)	Total	SME
Morocco	256.5	92.1 (35.9)	536.9	107.1 (20.0)	423.0	106.1 (25.1)	493.0	108.2 (21.9)	492.6	129.2 (26.2)	843.4	199.7 (23.7)	228.8	116.7
Nicaragua	377.6	277.6 (73.5)	384.0	269.2 (70.1)	432.7	281.5 (65.1)	540.3	385.4 (71.3)	548.4	403.2 (73.5)	680.3	439.7 (64.6)	80.2	58.4
Singapore	15,404.5	2,620.3 (17.0)	14,744.5	2,649.6 (18.0)	15,423.1	3,004.4 (19.5)	17,844.7	3,190.6 (17.9)	19,209.8	3,550.0 (18.5)	22,581.7	4,304.1 (19.1)	46.6	64.3
FTA Total	258,003.7	73,577.5 (28.5)	252,224.7	59,629.4 (23.6)	261,513.5	62,290.6 (23.8)	292,928.2	74,691.5 (25.5)	321,030.7	82,127.5 (25.6)	364,366.3	90,609.7 (24.9)	41.2	23.2

Source: U.S. Department of Commerce, International Trade Administration.

national export strategy.¹⁸ The U.S. Small Business Administration is represented on the TPCC, along with representatives from a number of other government agencies dedicated to international business and development.

Business Assistance for International Trade

A number of federal government resources are available to assist prospective small businesses interested in international trade:

- **U.S. export assistance centers (USEACs).** Authorized by the Export Enhancement Act of 1992, these centers provide “how-to” information and counseling for companies wishing to export. Visitors will find resources from federal agencies, including the U.S. Small Business Administration, the U.S. Department of Commerce, the U.S. Export-Import Bank, and others, as well as other private and public sector partners.¹⁹
- **Entrepreneurial development centers.** The SBA partners with a number of centers around the country for the purpose of providing counseling and other services for new and existing small business owners. These include small business development centers (which receive local and state matching funds), women’s business centers, and the SCORE program (which offers the expertise of volunteer retired executives). While their primary mission is not to offer exporting advice, many do provide services for would-be exporting companies.²⁰
- **International Trade Administration programs.** The U.S. Department of Commerce’s International Trade Administration (ITA) offers a number of services to assist American companies wishing to export. A web portal, <http://www.export.gov>, provides data and links to a variety of support programs. The U.S. Commercial Service division of ITA provides personal assistance from trade specialists on industry-specific and foreign market information; these counselors are available at USEACs and in locations

18 See *The national export strategy, 2007* at: <http://trade.gov/media/publications/pdf/nes2007FINAL.pdf>.

19 See <http://www.sba.gov/aboutsba/sbaprograms/internationaltrade/useac/index.html>.

20 To find one of these centers or to learn more about these programs, see the following websites: small business development centers (SBDCs), <http://www.sba.gov/aboutsba/sbaprograms/sbdc/index.html>; women’s business centers, <http://www.sba.gov/aboutsba/sbaprograms/onlinewbc/index.html>; and SCORE, <http://www.score.org/index.html>.

around the world.²¹ Local business leaders volunteer their time to assist with the intricacies of international trade through the ITA-sponsored U.S. district export councils. These volunteers work closely with the Commercial Service and the USEACs, and often work collectively.²²

- **U.S. Export-Import Bank.** The Export-Import Bank (Ex-Im Bank) provides export credit insurance for protection against foreign creditors not paying their obligations for commercial or political reasons, to help alleviate some of the risk associated with international trade. According to its mission statement on its website,²³ it “does not compete with private sector lenders but provides export financing products that fill gaps in trade financing.” The Ex-Im Bank also offers working capital and various loan guarantees. The small business portal, <http://www.exim.gov/smallbiz/index.html>, provides information on how the Ex-Im Bank can assist.
- **Foreign Agricultural Service.** Small businesses interested in exporting agricultural products can seek counseling from the U.S. Department of Agriculture’s Foreign Agricultural Service (FAS), which has representatives in embassies and consulates around the world. Sector specialists monitor foreign markets and the demand for various agricultural goods. FAS “works to improve foreign market access for U.S. products, build new markets, improve the competitive position of U.S. agriculture in the global marketplace, and provide food aid and technical assistance to foreign countries.”²⁴

Small businesses with an interest in international trade can also explore programs at the state and local level, as many local government economic development agencies support exporting activities. Various private and non-profit groups also support exporting.²⁵

21 For a listing of available trade specialists from the U.S. Commercial Service, see <http://www.export.gov/eac/index.asp>.

22 See <http://www.us-dec.com/html/home.html> for more information.

23 See <http://www.exim.gov/about/mission.cfm>.

24 See <http://www.fas.usda.gov/aboutfas.asp>.

25 Examples include the American Association of Exporters and Importers (<http://www.aaei.org/>), the Small Business Exporters Association (<http://www.sbea.org/>), and various trade associations.

Challenges and Opportunities

Small businesses have often ignored the global marketplace. Demand for their products and services was sufficient in local markets, and there was no need to complicate matters by trading with foreign customers. Size has often been a challenge for many smaller firms, as small business owners could not afford to devote an employee's time to pursuing foreign deals. Palmetto Consulting (2004) examined this issue for the Office of Advocacy among a group of South Carolina businesses, and found that small businesses were generally not very proactive in exploring export markets. Businesses that did engage in international trade often did so based on "customer inquiries, rather than as a result of a carefully planned strategic initiative." Some small businesses also became involved in exporting as subcontractors to major contractors.

American businesses have long sought opportunities where they could find them. For those able to sell their goods and services to new markets, international trade can provide both opportunities and challenges. The opportunities are straightforward. In 2006, small businesses accounted for 28.9 percent of the \$910.5 billion in known exports. Overseas markets can provide new customers for small business owners, and entrepreneurs have yet to tap their full potential for growth in the export arena.

International trade, though, is not without risks. While it should not limit the willingness of a small business to explore new markets, the following is a partial discussion of some challenges for entrepreneurs exporting or importing their products and services.

Exchange Rate Risk. Fluctuating exchange rates are the most obvious challenge for any business engaged in international trade. Volatility in the terms of trade can affect the profitability of any transaction with a foreign customer. Recently, American companies have benefited from improved terms of trade, as the U.S. dollar has depreciated relative to foreign currencies. American goods and services are consequently cheaper and the overall trade deficit has improved, but small businesses willing to sell their wares overseas need to adjust for the opposite scenario as well. Feinberg (2008) showed through analysis of U.S. Census data that small manufacturers are less able than larger businesses to weather times with an appreciating U.S. dollar; that study showed that many manufacturers, especially in low-technology industries, were unable to survive. There are ways to hedge exchange

rate risk, and small businesses can adjust their pricing to compete effectively while also building in expectations for volatility in the terms of trade.

Global Competition. As Friedman (2005) notes, the world is growing “flatter” and Americans face competitors on a number of fronts, both at home and abroad. Much has been written on this topic, as the debate over globalization continues to garner attention in academic, media, and political circles. The U.S. government has worked to increase the ability of Americans to compete overseas by lowering trade barriers; government can also help ensure that trade laws are enforced.

Recently, the National Association of Manufacturers (NAM) released studies on the structural costs of manufacturing in the United States compared with its trading partners (Leonard 2003, 2006). Leonard found that U.S. manufacturers pay 31.7 percent more in nonproduction costs relative to the nation’s nine largest trading partners. Much of the difference is accounted for in higher costs for tax and regulatory compliance, energy expenditures, health and retirement benefits, and tort litigation.²⁶ U.S. businesses can effectively compete if they continue to meet the needs of their customers, rely on cutting-edge technology and innovation, and keep their businesses flexible and entrepreneurial (including exploring new markets through exporting).²⁷

One way American companies have been able to reduce their costs is by outsourcing some processes and tasks abroad. By producing some inputs elsewhere at lower cost, firms can more effectively compete on price while focusing domestic production efforts in other areas. To the extent that this practice may be seen as “outsourcing jobs,” it is controversial and not without real costs. But arguments can be made on both sides: foreign companies often outsource work to the United States as well—a practice known here as “insourcing”—and proponents of offshoring—the relocation of business processes from one country to another—suggest that it is a necessary strategy for firm survival in a global marketplace.²⁸

26 See <http://www.nam.org/costs> for both studies.

27 The National Association of Manufacturers published a separate report in 2006 by RSM McGladrey, *The future success of small and medium manufacturers: Challenges and policy issues*, which outlines 15 best practices for U.S. manufacturers to compete in the global marketplace. See http://www.nam.org/s_nam/bin.asp?CID=202515&DID=236457&DOC=FILE.PDF.

28 StratEdge (2008) examined this issue for the Office of Advocacy in their forthcoming paper, *Offshoring and U.S. small manufacturers*.

Regulatory and Legal Framework. American firms wishing to do business overseas must comply with paperwork and regulatory requirements in each country—a major issue for firms. Research by Djankov, Freund, and Pham (2007) for the World Bank suggests that administrative barriers dampen exports. In their analysis, an average country's exports are reduced by 1 percent for each additional day of delay out of the country because of trade barriers. The lesson is clear: ease of trading means increased exports. But opportunities for trade do not always coincide with low trade barriers, so would-be exporters are well advised to seek proper advice. Government assistance can be found through the U.S. export assistance centers and other resources. The Internet provides some general information. Business.gov—a portal maintained by the U.S. Small Business Administration—displays basic tips for new exporters.²⁹

Intellectual Property Concerns. According to analysis by Mogue (2003), small businesses are less likely to seek patent protection than their larger counterparts, making it more difficult to protect their innovations overseas. The U.S. Commerce Department's International Trade Administration offers assistance to businesses experiencing challenges in intellectual property protection abroad. A website, <http://www.stopfakes.gov>, provides information on piracy and possible remedies. General complaints about trade barriers or "unfair situations," including intellectual property theft, can be directed to the Trade Compliance Center at the International Trade Administration; see <http://tcc.export.gov>.

Other Risks. Most American trade flows to nations with little economic or political risk. The top five countries for U.S. exported goods are Canada, Mexico, China, Japan, and the United Kingdom, according to the most recent trade statistics. Nevertheless, American businesses will pursue opportunities wherever they exist, including in nations where the economic and political situation is less stable. Small businesses need to be aware of the risks when entering into international trade deals, especially if there is a chance of political turmoil that may result in a loss of investment. Lesser risks include changes in the tax and regulatory environment that may affect the overall profitability of exporting to or importing from a country.

²⁹ See <http://www.business.gov/guides/import-export/exporting.html>.

Conclusion

U.S. exports have been a bright spot in an economy that has been otherwise volatile. International trade represents a major opportunity for American businesses, both large and small. This chapter has outlined the growth in exports in recent years, including information on exporting companies. The decline in the value of the U.S. dollar has been one factor contributing to increased U.S. competitiveness. Another factor has been a measured increase in the perceived quality of American goods and services in the world. Innovation has been vital to creating new enterprises and products to better compete in a global marketplace. Recognizing this, other nations continue to invest in research and development in a global environment that will require sustained American growth and competitiveness in the years ahead.

Despite intense global competition, American businesses have always risen to the challenge, and they have long been able to compete with their foreign counterparts. Small business innovation and new firm formation are ways of ensuring that U.S. products and services remain on the cutting edge. The ability of U.S. companies to promote themselves in new markets around the world is also key. Free trade agreements can help bring down barriers to entry for U.S. goods and services, and a wide variety of government services are available to would-be exporters and importers.

Along with the challenges of global competition and doing business in a foreign country, there are tremendous rewards for small (and large) firms willing to take a risk on international trade. With small businesses selling nearly \$263 billion in known exports in 2006—up 68.7 percent from 1996—it is clear that more entrepreneurs have recognized and taken advantage of the potential contribution of overseas markets to their bottom line.

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5 SMALL BUSINESS TRAINING *and* DEVELOPMENT

Synopsis

Investment in training increases labor productivity, which contributes substantially to the growth of the U.S. economy. Small businesses have been both the primary job generators in the U.S. economy and major trainers of the American work force.¹ They provide 60 to 80 percent of net new jobs, employ about two out of three workers in their first jobs, and have trained much of the baby boom generation, as well as millions of younger workers and women returning to the labor force. Investment in training for aspiring entrepreneurs and owners of existing small businesses promotes productivity as well as job growth.

Overall, training in small firms is more general, informal, and flexible than training in large firms. Workers in small firms receive less employer-provided formal on-the-job training than those trained in large businesses, but are more likely to acquire training from other sources, such as business, technical, or vocational school programs, or two-year or community college programs, and to pay for training themselves. The more general and diverse training received by small firm workers enables them to adjust more readily to the changing needs of the economy, thereby increasing the overall flexibility and mobility of the labor market.

Because small firms are the first employers of a large proportion of workers, they are more likely to hire workers with less education. Many small businesses spend substantial resources to train workers informally and must focus considerable attention on teaching basic, even remedial, work habits, such as timely and regular attendance, working a full day or a full week, cooperating as a team, and basic computer skills.

As the U.S. population ages, the labor force will grow more slowly during the next decade. The older labor force is projected to grow more than five times

1 An earlier analysis of training and firm size using the Census Bureau's Survey of Income and Program Participation (SIPP) data can be found in Jules Lichtenstein (1988). Job training in small and large firms. In *Small business in the American economy*. Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, 73-116.

faster than the overall labor force, which will become much more racially and ethnically diverse.²

In addition to a shrinking, more diverse, and aging labor force, other changes expected over the next decade include increased demand for workers skilled in highly technical fields, and more competitive world markets. Such change will require businesses of all sizes to strengthen their training programs. Small businesses have proven their willingness to employ and invest in unskilled workers. Preliminary evidence indicates, however, that employer-provided training has declined in both small and large firms from the mid-1990s through 2004. Encouraging employers to sponsor more worker training is critical to dealing with skill shortfalls, implementing new technology, and keeping pace with foreign competition.

Small firms can remain competitive with large firms by retaining flexibility in their training programs. They are better able than large firms to adapt workers' prior education and training experiences to their needs. They provide a flexible environment in which an increasingly diverse work force can acquire a wide range of training that will be essential to meeting labor market demands of the 21st century. All firms will need to adapt to changes in the way workers are trained, using tools such as outsourcing of the design and delivery of training, e-learning, and the Internet and other innovative training and information technologies.

Promoting business formation and entrepreneurship through training opportunities aimed at aspiring and existing business owners will become especially important for the future economy and work force. Small businesses play an important role in the development of new business technologies, products, and services. For an aging work force as well, business ownership and self-employment are important options that provide the adaptability needed in a rapidly changing economic environment.

2 Mitra Toossi (2007). Employment outlook: 2006-16: Labor force projections to 2016: More workers in their golden years. *Monthly Labor Review* (November), 33-52.

Introduction

The Importance of Small Business

Small businesses have been the primary job generator in the U.S. economy, creating 60 to 80 percent of the net new jobs annually from 1994 to 2004. In the most recent year with data (2004), small firms accounted for all the net new jobs, and firms with fewer than 500 employees had a net gain of 1.86 million new jobs.³ One factor in this growth has been the steady increase in the labor force as the large cohort of Americans born between the late 1940s and early 1960s came of age. Another factor was the shift of employment away from goods-producing industries toward the service and emerging technology-driven sectors. As employers of many of the new workers moving into the labor force, small firms have helped to transform the basic structure of U.S. industry.

About two out of every three new workers get their first jobs in small firms.⁴ This means that small enterprises train and develop much of the work force. They have trained not only much of the “baby boom” generation, but many others who have never worked before, including millions of today’s teenagers and women returning to the labor force after raising families. Today’s economy requires higher levels of education and skills from American workers than at any previous period, and the fastest growing jobs, especially in high-tech industries, will be filled by “knowledge workers” equipped with specialized skills gained through post-secondary education and training.

In training, as in many areas, large firms and establishments have certain cost advantages. A key reason for the greater level of training provided by large firms is economies of scale associated with the provision of formal training.⁵ Another is the existence of internal labor markets in large firms and the greater opportunity for intra-firm job mobility, especially among multi-establishment

3 U.S. Small Business Administration, Office of Advocacy, *Frequently asked questions* <http://app1.sba.gov/faqs/faqindex.cfm?areaID=24>. (Accessed November 13, 2008.)

4 Bradley R. Schiller (1981). *Human capital transfers from small to large businesses*. Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, prepared under award no. SB-1A-00067-1. More recent data on this issue are not available, based on a thorough literature review.

5 Dan A. Black, Brett J. Noel, and Zheng Wang (1999). On-the-job training, establishment size, and firm size: Evidence for economies of scale in the production of human capital. *Social Economic Journal*, 66 (1), 83.

firms.⁶ On the other hand, while small firms provide less training on average, the payoffs that workers receive are greater in small firms. Wages grow faster in the first two years of employment in small firms than in large firms.⁷

The training offered in small firms tends to be more general, informal, and flexible than that provided by large firms. Many small firms may have little incentive to offer expensive training to new hires: workers can and often do take the benefits of training with them when they leave for other, often larger, firms. Nevertheless, small businesses frequently pay a great deal to hire and train their employees.

Large firms hire more skilled workers at the outset, and they provide more specific, formal training.⁸ However, small firms may provide as much total training—formal and informal—as large firms, and when on-the-job training is provided in small firms, it may be as extensive as that provided in large firms.

Opportunities for learning job skills—whether through formal or informal training programs—are an important benefit present in practically all work activities. The level of training available is linked to its costs. Employers must make tradeoffs between wages and nonwage benefits, such as health insurance and pensions, and training.

To remain competitive with large firms in the marketplace, small firms need to retain the flexibility to adjust their compensation packages—including wages and fringe benefits, as well as training costs—to the changing labor market. This flexibility will be particularly important in the future as the labor force ages and its growth declines.

The Changing Labor Force

Slow labor force growth will have a profound impact on both small and large businesses. In the future, firms may find they must raise wages, hire workers with lower levels of education, or substitute technology for workers. It will become more difficult to hire large numbers of new workers as a strategy for

6 Ibid., 82.

7 Mark C. Berger, John Barron, and Dan A. Black (2001). *Value of worker training programs to small business*. Washington, DC: U.S. Small Business Administration, Office of Advocacy, prepared under contract no. SBAHQ-99-R-0018, September 27, 2–3.

8 Some also argue that another explanation for the difference in the provision of training is that large employers have a greater opportunity to provide informal training through coworkers. Larger firms also may experience lower informal training costs if they can substitute coworkers for managers when providing informal training. Ibid., 83.

adapting to the changing economy, as has been done in the past. The labor force participation of youths 16 to 24 years old has been on a declining trend since the end of the 1980s.⁹

What kinds of skills, education, and training will be most needed, in light of the changing U.S. economy and labor force? Some have argued that future demands will be greatest in highly professional and low-paid service jobs. Others have argued that the demand will be the most significant for jobs in the middle of the labor market—those that require more than a high school diploma, but less than a four-year degree.¹⁰

Projections indicate there will be fewer high-wage unskilled jobs in the United States over the next decade. The number of jobs will continue declining in manufacturing and other industries where unskilled workers have traditionally found entry-level employment, while the number of skilled jobs in services will increase dramatically. The only goods-producing sector expected to exhibit positive employment growth between 2006 and 2016 is the construction sector. Service-providing sectors, on the other hand, are expected to generate nearly all of the employment gains from 2006 to 2016.¹¹ High wages will be more closely tied to technological knowledge or skills that give workers an edge in the world market. Upward mobility through the labor market will depend on education and skill levels. In addition, on-the-job training, whether formal or not, will be extremely important.¹²

Worker Characteristics and Business Size

Small businesses employ about half of U.S. workers. Of 115.1 million non-farm private sector workers in 2004, small firms with fewer than 500 workers employed 58.6 million and large firms employed 56.5 million. Firms with fewer than 20 employees employed 21.2 million, and firms with 100 employees, 41.8 million. Although small firms create 60 to 80 percent of net new jobs,

9 Toossi, 34.

10 Harry J. Holzer and Robert I. Lerman (2007). *America's forgotten middle-skill jobs: Education and training requirements in the next decade and beyond*. Washington, DC: Workforce Alliance, November, 3.

11 Toossi, 35.

12 Richard W. Judy and Carol D'Amico (1999), *Workforce 2020: Work and workers in the 21st century*. Indianapolis, Indiana: Hudson Institute, August, 133–134.

their share of employment remains steady, since some firms grow into large firms as they create jobs.¹³

The training needs of firms are directly related to the characteristics of the work force. Small firms employ a different mix of workers than large firms.

Typically, small business employees are more likely to be younger, entry-level workers. Many young workers find their first jobs in small firms and will continue to do so in the future.¹⁴ Analysis of data from the Census Bureau's 2004 Survey of Income and Program Participation (SIPP) reveals that almost 22 percent of workers in small firms with fewer than 100 employees are 15 to 24 years old, compared with less than 18 percent in large firms (*Table 5.1*). Older workers aged 65 and over also are more likely to be hired by small firms with fewer than 100 employees.¹⁵ Small firms are also more likely to hire White than Black workers, and workers in small firms are more likely to be unmarried than workers in large firms.

Small firms are more likely to employ Hispanic workers than their large business counterparts. Almost 17 percent of workers in firms with fewer than 100 employees are of Hispanic origin, compared with 12.3 percent of workers in firms with 100 or more employees (*Table 5.1*). The labor force participation rate of Hispanics has increased substantially in the past several decades and this group is projected to maintain its strong participation rates over the 2006–2016 period.¹⁶

Another key characteristic of workers is education, which provides the background necessary for most jobs.¹⁷ Educational attainment, especially beyond high school, is a key predictor of success in the labor market. Better schooling will be a necessity as jobs become increasingly technical. Eleven percent of all wage-and-salary workers—more than 12 million—lack a high school diploma, while more than 23 percent have at least four years of college (*Table 5.1*). On

13 U.S. Small Business Administration, Office of Advocacy, *Frequently asked questions*, op.cit.

14 Various factors can affect first entry into the job market. For example, 16- to 24-year-olds are more vulnerable than other age groups during recessions. They tend to stay in school longer during economic downturns and are more vulnerable than other groups during economic downturns. Toossi, op. cit., 34.

15 Recent Current Population Survey data indicate that more than two-thirds of workers aged 65 and over are employed in firms with fewer than 500 employees. These firms also employ almost 57 percent of all workers aged 55–64. See chapter 1.

16 Toossi, op. cit. 35.

17 There is no clear distinction between education and training. Education is frequently associated with general skills, while training is often connected with the acquisition of skills for a particular job or occupation.

Table 5.1 Demographic Characteristics of Wage-and-salary Workers by Firm Size, 2004 (percent except as noted)

	Total, all firms	Employment size of firm			
		1–24	25–99	<100	100+
Wage-and-salary workers ¹ (thousands)	111,441	27,091	14,862	41,954	69,482
Percent	100.0	24.3	13.3	37.6	62.3
Age					
15–24	19.2	23.1	19.1	21.7	17.6
25–34	23.4	23.1	24.9	23.7	23.1
35–44	23.9	22.4	23.1	22.6	24.7
45–54	20.4	18.1	20.7	19.0	21.2
55–64	10.4	9.6	9.7	9.6	10.9
65+	2.8	3.7	2.5	3.3	2.4
Total	100.0	100.0	100.0	100.0	100.0
Gender					
Male	53.4	54.6	55.1	54.8	52.6
Female	46.6	45.4	44.9	45.2	47.4
Total	100.0	100.0	100.0	100.0	100.0
Race					
White	80.9	86.0	85.6	85.8	80.0
Black	12.3	7.9	8.6	8.1	13.0
Other	6.8	6.1	5.8	6.0	7.0
Total	100.0	100.0	100.0	100.0	100.0
Origin					
Hispanic	14.0	17.1	16.0	16.7	12.3
Non-Hispanic	86.0	82.9	84.0	83.3	87.7
Total	100.0	100.0	100.0	100.0	100.0
Marital status					
Married, spouse present	51.7	48.7	51.5	49.7	64.4
Other	48.3	51.3	48.5	50.3	35.6
Total	100.0	100.0	100.0	100.0	100.0
Veteran status					
Veteran	8.2	6.7	7.5	7.0	8.8
Nonveteran	91.8	93.3	92.5	93.0	91.2

Table 5.1 Demographic Characteristics of Wage-and-salary Workers by Firm Size, 2004 (percent except as noted) (continued)

	Total, all firms	Employment size of firm			
		1-24	25-99	<100	100+
Total	100.0	100.0	100.0	100.0	100.0
Education					
<12 years	11.0	17.0	12.0	15.2	8.5
12–15 years	65.5	65.5	65.6	65.5	65.4
16 years or more	23.5	17.6	22.4	19.3	26.0
Total	100.0	100.0	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

average, workers in small businesses have less education than workers in large firms. More than 15 percent of small firm workers have not graduated from high school, compared with 8.5 percent of workers in large firms.

Small businesses will also be hiring more women, older individuals, Blacks, Hispanics, other minorities, and immigrants in the future, as these groups will be a larger share of the population and labor force. To the extent that the workers they employ may be less prepared for the workplace by prior education, training, or experience, small employers will need to invest more in training and education.

Small firms are also more likely to hire part-time and intermittent workers (*Table 5.2*). Women represent a significant proportion of these part-time workers. More than 21 percent of workers in small firms work part-time, compared with 14.6 percent of workers in large firms with 100 or more employees. Workers in small firms are also more likely to have lower wages and not to be covered by a union contract than their counterparts in large firms. To adjust to these major labor force changes, it is important for small businesses to retain their ability to adjust the mix of wage and nonwage costs—including training—to match changing labor force and economic conditions.

Table 5.2 Economic Characteristics of Wage-and-salary Workers by Firm Size, 2004
(percent except as noted)

	Total, all firms	Employment size of firm			
		1–24	25–99	>100	100+
Wage-and-salary workers ¹ (thousands)	111,441	27,091	14,862	41,954	69,482
Percent	100.0	24.3	13.3	37.6	62.3
Industry					
Goods ²	23.8	25.0	27.4	25.9	22.5
Services	76.2	75.0	72.6	74.1	77.5
Total	100.0	100.0	100.0	100.0	100.0
Covered by union contract					
Yes	8.5	2.3	6.0	3.6	11.5
No	91.5	97.7	94.0	96.4	88.5
Total	100.0	100.0	100.0	100.0	100.0
Hours worked					
Full-time ³	80.5	75.4	83.9	78.5	85.4
Part-time	19.5	24.6	16.1	21.5	14.6
Total	100.0	100.0	100.0	100.0	100.0
Paid by the hour					
Yes	61.0	62.0	61.1	61.7	60.5
No	39.0	38.0	38.9	38.3	39.5
Total	100.0	100.0	100.0	100.0	100.0
Hourly wage					
Less than \$5.00	2.8	2.7	3.5	3.0	1.7
\$5.01–\$10.00	53.7	58.1	49.6	55.1	45.5
\$10.01–\$28.50 ⁴	43.4	39.2	46.9	41.9	52.8
Total	100.0	100.0	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers, except unpaid family workers.

² Includes agriculture, mining, construction, and manufacturing.

³ Worked 35+ hours per week.

⁴ Hourly wages top-coded at \$28.50 by Census Bureau.

Source: U.S. Small Business Administration, Office of Advocacy, Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Key Training Issues

Training in small versus large firms can be examined along several key dimensions. Basic issues and questions related to worker training include:

- What types of training are these workers given (for example, general versus specific, formal versus informal)?
- How much training do workers in these firms receive?
- Who is receiving training?
- Where does this training take place (for example, on the job or off the job)?
- Who pays for the training?
- Do workers use the training they receive?

Training is not limited to wage-and-salary workers—aspiring entrepreneurs and owners of existing businesses also participate in formal training activities.¹⁸ In addition, business owners gain key business ownership skills from previous employment or previous business ownership.¹⁹ The 2004 SIPP topical module asks business owners about their formal training activities during the past year and the past 10 years. Therefore it is possible to address the basic question, how much training do business owners receive?

18 See Robert W. Fairlie (2001). *Economic growth among disadvantaged business owners*. Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, prepared under contract SBAHQ-00-M-0596. For example, business training is provided by SBA through the Small Business Development Center (SBDC), Small Business Training Network, and Service Corps of Retired Executives (SCORE) programs. Numerous training activities for business owners are provided at the state and local levels.

19 For example, the skills that veteran business owners gained from previous employment and/or previous business ownership included managing employees, dealing with customers, marketing products or services, managing tax laws, and anticipating business trends. See Waldman Associates and REDA International (2004). *Entrepreneurship and business ownership in the veteran population*. Washington, D.C.: U.S. Small Business Administration, Office of Advocacy, prepared under contract SBAHQ-00-R-0029, November. 58.

Types of Training

Defining and Measuring Training

Training can be classified and described in many different ways.²⁰ The analysis in this chapter is based on data from the 2004 SIPP Education and Training History Topical Module. The 2004 SIPP is a national survey of approximately 45,000 households (including about 100,000 individuals) conducted by the Census Bureau. The SIPP includes a core survey as well as topical modules that focus on areas of special interest. The Education and Training History topical module administered in Wave 2 (June to September 2004) provides information on work-related training. The module defines training along two basic dimensions, and measures training during the previous year that 1) helps persons search or be trained for a new job, and 2) helps improve skills in a person's current job.²¹

In addition to these two dimensions defined by SIPP, there are many other ways to sort and measure training. For example, basic ways to classify training include whether training is general or specific, formal or informal, and who pays for or sponsors it—employers, government, individuals, family members, or others. Obviously, there may be some overlap among these categories.²²

20 Training is difficult to describe because of conceptual problems in defining and measuring it and because of a lack of good sources of data. No statistics are published regularly by the federal government on training. Data on training by firm size are even more difficult to obtain. However, some information is available from the Bureau of the Census, 2004 Survey of Income and Program Participation (SIPP) and the National Longitudinal Surveys of Labor Market Experience (NLS) commissioned by the Labor Department, and employer surveys. Other surveys that provide limited firm size information include the 1997 National Employer Survey, the 1995 Survey of Employer-Provided Training, and the 1995 National Household Education Survey. SIPP includes information about individuals who participated in a training program and the size of the firms the individuals worked for (firm size categories include 1–24, 25–99, and 100+ employees), provided they held a job in the four-month period preceding the interview month. See the appendix in this chapter for a fuller discussion of the SIPP. SIPP also provides information on whether an individual worked at a single- or multiple-establishment firm.

21 Both types of training are included in the definition of “formal” training in this chapter. Employer-provided training is defined as training paid for by a current or previous employer. SIPP training questions pertain only to individuals aged 15–65; therefore it is not possible to analyze the oldest workers—those aged 66+.

22 The definitions of training in this chapter are consistent with those in a recent U.S. Department of Labor-funded study. In this recent study “employer-provided training” based on 1996 SIPP data is defined in terms of the two SIPP dimensions as 1) training that helps persons search for or be trained for a new job, and 2) training that helps improve skills in a person's current job. If a current or previous employer sponsored or paid for either of these two types of most recent training, this information is included in a measure of employer-provided training. Robert I. Lerman, Signe-Mary McKernan, and Stephanie Riegg (2004). The scope of employer-provided training in the United States: Who, what, where, and how much? In Christopher J. O'Leary, Robert Straits, and Stephen A. Wandner. *Job training policy in the United States*. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 2004, 212.

Training Types Provided to Workers in Small and Large Firms

General Versus Specific Training

Measuring general versus specific training is not necessarily straightforward: there are differences of opinion on what constitutes each type of training. For example, according to recent research, computer training could be considered general training.²³ Others might consider this specific training.²⁴

Past research has found that workers in large firms receive relatively large amounts of specific training.²⁵ Small firms, on the other hand, tend to use less capital-intensive technologies than large firms, and they do not realize the same benefits from specific training. Because they provide more general training for their workers, small businesses can more readily shift their production of goods and services across alternative product lines.

Small firms frequently hire workers with less training or more general training than do large firms. More adaptable capital and labor enable small firms to adjust more easily, not only to the volume, but also to the mix of output.

Analysis of 2004 SIPP data indicates that a higher proportion of all workers received training for new specific job skills (for example, how to use equipment, machinery, or technical processes) than basic skills (such as office software, work habits, or management practice)—56.0 percent versus 38.2 percent (*Table 5.3*). There was virtually no difference between small and large firms in the levels of these kinds of training. SIPP data on a range of job skill training purposes indicate differences between workers in small and large firms only with respect to training designed to introduce company policies and training designed to prepare a worker for a position outside the organization (*Table 5A.1*).

The interaction between specific and general skills is another reason firms provide training. The ability to benefit from general training (use of a specific piece of software) may increase when the worker knows the goals of the firm

23 Robert I. Lerman, Signe-Mary McKernan, and Stephanie Riegg (1999). *Employer-provided training and public policy*. Washington, DC: The Urban Institute, December 20, 6.

24 Results from the Bureau of Labor Statistics training survey indicated that computer training was a commonly received type of job skills training and that computer training was both formal and informal. Bureau of Labor Statistics (1996). 1995 Survey of Employer-Provided Training—Employee Results. U.S. Department of Labor, *BLS News*, USDL 96-515, December 19.

25 Berger, Barron, and Black, op. cit., 3.

Table 5.3 Training¹ for Basic Job Skills Versus New Specific Work Skills Received by Wage-and-salary Workers² During the Past Year by Firm Size, 2004 (percent)

Training design	Total, all firms	Small firms (<100 employees)	Large firms (100+ employees)
Basic skills ³	38.2	37.6	38.5
New specific job skills ⁴	56.0	56.8	55.8

¹ Includes only training to improve job skills in current job during the past year.

² Private sector wage-and-salary workers aged 15–65, excluding unpaid family workers.

³ Examples include training related to office software, work habits, or management practice.

⁴ Examples include training on how to use equipment, machinery, or technical processes.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation (2004), Wave 2.

(specific training). The greater the workers' general skills, the more valuable their specific training is to the employer, who can in turn recoup some of the benefits of this specific training.²⁶

Workers receiving general training usually have lower wages and higher mobility. That is, firm-specific training encourages firms to pay more and workers to stay longer because the training costs may be higher and borne jointly by the worker and the firm, and the skills may be less transferable than those resulting from general training.²⁷

Workers learn skills in a variety of business functions and operations in small firms. Workers trained in a broad range of skills can adjust more easily to both displacements and voluntary job changes than workers with very specific skill training. Thus, small firms provide the general training and broad-based exposure that promotes human capital development and assists flexibility and mobility in the job market.

Formal versus Informal Training

Another basic dimension of training is whether it is provided through “formal” training programs—such as on-the-job training, apprenticeship, or vocational training—or whether it is provided through more informal methods. Informal training occurs through observation, trial and error, and

26 Ibid., 32.

27 Council of Economic Advisors (1988). *Economic report of the president*. Washington, D.C.: U.S. Government Printing Office, February, 170.

participation in everyday work activities. It is likely to be more general and less firm-specific than formal training.

The vast majority of training studies focus on formal training because it is easier to measure. Yet failure to include informal training in any measure of job training may understate the training received by workers in small firms. In fact, most training occurs through informal mechanisms. The Bureau of Labor Statistics estimates that 70 percent of all training hours were spent receiving informal training, while the remaining 30 percent were in formal training and that about 65 percent of all training costs for wage-and-salary workers went for informal training.²⁸

Research has found that employees of firms with at least 100 workers were about twice as likely as their smaller firm counterparts to receive formal training. The cost advantages to large establishments in the use of advanced technologies are similar to the cost advantages from the provision of formal training.²⁹ Whatever type of training occurs increases a worker's productivity; this can be expected to be reflected in higher earnings. Large firms pay higher wages, on average—an indication that they are able to hire more capable or better prepared workers to begin with.

Research has found that new hires in large firms are likely to receive more formal training than new hires in small firms. However, smaller firms do provide more training to new hires with less education or experience.³⁰

Sources of Formal Training

A wide range of formal training opportunities and alternatives is available to both employees and employers. Formal training programs include apprenticeships;³¹ military training; correspondence courses; specific training

28 Harley Frazis, Maury Gittleman, Michael Horrigan, and Mary Joyce (1998). Results from the 1995 Survey of Employer-Provided Training. *Monthly Labor Review* 121 (6):3–13. This survey provides information on both formal and informal training from private establishments with 50 or more employees.

29 Black, Noel, and Wang. *op. cit.*, 83.

30 Berger, Barron, and Black, *op. cit.*

31 Apprenticeship training, that is, training that combines on-the-job training with classroom instruction, is not widely used in the United States—less than three-tenths of 1 percent of the work force is trained this way. Where it is used it has been shown to be an effective training method. Apprentice-trained workers are more likely to earn more money, work more hours, and rise to supervisory status than are workers who have learned a trade through other methods. Robert J. Gitter (1994). Apprenticeship-trained workers: United States and Great Britain. *Monthly Labor Review*, vol. 111, no. 4 (April), 38–43.

received at business, commercial, and vocational schools or at junior and community colleges, four-year colleges, and graduate schools; government-sponsored training programs; and company training in existing or previous jobs.

Workers typically participate in various combinations of formal training throughout their careers. Different types of training are typically obtained at different locations—on the job or off the job—and involve different payers as well as costs. Training can be paid for by employers, the employees themselves, various public or private entities, or a combination. Sorting out these complex sets of relationships can be difficult (see *Table 5.12*).

Vocational education provides both specific skills for some occupations and the general background needed for many jobs. Some studies show that vocational education graduates are more likely to work in small than large firms and that such training tends to raise productivity and reduce training costs more in small firms than in large firms.³² The 2004 SIPP data indicate, however, that workers in small firms are less likely than their counterparts in large firms to have a vocational certificate—almost 35 percent versus 41 percent, respectively (*Table 5A.2*).

The Federal Government's Role in Formal Training Programs

The federal government's support for training has taken a variety of forms, from registering apprenticeship programs to providing funding or tax incentives for training individuals who meet certain income or employment eligibility criteria. Federal efforts first focused on supporting in-school vocational education 70 years ago in the late 1930s, when apprenticeship programs were being registered. In the 1960s the Manpower Development and Training Act (MDTA) targeted job training to low-income and welfare recipient populations.³³ In a more comprehensive approach in the 1970s, employment and training programs were established in an attempt to alleviate poverty and unemployment by providing direct funding for programs that hire and train the economically disadvantaged. The thrust of employment policy during this decade was decentralization—the transfer of authority from the federal government to states and localities. The Comprehensive Employment and Training Act (CETA)

32 John H. Bishop, *On-the-job training in small business*, op. cit., 19.

33 Christopher J. O'Leary, Robert A. Straits, and Stephen A. Wandner (2004). *Job training policy in the United States*. Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 9.

established the concept of local control in targeting job training to the economically disadvantaged, welfare recipients, and disadvantaged youth.

The Job Training Partnership Act (JTPA) of 1983, which replaced CETA, targeted federal funding to employers who provide job training. It transferred much of the federal government's responsibilities to state and local governments and local private industry. This program made training available to economically disadvantaged adults and youth, and dislocated workers. JTPA required that private industry councils (PICs) be established within each service delivery area. Members of PICs were volunteers selected by local elected officials from among private-sector representatives nominated by business organizations such as local chambers of commerce and small businesses, including minority enterprises. Other members represented educational agencies, community-based organizations, economic development agencies, and public employment services. PICs had a major role in setting and implementing training policies at the state and local levels. Small businesses were heavily involved in establishing these policies and providing the actual training, and firms were well represented on the local PICs. Nearly three-fourths of the PIC chairpersons worked for companies employing 500 or fewer workers, and half represented firms with 100 or fewer employees.³⁴

In the mid-1990s the focus shifted from training to job placement/job search assistance as a result of policy changes such as the one-stop career center (OSCC) movement, in which states were offered grants to start these centers. A key component of the OSCC initiative was "universal access" to JTPA and employment service programs within the OSCCs. The gap that emerged between the universal access emphasis and declining real funding for all programs resulted in a changing mix of services and a decrease in training assistance. The emphasis was on job placement as a means to self-sufficiency. The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 and the Workforce Investment Act (WIA) of 1998 illustrate this change. The former reformed the nation's welfare laws. The latter reformed federal job training programs to make them customer-focused by helping individuals access tools to manage their careers, and helping employers find skilled workers.³⁵

34 National Commission for Employment Policy (1987). *The Job Training Partnership Act*. Washington, D.C.: National Commission for Employment Policy, September, 39–41.

35 O'Leary, Straits, and Wandner, op. cit., 10.

Major innovations in WIA included 1) codification of one-stop career centers; 2) individual training accounts that are vouchers for job seekers; and 3) universal access to core employment services, but more restricted access to intensive services and training.³⁶ Entrepreneurial training is one of 11 kinds of training specified under the WIA program, although such training has been limited.

The States' Role in Formal Training Programs

Most publicly subsidized job training is provided by the federal government. U.S. Labor Secretary Elaine Chao said of her department in 2008 that “We should really be called the department of job training,” noting that 90 percent of the department’s budget is devoted to training.³⁷ Recently, several states have subsidized worker training to try to retain businesses and increase business competitiveness. The shift from manufacturing to services has left many states with outdated manufacturing infrastructure and workers who lack skills relevant to the available job opportunities and therefore have diminished employment prospects.³⁸

States have assisted worker training programs in several different ways. These include reserving WIA funding for state administrative purposes (one allowable expense is worker training), state funding of customized training for economic development, the use of general appropriations for training, and offering training tax credits for firms. The Self-Employment Assistance Program, aimed at helping the unemployed start businesses, was enacted in 1993 but has remained small, mostly because states cannot use the Unemployment Insurance (UI) Trust Fund for training or startup costs, and WIA funding has not been provided for these purposes.³⁹ According to one estimate, states spent almost \$720 million in 2006 on worker training, with the largest source of funds to subsidize training coming from surcharges on firms’ or employees’ unemployment insurance tax liabilities or from interest accrued on state UI trust funds.⁴⁰

36 O’Leary, Straits, and Wandner, op. cit., 11.

37 Brendan Minter (2008). “I see opportunities in this country a little differently.” The weekend interview with Elaine L. Chao. *The Wall Street Journal* (July 12–13).

38 Kevin Hollenbeck (2008). *Is there a role for public support of incumbent worker on-the-job training?* Up-John Institute Staff Working Paper No. 08-138 (January), 2.

39 The Unemployment Trust Fund cannot be used for training. About 40 states have circumvented this through an offset tax or state general revenue.

40 Ibid., 5–7.

How Much Training is Occurring in Small Firms Compared with Large Firms?

Data from the 2004 SIPP indicate that more than 21 million private sector wage-and-salary workers (19.6 percent of the total private sector work force) received formal training to improve skills on their current jobs or to help search or train for a new job in the previous year (*Table 5.4*).⁴¹ Almost 85 percent of this training was to improve skills on current jobs, and there were significant differences in the levels of this training received by workers in small (10.8 percent) versus large firms (20.0 percent).

Overall, more than 37 million workers indicated they had received training to improve job skills or to help search or train for a new job over the previous 10 years (*Table 5.4*).⁴² Workers in small firms with fewer than 100 employees were much less likely than their large firm counterparts to receive formal training. More than 23 percent of workers in large firms received training (for a new or current job), compared with 13.3 percent of workers in small firms. Of large firm workers, 38.9 percent indicated they had received training over the previous 10 years, compared with 26.6 percent of workers in small firms. Workers in multi-establishment firms are more likely to receive training than workers in single-establishment firms (*Table 5A.3*).

Almost 9 million baby boomers (almost 21 percent of the private sector boomer workforce) received training to improve skills on their current job or to help search for a new job during the previous year (*Table 5A.4*).⁴³ In addition, almost 17 million baby boomers indicated they received such training over the previous 10 years.

41 Training can take place at different times on a particular job. For example, a new hire or employee can receive training either soon after being hired or years later. The types of training provided can be very different depending on when it occurs.

42 Researchers have addressed the question of when training occurs by examining both whether training has ever occurred during an individual's career and whether training has occurred on a particular job, either current or prior. Unfortunately, data are not always available to pinpoint the job at which the training actually occurs. The 1984 SIPP classified training by when it occurred: during the work career, 1980 or later, and on the current job. U.S. Small Business Administration, Office of Advocacy, *Small business in the American economy*, op. cit., 89.

43 Baby boomers are defined here as individuals born between 1946 and 1964.

Table 5.4 Work-related Training Experience¹ of Wage-and-salary Workers Employed in 2004, by Firm Size

	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total number of wage-and-salary workers ² (thousands)	108,840	40,757	68,077
All training¹ during the last 10 years			
Thousands of workers	37,306	10,837	26,468
Percent	34.3	26.6	38.9
All training¹ on current job in the past year			
Thousands of workers	21,304	5,428	15,876
Percent	19.6	13.3	23.3
Training to help search or train for a new job			
Thousands of workers	3,319	1,037	2,282
Percent	3.0	2.5	3.4
Training to improve skills on current job			
Thousands of workers	17,985	4,390	13,594
Percent	16.5	10.8	20.0

¹ Includes workers who received either: 1) training to help search/train for a new job, or 2) training to improve skills in the current job. Workers were aged 15–65 at the end of the reference period.

² Includes all private-sector wage-and-salary workers aged 15–65 except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Trends in Training in Small and Large Firms

Are small and large firms increasing the amount of training they sponsor in response to the rising need for skilled workers? Has the incidence of employer-provided training for workers in small and large firms changed over time? Evidence from the 1996, 2001, and 2004 SIPP surveys shows decreases in employer-provided training over the nine-year period (1996 to 2004).⁴⁴ The percentage of private sector workers aged 15–65 who received training paid for by their employer fell from 25.3 percent in 1996 to about 16 percent in 2004 (*Table 5.5, Figure 5.1*). Training for workers in small firms with fewer than 100

⁴⁴ The SIPP provides an accurate measure of training over time by using the same universe and questions in each survey.

Table 5.5 Trends in Employer-Provided Training During Past Year for Wage-and-salary Workers by Firm Size: 2004–1996

Year	Total, all firms	Employment size of firm			
		1–24	25–99	<100	100+
2004					
Number of workers ¹ (thousands)	108,840	26,228	14,528	40,757	68,077
Training in the previous year ² (thousands)	17,347	2,022	1,897	3,919	13,427
Percent	15.9	7.7	13.1	9.6	19.7
2001					
Number of workers ¹ (thousands)	107,081	24,416	14,663	39,079	67,959
Training in the previous year ² (thousands)	23,348	2,806	2,463	5,270	18,060
Percent	21.8	11.5	16.8	13.5	26.6
1996					
Number of workers ¹ (thousands)	99,157	24,280	13,769	38,050	61,030
Training in the previous year ² (thousands)	25,113	3,297	2,675	5,972	19,122
Percent	25.3	13.6	19.4	15.7	31.3

¹ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

² Includes workers who received training paid for by an employer to either: 1) help search for or train for a new job, or 2) improve skills in current job during the past year.

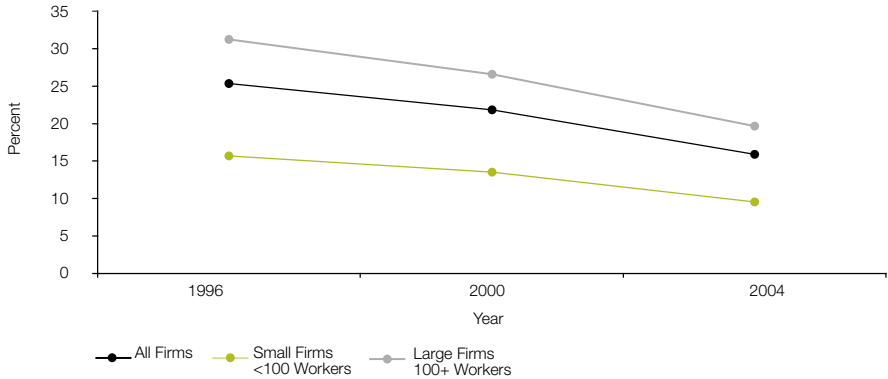
Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

employees dropped 6.1 percentage points; for large firm workers it fell 11.6 percentage points over the period.

This trend appears to have reversed the growth in training that was evident prior to 1996. A recent study, using SIPP data to measure the percentage of workers receiving training from 1984 to 1996, found that those who received employer-provided training rose from 6 percent of workers aged 18–64 in the 1984 SIPP, to 20 percent in the 1996 SIPP—with the largest increase occurring between 1993 and 1996.⁴⁵

⁴⁵ Lerman, McKernan, and Riegg. *The scope of employer-provided training in the United States*, op. cit., 223.

Figure 5.1. Trends in Employer-Provided Training of Private Sector Wage-and-salary Workers in Small and Large Firms, 1996–2004



Source: U.S. Census Bureau, Survey of Income and Program Participation, Education and Training History Topical Module, Wave 2, 2004, 2001, and 1996

Intensity and Length of Training

It is difficult to generalize about the intensity of workers' training, because the few surveys that provide measures produce very different results.⁴⁶ Some measures of the intensity of training indicate that workers in large firms receive significantly more training than their counterparts in small firms. One such intensity measure is hours of training per week. Workers in small firms with fewer than 100 workers were as likely as their large firm counterparts to have lengthy training. According to SIPP data, about 88 percent of workers in both small and large firms who had job skill training on their current job in the past year, had training that lasted a week or less (*Table 5.6*). While the proportion of workers with some training is positively related to firm size, the amount of training measured by duration is unrelated to firm size. About 12 percent of workers in both small and large firms had training that lasted more than one week.

On some measures, workers in small firms received more training than workers in large firms. Workers in small firms with fewer than 100 employees trained to improve job skills on their current job during the previous year had lengthier training, measured in the total number of weeks, than workers in large firms (*Table 5A.5*).

46 Robert I. Lerman, Signe-Mary McKernan, and Stephanie Riegg (1999). *Employer-provided training and public policy*. Washington, DC: The Urban Institute, December 20, 35.

Table 5.6 Average Length of Training Received During the Previous Year for Wage-and-salary Workers¹, 2004 (percent, except as noted)

Industry	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total wage-and-salary workers (thousands)	108,840	40,757	68,077
Training to help search or train for new job during previous year (thousands of workers)	3,319	1,037	2,282
Less than 1 full day	27.1	25.9	27.7
1 day to 1 week	34.3	36.7	33.2
More than 1 week	31.9	31.4	32.2
Currently in training	6.6	6.0	6.9
Total	100	100	100
Training in previous year to improve skills in current job (thousands of workers)	17,709	4,332	13,377
Less than 1 full day	36.7	36.0	36.9
1 day to 1 week	51.3	51.8	51.2
More than 1 week	9.1	9.0	9.1
Currently in training	2.9	3.2	2.8
Total	100	100	100

¹ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

The amount of training received varies by worker characteristics. There is some evidence that employer-provided training is disproportionately reaching more advantaged (that is, well-educated, higher-earning) workers. However, the intensity of training is generally higher for young, part-time, and less experienced workers.⁴⁷

Location of Training: On or Off the Job

Training can be obtained at a variety of locations. The most basic distinction is whether it occurs at work—that is, on the job—or at another location outside the workplace—off site or off the job. First-time workers, by definition, have not acquired on-the-job training, but may have participated in off-site training in a vocational or other context.

⁴⁷ Robert I. Lerman, Signe-Mary McKernan, and Stephanie Riegg, *Employer-provided training and public policy*. op. cit., 35–36.

Table 5.7 Location of Training/Trainer to Improve Job Skills in Current Job During Past Year, of Wage-and-salary Workers¹ in 2004, by Firm Size

	Total	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total wage-and-salary workers ² (thousands)	108,840	40,757	68,077
Training to improve job skills on current job			
Thousands of workers	17,985	4,390	13,594
Percent of total wage-and-salary workers ²	16.5	10.8	20.0
Training location ³			
Percent on the job	57.8	43.2	62.5
Percent off the job	38.8	53.4	34.1
Percent other	3.4	3.3	3.4
Location of trainer providing on-the-job training ³			
Percent insider taught	72.8	61.2	75.4
Percent outsider taught	27.2	38.8	24.6

¹ Includes workers who received training to improve skills in current job and were aged 15–65 at end of reference period.

² Includes all private sector wage-and-salary workers (except unpaid family workers) aged 15–65.

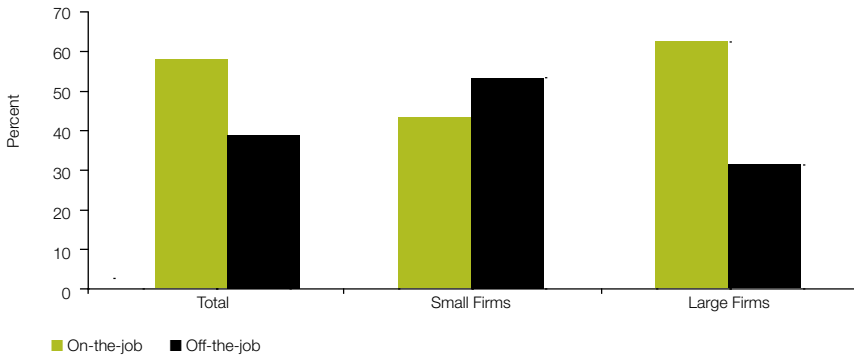
³ Percent of total private total private sector wage-and-salary workers (except unpaid family workers) aged 15–65 who received training to improve skills in current job during past year.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

As noted earlier, the proportion of all workers who have participated in a training program on or off the job to improve job skills on their current or most recent job during the past year is higher among employees of large firms (20.0 percent) than small (10.8 percent).

In 2004, of workers who participated in training on their current or most recent job during the previous year, almost 57.8 percent indicated that this most recent training experience was on the job and 38.8 percent indicated it was off the job (*Table.5.7* and *Figure 5.2*). Small firm workers are more likely to have obtained recent training to improve job skills off the job (53.4 percent), while those in large firms are more likely to have been trained at work (62.5 percent). It may be that small firms find it more economical to hire workers who have invested in training outside the workplace. This probably also reflects

Figure 5.2 Location of Training to Improve Job Skills in Current Job by Firm Size, 2004



Source: U.S. Census Bureau, Survey of Income and Program Participation, Education and Training History Topical Module, 2004, Wave 2.

the fact that small businesses employ younger workers who are more likely to have taken vocational training at schools and other institutions.

Small and large firms obtain on-the-job training resources from different sources. Large firms are much more likely to rely on internal training and teaching resources than small firms. More than 75 percent of workers who received large firm on-the-job training indicated they were insider-taught, compared with 61.2 percent of workers in small firms (*Table 5.7*). Large firms are much more likely than small firms to have the in-house resources to meet their on-the-job training needs and are probably less likely to outsource.

Sources of Job Search or New Job Training

Workers in small firms who have received job search or new job training are more likely than their large firm counterparts to have participated in every other type of training except employer-provided on-the-job training, including attending business, technical, or vocational schools; two-year or community colleges; four-year college or university programs; correspondence courses, sheltered workshops or vocational rehabilitation center programs (*Table 5.8* and *Figure 5.3*). Clearly, the traditional school system, as well as the more specialized schools and programs, are more important sources of job training for workers in small firms. This illustrates the diverse and flexible manner in which workers in small firms acquire training and adapt to changing job requirements.

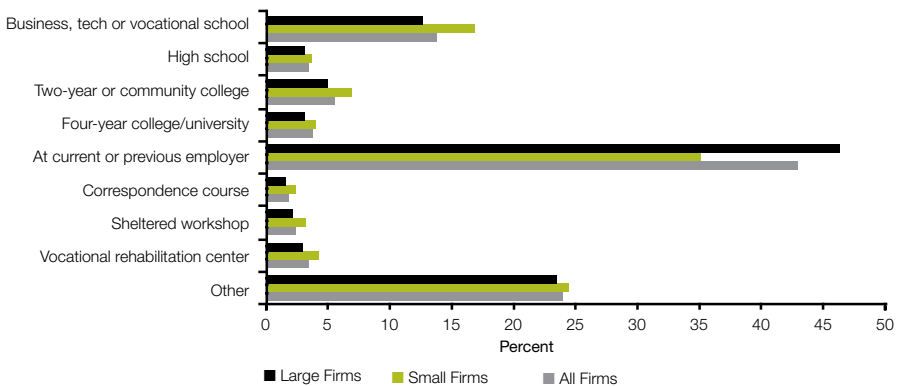
Table 5.8 Source of Training for Job Search or New Job During the Previous Year for Wage-and-Salary Workers¹ Employed in 2004, by Firm Size (percent except as noted)

	Total, all firms	Employment size of firm			
		1–24	25–99	<100	100+
Workers with training for job search/new job in previous year (thousands)	3,151	586	382	968	2,182
Source of training					
Business, technical, or vocational school	13.9	18.8	14.0	16.9	12.6
High school	3.4	5.7	0.7	3.7	3.2
Two-year or community college	5.4	6.2	7.4	6.7	4.9
Four-year college or university	3.5	2.9	5.7	4.0	3.2
At current or previous employer	42.8	29.1	43.7	34.9	46.3
Correspondence course	1.7	3.0	0.9	2.2	1.5
Sheltered workshop	2.3	3.8	1.9	3.0	2.0
Vocational rehabilitation center	3.3	5.1	2.6	4.1	2.9
Other	23.8	25.4	23.2	24.5	23.4
Total	100.0	100.0	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Figure 5.3 Source of Training for Job Search or New Job During Past Year for Wage-and-salary Workers by Firm Size, 2004



Source: U.S. Census Bureau, Survey of Income and Program Participation, Education and Training History Topical Module. 2004. Wave 2.

Training and Worker Characteristics

Worker characteristics appear to be related to a worker's participation in training and to the location at which that worker receives training. Firm size is an especially influential factor. For example, with few exceptions, workers in large firms, regardless of their demographic and economic characteristics, are more likely to receive training (at any location) than their small firm counterparts (*Tables 5.9 and 5.10*).⁴⁸ Overall, workers who participate in training are more likely to be

- of prime working age (25 to 54 years old) rather than older (55 to 65 years old) or younger (under 25),
- female rather than male,⁴⁹
- married rather than divorced or unmarried,
- white rather than Black and non-Hispanic rather than Hispanic,
- college educated rather than high school dropouts,
- in the service industries rather than goods-producing industries,
- full-time rather than part-time,
- salaried rather than hourly wage, and
- highly paid rather than low-paid.

When training location is considered, workers in small and large firms differ in their participation by several characteristics. For example, Blacks are more likely than Whites to receive on-the-job training in small firms, while the reverse is true in large firms. Also, in large firms, workers covered by a union contract are more likely than uncovered workers to receive training that is not located at the workplace.

The location of the training received by workers in small and large firms differs by major industrial sector. In large firms, service sector workers are more likely

⁴⁸ The only exceptions are found in union coverage and hourly wages above \$5.00.

⁴⁹ This is a reversal of the finding from 1984 SIPP data showing men more likely to receive training than women. *Small business in the American economy* (1988), op. cit., 101. It is important to note that there are several differences in training questions asked in the 1984 and 2004 SIPP modules.

Table 5.9 Job Training¹ During Past Year by Location, Worker Demographic Characteristics and Firm Size, 2004 (percent)

	Total, all firms	Total, all training		On the job			Other ²		
		Small firms	Large firms	All firms	Small firms	Large firms	All firms	Small firms	Large firms
All workers ³	19.2	13.0	22.9	10.8	5.5	14.0	8.4	7.5	8.9
Age									
16–24	13.0	9.7	15.5	8.4	5.6	10.5	4.6	4.0	5.0
25–34	22.0	14.9	26.5	12.4	6.2	16.3	9.6	8.7	10.2
35–44	20.4	13.9	24.0	11.0	5.3	14.1	9.4	8.7	9.8
45–54	20.7	13.5	24.5	11.4	5.0	14.8	9.3	8.6	9.7
55–65	18.3	12.8	21.3	9.9	5.1	12.5	8.4	7.7	8.7
Gender									
Male	17.5	11.0	21.5	10.0	4.8	13.2	7.5	6.3	13.2
Female	21.1	15.4	24.4	11.7	6.4	14.8	9.4	9.0	14.8
Race									
White	19.3	13.1	23.3	10.6	5.4	14.0	8.7	7.8	9.2
Black	17.4	11.9	19.4	10.6	6.3	12.2	6.8	5.6	7.2
Other	20.6	13.0	24.4	12.8	6.2	16.1	7.8	6.8	8.3
Origin									
Hispanic	11.1	6.3	15.0	6.8	3.1	9.9	4.2	3.2	5.0
Non-Hispanic	20.5	14.4	24.0	11.4	6.0	14.5	9.1	8.4	9.5
Marital status									
Married, spouse present	20.5	14.1	24.1	11.0	5.3	14.3	9.5	8.9	9.8
Other	17.7	11.9	21.5	10.5	5.7	13.6	7.2	6.2	7.9
Veteran status									
Veteran	20.6	14.1	23.4	11.2	4.8	13.9	9.4	9.3	9.4
Nonveteran	19.4	13.2	23.2	10.9	5.6	14.1	8.5	7.6	9.0
Education									
<12 years	6.1	4.5	8.0	4.1	2.5	5.8	2.1	2.0	2.1
12–16 years	17.8	12.6	21.0	10.4	5.6	13.3	7.4	7.0	7.6
16+ years	29.0	21.2	32.4	14.9	7.6	18.2	14.1	13.6	14.3

¹ Includes workers who during the previous year received training from a current or previous employer that was intended to 1) help search for or train for a new job, or 2) improve skills in a current job.

² Includes off-the-job training plus “other” category.

³ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Table 5.10 Job Training¹ During Past Year by Location, Economic Characteristics of Workers and Firm Size, 2004 (percent)

	Total, all firms	Total, all training		On the job			Other ²		
		Small firms	Large firms	All firms	Small firms	Large firms	All firms	Small firms	Large firms
All workers ³	19.2	13.0	22.9	10.8	5.5	14.0	8.4	7.5	8.9
Industry									
Goods ⁴	15.5	8.8	20.2	9.0	3.9	12.6	6.5	4.9	7.6
Services	20.3	14.5	23.6	11.3	6.0	14.4	9.0	8.4	9.3
Covered by union contract									
Yes	19.4	15.5	20.1	12.6	4.9	14.0	6.8	10.6	6.1
No	19.1	12.9	23.2	10.6	5.5	14.0	8.5	7.4	9.3
Hours worked									
Full-time ⁵	20.9	14.1	24.6	11.8	5.9	15.0	9.1	8.2	9.5
Part-time	13.6	9.8	16.8	7.8	4.4	10.7	5.8	5.4	6.1
Paid by hour									
Yes	15.4	10.7	18.3	9.3	5.1	11.9	6.1	5.6	6.4
No	25.0	16.7	29.8	13.0	6.1	17.0	12.0	10.6	12.8
Hourly wage rates									
Less than \$5.00	10.3	6.9	14.1	6.7	4.2	9.4	3.6	2.7	4.7
\$5.00–\$9.99	11.1	8.7	12.8	6.6	4.5	8.1	4.5	4.2	4.7
\$10.00–\$28.50 ⁶	20.0	13.6	23.1	12.2	5.9	15.3	7.8	7.8	7.8

¹ Includes workers who during the previous year received training from a current or previous employer that was intended to 1) help search for or train for a new job, or 2) improve skills in a current job.

² Include off-the-job training plus “other” category.

³ Includes all private sector wage-and-salary workers aged 15–65, except unpaid family workers.

⁴ Includes agriculture, mining, construction, and manufacturing.

⁵ Worked 35+ hours/week.

⁶ Hourly wage top-coded at \$28.50 by Census Bureau.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

to participate in training off the job than are goods-producing workers. Workers in small goods-producing sector firms are less likely to receive training away from work than those employed in small firms in the service sector. When specific industries are examined, workers in large firms are more likely than workers in

Table 5.11 Job Skill Training Experience During Past Year of Wage-and-salary Workers¹ Employed in 2004, by Industry and Firm Size (percent)

Industry	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Agriculture	4.6	3.9	6.6
Mining	19.1	12.4	21.2
Construction	9.6	7.4	14.8
Manufacturing	16.2	7.3	19.0
Transportation, information, and public utilities	16.0	10.2	19.5
Wholesale trade	12.4	8.7	13.9
Retail trade	19.5	8.5	23.0
Finance, insurance, and real estate	25.6	15.5	29.6
Services	17.4	12.9	20.7
All industries	16.5	10.8	20.0

¹ Includes all private sector workers aged 15–65, except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

small firms to have had training to improve job skills in the past year regardless of the industry in which they work (*Table 5.11*).⁵⁰

Training Costs and Who Pays

Little is known about many key aspects of training, including costs and who pays them. Estimates of total training costs for U.S. workers range from \$20 billion to \$100 billion per year depending on the types of training included, the source of training funds, and the number of workers involved. According to one estimate, the private sector invests approximately \$50 billion to \$60 billion a year in training.⁵¹

50 Black et al. found that large firms provide more of both on- and off-site formal training, but large establishments provide more on-site formal training and less off-site formal training. These results can be reconciled if it is the case that several small establishments are part of larger firms. In this case, small establishments can be sending employees off-site for specific training at other locations within the firm.

51 Analysis of employer-sponsored training in the United States. *Training* (December 2006): 20–32. Cited in Kevin Hollenbeck, 4.

Table 5.12 Payment Sources for On-the-job Training Received in Past Year for Wage-and-salary Workers Employed in 2004, by Firm Size (percent except as noted)

	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total employees (thousands) ¹	108,840	40,757	68,077
Employees receiving training to improve skills on current or most recent job (thousands)	17,985	4,390	13,594
Total employees with on-the-job training (thousands)	9,874	1,708	8,166
Paid for by employer	95.0	90.0	96.1
Not paid for by employer	5.0	10.0	3.9
Total	100.0	100.0	100.0
Employees receiving training for job search or for new job (thousands)	3,319	1,037	2,282
Total employees with on-the-job training (thousands)	1,189	273	916
Paid for by employer	88.2	80.8	90.7
Not paid for by employer	11.8	19.2	9.3
Total	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

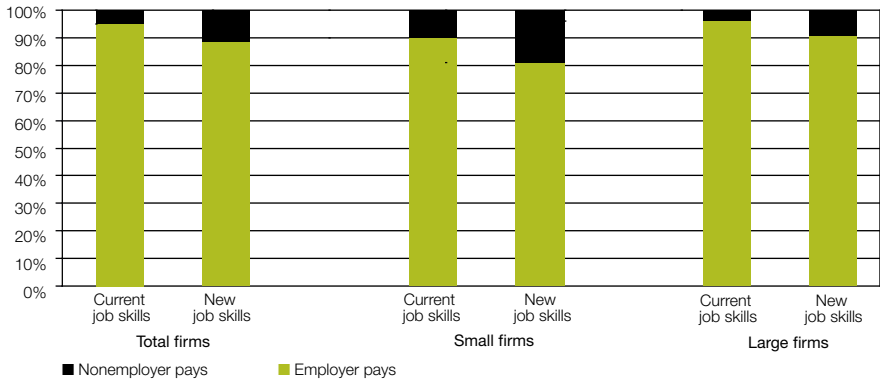
Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

The costs and benefits of on-the-job training are shared by the employer and the employee to varying degrees, depending on whether the training is general or firm-specific. The worker pays for general training, usually in the form of lower wages. The cost of firm-specific training is usually paid jointly by the worker and the firm.

Ninety-five percent of on-the-job job skill training is paid for by employers: 90 percent in small firms and 96.1 percent in large firms (*Table 5.12* and *Figure 5.4*). A lower percentage (88.2 percent) of on-the-job training for a job search or a new job is paid for by employers: 80.8 percent in small firms and 90.7 percent in large firms. Where such programs are not covered by employers, they are usually paid for by either the individual or the government.

Large employers are more likely than small employers to finance training away from the work site. Individuals who work in small firms are more likely to have paid for their off-site training themselves (or to have had help from family members). More than 80 percent of workers in large firms report that their

Figure 5.4 Payment Sources for On-the-job Training Received in Past Year by Wage-and-salary Workers Employed in 2004, by Firm Size



Source: U.S. Small Business Administration, Office of Advocacy. Unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

employers paid for off-site job skills training for their current job, compared with 73.2 percent of workers in small firms (*Table 5.13* and *Figure 5.5*). More than 17 percent of small firm workers indicate this training was self-financed, compared with 14.6 percent of workers in large firms. This probably reflects the acquisition of firm-specific training by workers in large firms.

Self- or family financing is the most common payment source for job search or new job training, funding 37.4 percent of this training. Workers in small businesses are more likely to finance this type of training themselves or with family help than workers in large firms—44.5 percent versus 33.1 percent, respectively. One-quarter of this training is government-financed, and workers in large firms are more likely to have their training paid for by the government (federal, state, or local) than workers in small firms (27.3 percent and 21.1 percent, respectively). Employers paid for 29.5 percent of this training: 26.2 percent for workers in small firms and 31.5 percent for their counterparts in large firms.

Frequently, the training provided by previous employers is responsible for the reduced training costs and higher productivity of new hires who have many years of previous relevant job experience. Small firms, which employ many first-time workers, provide much of this early experience and training. Large firms incur relatively high recruiting costs to ensure that the workers they hire have the qualities they are looking for.

Table 5.13 Payment Sources for Off-site Training Received in Past Year for Wage-and-salary Workers Employed in 2004, by Firm Size (percent except as noted)

	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total employees (thousands) ¹	108,840	40,757	68,077
Total employees receiving training to improve skills on current or most recent job (thousands)	17,985	4,390	13,594
Off-site training in previous year (thousands)	6,980	2,346	4,633
Paid for by employer ²	77.9	73.2	80.3
Paid for by government ³	2.8	3.2	2.6
Self or family	15.5	17.5	14.6
Other	3.8	6.1	2.6
Total	100.0	100.0	100.0
Total employees receiving training for job search or for new job (thousands)	3,319	1,037	2,282
Off-site training in previous year (thousands)	1,055	393	661
Paid for by employer ²	29.5	26.2	31.5
Paid for by government ³	25.0	21.1	27.3
Self or family	37.4	44.5	33.1
Other	8.1	8.1	8.1
Total	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers aged 15–65, except unpaid family workers.

² Current or previous employer.

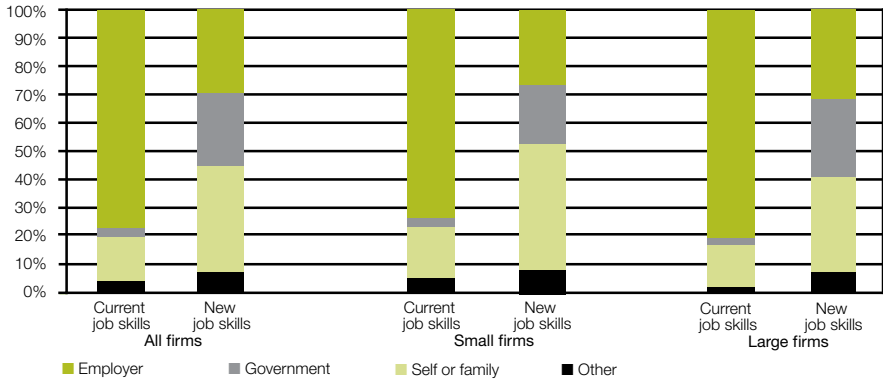
³ Federal, state, or local government program.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Use of Training Received

Another important consideration is the use of the training received by employees on a new or current job. Evidence from SIPP indicates that a high percentage of workers in both small and large firms used the training they received to search or train for a new job or to improve skills on their current job during the course of the previous year. A higher proportion of workers (more than 91 percent) indicate they used their training to improve skills on their current job

Figure 5.5 Payment Sources for Off-Site Training Received in Past Year by Wage-and-salary Workers Employed in 2004 by Firm Size



Source: U.S. Small Business Administration, Office of Advocacy. Unpublished data from the U.S. Census Bureau, DataFerrett, SIPP (2004), Wave 2.

Table 5.14 Wage-and-salary Workers¹ Employed in 2004 Who Used Training to Search For/Train for New Job or On Current Job, by Firm Size (percent)

	Total, All firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Help search or train for new job			
Yes	80.4	78.9	80.9
No	19.6	21.1	19.1
Total	100.0	100.0	100.0
Improve skills on current job			
Yes	92.0	91.3	92.2
No	8.0	8.7	7.8
Total	100.0	100.0	100.0

¹ Includes all private sector wage-and-salary workers aged 15–65 except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

rather than for a job search or to function in a new job (about 80 percent of workers in both small and large firms) (*Table 5.14*).

Table 5.15 Business Ownership¹ and Training by Type of Training, 2004

	All business owners	Corporations	Type of proprietorship	
			Partnership	Alone
All business owners (thousands)	17,754	5,280	1,774	8,893
Training in last 10 years (thousands)	5,749	1,650	578	2,943
Percent	32.4	29.8	31.7	31.6
Training for job search/new job (thousands)	457	88	45	261
Percent	2.6	1.6	2.5	2.8
Training to improve job skills (thousands)	2,602	768	268	1,383
Percent	14.7	13.9	14.7	14.9

¹ All persons aged 15–65 at the end of the reference period who had one business during the reference period.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Business Owners and Training

Business owners as well as workers receive training to improve skills or help them search or train for new jobs. The 2004 SIPP data indicate there were almost 18 million business owners aged 15–65 (*Table 5.15*). Almost one-third of these owners had received training in the last 10 years. Almost 15 percent had received training to improve their job skills during the past year.

Conclusions

Small firms are the first employers of most of the work force. More than large firms, they hire younger, less educated, part-time, and less skilled workers. Small firms have hired much of the baby boom generation and are more likely to hire older workers; they have been primary employers of women entering the work force for the first time. The workers who find their first jobs in small firms are a diverse group, but they include many of those less prepared by prior education, experience, or economic background to meet the changing demands of the workplace of the 21st century.

Preliminary evidence indicates a decline in employer-provided training from 1996 to 2004. This may be the result of many factors, including a changing

work force and the competition for scarce resources in a firm's total compensation package. Other benefits may have higher priority for both employees and employers. The levels of training available are linked to costs. Employers must make tradeoffs between wages and nonwage benefits, including training.

Expected demographic and economic changes over the next decade will require a better educated work force and more flexibility in training. A smaller pool of workers will place an additional burden on firms, especially small firms, to offer training to workers with marginal skills. A more diverse and aging workforce will present challenges for training programs that are flexible and adaptable to a range of needs.

Improved technology and telecommunications can help meet these needs through e-learning, Internet-based options, and other innovative approaches. Rapid shifts in the industries generating new jobs mean that workers will need to constantly upgrade their skills to make them productive in a fast-paced environment. More technologically literate, trained workers will be needed as firms increasingly employ complex and advanced production techniques to compete in the global marketplace.

All of these trends will place new demands on educators and businesses to improve the training of the nation's work force. Small firms, which already invest heavily in training of new and re-entering workers, will continue to play an important role in flexible skill development. Training for aspiring entrepreneurs and owners of existing small businesses is also important to foster a wide range of ownership skills that promote business success and facilitate job creation in the U.S. economy.

Workers obtain training in small firms that is general and flexible, allowing them to adapt to changing economic conditions and technologies. While they receive less formal job-specific instruction, they take away enough training—formal and informal—to increase their incomes by the same proportion as workers with similar backgrounds in large firms. Small firms provide—and bear the direct and indirect costs of—much of the initial training that makes workers productive in America's businesses, large and small.

Appendix

The Survey of Income and Program Participation (SIPP) conducted by the Bureau of the Census is designed to collect information about cash and non-cash income, assets and liabilities, and taxes paid, as well as a wide variety of labor market data.

From these data, better estimates of income, poverty, and wealth can be derived. SIPP provides data to address a wide range of policy questions covering issues related to household and individual well-being and training. The data on training used in this chapter are from Wave 2 SIPP interviews conducted between June and September 2004. The SIPP sample consists of about 45,000 household units (including roughly 100,000 individuals) selected to represent the noninstitutional population of the United States.

A distinguishing feature of SIPP is that it is a longitudinal survey. Each SIPP panel is divided into four rotation groups. One rotation group is interviewed during the first four weeks of each month. One cycle or wave of interviewing of the four rotation groups requires four months; thus each household, of which there are about 10,000 in the 2004 panel, is interviewed three times a year. The reference period is the four-month period preceding the interview month.

Of particular importance for this chapter is the Education and Training History topical module administered in SIPP Wave 2 (June to September 2004), which includes information about individuals participating in a training program. It also contains information on the size of the firm that individuals worked for, provided they held a job during the reference period. This makes it possible to link information on training program participation to the information on firm size.

The Education and Training History topical module provides information on work-related training apart from high school or college. The module asks specifically about two kinds of training: 1) training that helps persons search or be trained for a new job, and 2) training that helps improve skills in a person's current job. Both types of training are analyzed in this chapter and considered "formal" training. Next, the survey asks how many training activities of each type, lasting one hour or more, were received by the worker in the past 12 months. Only then is the respondent asked who sponsored or paid for their most recent training. If the current or previous employer sponsored or paid for this training, it is considered employer-provided training.

Two sets of questions are asked about training: a first set related to either kind of work-related training received in the previous 10 years, and a second and more extensive set that pertains to an individual's training in the previous year.

For the second set of questions, information is also available about the length of training and who paid for it. Only the data describing a respondent's training in the previous year are examined in this chapter. SIPP offers more information about training in the previous year than about earlier training programs; training in the previous year is more likely to have been received on an individual's current job.

Information about participation in training programs at work is relevant to this chapter because it provides insight into the amount of training offered by firms of different sizes. However, information about where people who participate in an off-site training program find employment is also of interest, because it permits analysis of how the labor market allocates such persons among firms. The training data from SIPP provide insight into the issues of whether small or large firms offer more in-house training programs, who obtains such training, and where individuals who participate in training programs outside the workplace find employment.

In SIPP Wave 2, respondents were asked "did [you] ever receive training designed to help [you] find a job, improve skills, or learn a new job?" Follow-up questions for these responding "yes" were "do [you] use this training on [your] [most recent] job" and "where did [you] receive this training?" Numerous training programs are referred to, including those at work and those at a previous job.

The data leave some ambiguity about when training actually took place because respondents are not explicitly asked if their most recent training program experience occurred while they were working for their current employer. The error is probably small, however, because individuals tend to receive training soon after being hired at a firm and the SIPP data provide information about an individual's most recent training experience. The same ambiguity exists for business owners.

Table 5A.1 Purpose of Job Skills Training Received During Past Year by Wage-and-salary Workers by Firm Size, 2004 (percent)

Training design	Total, all firms	Small firms (<100 employees)	Large firms (100+ employees)
Basic skills	38.2	37.6	38.5
New specific job skills	56.0	56.8	55.8
Upgrade skills/knowledge	78.1	78.8	77.8
Introduce company policies	35.9	29.9	37.9
Prepare for another job inside the organization	22.6	22.7	22.5
Prepare for another job outside the organization	12.7	16.0	11.7
Something else	13.5	16.6	12.5

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Table 5A.2 Education Level and Vocational Certification of Wage-and-salary Workers¹ by Firm Size, 2004 (percent)

	Total, all firms	Small firms (<100 employees)	Large firms (100+ employees)
No vocational certificate	56.1	61.0	53.2
Vocational certificate			
< High school education	27.2	23.2	29.6
High school diploma	0.6	0.7	0.5
< One year of college, no degree	6.5	6.9	6.3
One+ years of college, no degree	1.6	1.5	1.6
Associate degree, or higher degree	2.8	2.5	3.0
Total, vocational certificate	38.7	34.8	41.1
Other	5.2	4.2	5.7
Total	100	100	100

¹ Includes all private sector wage-and-salary workers, except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Table 5A.3 Work-related Training Experience¹ of Wage-and-salary Workers Employed in 2004, by Firm Size

	Total, all firms	Small (<100 employees)			Large (100+ employees)				
		Single establishment	Multi- establishment	All firms	Single establishment	Multi- establishment	All firms		
Total wage-and-salary workers ² (thousands)	108,840	42,398	66,441	40,757	32,774	7,983	68,077	9,619	58,458
All training ¹ during the last 10 years									
Thousands	37,306	11,323	25,983	10,837	8,120	2,716	26,468	3,202	23,266
Percent	34.3	26.7	39.1	26.6	24.8	34.0	38.9	33.3	39.8
All training ¹ on current job in past year									
Thousands	21,304	5,903	15,400	5,428	4,050	1,378	15,876	1,853	14,022
Percent	19.6	13.9	23.2	13.3	12.4	17.3	23.3	19.3	24.0
Help search or train for new job									
Thousands	3,319	1,092	2,227	1,037	806	230	2,282	285	1,996
Percent	3.0	2.6	3.4	2.5	2.5	2.9	3.4	3.0	3.4
Improve skills on current job									
Thousands	17,985	4,811	13,173	4,390	3,243	1,147	13,594	1,568	12,025
Percent	16.5	11.3	19.8	10.8	9.9	14.4	20.0	16.3	20.6

¹ Includes workers who received either: 1) training to help search/train for new job, or 2) training to improve skills in current job and were aged 15–65 at end of reference period.

² Includes all private sector wage-and-salary workers aged 15–65, except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Table 5A.4 Work-related Training Experience¹ of Baby Boomer Wage-and-salary Workers Employed in 2004 by Firm Size

	Total, all firms	Firm size	
		Small (<100 employees)	Large (100+ employees)
Total wage-and-salary workers ² (thousands)	42,911	15,021	27,889
All training ¹ during the last 10 years			
Thousands	16,641	4,587	12,053
Percent	38.8	30.5	43.2
All training ¹ on current job in past year			
Thousands	8,970	2,180	6,790
Percent	20.9	14.5	24.3
Help search or train for new job			
Thousands	1,014	321	692
Percent	2.4	2.1	2.5
Improve skills on current job			
Thousands	7,956	1,858	6,097
Percent	18.5	12.4	21.9

¹ Includes baby boomer workers who received either: 1) training to help search/train for new job, or 2) training to improve skills in current job and were aged 40–58 at end of reference period.

² Includes all private sector baby boomer wage-and-salary workers aged 40–58, except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

Table 5A.5 Weeks of Job Training for Wage-and-salary Workers¹ by Type of Training and Firm Size, 2004 (percent)

	Total, all firms	Small firms (<100 employees)	Large firms (100+ employees)
Training to improve skills in current job by firm employment size (weeks)			
1–4	59.9	46.0	64.4
5–10	18.2	20.9	17.4
11+	21.8	33.1	18.2
Training to help search/train for new job by firm employment size (weeks)			
1–4	47.5	44.5	48.8
5–10	17.6	22.4	15.5
11+	35.0	33.2	35.8

¹ Includes all private sector wage-and-salary workers, except unpaid family workers.

Source: U.S. Small Business Administration, Office of Advocacy. Tabulations of unpublished data from the U.S. Census Bureau, DataFerrett, Survey of Income and Program Participation (2004), Wave 2.

6 A TAX POLICY UPDATE *for* AMERICA'S SMALL BUSINESSES

Synopsis

Taxes are perennially listed as a significant concern of America's small business community.¹ Entrepreneurs face a complex and ever-changing web of federal, state, and local (and sometimes international) tax rules and burdens. Significant advances in data availability and econometric methods have spawned a large and growing body of literature on the effects of tax policies on small business activity. The bulk of prior research effort has been focused on tax *rates*, while public discourse is focused on nonrate tax policies such as depreciation rules, health insurance deductibility, and when state governments have the right to tax multi-state businesses.

This report is intended to shed greater light on several prominent federal, state, and local tax issues faced by small businesses today. First, a discussion of federal tax issues focuses on the individual income tax, the alternative minimum tax (AMT), the corporate income tax, and the estate tax. Policy issues at the federal level include the possible extension of the 2001 and 2003 federal income tax rate cuts, possible solutions to the burgeoning AMT filing population, and whether to change the tax treatment of small business investment (through depreciation rules), health insurance costs, and carried interest.

Turning to state and local tax issues next, the author discusses several key nonrate tax issues that are receiving increasing attention by policymakers but have not been as intensively studied by researchers:

- the small business implications of recent changes in state business taxation (namely, the taxation of variants of gross receipts instead of net business profit as a way to tax business activity),

1 This chapter was written by Associate Professor of Economics Donald Bruce, Ph.D., University of Tennessee, Knoxville, TN 37996, dbruce@utk.edu, (865)974-6088. Professor Bruce expresses gratitude to Will Hamblen, Kate Harper, and Zach Richards for the very helpful research assistance they provided in the preparation of this report.

- efforts by state and local governments to streamline sales tax rules in order to eventually be able to tax multi-state (and especially online) commerce more efficiently,
- state efforts to “decouple” from federal tax rules, and
- key changes in the legal landscape such as recent rulings regarding the uses of tax breaks to lure business activity and the determination of nexus for multi-state tax purposes.

The context for this discussion is the latest evidence of the total state and local business tax burden, recognizing that small businesses pay much more than the income and payroll taxes that have received so much attention in the economics literature.

The report’s closing section focuses on a few emerging themes that will place additional pressure on federal, state, and local tax systems and will thus have implications for small businesses. Specifically, the discussion looks at issues related to the aging of America’s population, the rapidly expanding technology of tax planning through legal and illegal means, and the coming growth of environmentally conscious tax policies, as well as how those trends will couple with pre-existing pressures to force discussion of fundamental tax reform in 2009.

Throughout, the report considers the economic, demographic, and political forces that have given rise to recent tax policy changes and current tax policy debates. The nation’s federal, state, and local governments all face continuing pressure on all of these fronts, and it will be important to establish the appropriate policy context for each of the specific tax issues under consideration. For the purposes of this report, the author sets aside issues with respect to the size of the tax pie and focuses instead on the issues involved in the structure of federal, state, and local tax systems. In this vein, it is critical to be able to discuss possible changes to the tax landscape without worrying as much about the revenue impacts.

Federal Tax Issues Faced by Small Businesses

Perhaps the most prominent topics in federal taxation today are whether to make the 2001 and 2003 income tax rate cuts permanent, the future of the

alternative minimum tax (AMT), and the future of estate taxation. These are discussed in the sections that follow, along with several other federal tax issues that might have implications for small businesses in the coming years.

Individual Income Tax Issues

The broad reductions in marginal tax rates that were implemented in 2001 and 2003 are set to expire at the end of 2010 when the law reverts to 2001 tax law, barring new policy action. This is a particularly critical issue for small businesses, the majority of which pay federal taxes through the individual (not corporate) income tax.² Potentially affected firms include sole proprietorships, partnerships, S corporations, and other pass-through entities. Coupled with the increase in tax rates on regular income (and corresponding tax bracket adjustments) will be a reversion from the favorable tax rate applied to qualified dividend income to regular income tax rates. This will increase the cost of raising equity capital and distort business decisions (for example, by reducing the incentive for profits to be redistributed to shareholders and increasing the incentive to hold profits as retained earnings).

As with the tax rates on ordinary and dividend income, attractive tax provisions for certain capital gains are set to expire or be scaled back at the end of 2010. Additionally, asset classes will be modified based on holding periods, potentially necessitating additional recordkeeping and adding to overall tax code complexity or compliance costs faced by small businesses. The higher tax rates themselves could potentially reduce the returns to some small business investments and also reduce the available pool of startup capital. At the same time, the higher capital gains tax rates will provide a benefit to small businesses in the form of an increase in the marginal value of the exclusion for qualified small business stock.

The extent to which these tax cuts will be allowed to expire is certain to be a matter of significant public discussion in the coming years. Fiscal pressures suggest that the odds of all of the tax cuts being made permanent are quickly falling. With this in mind, it is important to consider the implications of a pending tax rate increase. While earlier research tended to find a positive correlation between tax rates and entrepreneurial activity, the most recent work suggests that higher tax rates reduce entrepreneurial activity. Indeed, results from the study by Bruce and Gurley (2005) suggest that tax rate increases on

2 Bruce and Gurley-Calvez (2008) show that corporate entities have filed a smaller share of all business tax returns over time, with the corporate share falling to only about 8 percent by 2002.

the order of what might happen at the end of 2010 could have very large negative impacts on the level of entrepreneurial activity in the economy.

Another individual tax issue faced by small businesses is the deductibility of health insurance costs. While full deductibility is now possible under the individual income tax, full deductibility under the payroll tax is not permitted. This differential treatment drives a wedge between the cost of health insurance faced by small businesses and that faced by wage workers, who enjoy full deductibility under both taxes. Recent research has found that greater deductibility of health insurance premiums can enhance small business survival (Gurley-Calvez, 2006).

Among the potentially expiring tax provisions of interest to small businesses is the tax credit for pension plan startup costs. This credit, which equals half of the first \$1,000 of eligible costs associated with starting and administering a qualified pension plan for the plan's first three years, is available to firms with fewer than 100 employees that received at least \$5,000 in compensation in the prior year. Further, the credit is available to all qualifying small firms regardless of whether they file individual or corporate income tax returns. The expiration of this credit at the end of 2010 will reduce the incentive for small businesses to establish retirement plans for their employees, and will thus reduce those firms' ability to attract high-quality workers.

The tax treatment of carried interest is an issue that has received attention in recent years. Carried interest is a claim that the general partner of a private investment fund has on a share of the fund's returns above some minimum rate of return. These returns, along with annual management fees, are paid to the general partner and distributed to individual managers in return for managing the fund's assets and for contributing a small portion of the fund's initial capital.

On average, management fees and carried interest constitute two-thirds and one-third, respectively, of total payments to the general partner. Per current federal code, the individual partners of the general partner are taxed on these payments rather than the general partner itself. The fees are treated as wage-and-salary income and are subject to ordinary income tax rates (up to a current maximum rate of 35 percent). The carried interest is treated as investment income, however, and subject to long-term capital gains rates (up to a current maximum of 15 percent).

The debate surrounding carried interest involves whether this tax differential is warranted. The most extensive proposals call for taxing carried

interest as regular income. Changing the way in which carried interest is taxed could affect businesses in a few key ways. First, it could alter effective corporate income tax rates. Since corporate profits are taxed at the firm and individual level, higher rates on carried interest will increase the degree of double taxation on a fund's profits that are from businesses that pay corporate income taxes. Raising rates (through the expiration of the 2001 and 2003 tax cuts or some other reform) will raise effective corporate income tax rates, increasing the degree of double taxation. Second, it may decrease productive small business activity to the extent that private equity firms are involved in their creation and funding.

Alternative Minimum Tax

The AMT was established in 1969 when it became known that a small number of very wealthy individuals were not paying any federal income taxes. If a taxpayer's tax liability is found to be too low relative to their income, they might incur AMT liability now in addition to any regular income tax liability. Unfortunately, the income threshold for AMT liability is not indexed for inflation. Combined with the 2001 and 2003 tax cuts (which reduced most individuals' tax liabilities relative to their income), this nonindexation has caused growth in the number of taxpayers potentially subject to the AMT. Researchers at the Tax Policy Center estimate that more than 23 million taxpayers will have been affected by the AMT in 2007.³

Since 2001, Congress has regularly raised the AMT exemption amount on a temporary basis in an effort to stave off this growing problem. The cost of this annual "patch" rises each year, suggesting that a permanent solution will eventually become necessary. Outright repeal of the AMT will be a very expensive proposition, so it is more likely that an AMT reform will preserve its basic structure and intent, while possibly indexing for inflation. Small businesses will want to keep track of AMT reform discussions, as any change in AMT policy can lead to higher or lower overall marginal tax rates.

Corporate Income Tax Issues

The small business implications of corporate income tax policies are much more significant at the state level, as discussed below. Some important fed-

3 See Burman, Gale, Leiserson, and Rohaly (2007).

eral issues are worth mentioning here. These are particularly important for incorporated small businesses that pay federal corporate income taxes. First, changes in expensing rules for business investment are in constant flux given policymakers' taste for using depreciation rules as a primary vehicle for economic stimulus. While a certain dollar amount of qualified business assets may be expensed, that amount has changed over time, and short-term increases in it have been greatly reduced. Indeed, small businesses paying their taxes through the individual income tax face a similar set of confusing and ever-changing depreciation rules.

Increases in expensing allowances and bonus depreciation allow businesses, and especially small businesses whose investment falls below the phase-out amounts, to either make new investments or to make investments earlier. It is not clear from the available research, however, whether the changing depreciation rules have meaningful impacts on the overall level of business investment or on the distribution of investment among small and large businesses, rather than just on the timing of investment. This will be a particularly important topic for future empirical analysis of business decisions.

Like the individual income tax, the federal corporate income tax has a corresponding alternative minimum tax. Unlike the individual AMT, the corporate AMT has not been adjusted for inflation in recent years. This is perhaps because of the starkly different public perception of a rising corporate AMT-filing population.⁴ As the corporate AMT-filing population grows over time, small and mid-sized corporations may be most affected since they are most likely to be just below the filing threshold now. This only increases the overall effective marginal tax rate on corporate income, and carries the usual effects on the cost of raising capital. It also potentially reduces the incentive to incorporate among noncorporate entities. This boils down to a tradeoff between the individual income tax and the AMT and corporate equivalents.

Estate Tax Issues

The gradual repeal of the federal estate tax that was set in motion in 2001 received prominent attention and support from the small business community. Opponents of estate taxation pointed to its effects on family businesses,

4 Following the first year of operation, during which all corporations are exempt from the corporate AMT, firms may face AMT liability if their average annual gross receipts exceed \$5 million over the first three tax years and \$7.5 million for the next three tax years.

recounting stories of firms that were dissolved, rather than passed down to heirs, in order to pay the estate tax. It is well known that the full repeal of the estate tax in 2010 will be fully reversed in 2011 unless the law is changed to make the repeal permanent (or to preserve some elements of the repeal).

The qualified family-owned business interest (QFOBI) exemption will come back into play with the reversion to 2001 law in 2011, assuming no policy changes. Those with eligible business assets will enjoy lower estate taxes on the same amount of wealth than those without eligible assets. This may have several important effects on small business activity. First, it might encourage taxpayers to shift assets into business form, or to avoid liquidating existing businesses, when possible. It might also encourage the overvaluation of business assets, the removal of nonbusiness assets from the estate, or the use of costly additional estate planning resources. This tax differential between asset types might lead to a misallocation of capital and employment of heirs by requiring businesses to stay in the family.

State and Local Tax Issues Faced by Small Businesses

Before discussing the details of current and pending state and local tax issues faced by small businesses, it is important to establish the context within which the tax changes are taking place. State and local governments have experienced tremendous pressures in recent years for many reasons, some obvious and some less so. The largest component of state and local government spending is education. Recent court cases in many states and federal requirements to track student performance have placed restrictions on the size and structure of education finance systems.⁵ Several states have had to turn away from the property tax as the primary vehicle for funding public schools. In some states, a turning away from the property tax has been the result of tax revolts rather than legal mandates.

A second key source of state and local fiscal pressure is health care inflation. It is well known that growing health care costs have burdened state and local governments responsible for providing health benefits to government

5 The National Access Network reports that 43 states plus the District of Columbia have faced some form of legal challenge of their school funding systems, and states have lost the majority of those challenges (http://www.schoolfunding.info/states/state_by_state.php3).

employees in addition to individuals who qualify for low-income health care assistance programs (notably Medicaid). Policymakers have limited options when faced with rising health care costs, so other discretionary spending is typically cut or taxes are increased.

Increasingly mobile tax bases have increased the importance of tax competition for state and local governments. Thanks to technological advances and relatively cheaper transportation options, individuals and businesses are better able to “vote with their feet” to reduce their tax burdens. This relates to the common criticism that state and local tax systems were designed for an economic structure that no longer exists. Indeed, the increasing mobility of taxable activities has paralleled strong growth in hard-to-tax elements of the economy, such as services, electronic commerce, and intangibles.

In the face of these pressures, state and local governments have turned toward higher taxes on businesses and outsiders, neither of whom vote (directly, at least) for or against state and local policymakers. In some cases, as discussed in greater detail below, small businesses might end up bearing a disproportionate share of an increased burden.

Recent Developments in State Corporate Income Tax Policy

Adding to the pressure on state business tax revenues has been a gradual decline in the base for the major business tax in most states: taxable corporate profits. Of course, some of this base erosion has been the result of state and local efforts to provide tax incentives to presumably important businesses that were recruited into an area. Other forces in the base erosion have been aggressive corporate tax planning activities (either to physically move to lower-tax jurisdictions or to use accounting and other methods to reduce the share of profits that are taxable in a particular state), and federal tax changes (such as bonus depreciation) that reduce tax bases for states where the state tax code is linked to federal rules.⁶

The flagging performance of state corporate income taxes in recent years has led states to revisit their business tax systems. For most states, this process has involved making changes to existing corporate income taxes in order to shore up falling bases. In a small number of other states, business tax systems

6 See Fox (forthcoming) for more on the fiscal pressures facing state business taxes, Bruce, Deskins, and Fox (2007) for more detail on corporate tax planning, and Luna and Watts (2007) for more discussion of the issue of state-federal corporate tax linkages.

have been fundamentally changed in such a way as to expand the taxable base while lowering the tax rate. Each of these changes has potentially important implications for small businesses.

Efforts to shore up existing corporate income tax systems include such things as the assertion of economic nexus (rather than physical presence), the adoption of combined reporting requirements, changes in apportionment formulas, and decoupling from key federal tax changes. States have attempted many other things to save their corporate tax systems, but the focus here is first on these four major approaches, then on more fundamental state business tax changes.

Economic Nexus. For a state to collect business income taxes, the business involved has to have what is called nexus, or some attachment to the state. Traditionally, nexus for corporate income tax purposes has been defined by Public Law 86-272, which essentially requires the business to have some form of physical presence in the state that wishes to collect the tax. However, two recent court cases have called this into question. In both the *Lanco* and *MBNA* cases, states asserted that the businesses in question had sufficient nexus as a result of substantial economic presence, either by license agreements with affiliates or by efforts to generate sales in the states.⁷ These cases were not reviewed by the U.S. Supreme Court, so some states have taken this to imply tacit acceptance of economic nexus.

While this issue is perhaps more relevant in the few states that have fundamentally changed their business tax systems (see below), the general trend away from physical presence nexus toward economic presence has broad implications for virtually every state and local tax system and certainly for small businesses operating or selling goods or services in multiple states. This issue will be revisited in the discussion of sales tax challenges below.

In simplest terms, a small business in one state that generates sufficient sales in another state may end up generating a new state tax burden if those sales satisfy the second state's definition of economic nexus. This is consistent with the general trend in state business tax systems to expand the tax to a broader set of businesses, especially those operating in multiple states that might not have had sufficient nexus under P.L. 86-272.

7 *Lanco, Inc. v. Director, Div. of Taxation*, Docket No. A-89-05 (N.J. October 12, 2006), and *Tax Comm'r of the State of W. Va. v. MBNA America Bank N.A.*, Docket No. 33049 (W.Va. November 21, 2006).

Combined Reporting Requirements. A similar issue involves business actions to spin off certain segments of their operations, or to create passive investment companies or other affiliates, to escape business tax liability in certain states. States have attempted to counter this trend by adopting so-called combined (or unitary) reporting requirements, under which all related entities in a unitary system must file their business tax returns together. This practice has become especially important in recent years, with nearly half of all states enacting combined reporting requirements.⁸

Combined reporting requirements have the obvious effect of pulling certain out-of-state entities into (or back into) state business tax systems. It is not clear how this might affect small businesses, however. On the surface, small businesses that were created for the purpose of avoiding state business taxes in other states might be folded back into corporate structures, leading to a false conclusion that small business activity has suffered. Alternatively, combined reporting rules might encourage some corporate entities to reclassify themselves as noncorporate entities.

These two possible responses represent a change not in the level of business activity, but only in the organization of it into various types of businesses. Yet another outcome from combined reporting requirements might be an increase in small business activity, as the tax playing field is at least partially leveled between larger multi-state corporations and smaller single-state firms. Indeed, this possibility is borne out in research by Bruce and Deskins (2006), who find that states with combined reporting rules tend to have more small business activity.

Apportionment Formulas. Income earned by businesses that operate in multiple states (and have nexus in those states) is apportioned among the taxing states for corporate income tax purposes. Historically, most states placed equal weight on business payroll, plant and equipment, and sales in determining the share of the corporation's total profits that can be taxed by any single state. Over time, however, many states have elected to place more weight on the sales factor. Cline and Neubig (2007) report that only 11 states now use equal weights on all three factors, with 18 states using a 100 percent weight on sales and the others using at least a double weight on the sales factor.

Increasing the sales factor weight effectively takes some of the tax burden off mostly in-state firms with significant amounts of payroll or plant and equip-

8 See Cline and Neubig (2007) for more information on the spread of combined reporting.

ment and places it on firms with less physical presence (in terms of those two factors) but more sales in a state. As with the policy actions noted above, this is intended at least in part to spread a state's corporate tax system to a larger number of taxpayers. From the state's perspective, this action can also serve as an economic development tool since it can reduce the tax burdens borne by many in-state firms. It is not clear which, if either, of these possibilities is most relevant for small businesses.

Decoupling from Federal Provisions. It has become increasingly popular for the federal government to enact stimulative policies through the corporate and individual income tax codes. Unfortunately for states that are linked closely to the federal corporate income tax structure, any federal tax break directly becomes a state tax break unless the states act to break that link (i.e., to “decouple” from the federal provision). This has become more and more common in recent years as states have been reluctant to follow the federal provisions, which often would otherwise result in a loss of state tax revenues.⁹

Fundamental State Business Tax Changes

In some states, the problems with corporate income tax systems combined with other state budget pressures have led to a fundamental change in the way those states attempt to tax business activity. The most extreme cases have been seen in Ohio, Michigan, and Texas, where business taxes now resemble gross receipts taxes in one way or another. While the more incremental changes to existing corporate income taxes might affect small businesses on the margin, the shift toward gross receipts taxation could have more dramatic and far-reaching effects.

One significant feature of the business taxes in these three states is that they now apply to virtually any business entity, not just corporations. Sole proprietorships, partnerships, and other noncorporate entities now find themselves facing state business tax liability in those states in addition to any individual (or sales, property, or other) tax liability. Further, the base for these new taxes is some variant of gross receipts rather than net income. One potential advantage from the states' perspective is that gross receipts taxes are not necessarily subject to P.L. 86-272 nexus, which—by the assertion of those states—

⁹ See Luna and Watts (2007) for an interesting discussion of the extent to which states have decoupled from federal tax provisions in recent years.

applies only to business income taxes. This further expands the reach of state gross receipts taxes to a broader set of largely out-of-state firms.

In the extreme, the new systems can also create tax liabilities for firms with net operating losses.¹⁰ Further, recent research by Rork and Wheeler (2008) shows that shifting from a corporate income tax to a gross receipts tax can create winners and losers, raising the usual sorts of horizontal and vertical equity concerns. Additionally, the fact that states focusing on gross receipts taxation are not “playing well with others” in the sense that their business taxes are not well aligned with the federal system or those in other states makes the overall business tax environment potentially more complex, especially for smaller businesses.

Moving Beyond Business Income Taxation

Of course, it is important to note that income taxes (either on businesses themselves or on individuals) represent a small share of the total state and local business tax burden. In the latest of a series of regular reports on the total tax burden borne by businesses, Phillips, Cline, and Neubig (2008) estimate that property taxes on business property and general sales taxes on business inputs are the two most important state and local taxes paid by businesses. These two taxes represent 35.1 percent and 22.9 percent, respectively, of the total state and local business tax burden. A major sales tax issue could have important implications for small businesses.

The Streamlined Sales Tax Project. As with the corporate income tax, state and local governments have witnessed significant erosion of the base of a relatively more important tax, the general sales tax. Shifts in consumption away from generally taxable goods toward generally tax-exempt services, the continuing process of legislated sales tax exemptions, and the rapid growth of remote (and especially electronic) commerce have all played a role in the gradual decline of the state and local sales tax base (Bruce and Fox, 2000).

States have typically responded by continually raising their sales tax rates rather than expanding sales tax bases, as expanding the sales tax base to include more services has proven to be politically very difficult in some states. In the case of remote commerce, in-state shoppers who buy something out of state are legally obligated to remit use tax in an amount equivalent to what the

¹⁰ See Pogue (2007) and Testa and Mattoon (2007) for much more on the pros and cons of state gross receipts taxation.

sales tax would have been had the sale taken place in the state. It comes as no surprise that use tax compliance has historically been very low, at least among individuals, because of low enforcement.

The recent explosion of catalog and Internet sales has cast greater light on the use tax issue, and has even led the states to begin working together to seriously consider simplification of state and local sales tax systems. States' ability to enforce collection of sales (or use) taxes by an out-of-state seller on purchases by in-state consumers is limited, as with the corporate income tax, to situations in which the seller has nexus. Interestingly, nexus for sales and use tax purposes has been gradually refined through a series of court cases to mean physical presence in much the same way as P.L. 86-272.¹¹ The courts have left the issue open, however, calling on Congress to reevaluate the appropriateness of a physical presence requirement. The states would like to apply an economic presence version of nexus, but have been challenged by Congress to simplify their sales and use tax systems in exchange for a hearing on this issue.

Answering this challenge, a large number of states have formed the Streamlined Sales Tax Project (SSTP). To date, 18 states are in full compliance with the various provisions included in the resulting Streamlined Sales Tax Agreement and another four states are reasonably close to achieving full compliance.¹² The odds of eventual policy change in the states' favor are significant enough that many large multi-state retailers have begun voluntarily collecting and remitting sales taxes on remote sales by residents of participating SSTP states.

On net, this development is probably a positive one for small business. First, local small businesses have been at a competitive disadvantage relative to larger out-of-state businesses since sales taxes are almost always due on local purchases but can easily be evaded or avoided on many remote purchases. If states are successful in leveling the sales tax playing field between in-state and remote retailers, that competitive disadvantage will largely disappear. Second, the broader tax base that would result from such changes might allow state and local governments to lower their sales tax rates. This is especially important considering that businesses end up paying up to 40 percent of all state and local sales taxes (Ring, 1999).

11 *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

12 Those provisions include such things as uniform definitions of potentially taxable items and rate simplification within states, among many others.

State and Local Individual Income Tax Developments

State taxes on individual income continue to play a prominent role in the tax portfolios of small businesses, certainly for noncorporate pass-through entities. While the practice has not become widespread, some states are following on trends to expand the reach of corporate income taxes to expand individual income taxes to those who earn a substantial share of their income by crossing state lines. Professional athletes and performing artists have been prominent targets of these efforts, but more recent activity suggests that lower-profile individuals such as traveling business people might also be targeted.

In terms of policy developments, perhaps the most important discussion involves possible federally mandated standards regarding the number of days one physically works in a state before that state can impose income taxation. Those standards vary from state to state, with some imposing tax after a single day of work and others requiring a minimum of up to 60 days of work before tax would be due. While it is unlikely that the environment for individual taxation will resemble business taxation to the extent that individual income will be apportioned among states in which it is earned, small businesses—especially those whose owners or employees cross state lines in the pursuit of income—will certainly want to monitor these proceedings.

State and Local Property Tax Developments

A key component of recent state business tax changes has been a general reduction in taxes on business property, accompanied by extensive limitations on the scope and/or growth of property taxes in virtually every state. Indeed, most states now have some form of statutory limitation on property taxation.¹³ On the surface, this means lower tax burdens for businesses of all sizes. Digging more deeply, however, limitations on one source of tax revenue are easily circumvented by increasing taxes on other sources, namely on one or another form of business taxation.

Another issue related to property tax limitations is that property taxes are the most important source of local tax revenue. Limits on local property tax systems, often set in place in the pursuit of more adequate or fair school funding systems, implicitly place more importance on state-level revenue instruments. Of course, the state revenue portfolio includes more taxes on business

13 National Conference of State Legislatures (2002).

activity than are present in local revenue systems, so this trend could lead to greater overall business tax burdens at the state and local level.

On another property tax issue, state and local governments have been famous for offering generous property (and other) tax breaks to lure mobile business activity. However, a recent court case has called the legality of these sorts of tax incentives into question.¹⁴ Perhaps seeing the writing on the wall, states seem to be gravitating toward non-tax-incentive programs. The extent to which this might affect small businesses is difficult to determine. Targeted tax breaks inevitably result in higher taxes elsewhere, so a turn away from these practices could provide benefits in the form of lower overall taxes for all firms.

Looking Ahead: Tax Issues on the Horizon

The current wave of federal, state, and local fiscal pressures, which is likely to continue for some time, is also likely to be exacerbated by several emerging trends, including the effects of an aging population, expanding technology for tax planning, and the expansion of so-called green taxation.

Consequences of an Aging Population

The gradual aging of the American population poses a familiar set of problems for federal, state, and local budgets, and governmental responses to the problems could have important effects on small businesses. An older population will mean more demands on the Social Security and Medicare budgets at the federal level. Unless policymakers want to reduce benefits for those programs, payroll taxes will have to be raised. Similarly, the aging population will continue to place upward pressure on health care costs, thereby increasing the costs of running a small business.

At the state and local levels, the aging of the population will have decidedly different impacts. Older voters may fight harder for tax limitations, especially for the property tax, and tax burdens may be shifted further onto businesses. States with more balanced tax systems, especially those with stable sales taxes, will be able to weather the storm better than states that rely more heavily on individual income taxes, because individuals continue to spend money on sales-taxable items even as their incomes fall in retirement.

14 *Cuno v. DaimlerChrysler, Inc.*, No. 3:00 CV 7247 (N.D. Ohio 10/11/2006).

The Expanding Technology of Tax Planning

The increasing mobility of tax bases, both domestically across state lines and internationally into other countries, will contribute to the ongoing proliferation of methods for reducing individual and business taxes. Confronted by this increasing mobility, federal, state, and local governments will have to face the tradeoff between competing for mobile bases by lowering tax rates on one hand, and raising enough revenue to fund public service obligations on the other. Local, less mobile tax bases will be asked to bear a larger share of the total tax burden unless major changes are made in how multi-jurisdictional activities are taxed. This has especially important ramifications for local small businesses that are not as easily able to relocate to a lower-tax jurisdiction or engage in costly yet sophisticated tax planning.

The Growth of Green Taxation

As oil prices continue to climb and Americans work harder to minimize their individual and collective impacts on the environment, it is likely that governments will join in by enacting new earth-friendly tax systems. Under discussion are cap-and-trade systems for pollution permits, carbon taxes that would penalize the largest emitters, tax incentives for alternative-fuel vehicles, and tax credits for “clean” production, among many others. Policymakers will certainly be creative as they think about using various tax systems to carry out environmental policies. Small businesses involved in the green wave will likely benefit from the new direction in public policy, while others will be left holding the bill.

The nation is approaching an important period in tax policy history. The significant pressures posed by an aging population, increasingly mobile tax bases, and an ever-expanding dialogue on the impact of human activity on the environment will combine with the pending expiration of a significant number of important tax rates and policies to force a discussion of fundamental tax reform in 2009. It remains to be seen how that dialogue will affect small businesses, but current and potential business owners will certainly want to participate in the discussion.

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7 BUSINESS CREATION *in the* UNITED STATES: ENTRY, STARTUP ACTIVITIES, *and the* LAUNCH *of* NEW VENTURES

Synopsis

New businesses are significant contributors to the growth and productivity of the U.S. economy. Their importance warrants ongoing research efforts to develop relevant data sources with which to explore the dynamics of the business creation process.¹ While a number of datasets are representative of the U.S. business population, only one—the Panel Study of Entrepreneurial Dynamics (PSED)—defines a nationally representative sample of entrepreneurs who are in the process of starting a new business. This dataset permits detailed analysis of specific stages of the business creation process from the entrepreneur’s initial idea to the successful creation of a functioning new business. It permits measurement of the elusive concept of “entrepreneurship” in terms of new firm creation—an accepted feature of most working definitions of entrepreneurship.

Significant research analyzing the business creation process has been based on the PSED dataset. Results of this research indicate that the extent of business creation in the United States is enormous. In 2005, more than 12 million individuals were involved in starting more than 7 million ventures. In addition, the factors affecting entrepreneurial behavior have been found to be more complex than previously thought. Socio-demographic factors including age, gender, and ethnic background appear to have a major impact on who is entrepreneurial and participates in the business creation process. Individuals and

1 This chapter was prepared by Paul D. Reynolds, Florida International University, and Richard T. Curtin, University of Michigan, both co-principal investigators on the first and second Panel Studies of Entrepreneurial Dynamics (PSED I and II). The PSED I project was sponsored by the 34 member units of the Entrepreneurial Research Consortium, which included the U.S. Small Business Administration (SBA) Office of Advocacy, two National Science Foundation grants (9809841 and 9905255), and the Ewing Marion Kauffman Foundation; the primary sponsor of PSED II was the Kauffman Foundation with funding from the Office of Advocacy. Analysis and interpretation are those of the authors and not of the SBA Office of Advocacy.

teams develop and implement new firms with diverse procedures. Existing evidence indicates there is no one way to successfully start and grow a new firm.

Research on factors associated with success of a new firm startup suggests that personal background and socio-demographic attributes of individual entrepreneurs or entrepreneurs who work in teams have much less to do with business success than what these entrepreneurs actually accomplish in the early phases of the business creation process. The creativity and hard work of the entrepreneurs in the early phases, rather than their personal backgrounds, are key to successfully creating a viable new firm. According to one estimate, the amount of uncompensated time entrepreneurs devote to starting new firms is enormous—7.7 billion hours in 1999 and 9.9 billion hours in 2005. These hours equaled 2.1 percent of total paid work in the United States in 1999 and 2.7 percent in 2005. This entrepreneurial activity is equal to almost one-half of the work hours for all U.S. self-employed workers for those years (20 billion hours in 1999 and 18 billion hours in 2005).

The time required for an entrepreneur to start a business varies widely. Only one-third of entrepreneurs will actually have a working business within the first six years. Over the same period, another one-third of these nascent entrepreneurs will disengage. Yet another one-third of these entrepreneurs will not have gotten past the earliest stages of the firm creation process in six years.

Prior analyses of new firm creation suggest that U.S. business creation activity has been stable over the past several decades. Entrepreneurship has been an integral part of American economic life and a viable personal career option. While the United States retains its status as a premier location for entrepreneurship activity, new firm creation and innovation, there is evidence of growing global competition. For example, international comparisons indicate a significant increase in entrepreneurship and new firm creation in Asia—particularly related to growth-oriented new ventures. If the United States is to retain its competitive position, various approaches will be needed to facilitate entrepreneurship and new firm creation. These include enhancing the skills of individuals and teams of entrepreneurs and helping these innovators move beyond the early stages of a business idea to the implementation of a profitable new business.

Introduction

Business creation began to attract attention in the sixteenth century, when a cadre of observers began to write about social and economic phenomena. It was noticed that some individuals specialized in organizing the resources—money, people, suitable locations—for a new venture or initiative. This led to the creation of the concept of an “entrepreneur,” or someone who engages in “entrepreneurial” activities. The amount of writing about entrepreneurship expanded considerably in the latter part of the twentieth century, reflecting widespread recognition of many contributions from entrepreneurial initiatives. Despite the substantial increase in attention from scholars and policymakers, detailed research on the entrepreneurial process itself has been modest. This gap has reflected both the amorphous nature of entrepreneurship and the lack of procedures for producing representative samples of entrepreneurs to scientifically investigate the business creation process.

This chapter describes the first systematic studies of business creation that utilize samples representative of the U.S. population of nascent entrepreneurs. The Panel Study of Entrepreneurial Dynamics (PSED) research program provides—for the first time—a detailed description of how modern entrepreneurs create new businesses. While this unique national resource is relatively new, the research program has been widely imitated and has generated considerable analysis,² which has substantial implications for practitioners and policymakers. This overview summarizes the justification for the research program,³ the methodological protocol, and a selection of the major findings.⁴

Conceptions of Entrepreneurship

Few concepts are more ambiguous than “entrepreneurship.” The French word “entrepreneur” originally described an individual “who unites all means of production and who finds in the value of the products ... the

2 An extensive and useful summary of the analysis based on PSED-based studies is found in Davidsson, 2006.

3 Major sources for this review include Reynolds, 2000; Gartner, et al., 2004; Reynolds, 2007; and Reynolds and Curtin, 2008. Full details and datasets related to the research program are available on the project website, <http://www.psed.isr.umich.edu>.

4 As of December 2007, nine dissertations and theses, seven books and monographs, 45 peer-reviewed journal articles, eight book chapters, and five dozen conference presentations had utilized the PSED datasets; the current bibliography of PSED-based scholarly works is available on the project website, <http://www.psed.isr.umich.edu>.

reestablishment of the entire capital he employs, and the value of the wages, the interest, and rent which he pays, as well as profits belonging to himself.”⁵ In other words, the entrepreneur is the person or team that establishes a venture. Early English translators did not know whether to use the term “undertaker” or “adventurer” to describe such individuals. The entrepreneurial concept reflects the idea of opportunity recognition and success as a coordinator and administrator but does not necessarily imply creating something new or innovative. It does imply that the entrepreneur bears some risk or uncertainty,⁶ including excessive optimism about the extent of a business opportunity.

The idea that entrepreneurship is a positive contribution to economic adaptation and change was conveyed by the idea of “creative destruction.”⁷ It was suggested that the creation of new productive activities led to the beneficial replacement of existing firms, displacing them with firms that provided new goods and services or that used new productive mechanisms to provide established commodities more efficiently. Some now consider “innovative entrepreneurship” as the only form worthy of serious attention;⁸ others have suggested that only those few new firms receiving venture capital support, about 200 each year, make significant contributions.⁹ Identifying the level of innovation or impact on markets that is to be considered “real” entrepreneurship has not been resolved conceptually or operationally.

Another trend has been to focus on “opportunity recognition,” or how entrepreneurs identify markets for new goods and services.¹⁰ It has been suggested that opportunity recognition should be the central feature of entrepreneurial research.¹¹ Opportunities, however, are difficult to recognize until they have already been exploited. It is even harder to classify the quality of an opportunity. A new venture that grows quickly may be exploiting a “major opportunity,” and therefore may be labeled “entrepreneurial.” The concept of entrepreneurship can be applied to an active participant in any market, such

5 Say, 1816.

6 Cantillon, 1730; Knight, 1921.

7 Schumpeter, 1934.

8 Baumol, Litan, and Schramm, 2007.

9 Shane, 2008, 162.

10 Penrose, 1959; Kirzner, 1979.

11 Shane and Venkataranam, 2001.

as managers in commercial firms, now referred to as “intrapreneurs,” or even administrators or officials in government organizations or not-for-profits, often referred to as “social entrepreneurs.”

Perhaps the idea that entrepreneurs have unique dispositions or personalities has derived from observations that individuals who organize inputs to create a new good or service often seem very focused and driven.¹² Many think that entrepreneurs have a need for achievement¹³ or a preference for risk.¹⁴ However, research efforts to define an “entrepreneurial personality” have found few stable empirical relationships (stylized facts or empirical generalizations).¹⁵

Individuals generally experience major life events—marriage, occupational choice—within a social network or group. Similarly, creating a new firm is generally done in a network of social relationships.¹⁶ Therefore, entrepreneurship can be considered a social phenomenon as much as an individual career choice.

Intrinsic to all conceptions of entrepreneurship is the idea that some type of new business venture is created, whether through part-time self-employment or a substantial organization involving hundreds. A key question that follows relates to the types of individual behavior that lead to the creation of these new ventures.

Why Care about Firm Creation?

Why is firm creation important? Most significant is that new ventures replenish and maintain the population of operating firms, which in turn power the U.S. economy. The annual increase in U.S. employer firms has averaged 1.0 per 100 existing firms from 1990 through 2006. This reflects an average birth rate of 10.8 births per 100 firms, less an annual firm death rate of 9.8 per 100 firms.¹⁷ By 2006 more than 600,000 new employer firms were being added to

12 Kets de Vries, 1985.

13 McClelland, 1961.

14 Knight, 1921.

15 Gartner, 1988.

16 Aldrich, 2005; Reynolds, 1991; Thornton, 1999.

17 Employer firm counts for 1989 through 2006 from U.S. Small Business Administration, 2007, Table A.1 and employer firm births and deaths from Table A.2. Birth and death rates used total employer firms in the previous year as the base.

the economy each year—one for every 200 employed persons. New firm creation is central to economic growth in the United States.

Firm creation has important economic implications. First, new firms have generated new sectors or markets—from automobiles to computers to consumer services. The emergence of new sectors reflects a flurry of new firm creation.¹⁸

Second, initial assessments of the impacts of entrepreneurship and new firm creation focused on net job gains by size¹⁹ which led to substantial controversy over the impacts of small versus large firms.²⁰ The most recent evidence indicates that new independent firms are the source of half of all net job creation; the other half is accounted for by new branches and subsidiaries, reflecting expansions of existing firms. In fact, the net job creation of all firms, branches, and establishments more than a year old is negative. After one year, losses from contractions and discontinued firms are greater than the job gains from expansions.²¹

Third, longitudinal datasets on U.S. firms have made it possible to estimate the labor productivity of new, existing, and discontinuing businesses. It turns out that new firms have the highest labor productivity and are responsible for a major share of increases in sector productivity. While this varies by sector—new firms are responsible for almost 100 percent of the productivity gains in retail and perhaps 30 percent in manufacturing—new firms are critical to the efficient production of goods²² and displace less efficient existing firms.

Fourth, new and small firms are a major source of technical and market innovations. One effort to track the source of technical innovation by firm size found that small firms produced one-half of new innovations.²³ Small firms are also a major source of market changes.²⁴

Fifth, researchers have investigated the relationship between measures of new firm creation and national and regional economic growth. There is consistent evidence of a modest positive association between the level of new entries

18 Hannan and Freeman, 1989; Carroll and Hannan, 2000; Klepper, 2002.

19 Armington and Odle, 1982; Birch, 1997, 1981; Schreyer, 1966.

20 Brown, Medoff, and Hamilton, 1990; Davis, Haltiwanger, and Schuh, 1996.

21 Acs and Armington, 2004.

22 Foster, Haltiwanger, and Krizan, 2002; Foster, Haltiwanger, and Syverson, 2005.

23 Audretsch, 1995.

24 Baumol, 2005.

or firm births in regions or countries, and economic growth in subsequent periods. While the causal mechanisms have yet to be clarified, the association is a robust finding.²⁵

There is also evidence that entrepreneurs have higher job satisfaction than those working for others.²⁶ The capacity to create a business is an important career goal for a substantial number of those in the work force. Estimates from the PSED samples suggest that in 2006 about 12.6 million U.S. nascent entrepreneurs were involved in about 7.4 million nascent enterprises²⁷—more than the number of people who marry or become parents annually. By the time they reach retirement, almost half of all men in the work force will have a period of self-employment.²⁸

Finally, new firm creation is a major mechanism for immigrants to integrate themselves into the economy.²⁹ It is also a major route to enhanced economic status for many, including women and minorities who may find limited advancement opportunity in their jobs.³⁰

Resources for Tracking Business Dynamics

What data resources are currently available to analyze the firm creation process in the U.S. economy? A panel of experts convened to report on this issue for the National Academy of Sciences recently completed a study of business dynamics.³¹ A summary of their business dynamics conceptual framework is presented in Appendix 7A as Figure 7A.1. The presentation is organized around two major business phenomena: the business entity's life course and the work career of typical individuals.

This framework posits that two major processes lead to the conception of a new business. One process involves individuals shifting into the startup mode after a work career as employees holding jobs; the other involves individuals

25 Acs and Armington, 2006; Audretsch, Keilbach, & Lehmann, 2006; van Stel and Thurik, 2004.

26 Blanchflower and Oswald, 1998.

27 Reynolds and Curtin, 2008, 172.

28 Reynolds and White, 1995, 5.

29 Aldrich and Waldinger, 1990; Light and Bonacich, 1988; Portes and Rumbaut, 2006.

30 Reynolds, Carter, Gartner, and Greene, 2004.

31 Haltiwanger, Lynch, and Mackie, 2007.

initiating new firms as part of current job requirements, representing a startup sponsored by an existing firm.

The major purpose of the conceptual framework is to identify existing datasets for research on business and career dynamics. A total of 26 different datasets were identified as relevant to some aspect of firm creation and business dynamics; they are listed at the bottom of Figure 7A.1. Only one dataset, the Panel Study of Entrepreneurial Dynamics (PSED), provides information based on a representative national sample that permits detailed analysis of the firm creation process. The PSED provides data describing the startup phase of the business dynamic processes. A wide range of issues can be addressed about both entrepreneurial activity and business dynamics, for example:

Entrepreneurial Activity

- Who gets involved in creating a new business?
- How many nascent entrepreneurs/nascent enterprises exist?
- What do nascent entrepreneurs do to create a new firm?
- How long does it take to reach a resolution—a new firm or disengagement—after entry into the startup process?
- What is the social cost, in terms of sweat equity and personal investments, associated with the firm creation process?
- How many individuals must implement how many firms to create one firm with substantial growth potential?

Business Dynamics

- To what extent are new firms based on advances in technology and science?
- What proportion of nascent enterprises complete the process to become a new firm?
- What is unique about nascent enterprises that become new businesses, compared with those that do not make the firm birth transition?

- What is unique about the new firms expecting to have a substantial growth trajectory after launch?
- How do the startup procedures and strategies affect the trajectory of firms once they are launched?

All of these issues have great relevance for efforts to promote new firm creation and improve the efficiency of the process. Without information on these issues, policies designed to increase the level of entrepreneurial activity could be ineffective or counterproductive.

Identifying Entrepreneurial Activity

Serious analysis of the firm creation process has been complicated by the lack of representative samples of nascent entrepreneurs, individuals actively involved in business creation. A number of proxy measures have been employed, with mixed results. These have included measures of self-employment,³² new business registrations,³³ and new participants in markets (or market entry).³⁴ Another strategy has been to utilize samples of convenience. None are fully satisfactory as indicators of the entrepreneurial or business creation process and data for these measures do not allow an adequate representation of business creation activity.

Self-employment is widely available as a measure of labor force activity; it generally refers to a person working on their own account, full- or part-time, without any employees. In a sense, the self-employed represent the smallest possible business venture. Most are established, some are new. In some U.S. datasets a person managing such a business that has formally incorporated is considered a manager, even though there may be no employees—hence the distinctions between the unincorporated and incorporated self-employed.³⁵ Self-employment is often considered a “labor force activity” option, like full-time work, or being disabled or retired. As a choice offered for selection as “the” primary labor force

32 See examples of research on self-employment in Blanchflower, 2000; Evans and Leighton, 1989; Le, 1999; and Parker, 2004.

33 Spletzer et al, 2004; U.S. Small Business Administration, 2004; or the Dun and Bradstreet Dun’s Market Identifier files.

34 Orr, 1974; Geroski, 1995.

35 U.S. Department of Commerce, 2002, 4-5.

activity, self-employment does not capture individuals pursuing new firm creation while they have other established job or work responsibilities.

One assessment has been designed to capture those in the process of becoming self-employed.³⁶ Using the panel nature of the Current Population Survey samples, those individuals that change status from no self-employed work to more than 15 hours a week in self-employment in two consecutive monthly interviews are considered “entrepreneurial”—but only for that month. While this captures some aspects of a transition into self-employment, the lack of information on the nature of the new business activity or any other form of business creation suggests it may capture only a narrow aspect of the business creation process. The procedure also excludes individuals pursuing firm creation while they are employed or considered self-employed—more than 80 percent of those involved in firm creation.

Much research has been based on capturing new additions to an existing registry of firms, such as state lists of new incorporation filings, new employee establishments in the Bureau of Labor Statistics unemployment insurance data files,³⁷ new employer firms filing federal Social Security payments for the first time,³⁸ or new listings in the Dun and Bradstreet credit rating files.³⁹ In these examples it is possible to track the presence and scope of new ventures after they are incorporated into the registry, but there is little information about the point in the business creation process when they were incorporated into the registry, what preceded the registry listing, or the nature of startup initiatives that were abandoned prior to incorporation into the registry.

Perhaps equally significant, a new registry listing is triggered by events that can have a tangential relationship to the economic activity of the new business. Not all new incorporated businesses are active producers of goods or services or active as buyers of goods, services, supplies, labor, equipment, and the like. Those filing state unemployment insurance or federal Social Security payments for the first time may have employees, but they may not be selling goods or services and may never become profitable businesses. A new listing in the Dun and Bradstreet files may reflect a new venture that is purchasing goods or services,

36 Fairlie, 2006.

37 Business Employment Dynamics (BED); Haltiwanger, Lynch, and Mackie, 2007, 160.

38 See, for example, the Business Information Tracking Series (BITS); Haltiwanger, Lynch, and Mackie, 2007, 174.

39 Dun’s Market Identifier files, Haltiwanger, Lynch, and Mackie, 2007, 160.

but may not have any sales or revenue and would not be considered an operating business. A registry listing is not directly related to active participation in the economy as either a buyer or seller or functioning as a profitable firm.

In brief, reports of self-employment, entry into self-employment, or a new listing in a business registry, have an ambiguous relationship to the presence of a functioning business activity. One primary reason for the development of the PSED research protocol was to provide a more complete description of the business creation process from conception to profitable operation, using a research design that would identify that point in the process when the new ventures would be incorporated in the major business registries.

Two strategies are widely employed for developing samples of various populations of firms. One is to identify a population of firms—based on their economic sector or organizational type—and utilize procedures to attempt to identify them all using historical records to determine evidence of an initial startup.⁴⁰ This may be done by examining historical records to locate the first evidence of the presence of a startup effort or some activity related to the startup.⁴¹ While a complete census of new entities ensures that inferences to the population are appropriate, it is not clear how this unique population might represent new firms in all economic sectors.

Another strategy for developing a sample simply uses available lists of firms that might be considered new, with no analysis of historical records and therefore little concern for how these entities enter into the listings. This includes the *Inc.* magazine list of 500 high-growth new businesses,⁴² the files of a university technology transfer office,⁴³ applications for financing submitted to a venture capital firm,⁴⁴ or even new entries in the phone book yellow page listings.⁴⁵ In such cases the population represented by the sample is a complete mystery, and how to extrapolate the findings beyond the sample is unknown. Retrospective accounts of extremely successful new ventures—such as Federal

40 This has been popular in studies of organizational population ecology (Hannan and Freeman, 1977; Carroll and Hannan, 2000) or industry studies (Klepper, 2002).

41 This might be using lists of new incorporations (Eisenhardt and Schoonhoven, 1990; Schoonhoven and Eisenhardt, 1990) or first use of critical technology (Zucker, Darby, and Brewer, 1998).

42 Bhide, 2000.

43 Roberts, 1991.

44 Kaplan, Sensoy, and Stromberg, 2005.

45 Shapero and Giglierano, 1982.

Express, Microsoft, or Wal-Mart—can be fascinating,⁴⁶ but the absence of any information on a comparison group of unsuccessful firms limits inferences about the basis for their success.

Neither strategy allows a reasonable extrapolation from the samples to the total U.S. population of nascent entrepreneurs or nascent enterprises.

From inception, the PSED research protocol was designed to create representative samples of all new firm creation, to provide confidence that the samples would represent all sectors, and to facilitate extrapolation to the total population of U.S. nascent enterprises or businesses in creation.

PSED Conceptual Model

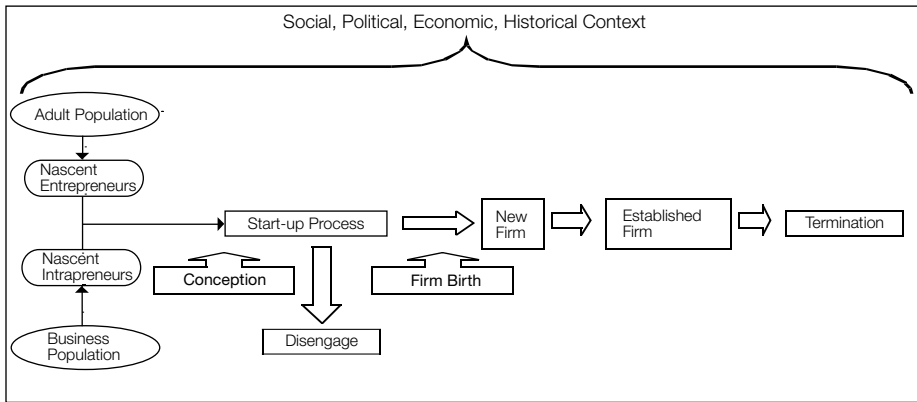
The major objectives of this research program are to (1) provide a comprehensive, objective description of the business creation process, and (2) assemble data that can facilitate theory development and hypothesis testing regarding new firm creation. The research design is based on the assumption that the major elements affecting the emergence of a new firm are not the direct result of macroeconomic conditions, the availability of government programs, the entrepreneurial climate, the presence of friendly financial institutions, supportive family and friends, or speeches by politicians. The impact of all these contextual factors is assumed to be mediated by the direct actions taken by individuals.

People create new firms. The PSED research program is a study of who they are, how they react to their personal and work career context, and what they do to implement a new business.

The research requires precise operational definitions of the major features of this process, including measures that capture the critical transition points from one phase to another. This framework reflects a general view of the firm creation process (*Figure 7.1*) and assumes that individuals pass through the first phase when they begin to take some action to create a new firm. These actions may have been taken on their own behalf or as part of their job at an existing firm. Thus, nascent entrepreneurs are drawn from the adult population as independent nascent entrepreneurs or from an existing business as “nascent intrapreneurs.” There are two potential second stages: “new firm creation” or “disengagement.”

⁴⁶ Trimble, 1993 (Federal Express); Ichbiah and Knepper, 1991 (Microsoft); and Vance and Scott, 1994 (Wal-Mart).

Figure 7.1 Business Life Course, Context and Transitions



A new firm is defined as a profitable business venture that offers goods or services in the market. Following birth, these entities pass through phase two, where young firms become established firms, and eventually to a final phase as their economic usefulness declines and they terminate. The alternative for nascent entrepreneurs is disengagement from the startup process. A substantial proportion of entrepreneurs, however, seem to be involved in a third option: they remain in the startup process for a long period of time, never achieving a clear resolution. The firm creation process occurs in a social, political, economic, and historical context.

At conception, a new firm, in the PSED paradigm, is one that has begun to show profits (operationally defined as positive monthly cash flow for three or more months). Much analysis in economics and elsewhere focuses on markets.⁴⁷ From another perspective, this leads to defining a new business as an active participant in a market, whether or not it is profitable.⁴⁸ A number of well-known, successful businesses were active for long periods of time before they actually became profitable, such as Amazon.com, or USA Today. Nascent enterprises that are active participants in markets as buyers of goods

47 Haltiwanger, Lynch, and Mackie, 2007, 32.

48 Markets are exchanges between buyers and sellers; a new participant, either as a buyer or seller, is of considerable interest. A new participant may affect the quantity or price of transactions. Whether or not the new participant (a person, household, or new business venture) is financially solvent is irrelevant.

and services can be identified in the dataset, but the conceptual and operational criteria for a “new firm birth” are related to profitability.

PSED Research Protocol⁴⁹

The U.S. Panel Study of Entrepreneurial Dynamics (PSED) research program consists of two longitudinal projects. PSED I was based on a representative sample of nascent entrepreneurs identified in 1998–2000 and contacted again three times over the following four years. PSED II is based on a representative sample of nascent entrepreneurs identified in late 2005 and early 2006 with follow-ups at 12 and 24 months.⁵⁰ Although there is a six-year lag between the screenings to select the nascent entrepreneur cohorts in these two projects, the research procedures were almost identical. The basic design is summarized in Table 7.1.

The procedure, discussed in more detail in the appendix, has three stages. The first is screening a representative sample of adults to locate those that could be considered candidate nascent entrepreneurs. Those that met certain criteria—considered themselves to be creating new businesses, had been active in the past 12 months, expected to own part of the new firm, and the new venture was not yet a profitable business—were eligible for the second stage. This involved a detailed phone interview that averaged 60 minutes in length. Those in the 1999 cohort were also asked to complete a 12-page self-administered questionnaire; three out of four in this cohort provided this additional information. The third stage was follow-up phone interviews, which also averaged 60 minutes in length. These follow-up interviews involved different sets of questions for those who reported that the new firm had been established, those still working on the startup, and those who had disengaged from the effort.

The results of this effort are comprehensive descriptions of a wide range of characteristics of the startup teams and activities pursued in the business creation process. The 1999 dataset, which involved the screening, initial detailed interview, and three follow-up interviews, has 5,000 variables. The 2005 dataset is similar in scope and size.

49 There is a considerable amount of information on the research design in the public domain; a good introduction is provided in Reynolds, 2000; Gartner, et al., 2004; and on the project website, www.psed.isr.umich.edu.

50 The 24-month follow-up data for the PSED II cohort was to be available in summer 2008.

Table 7.1 Overview of Project Design: PSED I and II

	PSED I	PSED II
Dates of initial screening, detailed interview 1	July 1998 to Jan 2000	Oct 2005 to Jan 2006
Time lag to		
Interview 2	14 months	12 months
Interview 3	27 months	24 months
Interview 4	40 months	Not available
Size of screening samples: nascent entrepreneurs only	62,612	31,845
Interview 1	830	1,214
Interview 2	501	972
Interview 3	511	To have been completed 2008
Interview 4	533	None planned at this time
Screening interview length	2 minutes	2 minutes
Detailed interview 1, phone	60 minutes	60 minutes
Detailed interview 1, mail	12 pages	None
Detailed interview 2, phone	60 minutes	60 minutes
Detailed interview 2, mail	8 pages	None
Detailed interview 3, phone	60 minutes	60 minutes
Detailed interview 3, mail	8 pages	None
Detailed interview 4, phone	60 minutes	NA
Detailed interview 4, mail	8 pages	NA
Phone interview payments	\$25	\$25
Mail questionnaire payments	\$25	Not applicable

No other comprehensive portrayal of business creation by a nationally representative sample of U.S. nascent entrepreneurs currently exists.

Entry into the Business Startup Process

At any one time, many people are actively trying to start a new business venture. These are individuals who not only express an interest, but report actual activity to start a new firm. In 1999 for each 100 persons between 18 and 74, about 5.62 qualified as nascent entrepreneurs; by 2005 this number had increased to 5.96 per 100. This represented about 10.7 million persons in 1999 and 12.1 million in 2005, an increase of 1.4 million. Based on these samples, this increase is not statistically significant. Most of this increase—55 percent

of the total count—is attributable to an increase in the population of 25- to 44-year-olds most likely to pursue business creation. A smaller proportion, 42 percent, reflects an increase in the “tendency to pursue” a new venture; about 3 percent is an interaction effect between these two influences.⁵¹

The most important demographic factors that affect participation in startup activity are age and gender. The prevalence data—numbers per 100 persons—for both genders and for six age categories show overall patterns remarkably similar for the two cohorts in 1999 and 2005 (*Figure 7.2*).⁵² Only two differences are statistically significant—the 2005 increase for men 25-34 years of age and the 2005 decrease for women 65-74 years of age. These interactions between age and gender have been evident in a number of other recent samples of U.S. nascent entrepreneurs.⁵³

The estimate of the total number of persons is provided in *Figure 7.3*. The patterns are quite similar to those for prevalence rates in *Figure 7.2*, but the vertical bars represent the total number of individuals involved in a business startup. The gender ratios are remarkably similar: about 6.1 million men and 4.5 million women were involved in 1999; for 2005 it was about 8.0 million men and 4.6 million women. Most of the increase in total business startup activity is associated with greater numbers of male entrepreneurs.

Because of small sample sizes, comparisons of racial and ethnic backgrounds are restricted to Whites, African Americans, and Hispanics. Unfortunately, a change in the procedures to determine ethnic background between 1999 and 2005 reduces the potential for analyzing Hispanic entrepreneurs.⁵⁴ The differences in the prevalence rates of nascent entrepreneurship, by gender, are presented in *Figure 7.4*. In each cohort, 1999 and 2005, African-American men were more likely to be involved in business creation than White men and the differences are statistically significant.⁵⁵ Hispanic men were intermediate between the other two categories,

51 Reynolds and Curtin, 2008, 174.

52 Because of the differences in the number and wording of the screening interview items for the 1999 and 2005 cohorts, adjustments are made to estimate the 1999 values as if the 2005 research procedures were employed. These are detailed in Reynolds, 2008.

53 Reynolds, 2007a; Fairlie, 2006.

54 The major change, introduced in the 2000 decennial census, allowed individuals to self-identify as having a mixed or diverse ethnic background. As a consequence, the proportion of respondents in a “mixed” or “other” category substantially increased, accompanied by a reduction in the proportion in the Hispanic category and, to a lesser extent, the African-American category. There seem to be minimal effects on the proportion in the White category.

55 Comparing the samples with a standard T-test and using the 0.05 level of statistical significance.

Figure 7.2 Nascent Entrepreneur Prevalence, by Gender and Age, 1999, 2005

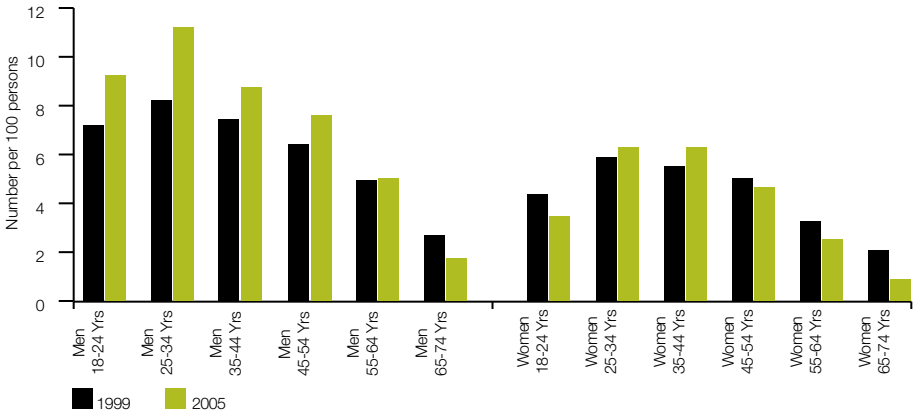
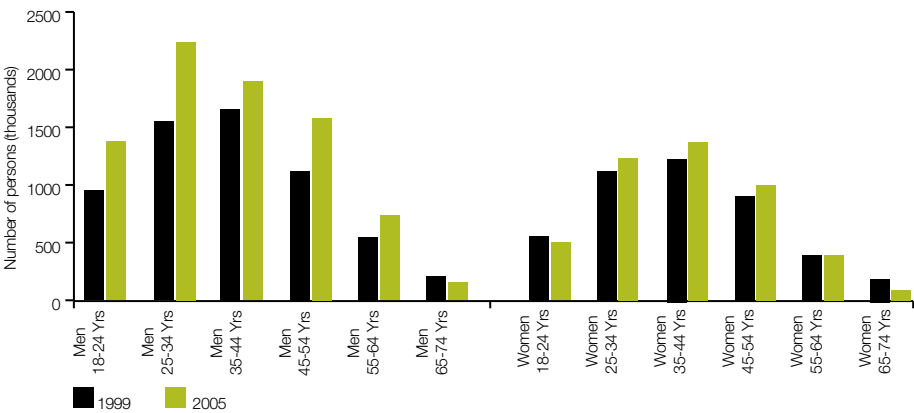


Figure 7.3 Nascent Entrepreneur Counts, by Gender and Age, 1999, 2005



although the differences are not statistically significant. Both African-American and Hispanic women have similar and statistically significant higher prevalence rates than White women.

Because most of the U.S. population is White, the estimates of the total counts of participants in Figure 7.5 have quite a different pattern. White men and women are by far the majority of those involved in nascent enterprises; 78 percent of the active nascent entrepreneurs in 1999 and 80 percent in 2005.

There is much discussion of the relationship between access to capital and participation in entrepreneurship. The positive impact of greater access to financial resources, the “liquidity effect,” on participation in entrepreneurship is a common

Figure 7.4 Nascent Entrepreneur Prevalence, by Gender and Ethnicity, 1999, 2005

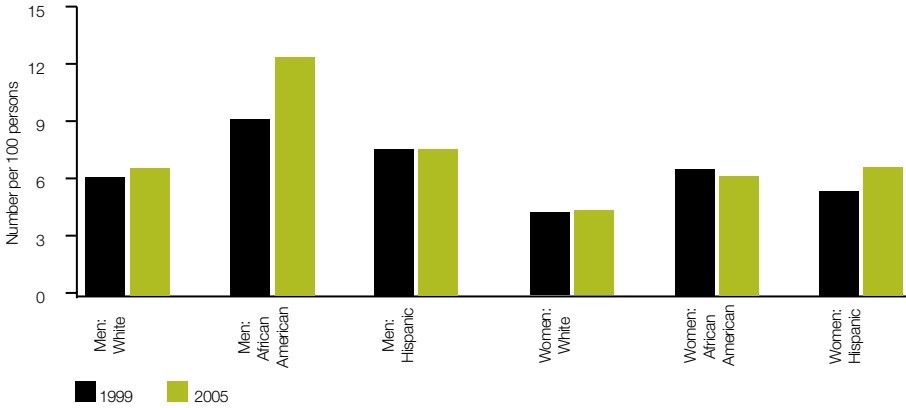
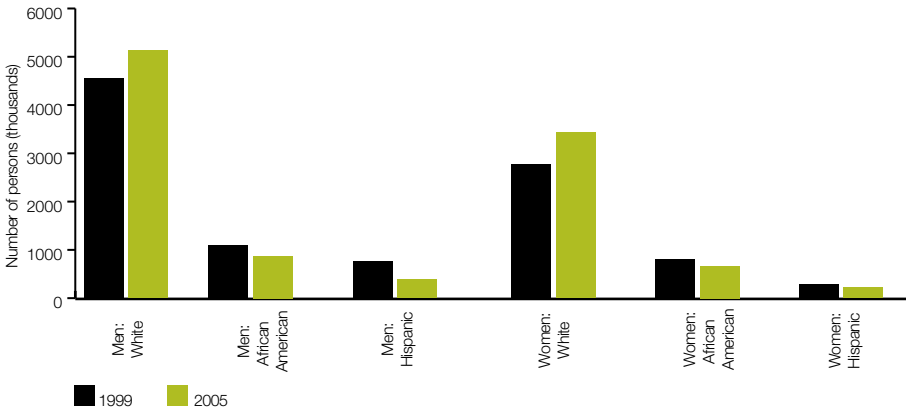


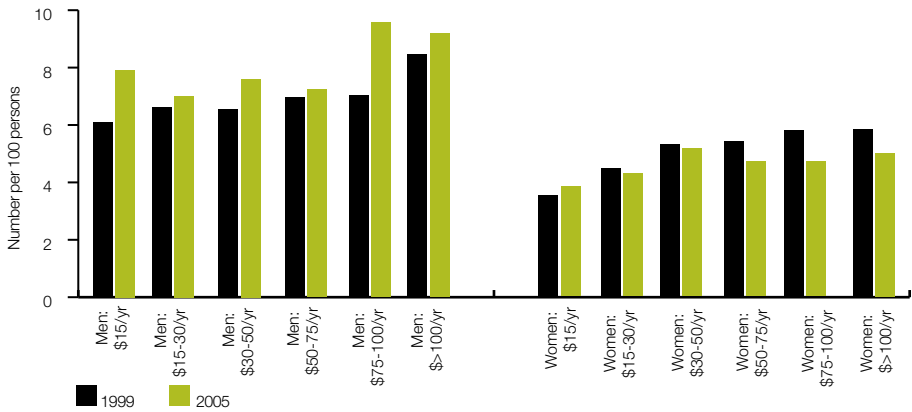
Figure 7.5 Nascent Entrepreneur Counts, by Gender and Ethnicity, 1999, 2005



theme.⁵⁶ One indicator of access to wealth is annual household income. The relationship, for men and women, is provided in Figure 7.6. The 1999 values have been adjusted using the Consumer Price Index to match 2005 values. This comparison shows a modest impact, with men from the highest income households at a higher level of participation and women from the lowest income households

⁵⁶ Dunn and Holtz-Eakin, 2000; Le, 1999.

Figure 7.6 Nascent Entrepreneur Prevalence, by Gender and Household Income, 1999, 2005 (income figures in thousands of dollars)



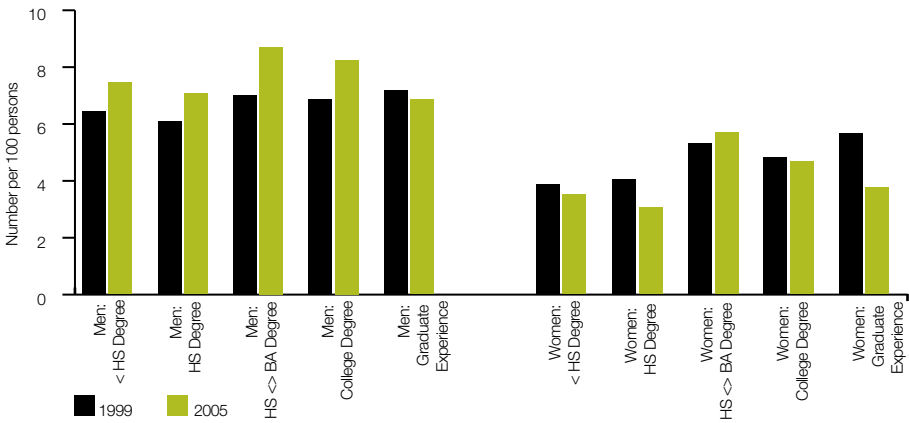
with a slightly lower level of participation. When these different subsamples are compared, however, none of these differences are statistically significant.⁵⁷

The relationship between educational attainment and participation in firm creation is presented by gender in Figure 7.7. There is little variation among the men and none of the differences are statistically significant. Among the women, however, those who had not finished high school or had not gone beyond high school were much less likely to participate in the startup process; these differences are statistically significant.

The data show that when both household income and educational attainment are taken into account, women from low-income households with little education are half as likely (3 per 100) to be involved in new firm creation as other women (6 per 100). The difference is clearly statistically significant for both the 1999 and 2005 cohorts. Women with both disadvantages are clearly not involved in the entrepreneurial process; no such interaction effect is present for men.

57 An extensive analysis of the 1999 cohort, comparing them to a comparison group identified at the same time, found that household net worth, once a variety of other factors were taken into account, had little impact on the propensity to participate in firm creation, Crosta, Aldrich, and Keister, 2002; Kim, Aldrich, and Keister, 2003. There may be a liquidity effect, but it clearly is not a major factor affecting the decision to participate in business creation.

Figure 7.7 Nascent Entrepreneur Prevalence, by Gender and Education, 1999, 2005



Who Becomes a Nascent Entrepreneur?

While many factors are associated with a greater tendency to become involved in the firm creation process, comparing the relative importance of the different variables helps to provide a more precise portrait of potential nascent entrepreneurs. The research design for the 1999 cohort included a comparison group,⁵⁸ a representative sample of U.S. adults not involved in business creation, which allowed for two types of comparisons with nascent entrepreneurs.

An analysis of the transition into startup involved comparisons with the 65,000 cases in the screening sample: 11 socio-demographic characteristics and aspects of the regional context could be considered in the comparisons. Another analysis involved direct comparison with the comparison group, who provided data in phone interviews and mail questionnaires almost identical to that provided by the nascent entrepreneurs; these 65 variables covered a wide range of current social information, work life context, business background, and experience data, as well as information about various traits, attitudes, and orientations.

Several analyses were employed in an attempt to determine the relative importance of different factors in the decision to participate in the firm creation process. It appeared that five socio-demographic factors enhanced participation in firm creation. Active participants were more likely to be:

⁵⁸ This material based on Reynolds, 2007b, 42-54.

- 24-54 years old
- men
- full- or part-time workers or self-employed
- African Americans and Hispanics
- high school graduates

A number of other factors seemed to have limited influence, depending on the situation, context, or alternatives for the person:

- household income (not poor)
- household net worth (very low or very high)
- recent population growth in local community (increase in demand)
- greater management and administrative experience and training
- positive impressions and encouragement from family and friends
- strong expectations for and commitment to an entrepreneurial career

The assessments of a wide range of personal attributes, attitudes, and perceptions were inconclusive. None were related to a negative impact on the decision to enter the startup process, but most had no statistically significant impact.

The life course stage, the immediate economic context, and the background of the individual affect the decision to pursue business creation. While some are more likely to become involved than others, there is no segment of society—no category of individuals—that is unrepresented among nascent entrepreneurs.

Nascent Entrepreneur Profile

A detailed profile of nascent entrepreneurs—individuals actively involved in trying to start a new business venture—is possible from the PSED cohorts identified in 1999 and 2005.⁵⁹ These descriptions represent the 10-12 million

⁵⁹ Based on Reynolds and Curtin, 2008, 181-202.

Table 7.2 Nascent Entrepreneurs: Gender, Age, and Ethnic Background

	Percent		Percent
Men	62.1		
Women	37.9		
Total	100.0		
18-24 years old	12.2	White	69.5
25-34 years old	29.1	African American	14.8
35-44 years old	28.0	Hispanic	7.0
45-54 years old	20.3	Mixed/other	8.6
55-or more years old	10.3		
Total	99.9	Total	99.9
Men		Men	
18-24 years old	8.8	White	42.3
25-34 years old	18.4	African American	8.5
35-44 years old	16.3	Hispanic	4.9
45-54 years old	12.2	: Mixed/other	6.3
55-or more years old	6.5		
Women		Women	
18-24 years old	3.4	White	27.2
25-34 years old	10.7	African American	6.4
35-44 years old	11.7	Hispanic	2.2
45-54 years old	8.1	Mixed/other	2.3
55 or more years old	3.8		
Total	99.9	Total	100.1

persons who were actively trying to start a business at the time the cohorts were identified. An extensive analysis has found very little difference between the two cohorts, so they have been combined for this presentation.⁶⁰ Data are presented separately if there is a gender difference. These patterns describe the character of those active in the process itself. Table 7.2 provides basic socio-demographic data on gender, age, and ethnic background.

For example, among active nascent entrepreneurs, 62 percent are men and 38 percent are women. Those aged 25 to 44, combining two age categories, are

⁶⁰ The comparisons involve only those 1,972 considered confirmed active nascent entrepreneurs, 824 from the 1999 cohort and 1,148 from the 2005 cohort. This excluded those individuals completing the first detailed interview who seemed to be reactivating a former business established prior to the screening interviews, Reynolds and Curtin, 2008, 169.

Table 7.3 Nascent Entrepreneurs: Marital Status and Household Structure

	Percent		Percent
Men			
Never married	18.3		
Married/living as	35.1		
Divorced/separated	8.0		
Widowed	0.9		
Women			
Never married	7.2		
Married/living as	24.3		
Divorced/separated	5.5		
Widowed	0.8		
Total	100.1		
Men		Men	
1 adult	13.5	No children	32.4
2 adults	34.0	1 child	10.8
3 adults	10.0	2 children	10.4
4-10 adults	4.6	3-8 children	7.6
Women		Women	
1 adult	7.9	No children	16.1
2 adults	22.6	1 child	7.9
3 adults	4.6	2 children	7.5
4-10 adults	2.7	3-8 children	6.3
Total	99.9	Total	99.0

57 percent of the active nascent entrepreneurs. The age pattern is similar for both men and women, with slightly fewer women under 24 or over 54 years of age.

Almost seven in ten are White and about one in six are African American, the remainder are about evenly divided between Hispanics and those with mixed or other ethnic backgrounds.

The home and family context of nascent entrepreneurs seems quite conventional, based on the patterns in Table 7.3. More than half, 59 percent, are married or living as if married, almost one in five are men who have never married; only 8 percent are women who have never married. Very few—fewer than 2 percent—are widowed, but about 14 percent report they are divorced or separated.

Table 7.4 Nascent Entrepreneurs: Family Immigration and Residential Tenure

						Percent
Nascent and both parents U.S. born						85.1
Nascent born in United States; one or both parents born outside						8.3
Nascent born outside United States; one or both parents U.S. born						1.2
Nascent and both parents born outside United States						5.4
Total						100.0
Years lived in county	Percent	Years lived in state	Percent	Years lived in U.S.	Percent	
0-1	9.8	0-1	4.7	0-1	0.5	
2-9	30.4	2-9	17.3	2-9	1.7	
10-29	39.8	10-29	41.5	10-29	29.6	
30+	20.1	30+	36.5	30+	68.2	
Total	100.1	Total	100.0	Total	100.0	

About one in five are living alone, but 80 percent share a household with other adults. About three in five (34 percent are men and 23 percent are women) are in a two-adult household. Half, mostly men, have no children in their household, but 30 percent who are men and 20 percent who are women report having a household with one or more persons under 18 years of age.

While immigrants that start new businesses are often highly visible, they are very much the minority among the nascent entrepreneurs (*Table 7.4*). Nascent entrepreneurs reporting they and both parents were born within the United States are 85 percent of the cohorts; about 5 percent report they and both parents were born outside the United States. About 8 percent report they were born in the United States and one or both parents were born outside; a very small proportion, 1 percent, were born outside the United States to U.S.-born parents.

Equally important, 60 percent have lived for 10 or more years in their county and almost 80 percent for more than 10 years in their state of residence. This is not a highly mobile population that moves into a community and immediately begins to launch a new firm. Most new firms are started by those well established in their communities.

The educational and financial resources of nascent entrepreneurs are presented in *Table 7.5*. There is a gender difference with respect to educational attainment, but none related to annual household income or net worth. Two-thirds of the nascent entrepreneurs have not completed college or obtained

Table 7.5 Nascent Entrepreneurs: Educational Attainment, Household Finances

Education	Percent	Percent
Men		
Up to high school degree	16.3	
Post-high school, pre-college degree	24.8	
College degree	12.6	
Graduate experience	8.5	
Women		
Up to high school degree	7.4	
Post-high school, pre-college degree	16.2	
College degree	9.2	
Graduate experience	5.0	
Total	100.0	
Household yearly income		Household net worth
0 - \$20,000	12.0	Negative 15.9
\$21,000 - \$40,000	24.0	\$1,000 - \$25,000 18.3
\$41,000 - \$60,000	24.2	\$26,000 - \$100,000 23.5
\$61,000 - \$80,000	15.3	\$101,000 - \$200,000 14.5
\$81,000 - \$100,000	9.7	\$201,000 - \$500,000 15.9
\$101,000 - \$150,000	9.0	\$501,000 - \$1 million 6.6
\$151,000 or more	5.8	\$1 million or more 5.3
Total	100.0	Total 100.0

graduate experiences. About one in four have not gone beyond high school; this group is dominated by men, reflecting the pattern discussed in the previous section. Women with little education are very unlikely to get involved.

The relationship of access to household financial resources is quite straightforward.⁶¹ Those from every possible situation are well represented, except perhaps those from the very highest income levels—annual income in excess of \$150,000 or household net worth of over \$1 million. Remarkably, one in six of those engaged in business creation report either zero or negative household net worth.

61 The interviewers had considerable success in obtaining details on household finances at the end of the 60-minute phone interviews. More than 95 percent were willing and able to answer questions related to annual household income or current net worth; the net worth assessment involved eight detailed questions about assets and debts. For comparisons related to household finances, changes in the Consumer Price Index (CPI) were used to adjust all 1999 values to 2005 equivalents.

Table 7.6 Nascent Entrepreneurs: Labor Force Participation and Work Experiences

	Percent		Percent
Men		Men	
Working	47.4	Other startups - none	36.1
Not working	14.6	Other startups - one	11.6
		Other startups – 2-4	12.0
		Other startups – 5-60	2.4
Women		Women	
Working	25.3	Other startups - none	22.8
Not working	12.6	Other startups - one	8.1
		Other startups – 2-4	6.3
		Other startups – 5-60	0.7
Total	99.9	Total	100.0
Men		Men	
No manager experience	8.6	No same industry	12.9
Managers 1-5 years	22.7	Same industry 1-5 years	18.7
Managers 6-14 years	15.6	Same industry 6-14 years	14.3
Managers 15-up years	15.1	Same industry 15-up years	16.3
Women		Women	
No manager experience	5.2	No same industry	10.8
Managers 1-5 years	15.2	Same industry 1-5 years	12.9
Managers 6-14 years	10.6	Same industry 6-14 years	7.0
Managers 15-up years	7.0	Same industry 15-up years	7.0
Total	100.0	Total	99.9

The labor force activity of the nascent entrepreneurs is presented in the top of Table 7.6. More than seven in ten report they are working—full-time, part-time, self-employed, or managing a business—while they are involved in the startup effort. Considerable effort is made during the interview to separate these other work activities from the efforts to create a new firm.

More than 85 percent report some managerial experience and more than 75 percent report work experience in the industry in which the nascent enterprise will compete. On the other hand, six in ten report this is their first startup effort and for two in ten it is the second. About 3 percent report participation in more than four other startups. On all measures of work experience, more men are more experienced than women.

Table 7.7 Nascent Entrepreneurs: Contextual Motivation and Growth Aspirations

Men	Percent	Men	Percent
Opportunity	51.8	Growth-oriented	15.4
Necessity	9.7	Comfortable size	46.7
Women		Women	
Opportunity	34.5	Growth-oriented	6.6
Necessity	4.0	Comfortable size	31.3
Total	100.0	Total	100.0

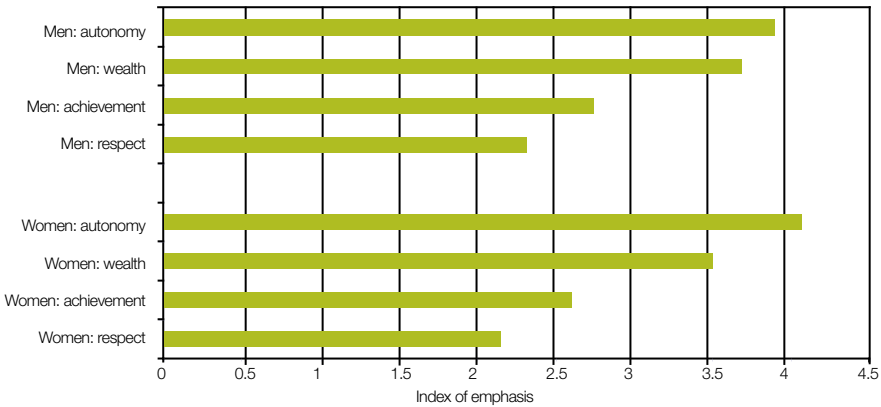
A number of variables are related to the contextual motivation of the nascent entrepreneurs, as well as their objectives in pursuing the new venture. When asked if they are voluntarily pursuing a promising business opportunity or engaged because they have no better choices for work, men and women respond slightly differently. As shown in Table 7.7, 86 percent report they are voluntarily pursuing an opportunity (52 percent are men and 34 percent women). Among the 14 percent that are involved out of necessity, 10 percent are men and 4 percent are women; women are less likely to be necessity entrepreneurs.

In contrast, when asked about aspirations for the growth of the new venture, 15 percent are men who want to maximize growth; women who want to maximize growth are 7 percent of the nascent entrepreneurs. About 47 percent of the nascent entrepreneurs are men “who want a new firm of a comfortable size to manage;” 31 percent are women with the same aspiration. The personal aspirations for participating in the startup effort were assessed with a set of variables that can be organized to create four scales:⁶²

- **Autonomy**, reflecting the desire for freedom to adopt work activities and for flexibility in personal and family life (2 items, Alpha = 0.64).
- **Wealth**, reflecting the importance of larger personal income, financial security, and greater wealth (3 items, Alpha = 0.79).
- **Achievement**, reflecting the importance of higher status, recognition, development of new business ideas, fulfilling a personal vision, and an ability to influence an organization (5 items, Alpha = 0.76).

62 Factor analysis was used to develop the four dimensions. For each dimension the number of items and the reliability as measured by Chronbach’s Alpha are provided in parentheses.

Figure 7.8 Nascent Entrepreneurs: Intrinsic Motivation by Gender



- **Respect**, reflecting the importance of following the family tradition, following the example of admired persons, respect from friends, and a business for one's children (4 items, Alpha = 0.69).

The relative importance of these four dimensions of intrinsic motivation for men and women nascent entrepreneurs is presented in Figure 7.8. As with any index, the actual numerical values are arbitrary, but the comparisons do make clear the relative importance assigned to each. The rank order is the same for both men and women, with small differences in emphasis. Generally, both men and women seem to become involved with firm creation to gain greater autonomy and wealth, with less emphasis on achievement and status or to gain the respect of family and friends. As with almost all work career choices, complex intrinsic motivations are involved in the final decisions.

In summary, the 12 million active nascent entrepreneurs in the United States in 2005 reflect a number of salient characteristics:

- Three in five are men; two in five are women.
- Three in five are between 25 and 44 years old; one in ten is 55 or older.
- Seven in ten are White; one in six African American, and one in fourteen Hispanic.
- One in five are men who have never married; three in five are currently married or with a significant other.

- Four in five are in households with one or more other adults.
- Half are in households with one or more children under 18 years of age.
- The large majority, 85 percent, were born in the United States of U.S.-born parents. One in twenty, 5 percent, was born outside the United States to parents also born outside the country.
- Nine in ten have lived in their county for more than a year, six in ten for more than 10 years.
- One in four has not gone beyond high school, one in seven has some graduate experience; two in five have gone beyond high school but not finished college.
- All levels of household income and household net worth are represented among active nascent entrepreneurs; one in six report zero or negative net worth.
- The majority, 73 percent, report a full-time or part-time job, self-employment, or managing a business for another while they are involved in creating another business venture.
- Almost nine in ten report one or more years of managerial experience; more than three-fourths have one or more years experience in the same industry as the new venture. For three in five this is the first startup initiative; 3 percent report experience on five or more other startups.
- One in five seeks maximum growth for the new firm; the remainder want to manage a firm of comfortable size.
- Most, 85 percent, report they are responding to the opportunity to develop a promising business idea; the remainder are involved because of a lack of other career options.
- The primary intrinsic attraction of the new firm is the potential for work autonomy and greater wealth, followed by a potential for achievement and recognition as well as respect from family and friends.
- While in some ways with respect to involvement in nascent entrepreneurship, women are distinctive—for example, a small percentage have not

gone beyond high school and there is less interest in the firm's growth—for most comparisons women are very similar to men.

The 12 million nascent entrepreneurs, then, appear as a cross-section of those in the prime years of their work career. No major segments seem to be excluded; some segments—younger men—are more involved than others.

Nascent Enterprise Profile⁶³

Given that 12 million nascent entrepreneurs were trying to implement 7.4 million nascent enterprises in 2005, what types of business ventures were these nascent entrepreneurs creating? Perhaps the most fundamental is the industry or economic sector; the distributions in these representative samples are compared to two national censuses of business ventures in Table 7.8.

One comparison is based on 20 million nonemployer firms—those that file a Schedule C with their annual federal tax return. The other comparison is 5.7 million employer firms—those businesses with employees that file federal Social Security payments; those with multiple locations were consolidated into one enterprise for this assessment.

The most important feature of this comparison is the presence of almost every industry sector in the nascent enterprise cohorts. Only utilities, which are less than 0.1 percent of the two comparison groups, are not represented. The small differences in emphasis in some economic sectors—more agriculture and retail trade and fewer construction and health and social services—may reflect sampling variation or differences in emphasis among nascent entrepreneurs. There is no question that the PSED cohorts represent the wide range of economic activity found in the U.S. economy.

Other basic features of the nascent enterprises are presented in Table 7.9. More than 80 percent would be considered independent startups, without ties to any existing businesses. A small percentage involve the takeover of an existing business, which may or may not be profitable. The development of a franchise or participation in multilevel marketing—an Amway distributor would be an example—account for less than 8 percent. Existing businesses sponsor a small proportion, about 6.5 percent, of nascent enterprises.

63 Based on material in Reynolds and Curtin, 2008, 203-221. Because of small differences between the two cohorts, data have been combined for most analyses.

Table 7.8 Nascent Enterprises: Economic Sector and National Comparisons (percent except as noted)

NAICS code		PSED	U.S. non-employer firms ¹	U.S. employer firms ²
	Year data collected	1999, 2005	2004	2004
	Number of cases (weighted for PSED)	1,974	19,523,741	5,657,774
11	Agriculture, forestry, fishing, and hunting	3.5	1.2	0.4
21	Mining	0.1	0.5	0.3
22	Utilities	0.0	0.1	0.1
23	Construction	9.0	12.2	12.6
31-33	Manufacturing	5.6	1.6	4.9
42	Wholesale trade	3.9	2.0	5.7
44-45	Retail trade	19.4	9.7	12.4
48-49	Transportation and warehousing	2.1	4.7	2.8
51	Information	5.2	1.5	1.3
52	Finance and insurance	2.7	3.7	4.2
53	Real estate and rental and leasing	4.1	11.4	4.8
54	Professional, scientific, and technical services	15.7	14.0	12.4
55	Management of companies and enterprises	0.1	0.0	0.4
56	Administrative and support and waste management and remediation	1.6	6.8	5.2
61	Educational services	1.9	2.1	1.2
62	Health care and social assistance	4.7	8.2	9.9
71	Arts, entertainment, and recreation	4.0	4.7	1.9
72	Accommodation and food services	4.9	1.4	7.6
81	Consumer services	10.6	14.3	11.3
92	Public administration	0.2	0.0	0.0
99	Unclassified	0.8	0.0	0.7
	Totals	100.0	100.0	99.9

¹ U.S. Small Business Administration, (2007), 307, total count based on row count sum.

² U.S. Small Business Administration (2007), 307.

Table 7.9 Nascent Enterprises: Nature, Legal Form, and Locations and Customers

	Percent
Nature of nascent enterprise	
Independent startup	82.7
Purchase, takeover of an existing business	2.8
Franchise	2.3
Multi-level marketing	5.1
Sponsored by an existing business	6.5
Other	0.6
Total	100.0
Legal form (1999 expected; 2005 current)	
Sole proprietorship	42.0
Partnership: general	11.9
Partnership: limited	4.2
Corporation: limited liability	7.5
Corporation: subchapter S corporation	5.3
Corporation: C corporation	5.0
Not yet determined, other	24.1
Total	100.0
Location of nascent enterprise	
Personal residence	52.5
Existing business site	7.5
Location dedicated to this business	11.1
Not needed yet	27.7
Mixed, other	1.3
Total	100.0

A variety of legal forms are represented. Two in five are sole proprietorships at the time of the first interview; about 16 percent are some form of partnership; about one in five have a corporate form; and for one-quarter the matter has not been settled.

More than half have established themselves in a personal residence, perhaps in the garage; more than one-quarter have not progressed to the point of needing a location; and the remainder have a dedicated site or are sharing facilities with another business.

Table 7.10 Nascent Enterprises: Customer Locations, Market Impact, and Technology

	Percent
Expected customer locations	
Local customers	60.3
Regional customers	21.1
National customers	16.1
International customers	3.1
Total	100.0
Market impact (2005 only)	
Major impact on market structure	4.7
Moderate impact on market structure	5.1
Little impact on market structure	38.1
No impact on market structure	52.0
Total	99.9
Technological emphasis	
High technology focus	5.7
Moderate technology focus	17.7
Little technology focus	30.2
No technology focus	46.4
Total	100.0

The nature of the customer base and the business activity vary considerably (*Table 7.10*). They collectively expect 60 percent of their customers to be local and 21 percent regional, within a hundred miles of their location. National customers are expected to be 16 percent; 3 percent are expected to be international. A very small number, seven of 2,000, expect all their customers to be international.

An index of market impact is based on three questions about competition, customer knowledge of their product or service, and the unique nature of the production procedures or products.⁶⁴ The result suggests that about one in twenty might be expected to have a major impact on the market. Nine in ten will be replicating existing business activity. Less than one in ten consider their new ventures to fill the “creative” role in “creative destruction.”

⁶⁴ Based on an index developed by Samuelsson, 2004; this module was included only in the 2005 interview schedule.

Table 7.11 Nascent Enterprise Size Expectations and Anticipated Growth Rates (percent except as noted)

Jobs anticipated	First year	Fifth year	Annual sales anticipated	First year	Fifth year
Average number of jobs	6.3	18.1	Average (thousands of dollars)	300	880
None	44.2	27.4	Up to \$50,000	56.6	29.8
1-5 jobs	39.0	36.6	\$50,000 - \$100,000	18.6	20.0
6-10 jobs	8.8	14.2	\$100,000 - \$500,000	17.0	29.7
11-25 jobs	5.6	12.5	\$500,000 - \$1,000,000	3.8	7.3
26-100 jobs	1.9	6.7	\$1,000,000 - \$5,000,000	2.6	9.2
100 jobs and up	0.6	2.6	\$5,000,000 and up	1.5	4.0
Total	100.0	10.0	Total	100.0	10.0

Growth expectations: Jobs in first year	Average annual growth (percent)	Average number of jobs in year 5	Growth expectations: Sales in first year	Average annual growth (percent)	Average sales in year 5 (thousands of dollars)
None	227	2.0	Up to \$50,000	118	132
1-5 jobs	57	10.2	\$50,000 - \$100,000	71	409
6-10 jobs	57	37.3	\$100,000 - \$500,000	85	1,301
11-25 jobs	46	57.6	\$500,000 - \$1,000,000	106	4,825
26-100 jobs	83	285.5	\$1,000,000 - \$5,000,000	77	9,323
100 and up	27	579.2	\$5,000,000 and up	14	15,565
All firms	135 %	18.1	All firms	102	880

Three variables—related to current technology, spending on research and development, and the owner’s judgment about the technological focus—are used to create a technology focus index. About one in twenty might be considered high technology; almost half have no focus on new techniques or products.

While all the data on the nascent enterprises were gathered during the gestation or business creation phase before the ventures were operating firms, the nascent entrepreneurs were asked about their expectations regarding employment and sales in the first and fifth years of operation (*Table 7.11*).⁶⁵ These nascent entrepreneurs expect to have, on average, six employees and \$300,000 in sales in the first year and 18 employees and \$880,000 in sales by the fifth year.

65 All the sales data for 1999 have been converted, using the Consumer Price Index, to 2005 values.

There is, as is to be expected, substantial diversity among the nascent enterprises. By the fifth year about a quarter never expects to have employees and about three in ten expect annual sales to be less than \$50,000 per year. At the other extreme, by the fifth year about one in forty expects to have more than 100 employees and one in twenty expects annual sales in excess of \$5 million. The aggregate impact of these 7 million nascent enterprises is affected in a major way by the fact that only about one-third will become operating firms.

The lower part of Table 7.11 presents the expected annual growth rates in jobs and sales. These tend to be higher for those nascent enterprises with more modest projections for the first year, as they are starting from a smaller base. Nonetheless, the anticipated annual growth rates are in excess of 100 percent per year for all firms.

The nature of the startup teams is presented in Table 7.12, complicated by the small proportion, 3 percent, where a financial institution or another business—a legal or juristic entity—will share in the ownership of the new firm. Slightly more than half will have a single natural person as the owner; the average size of the ownership group is about 1.7. The average distribution for all team members by gender, age, and ethnic background is also presented; it is remarkably similar to that for the responding nascent entrepreneur (see *Table 7.2*).

The bottom of Table 7.12 indicates the extent of expected family ownership of the nascent enterprise. Half are to be owned by one person,⁶⁶ which may or may not be considered a “family initiative.” Married couples expect to own 22 percent of the nascent enterprises; for another 7 percent the members of the same family or kinship group will own 50 percent or more of the new firm. For the remaining 19 percent, the firm will be owned by a startup team not dominated by a single family or kinship group.

In summary, the nascent enterprises have a number of salient features:

- The enterprises represent all sectors of the economy, with a distribution similar to that of existing firms.
- The majority, more than 80 percent, are independent startups; a small proportion, 6.5 percent, are sponsored by existing businesses.

66 Some researchers assume that one-person businesses require substantial support from family members and should be considered family-based enterprises.

Table 7.12 Nascent Enterprise, Size, and Composition of the Startup Teams

	All owners (percent)	Natural persons (percent)	Juristic owners (percent)
Average number of owners	1.73	1.68	0.04
None	0.0	0.0	97.2
One	50.0	51.6	2.0
Two	36.1	35.8	0.4
Three	7.0	6.8	0.3
Four	4.8	4.3	0.2
Five or more	2.0	1.5	0.0
	100.0	100.0	100.1
		Average number	Percent of all
Men		1.05	62.5
Women		0.63	38.5
Total		1.68	100.0
18-24 years old		0.30	18.0
25-34 years old		0.48	28.7
35-44 years old		0.46	27.5
45-54 years old		0.34	20.3
55 or more years old		0.19	11.4
Total		1.67	100.0
White		1.18	70.7
African American		0.24	14.4
Hispanic		0.10	6.0
Other/mixed		0.15	9.0
Total		1.67	100.1
Firm ownership structure			
Sole proprietorship			51.5
Spousal pair			22.0
Family, kin own 50 percent or more			7.1
Nonfamily-, nonkin-related team			19.3
Total			100.0

- The largest proportions, 42 percent, are sole proprietorships; 18 percent are corporations, and 16 percent are partnerships; for 24 percent the legal form has not been determined.
- More than half are operating out of a personal residence, 19 percent at a business site, and no special location is required for 28 percent at the first interview.
- The majority of the customers, 60 percent, are expected to be local, with 21 percent regional, 16 percent national, and 3 percent international.
- Only one in ten expects to have a moderate or major impact on the nature of the markets.
- About one in twenty has a major focus on new technology.
- The average expected size is 18 employees five years after the birth of the new firm; about one-fourth never expect to have employees; 3 percent expect to have 100 or more employees five years after the birth of the firm.
- Average annual sales expected in the fifth year total \$880,000; three in ten expect sales to remain under \$50,000 per year and 4 percent expect sales to exceed \$5 million a year.
- The actual average size of the startup team is 1.7 persons.
- About 62 percent of team members are men, 38 percent women; 56 percent are between 25 and 44 years old; 70 percent are White, 14 percent African American, and 6 percent Hispanic.
- Half of the nascent enterprises have one owner. One in five is owned by a spousal team, 7 percent by a family-related team, and 19 percent by a team with no family relationships.

There is great variety among the nascent enterprises, as might be expected from a sample of startup efforts reflecting a common phenomenon in a diverse economy.

The Startup Process

Individuals and teams working to implement a new firm do many things. Of considerable interest are both the startup activities and the amount of time and money involved in creating new ventures. The PSED project provides unique and detailed information on both.

The procedure used to capture information about these startup activities was similar for both the 1999 and 2005 cohorts. The nascent entrepreneur would be asked if a given activity—such as developing a legal form or seeking external financial support—had been implemented. If they said it had, they were asked the month and year the effort began. The 1999 cohort was asked about 26 different activities associated with starting a new firm; a slightly different list of 34 activities was presented to the 2005 cohort. Eighteen activities were included in both lists.

The average number of activities reported in the first interview was similar for the two cohorts, 7.2 in 1999 and 8.8 in 2005 (*Table 7.13*). The distribution is slightly different. Despite the larger number of activities in the 2005 interview, somewhat fewer reported 9 or more activities, 32.0 percent versus 49.6 percent for the 1999 cohort.

The activities of the two cohorts given in the first detailed interview are rank-ordered by frequency of mention (*Table 7.14*). Perhaps it is no surprise that “serious thought” about the startup is the most common activity, reported by every nascent entrepreneur in 1999 and all but a dozen (1 percent) in 2005. The emphasis on the other activities ranges from 81 percent reporting they had “invested their own money in the startup” to 3 percent reporting “positive monthly cash flow, but for less than three months.” Other activities of note are work on a business plan, reported by 55 percent, and “devoting full time to the startup,” reported by 30 percent.⁶⁷

In the follow-up interview, the nascent entrepreneur is asked to update this profile of activities; any activity not reported as initiated in a prior interview is once again presented for an assessment. This provides a comprehensive overview of both the startup activities initiated and the sequence in which they are pursued.

Information from the first detailed interview on the inclusion of these nascent enterprises in established registries is shown for four registration activities for the 1999 cohort and six for 2005 (*Table 7.15*). Some registrations

⁶⁷ An extensive analysis of business plan preparation, based on the data from the 1999 cohort, was provided in *The Small Business Economy: A Report to the President 2007* (Gartner and Liao, 2007).

Table 7.13 Nascent Enterprise Team: Startup Activities Distribution (percent except as noted)

Startup Activities	1999	2005
Total number of activities included on the interview schedule	26	34
Average number reported on the first interview	7.2	8.8
Number of activities reported		
1-4	12.5	30.0
5-8	37.9	38.0
9-10	18.3	15.1
10-20	31.3	16.9
	100.0	100.0

occur more frequently than others. Acquiring a federal Employer Identification Number (EIN) costs nothing and requires no major commitment; it is reported by 18 percent. An initial federal income tax return is reported by 15 percent; this could be a profit or loss. Registration of a fictitious or “doing business as” (DBA) name and the initial federal Social Security payment have about the same prevalence (11 percent) which is twice as often as initial payment of state unemployment insurance.⁶⁸

As the month and year these various events occurred are obtained in the interview, the dates are used to explore the sequence of activity. The diversity is striking: virtually every activity is reported as occurring first in the sequence by at least one nascent entrepreneur.

How much time and money do the startup teams invest in the nascent enterprises? A preliminary estimate of hours and funds is based on reports of contributions from all team members from the initiation of the startup to the first detailed interview (*Table 7.16*).⁶⁹

The variation in these sweat equity investments reflects, in part, the considerable range in time between conception of the business startup and the first detailed interview. The range is from less than one month to 114 months, almost 10 years, with an average of 18 months and a median of 12 months.

68 Knowledge of inclusion in the last registry, the Dun and Bradstreet (D&B) credit rating files, is complicated by procedures Dun & Bradstreet has developed to include a new listing without the awareness of the principals. The level of inclusion in D&B files may be greater than the 3 percent reflected here, but that cannot be determined from interviews with the nascent enterprise startup team.

69 The 1999 amounts have been converted to 2005 dollars using the Consumer Price Index to adjust for inflation.

Table 7.14 Nascent Enterprise: Startup Activities Initiated (percent)

Startup Activity	1999	2005	Average
Serious thought given to the startup	100	99	100
Actually invested own money in the startup	87	75	81
Began saving money to invest in the startup	69	—	69
Began development of model, prototype of product, service	79	53	66
Began talking to customers	—	66	66
Began defining market for product, service	86	40	63
Organized startup team	58	—	58
First use of physical space	—	57	57
Purchased materials, supplies, inventory, components	70	43	57
Initiated business plan	61	48	55
Began to collect information on competitors	—	49	49
Purchased or leased a capital asset	52	41	47
Began to promote the good or service	56	36	46
Received income from sales of goods or services	40	47	44
Took classes, seminars to prepare for startup	41	—	41
Determined regulatory requirements	—	39	39
Opened a bank account for the startup	35	29	32
Established phone book or Internet listing	17	44	31
Developed financial projections	37	25	31
Arranged for child care, household help	31	—	31
Began to devote full time to the startup	31	29	30
Established supplier credit	34	19	27
Legal form of business registered	—	26	26
Sought external funding for the startup	23	13	18
Hired an accountant	—	17	17
Liability insurance obtained for startup	—	14	14
Established dedicated phone line for the business	14	—	14
Initiated patent, copyright, trademark protection	20	4	12
Hired a lawyer	—	12	12
Hired an employee	14	7	11
Received first outside funding	—	9	9
Joined a trade association	—	7	7
Proprietary technology fully developed	—	5	5
Initial positive monthly cash flow	2	3	3

Table 7.15 Nascent Enterprise: Inclusion in Business Registries (percent)

Business registration activity	1999	2005	Average
Acquired federal employer identification number (EIN)	—	18	18
Filed initial federal tax return	17	12	15
Filed for fictitious name (DBA)	—	11	11
Paid initial federal social security payment	13	9	11
Paid initial state unemployment insurance payment	8	4	6
Know that Dun and Bradstreet established listing	3	3	3

Table 7.16 Nascent Enterprise Team: Initial Investments in Time and Money (percent except as noted)

Total Team Time	Hours	Total Team Money	Money
Average number of hours	1,471	Average amount (dollars)	10,734
Median number of hours	400	Median amount (dollars)	2,930
Hours	Percent	Amounts	Percent
Up to 50	19.1	Nothing	19.2
51 to 250	23.7	Up to \$1,000	17.1
251 to 500	12.9	\$1,001 to \$2,500	13.1
501 to 1,000	13.6	\$2,501 to \$10,000	23.5
1,001 to 2,000	11.3	\$10,001 to \$20,000	8.9
2,001 or more	19.5	\$20,001 to \$50,000	8.7
		\$50,001 to \$100,000	4.3
		\$100,001 or more	5.3
Total	100.0	Total	100.0

Note: Data for period from conception to completion of first detailed interview.

Even so, the amount of time committed to startup investments is of interest: the average time is about 1,471 hours, or about 37 weeks of work at 40 hours a week. One in five has absorbed more than 2,000 hours of contributions, a full year of 40-hour work weeks. The financial support from the startup team is even more varied: while the average is a little over \$10,000 and the median is about \$3,000, for one in twenty it is over \$100,000. At the opposite extreme are the one in five nascent enterprises who have—at the time of the first interview—received no financial contributions from the startup team.

The diversity in the startup activities, the personal time contributed to the startup, and the personal financial investment make clear that a cross-sectional sample of nascent enterprises captures initiatives at many different stages of the entrepreneurial process. Some are just beginning and others have been working on the new venture for years. It should not be a surprise to discover considerable variation in the number and nature of startup activities reported in the first interview or the amounts of time and money contributed to the nascent enterprises by the startup teams. Detailed analysis cannot be completed until several follow-up interviews have been completed. Data from a sequence of follow-up interviews can be used to provide more precise descriptions of the gestation window, the sequence of startup activities, and the total investments in the firm creation process.

Startup Outcomes

Following entry into the startup process, there are several possible outcomes. The nascent entrepreneurs may succeed in founding a new firm, they may disengage, or they may continue to work on the startup activity. Experience with the 1999 cohort indicated that more precise measures of the alternatives would produce more reliable results. The major difference was related to determining the presence of a new firm. For the 1999 cohort, nascent entrepreneurs who claimed to have implemented a new firm were taken at their word; for the 2005 cohort the implementation of a new firm was based on reports of positive monthly cash flow covering all expenses and salaries for three or more months. Disengagement for the 1999 cohort was based on their personal assessment; for 2005 those classified as disengaged expected to spend less than 80 hours on the initiative in the next six months, did not consider it a major career focus, and considered themselves disengaged from the initiative.

A second issue is the complication associated with determining the moment of conception, or of entering the startup process.⁷⁰ Reliable measures

⁷⁰ The first step involves excluding those who reported positive monthly cash flow from more than three months at a time prior to the initial interview. Following this, attention shifts to those nascent enterprises where more than two startup activities have been reported, with an emphasis on two initiated within a 12-month period. The earliest of these two is considered the conception date, the beginning of the startup process. See Reynolds, 2007b, 118.

Table 7.17 Startup Outcomes: First Follow-up and Time Since Conception (percent)

		1999 cohort	2005 cohort	Average
Based only on first follow-up¹				
48 months after entry	New firm implemented	22.8	11.8	17.3
	Startup continues	56.6	68.1	62.4
	Disengagement	20.6	20.1	20.4
		100.0	100.0	100.1
Based on first, second, and third follow-up²				
12 months after entry	New firm implemented	8.8		
	Startup continues	86.8		
	Disengagement	4.5		
		100.1		
48 months after entry	New firm implemented	27.9		
	Startup continues	44.0		
	Disengagement	28.0		
		100.0		
72 months after entry	New firm implemented	31.9		
	Startup continues	32.9		
	Disengagement	35.2		
		100.0		
120 months after entry	New firm implemented	33.6		
	Startup continues	29.0		
	Disengagement	37.4		
		100.0		

1 Data based on Reynolds and Curtin (2008), Fig. 6.1, 6.2, 225-226.

2 Data based on Reynolds (2007), Fig 5.1, 56.

of the date of conception require several follow-up interviews; the procedures developed for the 1999 cohort are the best available at this time.

The outcome status for the two cohorts is presented in two ways in Table 7.17. The top rows reflect the outcome measures based on data only from the first follow-up interview for the two cohorts. For this analysis, firm conception and outcome are based only on data from the first two interviews. The difference in reports of new firms probably reflects the different criteria for accepting a new firm. The average for the two cohorts suggests that about one in six have

a new firm, one in five have disengaged, and the remainder, a little less than two-thirds, are still active in the startup process.

The four sets of rows in the bottom of Table 7.17 present the outcome measures at 12, 48, 72, and 120 months following conception for the 1999 cohort, where the dates of conception and outcomes are based on four waves of data collection. The patterns over time are of some interest: at 12 months after conception 9 percent reported a new firm, compared with 28 percent at 48 months, 32 percent at 72 months, and 34 percent at 120 months. A substantial proportion, three in ten, are still engaged in the startup process at 120 months, 10 years after beginning the firm creation process.

A comprehensive analysis involved cleaning and documenting all four waves of data collection from the 1999 cohort. The consolidated data file was reorganized to create a “startup timeline” for each case.⁷¹ This was required because the screening activity itself identified nascent enterprises at an arbitrary point in the startup process: some were selected months after the effort began and others many years into the startup process. The primary result is summarized in Figure 7.9, which indicates the status of each eligible case in the 10 years following entry into the startup process.

The initial bar indicates that 100 percent are active in the startup process at time zero (conception) and after one month 1 percent have quit and 2 percent report a going business. All 24 periods up to the end of year six cover three-month intervals; the last three are 12 months long. After 10 years, 37 percent report they have left the process, 34 percent report a going business, 28 percent are still active in the startup effort, and 1 percent are not currently active (inactive startup) but will not admit that they have completely given up.

How long does the startup process last? It is clear that for some it can take decades. It is possible, however, to track the time involved in the process by those who leave, either by starting a new firm or disengaging from the process by the end of the sixth year. The time from the first startup activities, or conception, to the date when a person reported having started a business or having disengaged from the effort is presented in Figure 7.10. Status at the end of the sixth year is used to classify the outcomes, new firms, and quits 72 months into the process.

There is a clear difference in the two processes. In the first six months, for example, 18 percent of the new firms are created but only 2 percent of

⁷¹ This procedure is discussed in some detail in Reynolds, 2007b, 118-121.

Figure 7.9 Startup Transitions, by Time since Conception

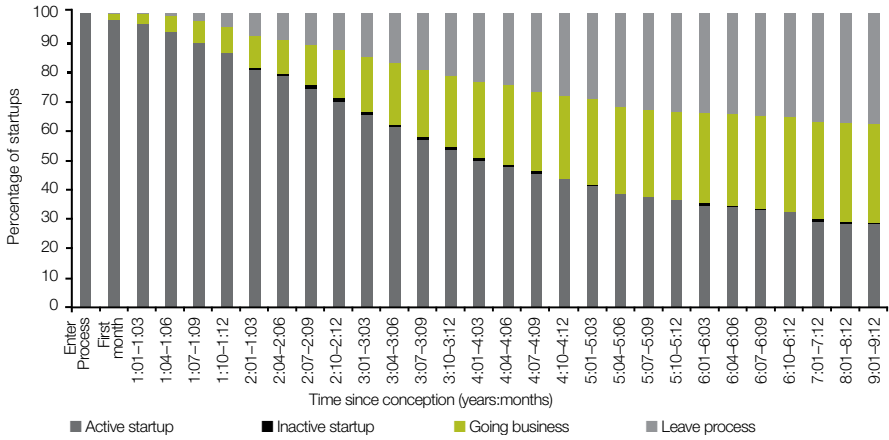
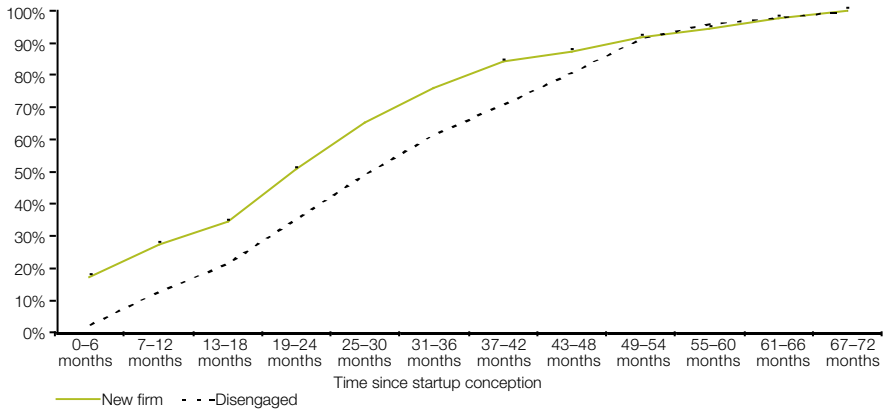


Figure 7.10 Time from Conception to Transition: New Firm Birth or Disengagement



those who disengage have quit. The median time for a new firm birth is 19-24 months, but it is 25-30 months for disengagement. By 36 months, 75 percent of the new firms are created, but it takes 42 months for 75 percent of those who quit to actually disengage. By 48 months after entry, the percentages are similar: 10 percent of the startups and 10 percent of the disengagements take more than four years.

At this time, the most complete portrayal of the transition timeline is available for the 1999 cohort; detailed data for the 2005 cohort must wait until the phenomena play out and more follow-ups are completed. Perhaps the most

striking feature of this portrayal is the large proportion that take a long time to complete a transition; after seven years, one-third are still actively working on the startup; after 10 years, nearly one in three are still in the startup phase. While it appears that a substantial proportion can reach an early resolution—half that launch a new firm or disengage seem to do so within a couple of years—a large number require more years to reach closure. Six years after entry into the startup process, about one-third have launched new firms, one-third have quit, and one-third are still working on the startup.

Which Nascent Enterprises Become New Firms?

A detailed assessment of the nascent enterprises that appear to complete the transition to a new firm was completed with the 1999 cohort. This was made possible by follow-up data on 648 cases out of 830 considered recent active nascent entrepreneurs. The analysis focused on comparing 200 nascent enterprises that were operating new firms within 72 months after entering the startup process with 468 nascent enterprises that had discontinued operation or involved entrepreneurs who continued to work on the startup.⁷²

The comparative analysis included more than 130 independent variables. The majority were based on various items and multi-item scales developed by the consortium of scholars who implemented the PSED I project, the 1999 cohort, through their participation in the Entrepreneurial Research Consortium.⁷³ These variables can be classified into seven major categories:

- socio-demographic background (13 measures)
- current social and work life context (13 measures)
- personal traits, orientation, and attitudes (35 measures)
- business background and experience (20 measures)
- business and economic context (10 measures)
- business activity and investments (30 measures)
- ambient (host) community (7 measures)

⁷² This analysis is presented in detail in Reynolds, 2007b, 58-85 and 134-153.

⁷³ They are summarized in detail in Gartner, et al. (2004), *The handbook of entrepreneurial dynamics*.

An additional six indices were developed utilizing factor analysis to determine sets of 23 activities that seemed to occur together:⁷⁴

- **business presence:** focuses on formal registration, full-time work on the startup, hiring of employees (5 items, 0.72)
- **production implementation:** focuses on acquiring inputs, use of major assets, sales of the product or service (6 items, 0.72)
- **organizational, financial structure:** focuses on mobilizing individuals, planning, acquiring outside financing (4 items, 0.59)
- **personal planning:** thinking about the new business, defining business opportunities, investing own money (3 items; 0.54)
- **personal preparation:** preparing for participation by taking classes, saving money, arranging for childcare or household help (3 items; 0.36)
- **task or product emphasis:** focuses on developing the product or service and acquiring intellectual property rights (2 items; Alpha = 0.25)

These six measures of startup activity appeared to have a much stronger relationship to successful implementation of a new firm than any of the other factors.

Several primary factors seemed to affect the transition from a nascent enterprise to a new firm:

- activity emphasizing production of good or service
- activity emphasizing a presence for the new venture
- nascent entrepreneur business experience, particularly in the same industry
- activity emphasizing development of organizational, financial structures
- startup team financial commitments
- intense rate of time and financial investments by the startup team, time and temporal compression of startup activities

74 Chronbach's alpha values computed at the second year, from Reynolds, 2007b, 155.

A number of secondary factors seemed to have some impact:

- located in less urbanized, more rural areas
- selected personal traits
 - locus of control
 - response to pressure by doing better, not differently
 - economic sophistication
 - social confidence
- ethnic background
 - Whites, Hispanics more successful

It should be noted that neither the nascent entrepreneur's gender nor age at entry into the process had a statistically significant relation to the outcome—the birth of a new firm. Ethnic background had a very modest impact. The unexpected outcome is that major factors associated with entry into the startup process—age, gender, ethnic background—have almost no effect on a successful completion of the startup process resulting in a new firm.

The major factors associated with completion of the startup process with a new firm were related to the types of startup activities as well as the intensity of the investments made by the startup team. Teams that were very active in the startup and invested substantial personal effort and capital were more successful in implementing a new firm. Prior experience in the startup industry also seemed to have a positive impact. There was some evidence of more success by entrepreneurs outside urban areas, where there would be less competition. Some personal traits had positive impacts. Whites or Hispanics were slightly more likely to report a new firm than African Americans; African Americans were more likely to report they were still working on the startup. The proportion of entrepreneurs that had quit was the same for all ethnic groups.

But the major message is the *absence* of any statistically significant association of the birth of a new firm with 120 variables representing the personal situations, orientations, or motivations of the entrepreneurs—to say nothing of the competitive strategy or planning of the business. The major result is quite straightforward. Success at implementing a business reflects what was

done in the startup process, not the attributes of the nascent entrepreneurs. *It is what an entrepreneur does, not who the entrepreneur is, that counts.*

This would suggest that the most effective way to increase the proportions of successful transitions may be to enhance the skills and training of the startup teams—to enhance their capacity to be entrepreneurs, not simply to enhance their desire to start businesses with motivational speeches.

Informal Investments in Business Creation

What is the social cost of business creation activity—the startup sector? Millions of individuals are trying to create new firms, and each nascent enterprise receives considerable informal investment in time and capital from the startup teams. It would be of some interest to have an estimate of the total amount of this investment and relate this cost to the outcomes of the process. In other words, how much of this “sweat equity”—volunteer time and capital—is associated with a successful firm launch and how much represents costs that may never be recovered?

A number of key adjustments and assumptions were required to use the PSED data to estimate the cost.⁷⁵ The result is a harmonized initial estimate of the average annual informal investment in nascent enterprises, by outcome.

Selected features are presented in Table 7.18. The first set of rows presents the estimates of the outcome at 48 months, where there is a considerable difference between the two cohorts in terms of the transition to a new firm. For the 1999 cohort, where the criterion was the judgment of the responding nascent entrepreneur, 23 percent report a new firm at 48 months after entry into the process. For the 2005 cohort, where a more precise criterion of three months of positive cash flow was utilized, 12 percent are considered new firms at 48 months. The second set of rows provides estimates of the time between entry into the process, conception, and the initial detailed interview.

75 The following adjustments were made: All analysis was completed separately for the 1999 and 2005 cohort, to retain any evidence of changes over these two time periods. Procedures to develop harmonized timelines for the 1999 and 2005 cohorts, based only on the detailed first interview and initial follow-up interview were used to determine the date of conception—entry into the startup process—for all nascent entrepreneurs. The total hours and funds committed by all members of the startup teams from conception to the first detailed interview were computed for the 1999 and 2005 cohorts. To minimize the effects of the extreme cases, extremely high values were reset to three standard deviations above the mean. All 1999 dollars were converted to 2005 values using the Consumer Price Index. These procedures and estimates are discussed in more detail in Reynolds and Curtin, 2008, Chapter 7 and Appendix C.

Table 7.18 Average Informal Investments by Startup Process Outcome, 1999, 2005

	New firm	Disengage	Startup continues	All outcomes
First follow-up outcomes (percent)				
1999	22.8	20.0	56.7	100.0
2005	11.8	20.2	68.0	100.0
Conception to first interview (months)				
1999	19.7	12.0	22.6	—
2005	15.5	10.1	18.4	—
Annual team time (average hours)				
1999	1,650	943	1,631	1,494
2005	1,248	1,193	1,858	1,652
Annual team money (average dollars)				
1999	15,854	10,161	11,007	11,936
2005	14,234	9,264	11,657	11,478

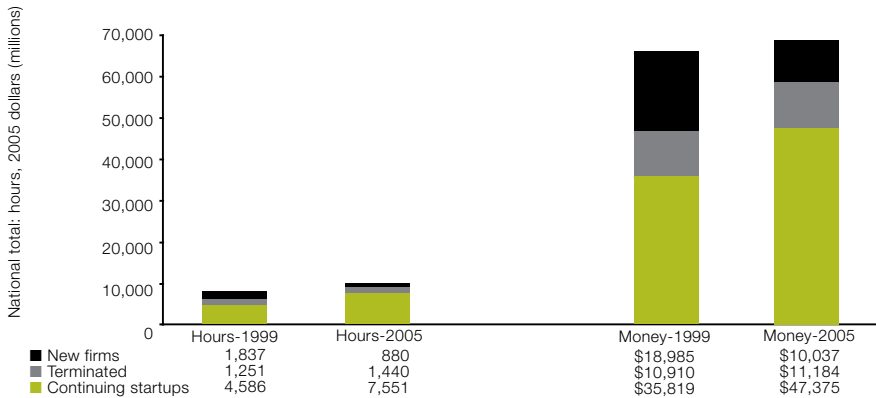
Note: 1999 financial amounts converted to 2005 dollars with the Consumer Price Index.

The shorter times for the 2005 cohort may reflect improvement in procedures to complete the detailed interviews with nascent entrepreneurs once they were identified in the screening interviews.

Even with these differences, the total amounts of time and money informally invested in the startups are quite similar. The average time for all outcomes was about 1,500 hours for the 1999 cohort and 1,650 for the 2005 cohort. The average funding totaled about \$12,000 for the 1999 cohort and \$11,500 for the 2005 cohort. This similarity suggests that this level of resource commitment may be a stable phenomenon.

The relationship of the average informal investment to the different outcomes varied by type of investment. The amount of time devoted to the nascent enterprises, about 1,500 hours, is lower for those who have disengaged. It is higher for those who report a new firm or continuation of the startup, with some differences between cohorts. The amount of funds devoted by the startup teams, about \$14,000, is somewhat larger for the startups that become new firms; there is not much difference in costs between those that report disengagement and continuation of the startup effort.

Figure 7.11 Aggregate Startup Team Informal Contributions to Nascent Enterprises by Initial Outcome, 1999, 2005



Converting these case estimates to aggregate annual contributions for the entire population of nascent enterprise efforts involves additional adjustments and assumptions. These all have the effect of creating more conservative estimates.⁷⁶

Following these adjustments, the point estimate of 1999 nascent enterprises was 5.5 million and for 2005 it was 6.0 million nascent enterprises.

The estimated cost—i.e., amount of time and money invested annually by the startup teams is presented in Figure 7.11. The figures are in millions for both time (hours) and funds (dollars). The similarity between the two cohorts is encouraging. The total time is approximately 7.7 billion hours for 1999 and 9.9 billion hours for 2005. The total informal financial contribution is \$65.7 billion in 1999 and \$68.6 billion in 2005.

Does this represent a significant amount? After all, the U.S. economy is large. Hours contributed to nascent enterprises can be compared to annual

76 The following adjustments were made: As the time from conception to the first detailed interview was greater than one year for most outcomes, this period was converted to an annual amount for each outcome for each cohort. To restrict the estimate to those nascent entrepreneurs who seemed most serious about creating a new firm, the counts were adjusted to include only recent active nascent entrepreneurs, those for whom entry into the process occurred less than 10 years before the detailed interview; this was 90 percent of the 1999 cohort and 78 percent of the 2005 cohort. The average number of persons on the startup teams was used to adjust the population estimates of nascent entrepreneurs to estimates of the number of nascent enterprises; this was 1.75 for the 1999 cohort and 1.65 for the 2005 cohort.

hours worked in the United States.⁷⁷ Based on the number of employed persons and the average hours worked for 50 weeks in a year, the totals for hours worked in the United States were 253 billion in 1999 and 267 billion in 2005. The amount of uncompensated time devoted to nascent enterprises is 2.1 percent of the paid work total for 1999 and 2.7 percent for 2005. This nascent enterprise total is close to one-half of the total work of self-employed workers—20 billion hours in 1999 and 18 billion hours in 2005.

Comparisons of the informal funding of these enterprises to other benchmarks are less precise. The amount of venture capital funding to seed and startup firms was about \$3.7 billion in 1999 at the peak of the dot-com boom, and \$0.8 billion in 2005, a more normal period.⁷⁸ The total number of firms receiving venture capital support was less than 3,000 in 1999 and less than 2,000 in 2005. Hence, this informal financial support for nascent enterprises was 18 times (\$65.7 billion/\$3.7 billion) to 86 times (\$68.6 billion/\$0.8 billion) greater than venture capital support for startups over the same period. This would suggest that informal investment by startup teams in nascent enterprises is a significant unrecognized investment in the U.S. economy.

Perhaps more dramatic are the clear differences between these informal investments and the outcomes. Averaging across the two cohorts, 16 percent of the time is invested in nascent enterprises that appear to be new firms, 15 percent in those that have been discontinued, and 68 percent in those that continue in the startup mode. The ratios for informal financial investments are similar, with 22 percent invested in startups that become new firms, 17 percent that are discontinued, and 62 percent in those continuing in the startup process.

More information would be very helpful. It takes more than five years for most nascent enterprises to complete the transition to a new firm: the completion of more follow-ups with the 2005 cohort will make possible more precise information on the total social investment. But even taking this into consideration, it is striking that most time and funding invested in nascent enterprises is not associated with the creation of an operating new firm. Most costs are borne by startup teams—and their families—who do not receive the benefits of a viable new firm.

77 Data on the number of persons active in employment, including the self-employed, and hours worked for 1999 are from Tables 656 and 658 of *The statistical abstract of the United States* (2000). For 2005 they are from Tables 587 and 588 from the U.S. Bureau of Labor Statistics, *Employment and earnings*, January 2006: www.bls.gov/cps/home.htm.

78 *National Venture Capital Association yearbook*, 2007.

There is little question that new firms are major contributors to the economy and generate careers and employment for many. Naturally, these benefits have costs in both the time and financial resources devoted to the nascent enterprises by the startup teams. The benefit-cost ratio would improve if the costs borne by the startup teams—and their friends and families—were reduced. This could be done by providing training and assistance that would improve the success rate—so more nascent enterprises actually became viable new firms. Such training might also help entrepreneurs to more readily determine when an enterprise is not viable, thereby reducing their investment of time and financial capital.

In contrast to the serious startups, there are startups that may be defined as “recreational” where some entrepreneurs view the startup process as a permanent hobby. These activities are unlikely to be a serious policy concern.

Cross-national Comparisons

Given intense global competition and the desire to strengthen national economic growth, there is considerable interest in the relative entrepreneurial capacity of the United States.⁷⁹ It is possible to compare the prevalence of new firm creation with other countries, facilitated by the widespread adoption of the screening procedures developed for the 1999 cohort, PSED I.⁸⁰ The Global Entrepreneurship Monitor (GEM) research design was a modified version of the PSED I procedure. As of 2008, it has been implemented in 50 countries, in some for as many as 10 annual surveys. While the actual procedures to locate individuals active in firm creation are very similar, there is less detail on the nascent enterprises and new ventures than in the PSED. Even so, it is possible to develop some preliminary comparisons.

The major measure of firm creation activity combines counts of those in the startup phase working with nascent ventures with counts of new firms up to 42 months old. This measure, the total entrepreneurial activity or TEA index (also called the early-stage index) allows for comparisons across countries and regions. Because of differences in the adult sample of these

79 Council on Competitiveness, 2007; Schramm, 2006.

80 Reynolds, Bosma, Autio and others, 2005.

population surveys, the population base includes adults 18 to 64 years of age; all U.S. data have been adjusted to this base for this assessment.⁸¹

A comparison of six regions and countries is presented in Figures 7.12 and 7.13; they include large Asian countries (India, China), the United States, Latin American countries (Mexico, Brazil, and Argentina), Western Europe (Belgium, Denmark, Finland, Germany, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom), Canada, and Japan. Figure 7.12 indicates the prevalence rate (the line) and estimated total counts (the bars) of TEA-active individuals in these regions. Because of the significant differences in total counts, the bars are scaled logarithmically, as indicated on the left of the figure. While the prevalence rate for India and China, at about 15 per 100, is slightly higher than that of the United States, at about 11, the number of individuals involved, at 200 million, is 10 times the 20 million for the United States. The counts for the three Latin American countries at 26 million are similar to the U.S. counts; Western Europe's entrepreneurial count at 11 million is considerably lower. Canada and Japan, each at about 2 million, are similar, even though Japan has four times as many people.

The respondents in these surveys, whether they are reporting on a nascent enterprise or a young business, are asked about their growth aspirations and their expectations of firm size in five years. This allows the identification of those who anticipate having more than 20 employees in five years. The prevalence rates and estimated counts for these high-growth firms are displayed in Figure 7.13.⁸²

The high growth TEA prevalence rates for the United States, 1.5 per 100, are the highest in the chart, and translate into about 3 million individuals. India and China have slightly lower prevalence rates, about 1.0 per 100, but 15 million high-growth-oriented TEA entrepreneurs, five times the number of the United States. The high-growth prevalence rates and counts for all other areas are somewhat lower than those of the United States. For Latin America and Western Europe, the estimated counts are slightly more than 1 million, for Canada about 300,000, and for Japan about 100,000.

This assessment would suggest that the United States is more than holding its own with respect to the emergence of growth-oriented entrepreneurs. There is little current threat from Japan, Western Europe, or Latin America.

81 Reynolds, Bygrave, Autio, and others, 2004.

82 Autio, 2007, Table 3.

Figure 7.12 Global Comparisons: Total TEA Index Prevalence and Counts

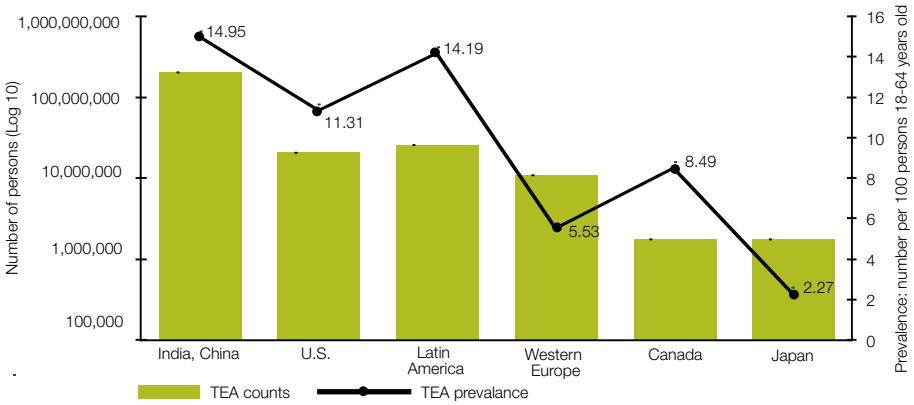
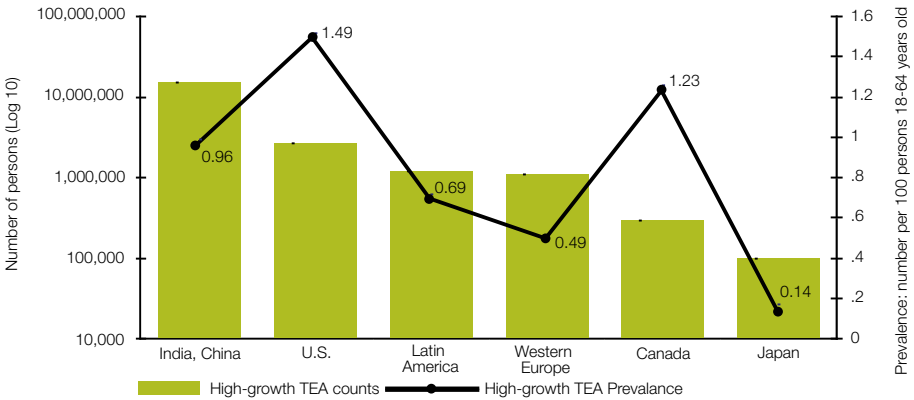


Figure 7.13 Global Comparisons: High-growth TEA Index Prevalence and Counts



On the other hand, the large size of the population and the high participation rates in developing Asian countries suggest this is no time for complacency. The level of activity in other developing Asian countries—Indonesia, Philippines, Vietnam, Thailand, Malaysia—could increase the counts for this region by at least one-third. Efforts should be made to sustain the current U.S. competitive advantage as a source of new firms, particularly those oriented toward high growth.

Overview and Implications

The PSED research program has made major contributions to understanding the process of business creation. By focusing on the individuals who take the initiative to develop new ventures, and locating them with procedures that are independent of all other mechanisms for developing lists of business activity, the PSED provides a completely independent source of information about the entrepreneurial process. The only biases in the procedure are those inherent in any survey designed to identify a representative sample of adults, and the methodology employed is “state of the art.” In addition, the PSED datasets have a significant correspondence with other data developed to represent the process of business creation (see Appendix 7C). The cohorts selected in 1999 and 2005 can be used to estimate the number of nascent entrepreneurs and nascent enterprises in the U.S. population.

A number of findings from this research program have major implications for the study of business creation:

- The scope of activity is considerable, with 12 million people trying to create more than 7 million new businesses in 2005.
- The major factors affecting *participation* in new firm creation seem to reflect the background and situation of the individual—age, gender, supportive context.
- All segments of the population are involved—regardless of age, gender, ethnic background, educational attainment, financial resources. Those with some attributes are more likely to be involved—men, early-career adults—but no groups are excluded.
- Half of the nascent enterprises reflect self-employment, 30 percent a spousal pair or a family initiative, and 20 percent a group organized solely to create a new venture. These latter teams organized around business objectives tend to be more growth-oriented.
- The nascent enterprises are a mirror image of existing businesses in their industry sectors; they are just as diverse as existing firms.
- There is considerable diversity in the startup patterns. While some entrepreneurs have new firms operating in a matter of months, it takes four

years for the majority of nascent enterprises to achieve an operational resolution, and even then a full two-fifths are continuing in the startup mode. By six years, two-thirds have achieved an operational resolution.

- The major factors affecting *success* in completing the startup process with a new business are related to what is actually done to implement a new firm and the work experience of the individual, particularly experience relevant to the industry of the startup. Personal attributes and characteristics have little influence. Success reflects what nascent entrepreneurs do, not who they are.

This research program has implications for a variety of audiences, including researchers, practitioners, and policymakers.

Implications for Research

As a resource for scholars, the PSED datasets provide a description of the firm creation process from the conception through the birth of a new firm. There is also a substantial amount of information on the stages of this and related processes. The data may be used to explore the applicability and relative impact of a wide range of theories, models, or hypotheses regarding the firm creation process. Numerous indicators are available to measure various aspects of these nascent enterprises. This makes it possible to directly test different theories of firm creation. Before the availability of the PSED datasets, it was not possible to analyze the impact of a wide range of factors on the firm's startup processes. In addition, as both the 1999 and 2005 cohorts are nationally representative samples, inferences to the U.S. population are possible.

Analysis of the data uncovered two unexpected features of the firm creation phenomenon. First was the complexity and diversity of the process. Many factors affect business creation. Identifying the key causal mechanisms will take considerable effort by entrepreneurship scholars. Second was the extensive time required for most nascent enterprises to reach a resolution. This means that unless follow-up interviews are completed for four to six years after the cohorts are screened and the initial interviews are completed, a great deal of information will be lost regarding the outcome for a substantial proportion of new firms. Research on the impact of the startup process on the growth and survival of the new firms will require additional data collection, perhaps for up to 10 years or more.

The techniques required to create common timelines for each new venture, compensating for the fact that the screening identifies nascent enterprises at different stages of development, are not routine, but these procedures are in the public domain and they dramatically change the character and descriptions of the startup process.

Implications for Practitioners—Nascent Entrepreneurs

Two implications for practitioners seem significant. First, people from all segments of society are active in business creation; anyone who gets involved will have a great deal of company. Second, the most important factors associated with successful completion of the process with a new firm are related to knowing the industry and aggressively pursuing the opportunity. Individual background and personal attributes are much less significant.

What entrepreneurs do is much more important than who they are. That does not mean that it is easy to start a business. It is reasonable to expect the startup process to require the equivalent of one year of full-time work and tens of thousands of dollars. Most of those who implement a new firm seem to work on the project with considerable intensity—doing many things and investing a great deal of time and money in a relatively short period of time. It would appear that those who discover that the business opportunity is not viable and quickly disengage from the process also make intense investments in the startup process—and get an early answer to the question of viability. They soon discover that the opportunity is not there and move on to other alternatives.

So what is the bottom line for aspiring entrepreneurs? *Know what you are doing and do it.*

Implications for Policy

Many of the policy implications are related to the image of the business creation process in the United States:

- Participation in business creation, as a personal career choice, is a very stable phenomenon: policy initiatives are not likely to make major changes in the level of activity.

- It takes many nascent enterprises to create new firms. In a given year, for example, 12 million nascent entrepreneurs are trying to start 7.4 million nascent enterprises that will eventually become 600,000 employer firms.
- Half of the nascent enterprises reflect team efforts; one in five nascent enterprises reflects the efforts of a team assembled solely for the purpose of creating a new venture.
- Nascent entrepreneurs, individually or as teams, contribute substantial resources, voluntarily and informally, to startups—as much as 2 to 3 percent of the total time invested in paid work and \$60 billion per year in informal financial contributions. Most of the investments are made by individuals who will not implement new firms and will not personally benefit from this investment.
- Efforts to improve the process might focus on improved training and knowledge for the nascent entrepreneurs.⁸³ There is no shortage of persons willing to devote substantial effort to creating a new firm; the most effective way to increase the probability of success may be to provide training and managerial assistance to active nascent entrepreneurs. This should not, however, take the form of specialized training in entrepreneurship alone. Entrepreneurship training should augment training for all types of crafts, occupations, vocations, and professions. Most firms are started by those who have not completed college. Substantive training and education creates a fuller understanding of future customers, markets, and industry practices—information that can lead to the identification of opportunities. Having the skills and information needed to implement a new firm will facilitate developing new ventures that reflect emerging business opportunities.
- The United States is a major source of the world's new firms, both firms that produce traditional goods and services for local consumption and those designed for high growth. It is evident that there is a substantial competitive threat from Asia. This is not a good time to be complacent

83 An extensive discussion of educational efforts associated with entrepreneurship is provided in Weaver, Dickson, and Solomon (2006), Chapter 5 of *The small business economy: A report to the president for data year 2006*.

about the role of new firm creation in the United States and the potential of new firms to increase U.S. global competitiveness.

These implications reflect the systematic study of the firm creation process, focusing on the persons and teams that take action to organize and establish new ventures.

Future PSED Research Project Applications

Resources at the national, state, and local level devoted to facilitating entrepreneurship are enormous—in the tens of billions of dollars. However, these efforts could be more efficient and effective with improved understanding of the business creation process. The type of information assembled by the PSED research program provides a unique resource for informing policy discussions. Two initiatives, with modest costs compared to the current program investments, are under way:

- The PSED II project, the source of data on the 2005 cohort, has just completed the third wave of data collection with the 24-month follow-up. Low-cost annual follow-up for five or more years would provide more precision on the ultimate resolution for a larger proportion of nascent enterprises and allow for tracking the growth and survival of the new firms identified in the early follow-up interviews. No scientific descriptions of these early stages of the business life course currently exist.
- The Current Population Survey completes 50,000 interviews each month to determine the labor force activity of the U.S. population. The PSED screening procedures—which have been thoroughly field-tested in the United States and 50 other countries—take less than two minutes, on average, to locate active nascent entrepreneurs. If this screening were incorporated into the CPS it would provide precise monthly data on business creation activity in the United States. This would facilitate, in a major way, tracking this critical feature of business dynamics in the U.S. economy.

As a research innovation, the PSED research protocol has been successful beyond expectations. It is now developed to the point of providing systematic reliable information on the early stages of business dynamics, information of great value in tracking and guiding the development of the U.S. economy.

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Appendix 7A: National Academy of Sciences Study of Business Dynamics

A panel of experts convened to report for the National Academy of Sciences recently completed a study of business dynamics.⁸⁴ A summary of their business dynamics conceptual framework is presented as Figure 7A.1. The presentation is organized around two major business phenomena: the business entity's life course and the work career of typical individuals.

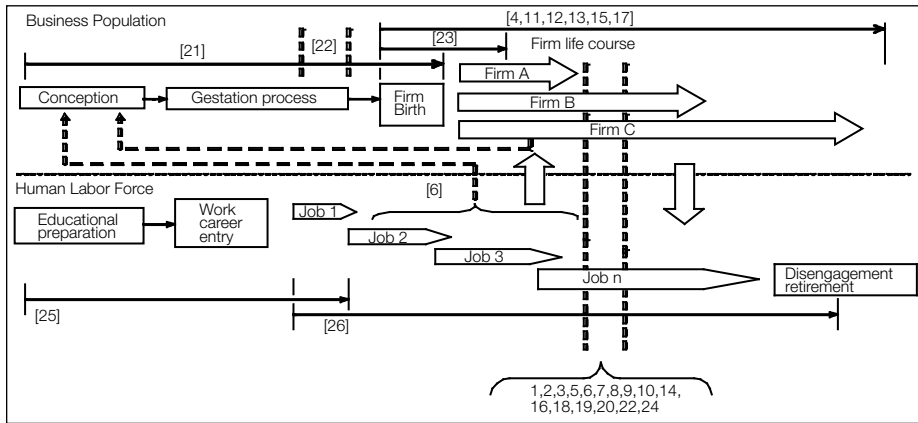
This framework posits that two major processes lead to the conception of a new business. One process involves individuals shifting into the startup mode after a work career as employees holding jobs; the other involves individuals initiating new firms as part of current job requirements, representing a startup sponsored by an existing firm.

The major purpose of the conceptual framework is to identify existing datasets for research on business and career dynamics. A total of 26 different datasets were identified as relevant to some aspect of firm creation and business dynamics; they are listed at the bottom of Figure 7A.1.⁸⁵ Fifteen of the 26 provide for cross-sectional information about existing firms at a point in time, but without any capacity for tracking the firms over time (1-3, 5-10, 14, 16,18-20, 22, 24). Seven provide for longitudinal analyses of existing firms, once they are included in an existing firm registry, such as the unemployment insurance files maintained by the Bureau of Labor Statistics, the Longitudinal Business Database maintained by the U.S. Bureau of the Census, or a sample drawn from the Dun and Bradstreet data files (4, 11-13, 15, 17, 23). Three track the labor force activities of persons, either as individuals or as members of households, but the focus is on the nature of the jobs they may hold and shifts between jobs over the life course. Other than reports of "self-employment," there is little attention to creating new businesses, and the description of the self-employment activity is brief and basic (6, 25, 26). One, the Global Entrepreneurship Monitor, provides annual comparisons of national measures of firm creation activities, but does not track nascent enterprises over time (22).

84 Haltiwanger, Lynch, and Mackie, 2007.

85 Details on the nature, sources, and access to these datasets are provided in Haltiwanger, Lynch, and Mackie, 2007, 158-171.

Figure 7A.1 U.S. Business Dynamics and Available Datasets



Key to Numbered Datasets

1	BLS, Business Establishment List	14	Dun & Bradstreet Duns Market Identifier File
2	BLS, Quarterly Census of Employment and Wages	15	NSF (U.S. Census) Longitudinal Research Database
3	BLS, Current Employment Statistics	16	SBA Statistics of U.S. Business
4	BLS, Business Employment Dynamics	17	Business Information Tracking Series (BITS)
5	BLS, American Time Use Survey	18	FRB Survey of Small Business Finances
6	BLS-Census: Current Population Surveys	19	IRS Survey of Income
7	U.S. Census Business Register	20	Standard & Poor's Compustat
8	U.S. Census Company Organization Survey	21	Kauffman Foundation Panel Study of Entrepreneurial Dynamics (University of Michigan)
9	U.S. Census, Economic Census	22	Kauffman Foundation and Others: The Global Entrepreneurship Monitor (GEM)
10	U.S. Census, Survey of Business Owners	23	Kauffman Firm Survey (Mathematica)
11	U.S. Census Longitudinal Business Database	24	Kauffman Financial and Business Databases
12	U.S. Census Integrated Longitudinal Business Database	25	National Longitudinal Survey of Youth (BLS, conducted by Ohio State/NORC)
13	U.S. Census Longitudinal Employer-Household Dynamics	26	Panel Study of Income Dynamics (U Michigan)

BLS = Bureau of Labor Statistics

IRS = Internal Revenue Service

NORC = National Opinion Research Center, Affiliated with the University of Chicago

NSF = National Science Foundation

SBA = Small Business Administration

From Table 4.1, page 68, from Haltiwanger, Lynch, and Mackie, 2007.

Appendix 7B: PSED Research Procedure

The research procedure consists of three phases. The first was the identification of a representative sample of those actively involved in the new firm creation process, the nascent entrepreneurs. They were identified from phone interviews completed with adults from a representative sample of households that met four criteria: 1) they considered themselves involved in the firm creation process, 2) they had engaged in some startup activity in the past 12 months, 3) they expected to own all or part of the new firm, and 4) the initiative had not progressed to the point that it could be considered an operating business. About 87 percent of those identified in the screening as active nascent entrepreneurs agreed to participate in the study.⁸⁶ For both projects the initial screening was completed by a commercial survey firm (Market Facts for PSED I; Opinion Research Corporation for PSED II). The detailed data were collected by survey operations located in academic institutions (The University of Wisconsin Survey Research Laboratory for the initial and first follow-ups for PSED I; the University of Michigan Institute for Social Research for the second and third follow-ups for PSED I and all detailed interviews for PSED II).

These volunteers were then contacted for the second phase, a detailed interview. About 60 percent completed the initial 60-minute phone interview;⁸⁷ it covered a wide range of topics related to the initiation of a new firm.

The third phase consisted of the annual follow-up interviews.

The content of the interview schedules was similar for the two projects, the modules for PSED II are presented in Table 7B.1. PSED I is similar but covered more topics by utilizing both phone and mail data collection.

⁸⁶ It should be noted that the low yield of nascent entrepreneurs in PSED I—830 following screening of more than 60,000 individuals—reflected a procedure designed to increase the number of women and minorities in the nascent entrepreneur cohort. A large number of White male active nascent entrepreneurs was identified in the screening but not included in the cohort in order to focus available resources on women and minorities. If resources had allowed the inclusion of all active nascent entrepreneurs identified in the PSED I screening, this cohort would have been three times larger.

⁸⁷ Table A.3, 464, of Gartner, et al, 2004. *Handbook of entrepreneurial dynamics*. Thousand Oaks, CA: Sage.

Table 7B.1 Overview of PSED II Interview Schedule Modules

Topic Modules	Screening	Wave A	Wave B ^{1,2}	Wave C ^{1,2}
Screening questions	All			
Assessment of criteria for nascent entrepreneur	All			
Socio-demographic	All			
A.1: Why involved, business opportunity (open ended)		All		
A.2: Confirm same business activity			All	All
A.3: Determine status: new firm, quit, continue			All	All
B: Type of business, location		All	NF,SU	NF,SU
C: Legal form		All	All	All
D: Startup activities		All	All	All
E.1: Startup finances, entry into firm registries ³		All	All	All
E.2: Confirm quit, exit interview			Quits	Quits
F: Orientations toward competition		All	NF	NF
G: Owners, key nonowners, & helpers inventory		All	NF,SU	NF,SU
H: Owner demographics		All	NF,SU	NF,SU
J: Relationships among owners		All	NF,SU	NF,SU
K: Juristic (legal entity) owners		All	NF,SU	NF,SU
M: Key non-owner demographics		All	NF,SU	NF,SU
N: Helper demographics		All	NF,SU	NF,SU
P: Community resources, support for new firms		All	NF	NF
Q: Informal startup financial support		All	NF,SU	NF,SU
R: Legal entity startup investments, debts, net worth		All	NF,SU	NF,SU
S: Competitive strategy and target markets		All	NF	NF
T: Growth expectations		All	NF	NF
U.1: Respondent's motivation		All		
U.2: Employment structure ³			NF	NF
V.1: Expense structure: summary ³			NF	
V.2: Expense structure: detailed ³				NF
X: Respondent's career background		All	SU	SU
Y: Respondent's self-descriptions		All		
Z: Respondent & household socio-demographics		All	NF,SU	NF,SU

1 After wave A, modules are provided to all respondents, only those that quit, or those with a new firm (NF), or still active in the startup process (SU).

2 After initial interview, modules are repeated to capture changes or new information about the activity or details on the current status.

3 Based on Kauffman Firm Survey interview schedule (Mathematica Policy Research, 2007).

Table 7B.2 Nascent Entrepreneurs by Business Criteria and Recent Startup Activity

	PSED I	PSED II
Screening period	1998–2000	2005–2006
Screened sample	62,612	31,845
Candidate nascent entrepreneurs (2-criteria)	3,592	
Candidate nascent entrepreneurs (3-criteria)		1,571
Active nascent entrepreneurs	830	1,214
Confirmed active nascent entrepreneurs	824	1,148
Recent confirmed active nascent entrepreneurs	747	947

The screening phase, represented by the screening column, provides a small amount of socio-demographic data on all individuals involved in the screening; this is useful for assessing some factors affecting the decision to enter the startup process.

The first detailed interview, presented in the Wave A column in Table 7B.1, includes information on the nature of the business, startup activities implemented on behalf of the new firm, incorporation into business registries, the nature of the startup team and helping networks, sources and amounts of financial support, evaluations of the immediate context, competitive strategy, and growth expectations, along with details of the motivations, perspectives, self-descriptions, background, and family context of the responding nascent entrepreneur.

The third phase involved the follow-up phone interviews, also about 60 minutes long. In PSED I the follow-ups were also supplemented by a mail questionnaire. The time lag between interviews for PSED I was about 14 months; for PSED II careful scheduling has allowed the initial contact for the first follow-up to occur 52 weeks following completion of the initial detailed interview, the second follow-up at 104 weeks, and so forth. The topics of the interview are listed in the “Wave B” column in Table 7B.1 and vary depending on the status of the initiative at the time of the follow-up. Nascent entrepreneurs who report they have disengaged from the initiative (quit) receive a few questions about startup activity and a few about the reasons for their decision. All others receive most of the same interview schedule provided in the first interview, which provides them with a chance to update their case file with reports of new activity or changes in the startup team or financial structure. They do not receive most of the modules related to enduring features of the

responding nascent entrepreneur (self-descriptions, family background, etc.) covered in the first interview.

After the first follow-up those who reported they were managing a new firm for a full year are provided with some additional modules in Wave C. These cover the nature of the cost structure that can be used to estimate labor productivity. These modules, as well as those related to the organizational structure of the firm, have been designed to facilitate comparison with similar modules in the panel study of new businesses sponsored by the Kauffman Foundation.⁸⁸ Details about the procedures, interview schedules, and questionnaires are available on the PSED website and in other documentation.⁸⁹

This research design has been the model for similar projects completed or under way in Argentina, Australia, Canada, Greece, The Netherlands, Norway, Sweden, and the United Kingdom.⁹⁰ The screening procedure was the basis for the procedures adopted for the cross-national assessment of entrepreneurial activity in the Global Entrepreneurship Monitor (GEM) research program.⁹¹

Each stage of data collection provides additional information about the individuals and their business creation activity. This allows more precise definition of their status at the time of the first interview. *Table 7B.2* indicates the adjustments to the sample as more information was obtained from the respondents.

The attrition from candidate nascent entrepreneurs reflects both a selection of respondents for focus and the loss of the individuals who did not wish to participate or could not be located for more detailed interviews. The number of active nascent entrepreneurs—830 from PSED I and 1,214 from PSED II—is reduced somewhat when those who appear to have periods of profitable operation prior to the first interview are excluded; many of these were reactivating dormant businesses. The sample of confirmed active nascent entrepreneurs was

88 Haltiwanger, Lynch, and Mackie, 2007, 138-139; Mathematica Policy Research, 2007.

89 Details of the PSED I project are to be found in Reynolds, 2007b, and the three appendices of Gartner, et al., 2004. All interview schedules, codebooks, and datasets for the two projects are available at www.psed.isr.umich.edu.

90 Australia began implementing the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE) in 2007 (<http://www.causee.qut.edu.au>). Other projects reports are available for Argentina (de Rearte, Lanari, and Atucha, 1998), Canada (Menzies, Gasse, Diochon, and Garand, 2002; Diochon, Menzis, and Gasse, 2007), the Netherlands (van Gelderen, 2000), Norway (Alsos & Kolvareid, 1998), and Sweden (Delmar and Davidsson, 2000).

91 Considerable detail about the procedures is available (Reynolds, Bosma, Autio, and others, 2005) as well as multiple examples of the resulting cross-national comparisons (Reynolds, Bygrave, Autio, and others, 2004).

then reduced to 824 for PSED I and 1,148 for PSED II. Further analyses of reported startup activities identify those who initiated startups more than 10 years before the initial detailed interview. The cohorts of nascent entrepreneurs are reduced to 747 for PSED I and 947 for PSED II when only “recent” confirmed active nascent entrepreneurs are included.

The procedure is designed to provide a representative sample of individuals involved in business creation, identified as nascent entrepreneurs. With one caveat, it may be considered a representative sample of nascent enterprises or firms in gestation. Any nascent enterprise implemented by more than one nascent entrepreneur is more likely to be included in the cohort. As a result, if the sample is considered to represent nascent enterprises, it should be recognized as including an overrepresentation of team efforts. Nascent entrepreneurs with more than one person on the startup team have a higher probability of being represented in a sample based on identifying nascent entrepreneurs.⁹² It is assumed that the practical effect of this issue is negligible for the following analysis and no adjustment for a potential oversample of team initiatives has been implemented.

While the respondents devoted a substantial amount of time to completing the interviews, very few, 1 percent in PSED I and 2 percent in PSED II, report less interest in the startup by virtue of participation. Most, 61 percent in both cohorts, reported their interest in the startup increased upon completion of the initial interview; the remainder, 37-38 percent, indicated no change in their commitment to the startup initiative. This strong interest is one reason for the high cooperation reflected in item response rates and completion of the follow-up interviews.

92 Davidsson, 2004.

Appendix 7C: The PSED and Other Measures of Firm Creation

Many of the patterns found in the PSED datasets are, to say the least, unexpected. Is it possible that the populations represented by these samples are so unique and distinctive as to have no relationship to other measures of new firm creation? Two types of comparisons would suggest that the PSED research protocol—locating nascent enterprises based on a representative sample of adults—is identifying entities that are captured at a later stage by other procedures.

One comparison involves estimating, with the PSED-type datasets, those cases that are likely to be captured by other procedures. A detailed comparison of the 1999 cohort of nascent enterprises with counts of new employer firms reported by the U.S. Small Business Administration's (SBA) Office of Advocacy involved adjustments for the average size of the startup team, reports that the nascent enterprise has filed their first FICA payment, and adjustments for nascent enterprises missed because of limited callbacks to complete screening interviews. Once these adjustments were made, the 95 percent confidence interval of predicted new employer firm listings was from 475,000 to 669,000, with a point estimate of 565,000. This was very close to the three-year average of 581,000 new employer firms reported by the SBA for the same period.⁹³

The dataset assembled for the Global Entrepreneurship Monitor program to locate nascent and new enterprises was adjusted to facilitate comparisons with annual counts of new businesses based on administrative data for 13 countries.⁹⁴ In seven countries, the 95 percent confidence intervals of the survey-based predictions encompassed the administrative counts; in two, the 90 percent confidence interval would encompass the administrative record counts; and in four, the administrative records were based on rather unusual procedures that precluded precise comparisons. In the United Kingdom, for example, new firms are identified on the basis of annual sales above the threshold for liability for a value-added tax; these tax data were not obtained in the GEM interviews. Given the small sample sizes in the GEM annual surveys—

93 Detailed analysis presented in Reynolds, 2004, 254-257; as the screening for the 1999 cohort was completed over the 1998-2000 period, the three-year average of new registration counts was used in the comparison.

94 Reynolds, Bosma, Autio, and others, 2005, Table IX.

generally 2,000—this is rather strong evidence that the survey-identified new ventures represent the same populations as the administrative datasets.

Various time series reflecting business creation in the United States offer a second category of sources for comparison. Between the PSED research program, the GEM research program, and some special studies, 134 independent samples of the adult population have been developed to estimate the prevalence of nascent entrepreneurs. When adjustments are made to compensate for differences in item wording, the prevalence rate over the 1998-2006 period for the United States was from 5 to 6 per 100 adults, with no statistically significant differences between years.⁹⁵

Three other measures of activity related to new firm creation—monthly increases in efforts to become self-employed, new establishments making state unemployment insurance payments for the first time, and new firms making federal Social Security payments for the first time—can be converted to prevalence rates using the adult population as a base. Time series based on all three of these large-scale surveys and censuses indicate no changes over the past decade or more (one series began in 1990).⁹⁶ The temporal trend is identical for all four measures—the prevalence rate in terms of the adult population is flat.

If the household-based survey measures of firm creation can be used to predict annual counts in administrative records and if the temporal trends in the United States are identical for the PSED and three other measures of new firm creation, the PSED protocol is probably capturing the same business creation phenomena as these other measures. It may never be possible to know what is really going on, but when four different measurement techniques have the same patterns, it increases confidence that all procedures are reflections of the same phenomena.

⁹⁵ Reynolds, 2008.

⁹⁶ Fairlie, 2006; Spletzer, et al, 2004; U.S. Small Business Administration, 2007; summarized in Reynolds (2008), Figure 8.

8 AN OVERVIEW *of the* REGULATORY FLEXIBILITY ACT *and* RELATED POLICY

Synopsis

In 2007, the Office of Advocacy continued to fulfill the congressional mandate under the Regulatory Flexibility Act of 1980 (RFA). In particular, Advocacy's efforts to assist federal agencies in addressing the impact of their regulations on small entities saved small firms more than \$2.6 billion in new regulatory compliance costs in FY 2007. Advocacy also unveiled a new outreach tool, the Regulatory Review and Reform initiative or "r3," designed to help small businesses and federal agencies address the cumulative burden of regulations in need of reform. Agency review of existing regulations is a requirement included in the RFA's Section 610, but unevenly addressed by agencies since the law's enactment in 1980.

Congress created the Office of Advocacy to be an independent voice for small businesses within the government in the formulation of public policy and to encourage policies that support their startup, development, and growth. The RFA and subsequent refinements in the Small Business Regulatory Enforcement Fairness Act and President Bush's Executive Order 13272 added additional duties for Advocacy related to this core mission. These included providing agencies with information on how to comply with the RFA and training them to consider the effects of their actions on small entities to ensure that small business concerns are considered in the rulemaking process. To carry out these legal mandates, Advocacy has worked with numerous agencies to develop the processes and infrastructure needed to minimize the negative impacts of their rules on small businesses.

As required, the Office of Advocacy reports annually on federal agency compliance with the RFA and Executive Order 13272. Pursuant to the RFA, federal agencies must examine the potential impact of proposed regulations on small entities, and develop significant alternatives where possible to mini-

mize these impacts while upholding the purpose of the regulation. In addition, Executive Order 13272 imposes compliance requirements on federal agencies.

The RFA Then and Now

With the passage of the Regulatory Flexibility Act in 1980, Congress directed federal agencies specifically to consider the impact of their new and existing regulations on small businesses and the economy. The RFA directs federal agencies to analyze how they achieve public policy objectives without unnecessarily burdening small entities.

An agency must prepare an initial regulatory flexibility analysis (IRFA) unless it can certify that a proposed rule will not impose a “significant economic impact on a substantial number of small entities.” Further, the RFA requires that agencies publish the IRFA, or summary thereof in the *Federal Register* at the same time it publishes its rulemaking. Section 603(b) of the RFA sets forth the components that agencies must include within an IRFA.

Unless an agency certifies that a final rule within the scope of the RFA will not have a significant economic impact on a substantial number of small entities, the RFA further requires that it prepare and make available to the public a final regulatory flexibility analysis (FRFA). A FRFA documents an agency’s RFA-related actions on significant rules and is published in full or summary form in the *Federal Register*.

SBREFA, Judicial Review, Amicus Authority

Over time, agencies began to use the law’s certification provision to certify that rules would not have an impact on small businesses, even as those businesses complained about the crippling burden of increasing federal regulation. The RFA needed teeth, and in 1996, the passage of the Small Business Regulatory Enforcement Fairness Act (SBREFA) added the possibility of judicial review of agency actions to the mix.¹ The new provisions enabled small entities to seek judicial review of an agency’s rulemakings where the agency failed to comply with the RFA, and gave Advocacy’s chief counsel enhanced authority to file briefs in such cases as a friend of the court (*amicus curiae*).² Some

1 5 U.S.C. §§ 601-612 (2000).

2 5 U.S.C. §§ 611(a), 612(b).

experts predicted a spike in antiregulation litigation under the new judicial review provision but only a small number of cases emerged, with some affirming agencies' well-considered decisions and others upholding challenges under the RFA where the agencies clearly had not followed the law.

The SBREFA amendments to the RFA introduced new requirements to aid small businesses. SBREFA increased the specificity of the economic analysis and required the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) to convene panels to consult with small business representatives prior to proposing rules that may have a significant economic impact on their businesses.³ These agency panels include representatives of the agency, Advocacy, and the Office of Management and Budget's Office of Information and Regulatory Affairs (OIRA).⁴

As a result of the SBREFA amendments, agencies are paying closer attention to their RFA obligations. Some agencies submit their draft regulations to Advocacy early in the process to obtain feedback on their RFA compliance and the small business impact. Early interventions by Advocacy and improved agency compliance with the RFA have led to less burdensome regulations.

Although overall agency RFA performance improved with the threat of judicial review, some agencies nevertheless continued to resist the idea that consideration of small business interests should be part of their rulemaking culture. In response, on March 19, 2002, President George W. Bush announced his Small Business Agenda, which included the goal of "tearing down the regulatory barriers to job creation for small businesses and giving small business owners a voice in the complex and confusing federal regulatory process."

Executive Order 13272

On August 13, 2002, President Bush signed Executive Order 13272, which further delineated the RFA obligations for the Office of Advocacy and the federal agencies.⁵ E.O. 13272 spelled out Advocacy's authority to comment on draft rules to the agency or to OIRA.

3 5 U.S.C. §§ 609 (b), (d).

4 Id.

5 Exec. Order No. 13272, 67 Fed. Reg. 53,461 (Aug. 16, 2002), available on the Office of Advocacy website at: <http://www.sba.gov/advo/laws/eo13272.pdf>. The full order is reprinted in this report in Appendix B.

In addition to the legal requirements of the Regulatory Flexibility Act itself, Executive Order 13272 sets forth additional compliance requirements to assist federal agencies in promulgating rules that are clear and that minimize undue economic burdens on small entities. Federal agencies must meet three requirements set forth under Section 3 of E.O. 13272. First, they must publicize their policies and procedures regarding regulations and small businesses.⁶ Since E.O. 13272 was implemented, most agencies have posted their RFA procedures on their websites.

Second, agencies must notify Advocacy of prepublication rules that may impose a significant economic impact on small businesses.⁷ To best facilitate prompt agency compliance with the electronic notice requirements of E.O. 13272, Advocacy created an email address: notify.advocacy@sba.gov.

Finally, E.O. 13272 requires the agencies to give “every appropriate consideration” to Advocacy’s comments and recommendations on a proposed rule and to respond to Advocacy’s written comments in the final rule published in the *Federal Register*.⁸ Most agencies have complied with this portion of the executive order.

Federal Agency Compliance and the Office of Advocacy’s Role in 2007

The Cumulative Burden: Section 610 and the r3 Initiative

The RFA is achieving cost savings for small entities, yet more remains to be done to reduce the regulatory burden. In 2005, an Office of Advocacy study prepared by Mark Crain, *The Impact of Regulatory Costs on Small Firms*,⁹ estimated the overall cost of federal regulation at \$1.1 trillion. The annual cost per employee for firms with fewer than 20 employees is \$7,647—45 percent higher than for their larger counterparts with 500 or more employees.

6 Exec. Order No. 13272 § 3(a).

7 See *id.* § 3(b).

8 See *id.* § 3(c).

9 Crain, W. Mark, *The impact of regulatory costs on small firms*, prepared for the U.S. Small Business Administration, Office of Advocacy, under contract no. SBAHQ-03-M-0522, at <http://www.sba.gov/advo/research/rs264tot.pdf>.

While the regulatory burden imposed by one proposed rule may be manageable, when added to numerous rules, a rule may help create a crippling cumulative burden. Limiting the review to the regulations an agency deems to have a significant economic impact at the time of promulgation is problematic. Since new regulations are promulgated each year, the cumulative impact of regulations on small entities can be staggering. Moreover, advances in technology and other changes may make older regulations (which may not have been burdensome when first promulgated) obsolete or unnecessary.

The drafters of the RFA foresaw this problem and included in Section 610 of the RFA a requirement that agencies periodically review their *existing* rules that may have a significant economic impact on a substantial number of small entities. The “610” review was intended to determine whether such rules should be continued without change, amended, or rescinded, consistent with the stated objectives of applicable statutes. The automatic review of regulations afforded through Section 610 was designed to ensure the reform of outdated, duplicative, or otherwise unnecessarily burdensome regulations.

Agency compliance with Section 610 has historically been uneven and lacking in transparency. A study of retrospective reviews of existing regulations by the Government Accountability Office in 2007 found that there had been some 1,300 such reviews in nine agencies between 2001 and 2006 addressing a variety of purposes—most discretionary and a minority in response to mandatory requirements like RFA Section 610.¹⁰ The study highlighted the need for clearer standards and enhanced public participation in the Section 610 review process.

Beginning in 2007, Advocacy has worked to place greater emphasis on the impact of existing rules and the appropriate consideration of rules nominated by the small business community for review and reform. Advocacy’s new Regulatory Review and Reform (r3) initiative is designed to address the cumulative impact of the federal regulatory burden. The r3 initiative identifies and addresses existing federal regulations that should be revised because they may be ineffective, duplicative, or out of date. This is a tool for small business stakeholders to suggest needed reforms. It includes the review process under Section 610 by which an agency considers whether a current

10 U.S. Government Accountability Office, *Reexamining regulations: Opportunities exist to improve effectiveness and transparency of retrospective reviews*, Report no. GAO-07-791, July 2007, available at www.gao.gov/new.items/d07791.pdf. The most common result was a finding by the agency that no change was needed. One suggestion made by nonfederal parties was that it would be more useful for agencies to select a few high-priority regulations to review rather than conducting a cursory review of many regulations.

regulation is still needed, and the degree to which technology, economic conditions, or other factors have changed since the regulation was first written. The r3 initiative gives federal agencies an incentive to do a better job of identifying and revising rules in need of reform and will provide tools for all parties to monitor their progress.

RFA Training Under E.O. 13272

Executive Order 13272 (E.O.) requires Advocacy to train regulatory agencies in how to comply with the RFA and the E.O. Advocacy identified 66 departments, agencies, and independent commissions that promulgate regulations affecting small business. Advocacy reached out to all 66 agencies and completed most of this initial training goal by FY 2008 and continues to train employees in these agencies through an ongoing training effort.

Agencies that have participated in the rigorous half-day training are more aware of their compliance responsibilities under the RFA and the E.O. Increasingly, agency staff are willing to share draft rules and other important information with Advocacy. Such predecisional interagency information is kept confidential. This process allows Advocacy to assist agencies in assessing the small business impacts of their draft rules. Further, Advocacy's training has assisted in building productive relationships with the regulatory agencies. For agencies willing to take advantage of Advocacy's expertise, knowing where to go for assistance on RFA issues is vital.

As agencies continue to work closely with the Office of Advocacy earlier in the rule development process and give small entity impacts appropriate consideration, regulations should reflect an increased sensitivity to small business considerations. The E.O. is designed to ensure small businesses a voice in the regulatory process. Advocacy will continue working closely with all federal regulatory agencies to train them on the RFA and increase compliance with both the RFA and E.O. 13272.

Overview of RFA Implementation

Advocacy's attorneys and economists review agency proposals and coordinate closely with small entities, trade associations, and regulators to address areas of small business concern and ensure that the RFA's requirements are met. The office also serves as a voice for small businesses on key issues before federal agencies. Advocacy staff members meet frequently

with various small businesses and their representatives to provide education on the RFA, improve agency economic analyses, and provide guidance under the judicial review provision enacted in SBREFA. Some of these meetings are structured as roundtables to allow government officials to speak directly with small entities on specific regulations and facilitate effective discussion.

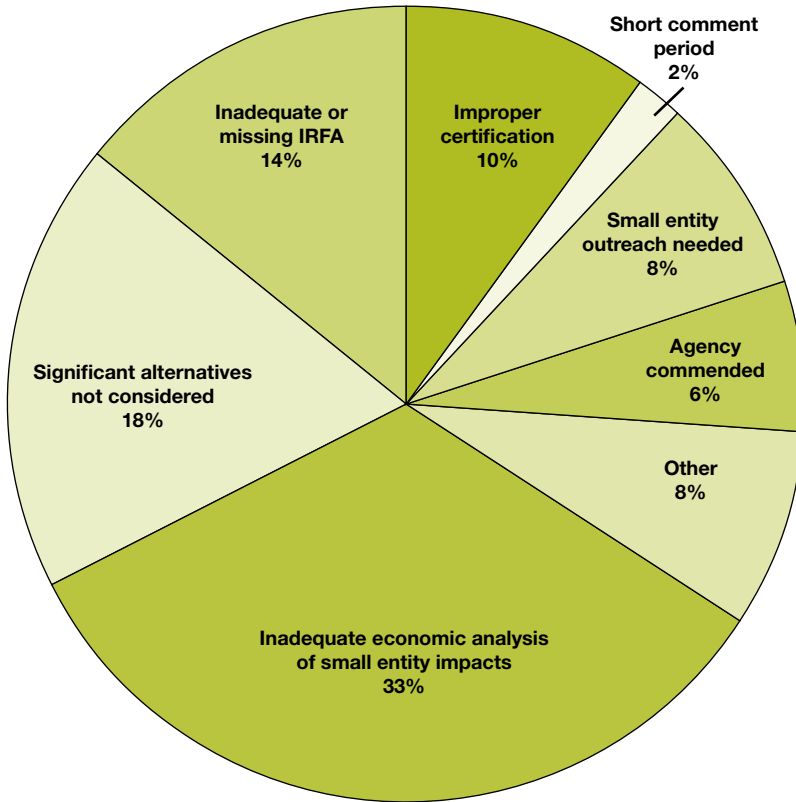
Advocacy provides consultation throughout the regulatory process, as well as interagency review under E.O. 12866, interagency comments, congressional testimony, and amicus briefs. In FY 2007, the office sent 30 formal comment letters to federal agencies (*Figure 8.1* and *Table 8.1*).

Advocacy's Office of Economic Research provides economic data to agencies to help them identify industrial sectors dominated by small firms. Advocacy regularly updates economic statistics on its website and maintains a database of information on trade associations that can assist federal agencies seeking small business input.

Measuring Effectiveness

The Office of Advocacy continues to work to develop more accurate and effective ways of assessing agency progress in considering small business concerns as they develop new regulations and reevaluate those already in effect. One measure Advocacy uses to assess the effectiveness of its efforts under the RFA is a calculation of regulatory cost savings (*Tables 8.2* and *8.3*). While this figure does not fully capture the totality of the government's regulatory flexibility achievements, it serves as an important tool for monitoring the RFA's impact on small business issues.

Figure 8.1 Advocacy Comments by Key RFA Compliance Issue, FY 2007 (percent)



In FY 2007, the Office of Advocacy provided comments to several agencies on how to comply with the RFA. Figure 8.1 illustrates key concerns raised by Advocacy’s comment letters and prepublication review of draft rules. The figure highlights areas for improved compliance based on Advocacy’s analysis of its FY 2007 comment letters and other regulatory interventions summarized in this report.

Table 8.1 Regulatory Comment Letters Filed by the Office of Advocacy, FY 2007

Date	Agency	Comment subject
10/03/06	FWS	Comment letter regarding the proposed designation of critical habitat for the contiguous United States Distinct Population Segment of the Canada Lynx, 71 <i>Fed. Reg.</i> 5515 (October 3, 2006).
10/25/06	FCC	Comment letter addressing the Missoula Plan for Intercarrier Compensation Reform in response to the FCC's proposed rule on developing a Unified Intercarrier Compensation Regime, FCC Docket No. 01-92 (March 3, 2005).
11/02/06	CPSC	Comment letter addressing the standards for the flammability of mattress sets, 71 <i>Fed. Reg.</i> 13472 (March 15, 2007).
11/02/06	OSHA	Comment letter on OSHA's advance notice of proposed rulemaking on Hazard Communication, 71 <i>Fed. Reg.</i> 53617 (September 12, 2006).
11/08/06	EPA	Comment letter regarding the proposed multisector general permit (MSGP) for industrial facilities, 71 <i>Fed. Reg.</i> 408 (July 18, 2006).
11/09/06	Access Board	Comment letter regarding the Americans With Disabilities Act (ADA) Accessibility Guidelines for Passenger Vehicles, Reopening of Comment Period, 71 <i>Fed. Reg.</i> 53630 (September 12, 2006).
12/07/06	FCC	Comment letter regarding the Service and Auction Rules for the 700 MHz Auction, WT Dkt. No. 06-150 (August 10, 2006).
02/05/07	FAA	Comment letter regarding the proposed rule on production and airworthiness approvals, parts marking, and miscellaneous proposals, 71 <i>Fed. Reg.</i> 58914 (October 5, 2006).
02/07/07	DHS	Comment letter regarding the proposed chemical facility antiterrorism standards rule, 71 <i>Fed. Reg.</i> 58276 (December 28, 2006).
02/08/07	DOL	Comment letter in response to DOL's request for information on the Family and Medical Leave Act of 1993, 71 <i>Fed. Reg.</i> 69504 (December 1, 2006).
02/16/07	CMS	Comment letter regarding the Medicaid program, prescription drugs, 71 <i>Fed. Reg.</i> 77174 (December 22, 2006).
02/21/07	SEC	Comment letter regarding the proposed rule on the Manager's Report on Internal Control over Financial Reporting, 71 <i>Fed. Reg.</i> 77635 (December 27, 2006).
03/02/07	EPA	Request for an extension of the public comment period regarding NPDES Permit Fee Incentive for Clean Water Act Section 106 Grants, 72 <i>Fed. Reg.</i> 293 (January 4, 2007).
03/23/07	IRS	Comment letter regarding the NPRM on tax classifications of cigars and cigarettes, 71 <i>Fed. Reg.</i> 62500 (October 25, 2006).
03/26/07	FCC	Comment letter regarding the FCC's video programming access rules, 72 <i>Fed. Reg.</i> 9289 (March 1, 2007).
03/30/07	FAA	Comment letter on the initial regulatory flexibility analysis for the proposed rule regarding aircraft production and airworthiness approvals, parts making and miscellaneous proposals, 72 <i>Fed. Reg.</i> 6968 (February 14, 2007).

Table 8.1 Regulatory Comment Letters Filed by the Office of Advocacy, FY 2007 (continued)

Date	Agency	Comment subject
05/10/07	FCC	Comment letter requesting that the FCC open a rulemaking to examine the relevant market data on copper retirement.
05/14/07	EPA	Comment letter evaluating the EPA's "NPDES Permit Fee Incentive for Clean Water Act Section 106 Grants; Allotment Formula" proposal; <i>Fed. Reg.</i> 293 (January 4, 2007).
05/21/07	GSA	Comment letter regarding the NPRM on contractor code of ethics and business conduct, <i>72 Fed. Reg.</i> 7588 (February 16, 2007).
05/21/07	FCC	Letter in response to the FCC's request for comment on the 700 MHz auction rules (April 27, 2007).
05/25/07	GSA	Comment letter regarding the NPRM on the Representations and Certifications—Tax Delinquency regulation, <i>72 Fed. Reg.</i> 15093 (March 30, 2007).
05/25/07	SEC	Letter regarding the SEC failure to provide small public companies with an extension of the date for compliance with Section 404 of the Sarbanes Oxley Act (May 23, 2007).
06/27/07	SEC	Comment letter on a proposed rule amending FAST and DRS Limited Requirements for Transfer Agents, <i>72 Fed. Reg.</i> 30648 (June 1, 2007).
08/03/07	FWS	Comment letter regarding the revised critical habitat designation proposed for five endangered and two threatened mussels in four Northeast of Mexico drainages, <i>72 Fed. Reg.</i> 34215 (June 21, 2007).
08/08/07	FCC	Response to the FCC's request for comment to refresh the record in the Special Access Notice of Proposed Rulemaking, <i>72 Fed. Reg.</i> 40814 (July 25, 2007).
08/13/07	FCC	Comment letter regarding the Verizon Telephone Company's petition for forbearance under 47 USC §160(c) from Title II and Computer Inquiry Rules with respect to their broadband services, WC Docket No. 04-440 (July 30, 2007).
08/23/07	SEC	Comment letter to revise the Eligibility Requirements for Primary Security Offerings on Forms S-3 and F-3, <i>72 Fed. Reg.</i> 35117 (June 26, 2007).
09/11/07	SEC	Comment letter regarding the SEC's Small Company Regulatory Reporting Relief and Simplification, <i>72 Fed. Reg.</i> 39669 (July 19, 2007).
09/13/07	CMS	Comment letter regarding the surety bond requirement for suppliers of durable medical equipment, <i>72 Fed. Reg.</i> 42001 (August 1, 2007).
09/18/07	DHS	Comment letter regarding the final safe harbor procedures for employers who receive a "no match" letter, <i>72 Fed. Reg.</i> 45611 (August 15, 2007).

Note: The complete text of Advocacy's regulatory comments is available on Advocacy's website at <http://www.sba.gov/advo/laws/comments>.

Table 8.2 Regulatory Cost Savings, FY 2007

Agency	Subject description	Cost savings / impact measures
CMS	<p><i>Durable Medical Equipment Competitive Bidding.</i> Pursuant to provisions in the Medicare Prescription Drug Improvement and Modernization Act of 2003, the Centers for Medicare and Medicaid Services (CMS) promulgated a regulation creating a competitive bidding program covering certain Medicare Part B durable medical equipment (DME). Although this rulemaking is still expected to have a significant impact on small DME suppliers, Advocacy’s suggestions to CMS throughout the regulatory process helped to assure small DME supplier participation in the bidding process. Advocacy’s position on this regulation stems from a September 2002 roundtable where small businesses voiced similar concerns.</p>	<p>Because of the breadth of the industries affected, Advocacy has not been able to calculate cost savings attributable to changes helpful for small entities.</p>
CPSC	<p><i>Standards for the Flammability (Open Flame) of Mattress Sets.</i> On March 15, 2006, the Consumer Product Safety Commission (CPSC) published the Consumer Standards for the Flammability (Open Flame) of Mattresses final rule in the <i>Federal Register</i> with an effective date of July 1, 2007. The new standards established performance criteria to assure that mattresses exposed to an open flame would generate a smaller fire with a slower growth rate, thereby reducing the chances of a flash fire. Advocacy filed comments on the regulation alerting CPSC to the rule’s potential negative impact on small mattress manufacturers. As a result of Advocacy’s comments and those filed by small mattress manufacturing firms, the CPSC used alternatives to remove the need for the manufacturers to keep a sample of the mattresses on site after testing.</p>	<p>These changes reduced the economic burden on the industry and resulted in cost savings totaling \$198,445.</p> <p>Source: CPSC economic analysis</p>
DHS	<p><i>Safe Harbor Procedures for Employers Who Receive a No-match Letter.</i> On August 15, 2007, the Department of Homeland Security (DHS) and its Bureau of Immigration and Customs Enforcement (ICE) published a final rule that would have required employers who receive a “no-match” letter from the Social Security Administration indicating a discrepancy between an employee’s name and social security number to take certain actions to resolve those discrepancies. If the employer and employee were unable to correct the discrepancy within a specified time, the employer would have been obligated to terminate the employee or be deemed to have “constructive knowledge” that the employee may be an unauthorized alien. DHS certified that the rule would not have a significant economic impact on a substantial number of small entities. Following promulgation of the final rule, labor, civil liberties, and business groups challenged the rule in federal district court, arguing, among other things, that DHS failed to comply with the RFA because DHS did not have a “factual basis” for its certification and, moreover, that the certification was erroneous because the rule would have a significant impact on a substantial number of small entities. The Office of Advocacy sent a letter to DHS agreeing with this claim and offering to assist DHS in curing the RFA defect in the rule. On October 10, 2007, the Federal District Court for the Northern District of California issued a preliminary injunction prohibiting DHS from including requirements contained in the final rule with the “no-match” letters from the Social Security Administration. The Court’s decision acknowledged that the plaintiffs had raised serious legal questions and would suffer irreparable harm if the rule went into effect.</p>	<p>No cost savings estimates are available for this rule.</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
EPA	<p><i>Hydrochlorofluorocarbon (HCFC) 22.</i> On March 28, 2007, EPA published a final rule setting a compliance date of September 1, 2009, instead of the proposed January 1, 2008, for the marine sector to transition from HCFC-22 (an ozone-depleting substance that is a member of the hydrochlorofluorocarbon family) to other substitutes. The rule previously in effect had allowed for a transition extending to January 1, 2010, but EPA proposed to accelerate the timetable based on new information to January 2008. Advocacy supported the extension of time for the marine sector because of their particular hardships. Other sectors are required to meet the January 1, 2008, date except for the extruded polystyrene foam sector, which has a January 1, 2010, date.</p>	<p>This change will result in unquantified savings for up to 3,000 boat builders (nearly all small firms) who were having difficulty meeting the compressed timetable.</p>
EPA	<p><i>Toxics Release Inventory (TRI).</i> On December 18, 2006, the Environmental Protection Agency (EPA) signed a final rule to expand the number of Toxics Release Inventory filings that may be reported to EPA using the shorter Form A. The final rule provides needed relief to small businesses while maintaining the integrity of the TRI database. This major small business achievement marks the end of a 15-year effort that started with a petition filed by the Office of Advocacy with EPA in August 1991. Advocacy also filed supportive comments on the EPA proposal in February 2006. This rule provides the first significant small business relief from toxics release inventory reporting since 1994. For chemicals that are not persistent, bioaccumulative, and toxic (non-PBT), the rule allows businesses to use the simpler reporting form if their releases are no more than 2,000 pounds of waste annually as part of an overall waste management limit of 5,000 pounds. By imposing the 2,000 pound cap on releases for non-PBT chemicals, EPA is encouraging businesses to rely on preferred waste management methods, such as recycling and treatment, rather than disposal and other releases. The rule would also extend the use of Form A to businesses that manage less than 500 pounds of PBT chemicals and have zero emissions or discharges to the environment.</p>	<p>This final rule is expected to save 123,000 hours per year by EPA's estimate or about \$5.9 million annually.</p>
EPA	<p><i>Spill Prevention Control and Countermeasure (SPCC) Rule.</i> On December 12, 2006, the Environmental Protection Agency (EPA) promulgated changes to its Spill Prevention, Control and Countermeasure program. The SPCC program is designed to prevent spills of oil into waterways and to contain spills after they occur. Facilities subject to the program must develop spill prevention plans designed to prevent and minimize such discharges. In July 2002, EPA amended the SPCC program requirements for hundreds of thousands of small businesses, farms, manufacturers, and electrical facilities. EPA subsequently agreed to postpone the effective date of the amended rule while the agency studied several suggested burden reduction approaches for small facilities and other SPCC facilities. Advocacy filed comments in June 2004 and February 2006. In the final rule, EPA utilized Advocacy's recommendations for revisions in two distinct areas: small facilities (under 10,000 gallons aggregate capacity for oil) and oil-filled equipment.</p>	<p>The changes reduce the annual regulatory and paperwork burden on small facilities by \$128 million, while increasing overall compliance with the SPCC program and focusing facilities on measures that prevent oil spills from reaching waterways.</p>
		<p>Source: EPA</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
EPA	<p><i>Guidance in Lieu of Rules to Reduce Volatile Organic Compound (VOC) Emissions from Five Industrial Sectors.</i> On October 5, 2006, the Environmental Protection Agency (EPA) promulgated control techniques guidelines (CTGs) for the control of volatile organic compounds emissions from each of five product categories in consumer and commercial products. These CTGs will provide guidance to the states concerning EPA's recommendations for reasonably available control technology level controls for these product categories. Advocacy submitted comments on September 5, 2006, supporting EPA's proposal to issue control techniques guidelines, rather than promulgating formal rules, and agreed that the CTG approach will result in additional VOC emission reductions over the rule approach. These rules will affect thousands of facilities, primarily small businesses. As a result of EPA's outreach to the small business community, the final CTGs provide a balance between environmental protection and regulatory flexibility.</p>	<p>Although savings are estimated to be in the tens of millions of dollars, the results cannot be verified at this time. The Office of Advocacy is continuing to seek reliable industry estimates.</p>
EPA	<p><i>Definition of Solid Waste.</i> On March 26, 2007, EPA issued a supplemental proposal to its 2003 proposal, which would exclude certain types of recycling activities involving hazardous secondary materials from the federal hazardous waste regulations. By removing unnecessary regulatory controls over certain recycling practices, EPA expects to make it easier to recycle hazardous secondary material safely. Exclusions are now proposed for the following:</p> <ul style="list-style-type: none"> • Materials that are generated and reclaimed under the control of the generator; • Materials that are generated and transferred to another person or company for reclamation under specific conditions; and • Materials that EPA deems nonwaste through a case-by-case petition process. 	<p>Annual cost savings of \$107 million are estimated for the affected firms.</p> <p>Source: EPA</p>
	<p>EPA estimates about 4,600 facilities handling over a half million tons of hazardous secondary materials annually may be affected by this proposed rule. At Advocacy's request EPA expanded its approach from the 2003 proposal. The industry sectors that could be most affected are chemical manufacturing, coating and engraving, semiconductor and electronics manufacturing, pharmaceutical manufacturing, and the industrial waste management industry.</p>	

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
EPA	<p><i>Area Source Standard for Gasoline Distribution.</i> On November 9, 2006, the U.S. Environmental Protection Agency (EPA) published a proposed Clean Air Act rule that would require new emission controls for bulk gasoline terminals, pipeline facilities, bulk gasoline plants, and potentially gasoline stations. The proposal would reduce hazardous air pollutants by requiring these sources to install floating roofs and seals, or by improving work practices such as leak detection and repair programs. Advocacy recommended that EPA consult with several affected small business representatives early in the planning process. Based on comments and data received from these parties, EPA proposed a less costly regulatory approach than the agency's earlier preferred alternative of vapor balancing of gasoline cargo tanks with bulk storage tanks.</p>	<p>In total, the proposed rule represents a one-time cost savings of \$117.2 million.</p> <p>Source: EPA</p>
EPA	<p><i>Halogenated Solvent Cleaning Residual Risk Standard.</i> On May 3, 2007, EPA issued a final rule to revise emission limits for facilities that use halogenated solvents such as methylene chloride, trichloroethylene, and perchloroethylene to clean metal parts. The rule places new restrictions on the amounts of solvent that can be used in cleaning operations. Advocacy worked with a subgroup of companies that use these solvents to clean metal tubes that are long and that have extremely narrow diameters. These specialty applications require cleaning with larger quantities of solvent and are not suited to the emission control techniques EPA has required for standard cleaning operations. Based on feedback from Advocacy and small businesses, EPA determined that the required emission controls are not technically feasible for narrow-tube operations.</p>	<p>EPA's decision to exempt these operations from the standard resulted in one-time cost savings of \$50 million.</p> <p>Source: Halogenated Solvents Industry Association</p>
EPA	<p><i>Control of Emissions from Nonroad Spark-Ignition Engines and Equipment.</i> On May 18, 2007, EPA proposed a rule to control air pollution from gasoline-powered engines and equipment below 50 horsepower. These engines and equipment are primarily used in lawn and garden applications and in the marine industry. The proposed rule would affect many small manufacturers and would require catalyst-based emission controls on some engines, as well as evaporative emission controls for boats. Because of concerns about the economic impacts of the rule on small businesses and the technical feasibility of proposed emission controls, EPA convened a Small Business Regulatory Enforcement Fairness Act (SBREFA) panel on August 17, 2006. Twenty-seven small entity representatives (SERs) participated in the panel and provided technical data to EPA about the potential impacts of the rule, along with OMB's Office of Information and Regulatory Affairs and the Office of Advocacy. Based on recommendations from the panel, EPA proposed granting small businesses extended compliance deadlines, streamlined testing and certification requirements, and hardship exemptions for small businesses unable to comply by the deadline.</p>	<p>\$36.4 million in first-year cost savings and \$5.6 million in recurring annual cost savings.</p> <p>Source: EPA</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
EPA	<p><i>Pollution Control Standards for Iron and Steel Foundries.</i> On September 17, 2007, EPA published a proposed rule establishing new air pollution control standards for iron and steel foundries under the Clean Air Act. The proposal would require foundries above a specified melting capacity to install pollution control equipment. Because of information received from small business stakeholders, the Office of Advocacy persuaded EPA to co-propose a higher melting capacity threshold that would allow small foundries to operate without installing new controls.</p>	<p>One-time cost savings from this co-proposal are an estimated \$13.9 million, with an estimated \$2.8 million saved in recurring operating and maintenance costs.</p> <p>Source: EPA</p>
EPA	<p><i>Clean Air Act, Particulate Matter National Ambient Air Quality Standards.</i> On September 21, 2006, EPA revised the national standards for particulate matter (PM). EPA lowered the daily standard for fine particles smaller than 2.5 microns, but left the standards for coarse particles (2.5 - 10 microns) unchanged. In addition, EPA indicated that farming operations in rural areas could satisfy coarse PM requirements by meeting state-based best management practices (BMPs), rather than more stringent requirements. Advocacy worked with the U.S. Department of Agriculture and agricultural trade associations to support EPA's flexible interpretation of farming requirements.</p>	<p>Cost savings for small farms and other agricultural operations are estimated at \$1 million in the first year and ongoing.</p> <p>Source: Industry estimates</p>
EPA	<p><i>Permit Fee Incentive for Clean Water Act Grant Allotments.</i> On January 4, 2007, EPA proposed revisions to the Clean Water Act, Section 106, grant allocation formula to create a new incentive for states to fund National Pollutant Discharge Elimination System (NPDES) programs through fees paid by dischargers. Many states currently do not require all dischargers, including small entities, to pay the full costs of their permitting programs through permit fees. Numerous state, local, and small business organizations expressed concerns that the proposed revision would result in substantial permit fee increases and/or the loss of grant monies, and that EPA had not adequately considered the potential impact on states and small entities. On March 2, 2007, Advocacy requested that EPA extend the comment period on the proposal for an additional 60 days, so that small entities could gather more detailed information about potential impacts. EPA extended the comment period for 60 days, and on May 14, 2007, Advocacy submitted a technical memorandum evaluating the potential impacts on small entities. The technical memorandum concluded that the rule was likely to have an impact on states and small entities. Based on the comments of Advocacy and small business representatives, EPA has delayed finalizing the rule until the late FY 2008 budget cycle.</p>	<p>The delayed implementation of the rule represents one-time cost savings to small entities in affected states of at least \$5.65 million.</p> <p>Source: American Public Power Association</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
FAA	<p><i>National Air Tour Safety Standards (NATSS)</i>. On October 22, 2003, the FAA published a proposed rule that would establish new safety standards for commercial air tour operators. The rule as proposed would eliminate existing exceptions for commercial air tours conducted under Title 14, Part 91 (small sightseeing operators) of the Code of Federal Regulations. Part 91 exempts certain nonstop sightseeing flight operators who use the same airport for takeoff and landing and fly within a 25-mile radius, from required Part 119 certification. The proposed rule would have required all air tour operators to obtain Part 119 certification. Advocacy worked closely with affected small entities and trade associations to identify the economic impacts of the proposed regulation. In April 2004, Advocacy submitted a public comment letter to the agency expressing concern that many small air tour operators would be unduly burdened by the cost of obtaining Part 119 certification and would ultimately be forced out of the market. The FAA published the NATSS final rule on February 13, 2007, and made significant changes to the final rule. The Part 91 exceptions are maintained and operators must obtain a letter of authorization (LOA) from the FAA instead of obtaining a new certification.</p>	<p>FAA's decision to keep the Part 91 exception and eliminate some additional provisions contained in the proposed rule resulted in \$127.3 million in cost savings.</p> <p>Source: FAA</p>
FCC	<p><i>Customer Proprietary Network Information (CPNI)</i>. On March 13, 2007, the FCC adopted its order and released a further notice of proposed rulemaking to strengthen the technology used by carriers to protect confidential customer data. The order requires companies to install specialized equipment to update their networks to protect this information. Because of information received from small business stakeholders, Advocacy filed comments to persuade the FCC to provide the smallest Voice over Internet Protocol (VoIP) providers with a six-month extension to comply with this rule.</p>	<p>The estimated one-time cost savings for this extension are \$6.2 million.</p> <p>Source: Industry estimates</p>
FCC	<p><i>Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution: Section 628 (c)(5) of the Communications Act: Sunset of Exclusive Contract Prohibition</i>. Section 628(c)(2)(D) of the Communications Act of 1934, as amended, generally prohibits exclusive contracts for satellite cable programming or satellite broadcasting between vertically integrated programmers and cable operators. Small providers rely on this ban to prevent large cable operators from blocking premium video programming from them and negatively affecting their ability to compete in the market. To express the concerns of small entities, Advocacy sent a public comment letter to the FCC on March 26, 2007. On September 11, 2007, the FCC adopted its Report and Order and Notice of Proposed Rulemaking (FCC 07-169; MB Docket No. 07-29; MB Docket No. 07-198), which extended the ban on exclusive contracts for five more years.</p>	<p>The savings to small providers have not yet been quantified.</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
FDA	<p><i>Dietary Supplement Current Good Manufacturing Practices.</i> The Food and Drug Administration (FDA) promulgated a rule requiring current good manufacturing practice (CGMP) for dietary supplements. Advocacy has been involved in the rulemaking since 1997 in an effort to ensure that small dietary supplement manufacturers were not unduly affected by the regulation. In summary, Advocacy's involvement helped to reduce testing requirements under certain circumstances for small businesses; more important, the rule includes a 36-month delay for establishments with fewer than 20 employees and a 24-month delay for establishments with more than 20 employees and fewer than 500.</p>	<p>These actions resulted in a total of \$364.6 million in cost savings.</p> <p>Source: FDA</p>
FWS	<p><i>Canada Lynx Critical Habitat Designation.</i> On November 2006, the U.S. Fish and Wildlife Service (FWS) published a final critical habitat designation of 1,841 square miles on federal lands for the Canada lynx. FWS originally proposed to designate 18,031 square miles in February 2006. Responding to comments by Advocacy and other small business entities, FWS excluded 16,190 square miles (over 10 million acres) of private land in Idaho, Maine, Minnesota, Montana, and Washington because of biological studies, existing lynx management programs, and economic factors.</p>	<p>FWS's exclusion of these high-cost areas resulted in \$919 million in cost savings.</p> <p>Source: FWS</p>
FWS	<p><i>Alabama Beach Mouse Critical Habitat Designation.</i> On January 30, 2007, the U.S. Fish and Wildlife Service (FWS) published a final critical habitat designation of 1,211 acres of coastal habitat in Baldwin County, Alabama. Responding to comments by Advocacy and small business entities, FWS excluded two developments from the designation, Beach Club West and Gulf Highlands.</p>	<p>FWS's exclusion of the high-cost areas will save \$31.6 million in costs.</p> <p>Source: FWS</p>
FWS	<p><i>Spikedace and Loach Minnow Critical Habitat Designation.</i> In March 2007, the U.S. Fish and Wildlife Service (FWS) published a final critical habitat designation of 522.2 river miles in New Mexico and Arizona. Responding to comments by Advocacy and small business entities, FWS excluded private lands in the lower portion of the Verde River from the final critical habitat designation due to economic factors.</p>	<p>FWS's exclusion of the high-cost areas saved \$46.9 million in costs.</p> <p>Source: FWS</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
HHS	<p><i>Medicare Program; Reporting Hospital Quality Data for FY 2008 Inpatient Prospective Payments System Annual Payment Update Program - HCAHPS Survey.</i> On November 24, 2006, CMS published a rule that would require hospitals to submit a survey to their patients in an effort to assist patients in selecting hospitals that deliver high-quality care. The effective date of the rule is January 1, 2007. Advocacy filed a public comment letter with CMS on January 18, 2005, suggesting that the survey requirement would prove onerous to hospitals (especially rural ones) because it would increase their costs and paperwork burden. Hospital representatives were concerned that they would have to make substantial changes to the survey most hospitals already used to measure patient satisfaction and that patients would be disinclined to return a substantially longer survey after their discharge. As a result of Advocacy's involvement and that of industry, CMS reduced the number of survey questions from 66 to 27, reduced the number of calls required to complete the survey from 10 to 5, reduced the number of mailings from 3 to 2, and, most important for small hospitals, reduced the number of completed questionnaires requirement from 300 to 100. CMS agreed to offer training to hospitals and provided software on the survey free of cost to hospitals.</p>	<p>These changes led to an estimated \$11.6 million in first-year and recurring cost savings to small hospitals.</p> <p>Source: CMS</p>
HHS	<p><i>Medicare and Medicaid Programs; Hospital Conditions of Participation: Patients' Rights.</i> The rule, which stemmed from CMS patient rights initiatives, required all inpatient psychiatric hospitals to have a physician or other licensed independent practitioner evaluate a patient face-to-face within one hour after the patient had been placed in restraints or seclusion. In July 1999, per a request by Representative Saxby Chambliss, Advocacy submitted comments to HHS on the interim final rule that dealt with Medicare conditions of participation, including standards for the use of patient restraints in hospitals. Representative Chambliss specifically requested Advocacy's opinion whether the agency had complied with the RFA in issuing the hospital restraint rule. Advocacy concluded that the one-hour restriction on the use of restraints could be burdensome for rural hospitals in particular. HHS had not specifically discussed the one-hour standard in the proposed rule and did not analyze the impact of the one-hour evaluation provision in the interim final rule. On the same date that Advocacy sent its comments to Representative Chambliss, a court decision was rendered (see <i>National Association of Psychiatric Health Systems v. Shalala</i>, No. Civ. A. 99-2025 GK, 2000 WL 1677210, D.D.C. Sept. 14, 2000), that essentially upheld the hospital restraint rule, but remanded the rule to the agency and directed HHS to complete a final regulatory flexibility analysis. The final rule was published in the Federal Register on December 11, 2006, with an effective date of January 8, 2007. Changes included a revision to expand the type of practitioners permitted to conduct the one-hour face-to-face evaluation and changes to the training and staffing requirements. Cost savings were generated from both changes made to the rule and the delay in implementation (the interim final effective date was 3/23/01, but the rule was stayed).</p>	<p>In the absence of estimates, Advocacy is using the upper range of an estimate of the costs in the comments to the rule as a proxy for cost savings in the amount of \$750,000.</p> <p>Source: HHS</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
PHMSA	<p><i>Hazardous Materials: Transportation of Lithium Batteries.</i> On April 2, 2002, the Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a proposed rule regulating the transportation of lithium batteries. The proposal required producers and transporters of lithium batteries to adhere to more stringent packaging and testing requirements. PHMSA certified the proposed rule, and small entities affected by the proposal raised concerns about the potential economic impact of the rule to Advocacy. In August 2003, OMB and Advocacy recommended that the agency either complete an IRFA or provide a statement of factual basis for the certification contained in the rule. In June 2005 PHMSA published an IRFA for the proposed rule in the <i>Federal Register</i> which addressed many of Advocacy’s concerns. On August 9, 2007, PHMSA issued the final rule on transportation of lithium batteries. The FRFA considered eight possible alternatives and adopted four, including exceptions for small lithium batteries and for small production runs of lithium batteries. Additionally, the agency provided for a two-year implementation period.</p>	<p>The revisions adopted in the final rule resulted in a cost savings of \$13.2 million.</p> <p>Source: PHMSA</p>
PTO	<p><i>Changes to Practice for Continued Examination Filings, Patent Applications Containing Patentably Indistinct Claims, and Examination of Claims in Patent Applications.</i> On January 3, 2006, the U.S. Patent and Trademark Office (PTO) published two proposed rules that would reform the patent application and prosecution process. The rule would restrict the number of allowable representative claims in a patent application and limited the number of continuation applications to one. PTO certified that both rules would not have a significant economic impact on a substantial number of small entities. In April 2006, Advocacy submitted a public comment letter to PTO on the proposed rules, advised the agency of the potential impact of the rules on small entities, and urged the completion of an IRFA. In response to Advocacy’s comments, the agency performed an analysis of the impacts of the proposed rules on small entities. On August 21, 2007, the PTO issued a final rule that combined both rules into a single rule package. In the final rule, the agency considered Advocacy’s recommendations and made some revisions to reduce the potential impacts on small entities.</p>	<p>A full estimate of the savings to small business has not yet been assessed, as most provisions remain unquantifiable.</p>
SEC	<p><i>Management Guidance for Periodic Reports.</i> As required by the Sarbanes-Oxley Act of 2002, the Securities and Exchange Commission (SEC) published final rules on June 18, 2003, requiring businesses that raise funds from public investors to report on internal controls and audit procedures. Advocacy urged the SEC to establish management guidance on the process of evaluating internal controls for small public companies that would focus on risks and clarify ambiguous terms. On June 27, 2007, the SEC published a final rule adopting management guidance and amendments to facilitate more effective and efficient evaluations over internal controls reporting. The SEC cited an estimate based on survey data of 10 percent cost savings as a result of the management guidance in the first year of implementation.</p>	<p>These changes represent \$561 million in cost savings in the first year of implementation.</p> <p>Source: SEC</p>

Table 8.2 Regulatory Cost Savings, FY 2007 (continued)

Agency	Subject description	Cost savings / impact measures
State	<p><i>Exchange Visitor Program (J-1 Visa Program).</i> On June 19, 2007, the U.S. Department of State (State) published an interim final rule on its Exchange Visitor Program for Trainees and Interns. The initial proposed rule would have imposed new requirements on designated program sponsors in the J-1 visa program before they could accept a participant into their program. The proposed rule included special provisions related to aviation flight training schools that would limit the ratio of on-the-job training to classroom study and reduce the maximum duration of the training program from 24 to 18 months. The provisions would have had a particularly damaging effect on aviation flight schools, although State certified that the rule would have no significant impact under the RFA. After extensive outreach to the aviation flight schools that operate under the J-1 visa program, Advocacy submitted public comments on the proposed rule stating that the agency's RFA certification was improper because it failed to include a factual basis, and recommended that State re-evaluate the costs and impacts of the proposed rule on aviation flight schools. The nine designated J-1 aviation flight schools said they would lose all or most of their foreign students if the rule were finalized as proposed. The final rule exempted the aviation flight schools and left current rules governing them in place.</p>	<p>First-year cost savings total \$22.2 million, and annual ongoing cost savings are \$22.2 million.</p> <p>Source: Affected flight schools</p>
USAID	<p><i>Mentor-Protégé Rule.</i> On November 26, 2006, the U.S. Agency for International Development (USAID) issued a proposed regulation to amend its acquisition regulations to encourage prime contractors to assist small disadvantaged firms in enhancing their contract and subcontract performance for federal agencies. As a result, USAID's rule will operate more smoothly in conjunction with SBA's responsibilities in the federal contracting arena.</p>	<p>The savings to small businesses have not yet been quantified.</p>

Table 8.3 Summary of Cost Savings, FY 2007 (dollars)¹

Rule/ intervention	First-year costs	Annual costs
Durable Medical Equipment Competitive Bidding (CMS) ²		
Mattress Flammability Standards (CPSC) ³	198,445	
Safe Harbor Procedures for Employees with a No-match Letter (DHS) ²		
HCFC 22 Final (EPA) ²		
Toxics Release Inventory, Final Rule (EPA) ⁴	5,900,000	5,900,000
SPCC Final (EPA) ⁴	128,000,000	128,000,000
Volatile Organic Compound Emissions (EPA) ²		
Definition of Solid Waste (EPA) ⁴	107,000,000	107,000,000
Area Source Standards for Gasoline Distribution ⁴	117,200,000	
Halogenated Solvent Cleaning Residual Risk Standard (EPA) ⁵	50,000,000	
Control of Emissions from Nonroad Spark-ignition Engines and Equipment (EPA) ⁴	36,400,000	5,600,000
Clean Air Act, Pollution Controls, Iron and Steel Foundries (EPA) ⁴	13,900,000	2,800,000
Clean Air Act, Particulate Matter ¹²	1,000,000	1,000,000
Permit Fee Incentive for Clean Water Act Grant Allotments (EPA) ⁶	5,650,000	
National Air Tour Safety Standards (FAA) ⁷	127,300,000	
Customer Proprietary Network Information (CPNI) (FCC) ⁸	6,176,000	
Cable Television Consumer Protection and Competition Act (FCC) ²		
Dietary Supplement Rule (FDA) ⁹	364,552,000	
Canada Lynx Critical Habitat (FWS) ¹⁰	919,000,000	
Alabama Beach Mouse Critical Habitat Designation (FWS) ¹⁰	31,600,000	
Spikedace and Loach Minnow Critical Habitat Designation (FWS) ¹⁰	46,900,000	
HCAHPS Survey (HHS) ¹¹	11,600,000	11,600,000
One-Hour Rule (HHS) ¹²	750,000	750,000
Lithium-ion Battery Rule (PHMSA) ¹³	13,200,000	
Patent Applications Containing Patentably Indistinct Claims (PTO) ²		
Management Guidance for Periodic Reports (SEC) ¹⁴	561,000,000	
Exchange Visitor Program (J-1 Visa Program) ¹⁵	22,215,250	22,215,250
USAID Mentor-protégé Program ²		
TOTAL	2,569,541,695	284,865,250

1 The Office of Advocacy generally bases its cost savings estimates on agency estimates. Cost savings for a given rule are captured in the fiscal year in which the agency agrees to changes in the rule as a result of Advocacy's intervention. Where possible, the Office of Advocacy limits the savings to those attributable to small businesses. These are best estimates. First-year cost savings consist of either capital or annual costs that would be incurred in the rule's first year of implementation. Recurring annual cost savings are listed where applicable.

- 2 No estimates are available.
- 3 Source: Consumer Product Safety Commission (CPSC) economic analysis.
- 4 Source: Environmental Protection Agency (EPA).
- 5 Source: Halogenated Solvents Industry Association.
- 6 Source: American Public Power Association.
- 7 Source: Federal Aviation Administration (FAA).
- 8 Source: Industry comments.
- 9 Source: Food and Drug Administration (FDA).
- 10 Source: Fish and Wildlife Service (FWS).
- 11 Source: U.S. Department of Health and Human Services (HHS).
- 12 Source: Industry estimate.
- 13 Source: Pipeline and Hazardous Materials Safety Administration (PHMSA).
- 14 Source: Securities and Exchange Commission (SEC).
- 15 Source: Affected flight schools.

Regulatory Flexibility in the States: The Model Legislation Initiative

In December 2002, Advocacy presented model regulatory flexibility legislation for the states based on the federal Regulatory Flexibility Act. The intent of the model legislation is to foster a climate for entrepreneurial success in the states.¹¹

The American Legislative Exchange Council (ALEC) adopted the legislation as a model bill, and numerous state legislators, stakeholders, and small business advocacy organizations have pursued its passage in various states. Those organizations include the National Federation of Independent Business (NFIB), state chambers of commerce, the U.S. Chamber of Commerce, the Small Business & Entrepreneurship Council (SBEC), and the National Association for the Self-Employed (NASE).

According to Advocacy's state model legislation, successful state-level regulatory flexibility laws address the following areas: 1) a small business definition that is consistent with state practices and permitting authorities; 2) a requirement that state agencies perform an economic impact analysis on the effect of a rule on small business before they regulate; 3) a requirement that state agencies consider less burdensome alternatives for small businesses that still meet the agency's regulatory goals; 4) a provision that forces state governments to review all of their regulations periodically; and 5) judicial review to give the law "teeth."

¹¹ For more information about the model legislation initiative, see http://www.sba.gov/advo/laws/law_modelleg.html.

Since 2002, 37 state legislatures have considered regulatory flexibility legislation¹² and 23 states have implemented regulatory flexibility by executive order or legislation.¹³

In 2007, 13 states introduced regulatory flexibility legislation: Alabama (HB 84), Arkansas (SB 55/HB 1147), Connecticut (SB 1179), Hawaii (SB 188), Illinois (HB 302), Maine (LD 905), Massachusetts (HB 189/SB 133), Mississippi (HB 1229), Montana (SB 148), New Jersey (A 2327/SB 1335), Tennessee (SB 55/HB 1276), Texas (HB 3218/HB 3430/SB 700), and Washington (HB 1525). Bills were signed into law in Arkansas, Hawaii, Maine, Tennessee, Texas, and Washington (See *Tables 8.4* and *8.5* and *Figure 8.2*).

The following is a real-world example that demonstrates the value to small businesses of regulatory flexibility at the state level.

Puerto Rico's Ice Makers Benefit from Regulatory Flexibility Law

Puerto Rico's Regulatory Flexibility Act (Law Number 454—Ley de Flexibilidad Administrativa y Reglamentaria para el Pequeño Negocio) requires agencies and departments to perform periodic reviews of existing regulations. In 2007, Puerto Rico's Department of Health conducted one such review at the request of small business owners and the Ice Makers Association. The resulting rule change has been an improvement for small business owners and the island's public health.

Ice manufacturing is an important industry in Puerto Rico. Ice is an essential product for an island whose economy is driven in large part by tourism. In addition, Puerto Rico is prone to power outages, leaving businesses and residences to rely on bagged ice.

Puerto Rico's Rule 6090, Reglamento General de Salud Ambiental, is meant to ensure that commercially produced ice is clean and uncontaminated. To ensure this, the rule requires bags that hold ice to be clear, allowing the entire bag to be easily inspected. The Department of Health interpreted the rule to mean that bags must be completely transparent, with no labeling whatsoever.

12 These states include Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, and Wisconsin.

13 These states include Alaska, Arkansas, Colorado, Connecticut, Georgia, Hawaii, Indiana, Kentucky, Maine, Massachusetts, Missouri, North Dakota, New Mexico, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, and Wisconsin.

In the course of inspecting ice plants, health inspectors would confiscate any bags printed with a company logo and issue fines for rule violations.

Business owners and the Ice Manufacturing Association met with Puerto Rico's Office of the Small Business Advocate/Ombudsman to discuss the situation and see if there was any hope for improvement. The representatives contended that a transparent bag with printing on one side still allowed a clear view of a bag's entire contents. They also pointed out another issue of concern to the Department of Health: many ice manufacturers on the island were operating on the black market and not complying with any health or safety laws. Tests of ice at the point of sale had sometimes found illegally high levels of bacteria; a rule that prohibited identifying labeling actually made it more difficult for the Department of Health to ascertain the source of contaminated ice and stem public health concerns.

The Small Business Advocate submitted a formal request for review of the regulation and arranged for Department of Health and ice industry representatives to meet. After a thorough review and receipt of comments from business owners, the Department of Health agreed to modify the regulation to permit printing on one side of a transparent plastic bag, and it eliminated the associated fine. The result was a win for both the agency and small ice manufacturers. Businesses could legally place their logo on one side of the ice bag and still allow enough visible surface to ensure the cleanliness of the bag's contents.

New Challenges and Opportunities

In states that have passed regulatory flexibility laws, the Office of Advocacy works with the small business community, state legislators, and state government agencies to assist with implementation and to ensure the law's effectiveness. This has brought new opportunities for the model legislation initiative.

In March 2007, Advocacy organized a conference in Kansas City, MO, "Building a Better Small Business Climate: State Regulatory Flexibility Best Practices." The purpose of this event was to bring together state policymakers, government officials, and small business advocacy groups from across the country to share the tools and methodologies that have been developed to successfully implement state regulatory flexibility laws. The conference served as a means to begin creating a community of practitioners whose day-to-day responsibilities involve making their state's regulatory flexibility law a success.

Continuing to build and facilitate communications among this community will be a focus of Advocacy over the next year.

Also at this conference Advocacy released a state best practices publication, *State Guide to Regulatory Flexibility for Small Businesses*. This guide includes information on what regulatory flexibility is and why it matters, the importance of educating regulatory officials and small businesses about regulatory flexibility laws, how to prepare the small business economic impact and regulatory flexibility analysis, the importance of creating transparency in the rulemaking process and documenting the success of state regulatory flexibility, and examples of state regulatory flexibility programs. A copy of the guide is available on Advocacy's website at http://www.sba.gov/advo/laws/rfa_stateguide07.pdf.

The Office of Advocacy is strengthened by regional advocates located in the Small Business Administration's 10 regions across the country. These accomplished individuals are the chief counsel for advocacy's direct link to small business owners, state and local government bodies, and organizations that support the interests of small entities. The regional advocates help identify regulatory concerns of small businesses by monitoring the impact of federal and state policies at the grassroots level. Their work goes far to develop programs and policies that encourage fair regulatory treatment of small business and help ensure their future growth and prosperity.

The text of Advocacy's model legislation, updated versions of the state regulatory flexibility legislative activity map and the regional advocates' contact information can be found on the Office of Advocacy website at http://www.sba.gov/advo/laws/law_modeleg.html.

Table 8.4 State Regulatory Flexibility Legislation, 2007 Legislative Activity**6 states enacted regulatory flexibility legislation in 2007**

Arkansas (SB 55/HB 1147)	Maine (LD 905)	Texas (HB 3430)
Hawaii (SB 188)	Tennessee (SB 55/HB 1276)	Washington (HB 1525)

13 states introduced regulatory flexibility legislation in 2007

Alabama (HB 94)	Maine (LD 905)	Tennessee (SB 55/HB 1276)
Arkansas (SB 55/HB 1147)	Massachusetts (HB 189/SB 133)	Texas (HB 3218/HB 3430/SB 700)
Connecticut (SB 1179)	Mississippi (HB 1229)	Washington (HB 1525)
Hawaii (SB 188)	Montana (SB 148)	
Illinois (HB 302)	New Jersey (A 2327/SB 1335)	

Table 8.5 State Regulatory Flexibility Legislation, Status as of October 2007**13 states and 1 Territory had active regulatory flexibility statutes**

Arizona	Missouri	Oklahoma	Virginia
Colorado	Nevada	Oregon	Wisconsin
Connecticut	New York	Puerto Rico	
Indiana	North Dakota	South Carolina	

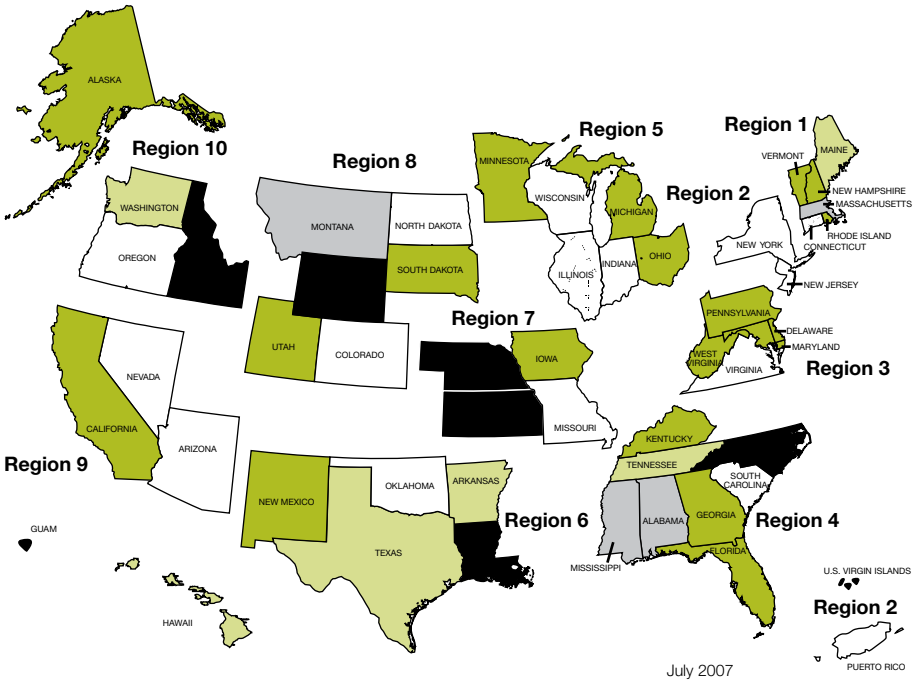
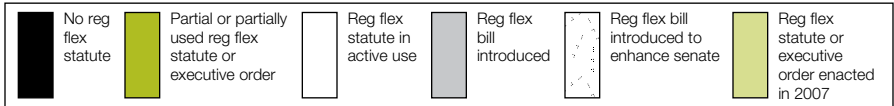
29 states had a partial or partially used regulatory flexibility statute or EO

Alaska	Iowa	New Hampshire	Texas
Arkansas	Kentucky	New Jersey	Utah
California	Maine	New Mexico	Vermont
Delaware	Maryland	Ohio	Washington
Florida	Massachusetts (EO)	Pennsylvania	West Virginia (EO)
Georgia (EO)*	Michigan	Rhode Island	
Hawaii	Minnesota	South Dakota	
Illinois	Mississippi	Tennessee (EO)*	

8 states, 2 territories and the District of Columbia had no regulatory flexibility statutes

Alabama	Idaho	Montana	Virgin Islands
District of Columbia	Kansas	Nebraska	Wyoming
Guam	Louisiana	North Carolina	

Figure 8.2 Mapping State Regulatory Flexibility Provisions, FY 2007



APPENDIX A

Small Business Data

Table A.1	Business Counts, 1985-2007	270
Table A.2	Business Turnover, 1985-2007	271
Table A.3	Macroeconomic Indicators, 1995-2007	272
Table A.4	Number of Businesses by State, 2005-2007	274
Table A.5	Business Turnover by State, 2006-2007	276
Table A.6	Private Firms, Establishments, Employment, Annual Payroll, and Receipts, 1988-2006	278
Table A.7	Employer Firms and Employment by Firm Size and State, 2005	281
Table A.8	Non Employer and Employer Firms and Employment by Firm Size and Industry, 2005 and 2006	284
Table A.9	Employer Firm Births and Deaths by Employment Size of Firm, 1990-2005	286
Table A.10	Job Generation and Destruction by Type of Change and Employment Size of Firm, 1990-2005	288
Table A.11	Opening and Closing Establishments, 1992-2007	292
Table A.12	Quarterly Net Job Change by Firm Size, 1992-2007	294
Table A.13	Characteristics of Self-Employed Individuals, 1995-2006	296
Table A.14	Characteristics of Employees by Firm Size, 1995 and 2006	298
Table A.15	Bank Lending Information by Size of Firm, 1991-2007	300

Table A.1 Business Counts, 1985–2007

Year	Employer firms	Nonemployers	Establishments	Self-employment (thousands)	Nonfarm business tax returns
2007	6,113,300 e.	21,130,300 e.	NA	10,413	30,908,000 e.
2006	6,036,500 e.	20,768,555	7,601,160	10,586	30,226,600 e.
2005	5,983,546	20,392,068	7,499,702	10,464	29,512,000
2004	5,885,784	19,523,741	7,387,724	10,431	28,695,500
2003	5,767,127	18,649,114	7,254,745	10,295	27,486,700
2002	5,697,759	17,646,062	7,200,770	9,926	26,434,300
2001	5,657,774	16,979,498	7,095,302	10,109	25,605,900
2000	5,652,544	16,529,955	7,070,048	10,215	25,007,500
1999	5,607,743	16,152,604	7,008,444	10,087	24,448,400
1998	5,579,177	15,708,727	6,941,822	10,303	24,113,000
1997	5,541,918	15,439,609	6,894,869	10,513	23,645,200
1996	5,478,047	NA	6,738,476	10,489	23,240,700
1995	5,369,068	NA	6,612,721	10,482	22,479,000
1994	5,276,964	NA	6,509,065	10,648	21,990,300
1993	5,193,642	NA	6,401,233	10,279	21,280,300
1992	5,095,356	14,325,000	6,319,300	9,960	20,849,200
1991	5,051,025	NA	6,200,859	10,274	20,517,000
1990	5,073,795	NA	6,175,559	10,097	20,052,900
1989	5,021,315	NA	6,106,922	10,008	19,560,700
1988	4,954,645	NA	6,016,367	9,917	18,619,400
1987	NA	NA	5,937,061	9,624	18,351,400
1986	NA	NA	5,806,973	9,328	17,524,600
1985	NA	NA	5,701,485	9,269	16,959,900

NA = Not available

e. = estimated

Sources: U.S. Small Business Administration, Office of Advocacy, from the following data sources: employer firms from the U.S. Census Bureau with 2006 and 2007 estimates based on U.S. Census Bureau and U.S. Department of Labor data; nonemployers from the U.S. Census Bureau with 2006 and 2007 Advocacy estimates based on IRS data; self-employment (unincorporated, primary occupation, monthly averages) from the Bureau of Labor Statistics; and nonfarm business tax returns from the Internal Revenue Service.

Table A.2 Business Turnover, 1985–2007

Year	Employer births		Employer terminations		Business bankruptcies
2007	637,100	e.	560,300	e.	28,322
2006	640,800	e.	587,800	e.	19,695
2005	644,122		565,745		39,201
2004	628,917		541,047		34,317
2003	612,296		540,658		35,037
2002	569,750		586,890		38,540
2001	585,140		553,291		40,099
2000	574,300		542,831		35,472
1999	579,609		544,487		37,884
1998	589,982		540,601		44,367
1997	590,644		530,003		54,027
1996	597,792		512,402		53,549
1995	594,369		497,246		51,959
1994	570,587		503,563		52,374
1993	564,504		492,651		62,304
1992	544,596		521,606		70,643
1991	541,141		546,518		71,549
1990	584,892		531,400		64,853
1989	NA		NA		62,449
1988	NA		NA		62,845
1987	NA		NA		81,463
1986	NA		NA		79,926
1985	NA		NA		70,644

NA = Not available

e. = estimated

Sources: U.S. Small Business Administration, Office of Advocacy, from data provided by the following sources: employer births and terminations from the U.S. Census Bureau with 2006 and 2007 estimates based on U.S. Census Bureau and U.S. Department of Labor (Employment and Training Administration) data, and bankruptcies from the Administrative Office of the U.S. Courts (business bankruptcy filings).

Table A.3 Macroeconomic Indicators, 1995–2007

	1995	2000	2006	2007	Percent change 2006– 2007
Gross domestic product (GDP) (billions of dollars) ¹					
Current dollars	7,397.7	9,817.0	13,194.7	13,841.3	4.9
Constant dollars (billions of 2000 dollars)	8,031.7	9,817.0	11,319.4	11,566.8	2.2
Per capita constant dollars (thousands of 2000 dollars)	30.5	34.8	37.8	38.3	1.2
Sales (billions of dollars) ²					
Manufacturing	290.0	350.7	411.7	416.2	1.1
Wholesale trade	176.2	234.5	325.7	353.7	8.6
Retail trade	189.0	249.1	323.9	336.7	3.9
Income (billions of dollars)					
Compensation of employees ³	4,193.3	5,782.7	7,448.3	7,874.2	5.7
Nonfarm proprietors' income	469.5	705.7	987.4	1,006.4	1.9
Farm proprietors' income	22.7	22.7	19.4	36.2	86.6
Corporate profits ⁴	696.7	817.9	1,553.7	1,595.2	2.7
Output and productivity (business sector, 1992=100;					
Output	111.4	140.5	164.3	168.1	2.3
Hours of all persons worked	109.6	121.0	120.4	121.0	0.5
Productivity (output per hour)	101.6	116.1	136.4	139.0	1.9
Employment and compensation					
Nonfarm private employment (millions) ⁴	97.9	111.0	114.1	115.4	1.1
Unemployment rate (percent)	5.6	4.0	4.6	4.6	0.0
Total compensation cost index (Dec.) (2005=100)	70.2	83.6	103.2	106.3	3.0
Wage-and-salary index (Dec.) (2005=100)	72.2	86.7	103.2	106.6	3.3
Employee benefits cost index (Dec.) (2005=100)	65.7	76.7	103.1	105.6	2.4

Table A.3 Macroeconomic Indicators, 1995–2007 (continued)

	1995	2000	2006	2007	Percent change 2006– 2007
Bank loans, interest rates, and yields					
Bank commercial and industrial loans (billions of dollars)	723.8	1,079.1	1,188.5	1,429.7	20.3
Prime rate (percent)	8.8	9.2	8.0	8.1	1.1
U.S. Treasury 10-year bond yields (percent)	6.6	6.0	4.8	4.6	-3.5
Price indices (inflation measures)					
Consumer price index (urban) (1982-1984 = 100)	152.4	172.2	201.6	207.3	2.8
Producer price index (finished goods) (1982 = 100)	127.9	138.0	160.4	166.6	3.9
GDP implicit price deflator (2000 = 100)	92.1	100.0	116.6	119.7	2.7
Equity markets					
S&P composite	541.7	1,427.2	1,310.5	1,477.2	12.7
NASDAQ	925.2	3,783.7	2,263.4	2,578.5	13.9

1 *The Small Business Share of GDP*, 1998-2004 by Katherine Kobe of Economic Consulting Services, LLC (Office of Advocacy funded study) estimates small businesses (fewer than 500 employees) created 50.7 percent of the total nonfarm private output in 2004.

2 U.S. Bureau of the Census, *Statistics of U.S. Businesses*, showed that in 2002, small firms (fewer than 500 employees) accounted for 24.8 percent of manufacturing, 47.6 percent of retail, and 41.2 percent of wholesale sales.

3 U.S. Bureau of the Census, *Statistics of U.S. Businesses*, showed that in 2005, small firms (fewer than 500 employees) accounted for 44.9 percent of annual payroll and 50.4 percent of total nonfarm private employment.

4 With inventory valuation adjustment and capital consumption adjustments.

Source: U.S. Small Business Administration, Office of Advocacy, from the Bureau of Economic Analysis, *Economic Indicators*, March 2000 and April 2007.

Table A.4 Number of Businesses by State, 2005–2007

State	Employer firms		Nonemployers (thousands)		Self-employment (thousands)	
	2006	2007	2005	2006	2006	2007
United States	6,036,500	e. 6,113,300	e. 20,392	20,769	16,143	16,219
Alabama	86,813	90,419	283	294	194	201
Alaska	17,125	17,260	51	51	45	43
Arizona	128,786	133,850	358	367	280	322
Arkansas	66,021	67,713	187	188	163	159
California	1,146,269	1,181,598	2,609	2,645	2,377	2,322
Colorado	156,866	160,450	401	405	339	366
Connecticut	99,042	99,365	252	254	190	190
Delaware	26,068	26,788	52	53	37	37
District of Columbia	28,485	29,382	39	40	24	27
Florida	489,452	503,489	1,473	1,523	1,071	1,152
Georgia	212,713	216,613	657	690	479	491
Hawaii	31,152	31,281	88	90	80	73
Idaho	49,463	51,212	106	109	115	118
Illinois	295,322	299,455	835	850	598	590
Indiana	128,096	130,330	364	369	313	280
Iowa	71,394	72,018	193	196	209	193
Kansas	70,707	71,209	179	179	179	166
Kentucky	85,134	86,176	264	267	175	197
Louisiana	99,981	102,089	270	294	199	239
Maine	42,008	42,657	114	115	99	98
Maryland	141,726	142,721	400	410	278	268
Massachu- setts	184,093	186,000	471	454	333	364
Michigan	219,140	223,947	639	627	480	452
Minnesota	134,083	135,635	373	377	333	324
Mississippi	55,178	56,014	164	175	144	149
Missouri	138,583	139,960	375	380	302	321
Montana	36,632	37,692	81	81	88	91
Nebraska	47,600	47,997	116	117	119	124
Nevada	57,512	60,041	164	167	110	111
New Hampshire	41,019	41,304	107	106	95	84
New Jersey	261,759	244,393	573	574	431	419

Table A.4 Number of Businesses by State, 2005–2007 (continued)

State	Employer firms		Nonemployers (thousands)		Self-employment (thousands)	
	2006	2007	2005	2006	2006	2007
New Mexico	45,220	45,600	117	118	109	115
New York	491,433	500,093	1,443	1,474	908	873
North Carolina	192,761	200,396	583	605	418	521
North Dakota	19,962	20,212	44	44	51	50
Ohio	227,244	226,744	694	697	494	509
Oklahoma	79,895	81,183	256	257	217	183
Oregon	110,907	112,634	246	248	281	272
Pennsylvania	284,770	289,289	731	742	550	557
Puerto Rico	65,651	69,161	NA	NA	NA	NA
Rhode Island	33,855	33,891	69	69	53	55
South Carolina	98,732	98,703	260	271	209	191
South Dakota	24,797	24,985	56	56	71	72
Tennessee	113,862	115,602	423	436	317	336
Texas	424,308	443,489	1,686	1,737	1,149	1,124
Utah	67,169	70,760	175	179	152	158
Vermont	21,618	22,079	60	60	50	52
Virgin Islands	NA	3,632	NA	NA	NA	NA
Virginia	181,039	187,437	470	479	406	418
Washington	198,195	202,901	387	392	388	382
West Virginia	36,797	36,596	90	90	62	55
Wisconsin	129,967	131,003	322	324	339	288
Wyoming	21,116	21,486	42	42	41	41

NA = Not available

Notes: State totals do not add to the U.S. figure as firms can be in more than one state. Except as shown, data are not available for U.S. territories. The 2006 and 2007 estimates are based on U.S. Census Bureau and Department of Labor Employment and Training Administration data. Self-employment is based on monthly averages of primary occupation incorporated and unincorporated status. Self-employment cannot be added to the other figures.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Labor (ETA) and U.S. Census Bureau, Nonemployer Statistics, and Current Population Survey, special tabulations.

Table A.5 Business Turnover by State, 2006–2007

State	Quarterly establishment openings		Quarterly establishment closings		Business bankruptcies	
	2006	2007	2006	2007	2006	2007
U.S. total	1,481,792	1,463,850	1,395,395	1,441,574	19,695	28,322
Alabama	15,842	15,127	14,487	14,915	219	306
Alaska	4,466	4,338	4,456	4,388	45	70
Arizona	32,835	31,510	27,645	32,343	261	479
Arkansas	14,786	12,250	12,072	11,710	276	397
California	172,738	175,531	170,021	172,587	2,098	3,505
Colorado	36,864	38,445	33,474	35,939	435	645
Connecticut	12,044	11,369	11,638	11,649	219	264
Delaware	5,424	5,094	5,611	5,162	244	306
District of Columbia	4,720	4,817	4,641	5,022	27	36
Florida	126,425	125,717	118,676	133,250	991	2,029
Georgia	62,314	64,159	60,472	61,554	1,148	1,456
Hawaii	5,386	5,074	4,971	6,062	25	56
Idaho	11,726	11,474	10,064	11,341	56	116
Illinois	59,043	57,176	55,935	57,611	669	1,040
Indiana	24,352	23,725	24,515	25,360	376	608
Iowa	12,840	12,638	12,145	12,454	208	243
Kansas	12,058	12,932	12,350	12,323	158	223
Kentucky	17,512	16,217	16,639	15,867	200	311
Louisiana	20,390	17,707	16,146	16,783	476	510
Maine	8,960	9,226	8,953	9,272	85	152
Maryland	28,251	28,018	26,917	28,736	333	380
Massachusetts	33,997	33,968	34,554	36,084	253	333
Michigan	43,744	43,163	45,415	46,449	753	1,194
Minnesota	19,620	30,126	26,515	26,775	381	520
Mississippi	10,851	9,889	9,310	9,742	187	262
Missouri	24,910	21,424	21,468	23,220	284	384
Montana	8,208	8,356	7,327	7,671	39	55
Nebraska	8,425	8,663	8,065	8,250	182	208
Nevada	14,527	14,745	12,336	13,259	178	321
New Hampshire	9,065	8,180	8,345	8,506	218	327
New Jersey	44,927	43,429	43,945	41,506	493	864

Table A.5 Business Turnover by State, 2006–2007 (continued)

State	Quarterly establishment openings		Quarterly establishment closings		Business bankruptcies	
	2006	2007	2006	2007	2006	2007
New Mexico	9,628	9,287	8,787	8,772	95	142
New York	104,695	101,780	97,209	100,699	1,201	1,375
North Carolina	47,162	45,620	36,876	38,691	403	597
North Dakota	3,836	3,865	3,458	3,414	32	59
Ohio	42,023	42,558	43,729	42,627	957	1,352
Oklahoma	15,896	15,397	14,313	15,961	236	353
Oregon	22,769	22,619	20,534	22,520	301	265
Pennsylvania	57,616	53,901	52,454	51,508	742	1,017
Puerto Rico	6,045	7,158	7,758	8,061	206	276
Rhode Island	7,558	6,926	7,301	7,104	48	105
South Carolina	24,423	18,903	19,925	19,285	82	144
South Dakota	4,557	4,406	4,129	4,151	47	90
Tennessee	18,808	19,401	20,476	15,674	397	537
Texas	90,301	87,942	80,570	83,248	2,081	2,480
Utah	18,991	18,685	14,841	16,765	148	183
Vermont	4,083	4,257	4,101	4,506	36	65
Virgin Islands	425	374	450	380	10	8
Virginia	34,314	39,426	33,211	35,588	283	594
Washington	33,186	33,385	30,772	31,619	401	477
West Virginia	6,620	6,141	6,499	6,597	114	150
Wisconsin	23,624	20,644	23,456	23,131	307	412
Wyoming	4,452	4,220	3,646	3,924	40	36

Notes: Quarterly establishment openings and closings represent business turnover for new and existing establishments, which can belong to small or large firms (seasonally adjusted). The sum of quarterly openings and closings can be inflated by seasonal businesses. Except as shown, data are not available for U.S. territories. National bankruptcy totals include territories.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Labor (Bureau of Labor Statistics, Business Employment Dynamics), and Administrative Office of the U.S. Courts.

Table A.6 Private Firms, Establishments, Employment, Annual Payroll, and Receipts, 1988–2006

Item	Year	Nonemployers	Employers	Employment size of firm	
			total	<20	<500
Firms	2006	20,768,555	NA	NA	NA
	2005	20,392,068	5,983,546	5,357,887	5,966,069
	2004	19,523,741	5,885,784	5,255,844	5,868,737
	2003	18,649,114	5,767,127	5,150,316	5,750,201
	2002	17,646,062	5,697,759	5,090,331	5,680,914
	2001	16,979,498	5,657,774	5,036,845	5,640,407
	2000	16,529,955	5,652,544	5,035,029	5,635,391
	1999	16,152,604	5,607,743	5,007,808	5,591,003
	1998	15,708,727	5,579,177	4,988,367	5,562,799
	1997	15,439,609	5,541,918	4,958,641	5,525,839
	1996	NA	5,478,047	4,909,983	5,462,431
	1995	NA	5,369,068	4,807,533	5,353,624
	1994	NA	5,276,964	4,736,317	5,261,967
	1993	NA	5,193,642	4,661,601	5,179,013
	1992	14,325,000	5,095,356	4,572,994	5,081,234
	1991	NA	5,051,025	4,528,899	5,037,048
	1990	NA	5,073,795	4,535,575	5,059,772
	1989	NA	5,021,315	4,493,875	5,007,442
	1988	NA	4,954,645	4,444,473	4,941,821
Establishments	2006	NA	7,601,160	NA	NA
	2005	20,392,068	7,499,702	5,409,151	6,420,532
	2004	19,523,741	7,387,724	5,308,118	6,331,242
	2003	18,649,114	7,254,745	5,203,488	6,222,091
	2002	17,646,062	7,200,770	5,147,526	6,172,809
	2001	16,979,498	7,095,302	5,093,660	6,079,993
	2000	16,529,955	7,070,048	5,093,832	6,080,050
	1999	16,152,604	7,008,444	5,068,096	6,048,129
	1998	15,708,727	6,941,822	5,048,528	6,030,325
	1997	15,439,609	6,894,869	5,026,425	6,017,638
	1996	NA	6,738,476	4,976,014	5,892,934
	1995	NA	6,612,721	4,876,327	5,798,936
	1994	NA	6,509,065	4,809,575	5,724,681
	1993	NA	6,401,233	4,737,778	5,654,835
	1992	14,325,000	6,319,300	4,653,464	5,571,896
	1991	NA	6,200,859	4,603,523	5,457,366
	1990	NA	6,175,559	4,602,362	5,447,605

Table A.6 Private Firms, Establishments, Employment, Annual Payroll, and Receipts, 1988–2006 (continued)

Item	Year	Nonemployers	Employers	Employment size of firm	
			total	<20	<500
	1989	NA	6,106,922	4,563,257	5,402,086
	1988	NA	6,016,367	4,516,707	5,343,026
Employment	2006	NA	119,197,165	NA	NA
	2005	NA	116,317,003	21,289,196	58,644,585
	2004	NA	115,074,924	21,197,087	58,597,452
	2003	NA	113,398,043	20,830,352	57,447,570
	2002	NA	112,400,654	20,583,371	56,366,292
	2001	NA	115,061,184	20,602,635	57,383,449
	2000	NA	114,064,976	20,587,385	57,124,044
	1999	NA	110,705,661	20,388,287	55,729,092
	1998	NA	108,117,731	20,275,405	55,064,409
	1997	NA	105,299,123	20,118,816	54,545,370
	1996	NA	102,187,297	19,881,502	53,174,502
	1995	NA	100,314,946	19,569,861	52,652,510
	1994	NA	96,721,594	19,195,318	51,007,688
	1993	NA	94,773,913	19,070,191	50,316,063
	1992	NA	92,825,797	18,772,644	49,200,841
	1991	NA	92,307,559	18,712,812	49,002,613
	1990	NA	93,469,275	18,911,906	50,166,797
	1989	NA	91,626,094	18,626,776	49,353,860
	1988	NA	87,844,303	18,319,642	47,914,723
Annual payroll (thousands of dollars)	2006	NA	4,792,429,911	NA	NA
	2005	NA	4,482,722,481	695,604,106	2,012,581,741
	2004	NA	4,253,995,732	659,270,002	1,917,364,605
	2003	NA	4,040,888,841	631,221,418	1,818,493,862
	2002	NA	3,943,179,606	617,583,597	1,777,049,574
	2001	NA	3,989,086,323	603,848,633	1,767,546,642
	2000	NA	3,879,430,052	591,123,880	1,727,114,941
	1999	NA	3,554,692,909	561,547,424	1,601,129,388
	1998	NA	3,309,405,533	535,184,511	1,512,769,153
	1997	NA	3,047,907,469	503,130,254	1,416,200,011
	1996	NA	2,848,623,049	481,008,640	1,330,258,327
	1995	NA	2,665,921,824	454,009,065	1,252,135,244
	1994	NA	2,487,959,727	432,791,911	1,176,418,685

Table A.6 Private Firms, Establishments, Employment, Annual Payroll, and Receipts, 1988–2006 (continued)

Item	Year	Nonemployers	Employers	Employment size of firm	
			total	<20	<500
	1993	NA	2,363,208,106	415,254,636	1,116,443,440
	1992	NA	2,272,392,408	399,804,694	1,066,948,306
	1991	NA	2,145,015,851	381,544,608	1,013,014,303
	1990	NA	2,103,971,179	375,313,660	1,007,156,385
	1989	NA	1,989,941,554	357,259,587	954,137,110
	1988	NA	1,858,652,147	342,168,460	902,566,839
Receipts (thousands of dollars)	2002	770,032,328	22,062,528,196	3,126,610,830	8,558,731,333
	1997	586,315,756	18,242,632,687	2,786,839,570	7,468,211,700

NA = Not available

Notes: A firm is as an aggregation of all establishments (locations with payroll in any quarter) owned by a parent company and employment is measured in March. Job growth not shown as firms can change sizes annually.

See www.sba.gov/advo/research/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Census Bureau, *Statistics of U.S. Businesses, Nonemployer Statistics, and County Business Patterns*.

Table A.7 Employer Firms and Employment by Firm Size and State, 2005

State	Employer		Employment size of firm		Employment total	Employment size of firm	
	total		<20	<500		<20	<500
United States	5,983,546		5,357,887	5,966,069	116,317,003	21,289,196	58,644,585
Alabama	80,163		68,312	77,948	1,667,526	298,648	824,179
Alaska	16,817		14,846	16,308	231,088	56,379	132,811
Arizona	106,113		90,920	103,314	2,159,823	354,657	1,049,867
Arkansas	53,614		46,398	52,064	1,017,424	191,014	492,844
California	712,688		629,681	707,120	13,382,470	2,464,851	6,925,767
Colorado	127,611		112,893	124,773	1,936,264	401,008	999,045
Connecticut	78,526		67,420	76,557	1,529,827	279,319	773,267
Delaware	21,069		17,136	19,700	392,840	66,473	182,415
District of Columbia	16,801		12,748	15,669	439,610	55,933	210,394
Florida	421,880		384,163	417,697	7,107,378	1,289,582	3,180,185
Georgia	177,555		154,367	173,804	3,489,046	587,469	1,620,612
Hawaii	26,290		22,357	25,476	490,682	95,934	273,575
Idaho	37,556		32,990	36,516	519,319	127,799	300,450
Illinois	262,326		227,674	258,096	5,235,866	894,378	2,597,145
Indiana	117,942		100,230	115,108	2,610,899	436,772	1,279,020
Iowa	66,241		56,987	64,600	1,261,108	235,478	660,977
Kansas	62,081		53,039	60,247	1,116,216	216,125	610,667
Kentucky	73,069		61,826	70,941	1,514,199	270,272	761,474

Table A.7 Employer Firms and Employment by Firm Size and State, 2005 (continued)

State	Employer		Employment size of firm		Employment		Employment size of firm	
	total		<20	<500	total		<20	<500
Louisiana	82,663		70,301	80,673	1,617,507		310,389	881,571
Maine	35,927		31,678	35,042	497,387		118,457	302,836
Maryland	114,366		98,142	111,798	2,167,999		400,219	1,153,331
Massachusetts	145,391		125,667	142,507	2,996,347		511,166	1,460,008
Michigan	193,318		168,483	190,334	3,796,876		702,590	1,977,371
Minnesota	124,600		107,640	122,146	2,430,853		419,203	1,251,329
Mississippi	48,212		41,261	46,687	926,952		175,710	464,928
Missouri	125,287		108,130	122,579	2,425,403		430,990	1,215,101
Montana	31,509		28,269	30,828	326,887		105,808	229,048
Nebraska	42,594		36,592	41,289	773,082		148,570	402,305
Nevada	48,834		40,708	46,868	1,089,422		155,724	485,342
New Hampshire	33,282		28,320	32,181	562,398		117,066	311,681
New Jersey	209,240		185,333	206,120	3,594,862		703,681	1,830,048
New Mexico	37,246		31,523	35,857	595,249		130,914	341,989
New York	445,941		400,832	441,802	7,417,463		1,446,230	3,852,847
North Carolina	173,854		151,305	170,544	3,409,968		618,236	1,652,076
North Dakota	17,755		15,092	17,147	270,479		61,793	174,227
Ohio	210,623		179,979	206,960	4,762,618		792,081	2,341,241
Oklahoma	72,378		62,888	70,541	1,220,285		253,359	667,031
Oregon	91,383		80,156	89,411	1,409,576		314,961	806,348
Pennsylvania	242,651		209,842	238,820	5,082,630		891,240	2,555,213

Rhode Island	26,809	22,869	25,889	442,291	90,674	251,021
South Carolina	82,938	71,482	80,744	1,584,914	298,741	782,989
South Dakota	21,750	18,774	21,074	310,802	76,514	197,855
Tennessee	102,758	86,950	99,847	2,378,754	376,181	1,077,677
Texas	385,915	336,725	380,973	8,305,102	1,395,403	3,900,749
Utah	55,856	48,338	54,152	974,686	181,136	487,526
Vermont	19,591	17,060	18,964	261,656	68,205	165,146
Virginia	154,188	133,424	151,084	3,060,127	544,953	1,510,594
Washington	147,436	130,006	144,861	2,316,296	506,194	1,291,331
West Virginia	32,736	28,022	31,637	565,499	121,391	308,634
Wisconsin	118,475	101,029	116,137	2,449,114	439,377	1,309,483
Wyoming	17,330	15,113	16,751	191,934	59,949	131,015

Notes: Data are not available for U.S. territories. For state data, a firm is as an aggregation of all establishments (locations with payroll in any quarter) owned by a parent company within a state (startups after March, closures before March, and seasonal firms can have zero employment). See www.sba.gov/advo/research/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Census Bureau.

Table A.8 Nonemployer and Employer Firms and Employment by Firm Size and Industry, 2005 and 2006

Industry	Nonemployers (2006)	Employers (2005)		
		Total	Employment size of firm	
			<20	<500
Firms				
Total	20,768,555	5,983,546	5,357,887	5,966,069
Agriculture, forestry, fishing, and hunting	228,775	23,447	21,957	23,352
Mining	101,891	19,406	16,308	19,091
Utilities	17,070	6,660	5,301	6,459
Construction	2,549,239	777,664	714,441	776,663
Manufacturing	311,111	288,568	213,652	284,536
Wholesale trade	387,022	336,736	288,828	333,706
Retail trade	1,857,611	736,940	667,955	734,636
Transportation and warehousing	1,001,977	169,086	148,386	166,946
Information	317,695	75,261	63,970	74,147
Finance and insurance	758,167	259,983	238,433	258,310
Real estate and rental and leasing	2,420,926	300,525	285,853	299,302
Professional, scientific, and technical services	2,904,083	757,174	708,772	754,274
Management of companies and enterprises	—	26,513	5,860	19,540
Admin. support, waste management, and remediation services	1,482,344	320,252	280,721	316,766
Educational services	482,222	72,410	55,723	71,293
Health care and social assistance	1,728,485	599,392	523,312	595,641
Arts, entertainment, and recreation	1,001,780	114,145	98,465	113,495
Accommodation and food services	287,342	462,983	371,557	461,168
Other services (except public administration)	2,930,815	676,400	630,210	675,026
Unclassified	0	23986	23890	23986
Employment				
Total	—	116,317,003	21,289,196	58,644,585
Agriculture, forestry, fishing, and hunting	—	168,744	75,629	142,615
Mining	—	497,272	67,485	219,735

Table A.8 Nonemployer and Employer Firms and Employment by Firm Size and Industry, 2005 and 2006 (continued)

Industry	Nonemployers (2006)	Employers (2005)		
		Total	Employment size of firm	
			<20	<500
Utilities	—	633,106	21,309	109,175
Construction	—	6,781,327	2,616,582	5,841,751
Manufacturing	—	13,667,337	1,193,552	6,038,792
Wholesale trade	—	5,968,929	1,238,253	3,637,229
Retail trade	—	15,338,672	2,849,139	6,307,978
Transportation and warehousing	—	4,168,016	529,004	1,586,501
Information	—	3,402,599	248,126	890,289
Finance and insurance	—	6,431,837	771,720	2,128,868
Real estate and rental and leasing	—	2,144,077	759,627	1,463,060
Professional, scientific, and technical services	—	7,689,366	2,220,973	4,741,326
Management of companies and enterprises	—	2,856,418	15,412	337,981
Admin. support, waste management, and remediation services	—	9,280,282	996,453	3,619,717
Educational services	—	2,879,374	251,378	1,294,428
Health care and social assistance	—	16,025,147	2,502,906	7,748,761
Arts, entertainment, and recreation	—	1,936,484	355,894	1,280,666
Accommodation and food services	—	11,025,909	2,007,776	6,611,592
Other services (except public administration)	—	5,390,954	2,539,786	4,612,968
Unclassified	—	31,153	28,192	31,153

Notes: Employment is measured in March, thus some firms (startups after March, closures before March, and seasonal firms) See www.sba.gov/advo/research/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Census Bureau.

Table A.9 Employer Firm Births and Deaths by Employment Size of Firm, 1990–2005

Period	Type of change	Beginning year employment size of firm			
		Total	<20	<500	500+
Firms					
2004–2005	Firm births	644,122	616,019	643,850	272
	Firm deaths	565,745	539,061	565,482	263
	Net change	78,377	76,958	78,368	9
2003–2004	Firm births	628,917	601,927	628,655	262
	Firm deaths	541,047	515,031	540,746	301
	Net change	87,870	86,896	87,909	-39
2002–2003	Firm births	612,296	585,552	611,976	320
	Firm deaths	540,658	514,565	540,328	330
	Net change	71,638	70,987	71,648	-10
2001–2002	Firm births	569,750	541,516	568,280	1,470
	Firm deaths	586,890	557,133	586,535	355
	Net change	-17,140	-15,617	-18,255	1,115
2000–2001	Firm births	585,140	558,037	584,837	303
	Firm deaths	553,291	523,960	552,839	452
	Net change	31,849	34,077	31,998	-149
1999–2000	Firm births	574,300	548,030	574,023	277
	Firm deaths	542,831	514,242	542,374	457
	Net change	31,469	33,788	31,649	-180
1998–1999	Firm births	579,609	554,288	579,287	322
	Firm deaths	544,487	514,293	544,040	447
	Net change	35,122	39,995	35,247	-125
1997–1998	Firm births	589,982	564,804	589,706	276
	Firm deaths	540,601	511,567	540,112	489
	Net change	49,381	53,237	49,594	-213
1996–1997	Firm births	590,644	564,197	590,335	309
	Firm deaths	530,003	500,014	529,481	522
	Net change	60,641	64,183	60,854	-213
1995–1996	Firm births	597,792	572,442	597,503	289
	Firm deaths	512,402	485,509	512,024	378
	Net change	85,390	86,933	85,479	-89
1994–1995	Firm births	594,369	568,896	594,119	250
	Firm deaths	497,246	472,441	496,874	372

Table A.9 Employer Firm Births and Deaths by Employment Size of Firm, 1990–2005 (continued)

Period	Type of change	Beginning year employment size of firm			
		Total	<20	<500	500+
1993–1994	Net change	97,123	96,455	97,245	-122
	Firm births	570,587	546,437	570,337	250
	Firm deaths	503,563	476,667	503,125	438
1992–1993	Net change	67,024	69,770	67,212	-188
	Firm births	564,504	539,601	564,093	411
	Firm deaths	492,651	466,550	492,266	385
1991–1992	Net change	71,853	73,051	71,827	26
	Firm births	544,596	519,014	544,278	318
	Firm deaths	521,606	492,746	521,176	430
1990–1991	Net change	22,990	26,268	23,102	-112
	Firm births	541,141	515,870	540,889	252
	Firm deaths	546,518	516,964	546,149	369
	Net change	-5,377	-1,094	-5,260	-117

Notes: The data represent activity from March of the beginning year to March of the ending year. Establishments with no employment in the first quarter of the beginning year were excluded. Firm births are classified by their first quarter employment size. New firms represent new original establishments and deaths represent closed original establishments. See www.sba.gov/advo/research/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Bureau of the Census.

Table A.10 Job Generation and Destruction by Type of Change and Employment Size of Firm, 1990–2005

Period	Type of change	Total	Beginning year employment size of firm		
			<20	<500	500+
Employment					
2004–2005	Firm births	3,609,285	1,931,018	3,278,823	330,462
	Firm deaths	3,307,415	1,684,505	2,981,221	326,194
	Existing firm expansions	13,970,562	3,091,028	6,910,039	7,060,523
	Existing firm contractions	13,031,004	2,311,147	6,228,539	6,802,465
	Net change	1,241,428	1,026,394	979,102	262,326
2003–2004	Firm births	3,574,679	1,889,381	3,240,945	333,734
	Firm deaths	3,220,504	1,614,965	2,867,719	352,785
	Existing firm expansions	14,377,177	3,359,333	7,121,196	7,255,981
	Existing firm contractions	13,055,467	2,009,138	5,604,304	7,451,163
	Net change	1,675,885	1,624,611	1,890,118	-214,233
2002–2003	Firm births	3,667,154	1,855,516	3,174,129	493,025
	Firm deaths	3,324,483	1,608,299	2,879,797	444,686
	Existing firm expansions	14,677,406	3,438,778	7,641,202	7,036,204
	Existing firm contractions	14,024,418	2,112,533	5,945,208	8,079,210
	Net change	995,659	1,573,462	1,990,326	-994,667
2001–2002	Firm births	3,369,930	1,748,097	3,033,734	336,196
	Firm deaths	3,660,161	1,755,255	3,256,851	403,310
	Existing firm expansions	15,385,726	3,149,876	7,587,961	7,797,765
	Existing firm contractions	17,756,053	2,289,644	7,794,376	9,961,677
	Net change	-2,660,558	853,074	-429,532	-2,231,026
2001–2002	Firm births	3,369,930	1,748,097	3,033,734	336,196
	Firm deaths	3,660,161	1,755,255	3,256,851	403,310
	Existing firm expansions	15,385,726	3,149,876	7,587,961	7,797,765

Table A.10 Job Generation and Destruction by Type of Change and Employment Size of Firm, 1990–2005 (continued)

Period	Type of change	Total	Beginning year employment size of firm		
			<20	<500	500+
	Existing firm contractions	17,756,053	2,289,644	7,794,376	9,961,677
	Net change	-2,660,558	853,074	-429,532	-2,231,026
2000–2001	Firm births	3,418,369	1,821,298	3,108,501	309,868
	Firm deaths	3,261,621	1,700,677	3,049,714	211,907
	Existing firm expansions	14,939,658	3,065,106	7,033,084	7,906,574
	Existing firm contractions	14,096,436	2,074,544	5,940,996	8,155,440
	Net change	999,970	1,111,183	1,150,875	-150,905
1999–2000	Firm births	3,228,804	1,792,946	3,031,079	197,725
	Firm deaths	3,176,609	1,653,694	2,946,120	230,489
	Existing firm expansions	15,857,582	3,378,838	7,744,430	8,113,152
	Existing firm contractions	12,550,358	1,924,624	5,323,677	7,226,681
	Net change	3,359,419	1,593,466	2,505,712	853,707
1998–1999	Firm births	3,247,335	1,763,823	3,011,400	235,935
	Firm deaths	3,267,136	1,676,282	3,052,630	214,506
	Existing firm expansions	14,843,903	3,245,218	7,266,399	7,577,504
	Existing firm contractions	12,236,364	1,969,501	5,482,142	6,754,222
	Net change	2,587,738	1,363,258	1,743,027	844,711
1997–1998	Firm births	3,205,451	1,812,103	3,002,401	203,050
	Firm deaths	3,233,412	1,661,544	2,991,722	241,690
	Existing firm expansions	14,885,560	3,238,047	7,471,622	7,413,938
	Existing firm contractions	12,044,422	2,002,313	5,747,725	6,296,697
	Net change	2,813,177	1,386,293	1,734,576	1,078,601
1996–1997	Firm births	3,227,556	1,813,539	3,029,666	197,890
	Firm deaths	3,274,604	1,620,797	2,960,814	313,790

Table A.10 Job Generation and Destruction by Type of Change and Employment Size of Firm, 1990–2005 (continued)

Period	Type of change	Total	Beginning year employment size of firm		
			<20	<500	500+
	Existing firm expansions	16,243,424	3,400,037	8,628,839	7,614,585
	Existing firm contractions	13,092,093	2,035,083	6,343,489	6,748,604
	Net change	3,104,283	1,557,696	2,354,202	750,081
1995–1996	Firm births	3,255,676	1,844,516	3,055,596	200,080
	Firm deaths	3,099,589	1,559,598	2,808,493	291,096
	Existing firm expansions	12,937,389	3,122,066	6,725,135	6,212,254
	Existing firm contractions	11,226,231	1,971,531	5,512,726	5,713,505
	Net change	1,867,245	1,435,453	1,459,512	407,733
1994–1995	Firm births	3,322,001	1,836,153	3,049,456	272,545
	Firm deaths	2,822,627	1,516,552	2,633,587	189,040
	Existing firm expansions	13,034,649	3,235,940	7,197,705	5,836,944
	Existing firm contractions	9,942,456	1,877,758	5,000,269	4,942,187
	Net change	3,591,567	1,677,783	2,613,305	978,262
1993–1994	Firm births	3,105,753	1,760,322	2,889,507	216,246
	Firm deaths	3,077,307	1,549,072	2,800,933	276,374
	Existing firm expansions	12,366,436	3,139,825	6,905,182	5,461,254
	Existing firm contractions	10,450,422	2,039,535	5,400,406	5,050,016
	Net change	1,944,460	1,311,540	1,593,350	351,110
1992–1993	Firm births	3,438,106	1,750,662	3,053,765	384,341
	Firm deaths	2,906,260	1,515,896	2,697,656	208,604
	Existing firm expansions	12,157,943	3,206,101	6,817,835	5,340,108
	Existing firm contractions	10,741,536	1,965,039	5,386,708	5,354,828
	Net change	1,948,253	1,475,828	1,787,236	161,017

Table A.10 Job Generation and Destruction by Type of Change and Employment Size of Firm, 1990–2005 (continued)

Period	Type of change	Total	Beginning year employment size of firm		
			<20	<500	500+
1991–1992	Firm births	3,200,969	1,703,491	2,863,799	337,170
	Firm deaths	3,126,463	1,602,579	2,894,127	232,336
	Existing firm expansions	12,894,780	3,197,959	7,510,392	5,384,388
	Existing firm contractions	12,446,175	2,156,402	6,635,366	5,810,809
	Net change	523,111	1,142,469	844,698	-321,587
1990–1991	Firm births	3,105,363	1,712,856	2,907,351	198,012
	Firm deaths	3,208,099	1,723,159	3,044,470	163,629
	Existing firm expansions	11,174,786	2,855,498	6,323,224	4,851,562
	Existing firm contractions	12,233,766	2,294,270	6,893,623	5,340,143
	Net change	-1,161,716	550,925	-707,518	-454,198

Notes: The data represent activity from March of the beginning year to March of the ending year. Establishments with no employment in the first quarter of the beginning year were excluded. Firm births are classified by their first quarter employment size. Percentages not calculated when changes include negative numbers. New firms represent new original establishments and deaths represent closed original establishments. See www.sba.gov/advo/research/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Bureau of the Census.

Table A.11 Opening and Closing Establishments, 1992–2007

Year	Quarter	Opening establishments		Closing establishments		Net	
		Number	Employment	Number	Employment	Number	Employment
2007	4	380	1,437	357	1,348	23	89
	3	367	1,428	359	1,350	8	78
	2	352	1,387	364	1,395	-12	-8
	1	358	1,351	355	1,275	3	76
2006	4	392	1,538	350	1,354	42	184
	3	356	1,441	351	1,352	5	89
	2	364	1,519	345	1,380	19	139
	1	364	1,418	346	1,272	18	146
2005	4	380	1,568	332	1,371	48	197
	3	372	1,581	333	1,446	39	135
	2	368	1,548	335	1,417	33	131
	1	350	1,471	349	1,426	1	45
2004	4	371	1,615	319	1,431	52	184
	3	351	1,576	339	1,541	12	35
	2	342	1,520	329	1,484	13	36
	1	345	1,495	329	1,434	16	61
2003	4	347	1,533	319	1,436	28	97
	3	331	1,471	315	1,361	16	110
	2	328	1,471	324	1,471	4	0
	1	333	1,522	335	1,537	-2	-15
2002	4	343	1,562	329	1,549	14	13
	3	338	1,593	321	1,531	17	62
	2	344	1,726	326	1,638	18	88
	1	343	1,790	329	1,664	14	126
2001	4	340	1,659	335	1,693	5	-34
	3	336	1,691	356	1,801	-20	-110
	2	334	1,690	334	1,751	0	-61
	1	342	1,742	336	1,875	6	-133
2000	4	339	1,698	334	1,672	5	26
	3	353	1,778	339	1,727	14	51
	2	337	1,685	319	1,620	18	65
	1	362	1,868	319	1,662	43	206
1999	4	344	1,793	327	1,668	17	125
	3	347	1,837	335	1,733	12	104
	2	339	1,878	332	1,685	7	193
	1	341	1,959	315	1,837	26	122

Table A.11 Opening and Closing Establishments, 1992–2007 (continued)

Year	Quarter	Opening establishments		Closing establishments		Net	
		Number	Employment	Number	Employment	Number	Employment
1998	4	322	1,738	318	1,682	4	56
	3	337	1,901	316	1,673	21	228
	2	357	2,077	296	1,795	61	282
	1	349	2,049	321	1,860	28	189
1997	4	332	1,920	332	1,885	0	35
	3	331	1,797	307	1,687	24	110
	2	319	1,725	305	1,540	14	185
	1	333	1,807	295	1,544	38	263
1996	4	325	1,810	302	1,515	23	295
	3	329	1,804	291	1,531	38	273
	2	320	1,769	299	1,517	21	252
	1	323	1,754	295	1,509	28	245
1995	4	308	1,690	296	1,523	12	167
	3	307	1,642	291	1,493	16	149
	2	306	1,660	286	1,468	20	192
	1	308	1,663	274	1,377	34	286
1994	4	292	1,557	288	1,433	4	124
	3	316	1,725	269	1,288	47	437
	2	307	1,668	286	1,489	21	179
	1	293	1,581	277	1,421	16	160
1993	4	282	1,553	266	1,361	16	192
	3	305	1,613	255	1,309	50	304
	2	293	1,493	272	1,386	21	107
	1	305	1,713	271	1,465	34	248
1992	4	286	1,534	269	1,379	17	155
	3	296	1,641	270	1,422	26	219

Note: Establishments can be new ventures or new affiliates of existing ventures.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Bureau of Labor Statistics, Business Employment Dynamics.

Table A.12 Quarterly Net Job Change by Firm Size, 1992–2007 (In thousands, seasonally adjusted)

Year	Quarter	Total	Firm size			Percent of total	
			1-19	20-499	500+	1-19	<500
2007	4	317	-24	72	220	NA	NA
	3	-235	-104	-111	-6	47	97
	2	241	-66	245	57	NA	NA
	1	438	86	200	103	22	74
2006	4	512	91	99	288	19	40
	3	11	-14	27	2	NA	NA
	2	416	66	261	89	16	79
	1	774	179	409	105	26	85
2005	4	539	147	93	291	28	45
	3	651	161	187	355	23	50
	2	590	150	301	108	27	81
	1	352	21	167	141	6	57
2004	4	797	206	209	370	26	53
	3	182	59	148	-8	30	104
	2	636	91	272	249	15	59
	1	439	91	223	74	23	81
2003	4	332	118	88	125	36	62
	3	180	96	40	57	50	70
	2	-96	88	-6	-226	NA	NA
	1	-420	-78	-151	-135	21	63
2002	4	-198	29	-127	-129	NA	43
	3	-171	41	-91	-123	NA	29
	2	-38	68	-8	-132	NA	NA
	1	-39	51	-77	50	NA	NA
2001	4	-960	-31	-374	-616	3	40
	3	-1,184	-164	-482	-572	13	53
	2	-792	-46	-331	-479	5	44
	1	-156	24	-156	132	NA	NA
2000	4	295	14	101	172	5	40
	3	296	36	143	137	11	57
	2	492	18	157	272	4	39
	1	789	207	359	291	24	66
1999	4	1,005	213	440	326	22	67
	3	588	92	249	270	15	56
	2	644	68	235	311	11	49
	1	353	123	73	263	27	43
1998	4	768	145	366	209	20	71

Table A.12 Quarterly Net Job Change by Firm Size, 1992–2007 (In thousands, seasonally adjusted) (continued)

Year	Quarter	Total	Firm size			Percent of total	
			1-19	20-499	500+	1-19	<500
1997	3	742	59	230	512	7	36
	2	610	244	152	197	41	67
	1	711	101	249	508	12	41
	4	708	82	302	301	12	56
	3	901	128	384	442	13	54
	2	584	88	199	330	14	47
	1	784	209	322	306	25	63
1996	4	816	157	388	273	19	67
	3	704	182	287	257	25	65
	2	631	118	145	378	18	41
	1	457	118	204	194	23	62
1995	4	378	100	276	4	26	99
	3	845	134	355	407	15	55
	2	358	79	118	153	23	56
	1	758	166	326	241	23	67
1994	4	460	69	316	113	14	77
	3	1,288	356	529	432	27	67
	2	905	158	360	375	18	58
	1	559	84	261	169	16	67
1993	4	603	177	356	100	28	84
	3	965	291	428	277	29	72
	2	734	171	274	270	24	62
	1	288	49	160	52	19	80
1992	4	123	85	149	-29	41	114
	3	599	172	259	218	27	66

NA = Not available

Notes: Size is based on dynamic sizing (see www.bls.gov/news.release/cewfs.tn.htm) and firm sizes may not add to the total as some firms do not have firm size identifiers. Percentages are based on adding the size categories, not the listed total. More detailed firm size categories and the actual job gain and loss figures are available directly from the data source.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Bureau of Labor Statistics, Business Employment Dynamics.

Table A.13 Characteristics of Self-employed Individuals, 1995–2006

Characteristic	1995	2000	2005	2006			2000–2006
				Number	Percent	Rate	Percent change
Total	13,921.9	13,832.4	15,739.0	15,927.0	100.0	10.1	15.1
Gender							
Female	4,614.7	4,819.6	5,226.6	5,328.1	33.5	7.2	10.6
Male	9,307.2	9,012.8	10,512.4	10,598.9	66.5	12.6	17.6
Ethnicity / Race							
Asian / American Indian	547.5	759.8	879.1	856.0	5.4	9.7	12.7
Black	612.1	679.3	774.8	866.6	5.4	4.9	27.6
White	12,762.4	12,393.3	13,874.4	14,018.0	88.0	10.8	13.1
Multiple	NA	NA	210.8	186.4	1.2	9.2	NA
Hispanic	698.9	775.6	1,368.1	1,484.1	9.3	6.9	91.3
Age							
<25	501.0	375.8	516.5	491.8	3.1	2.1	30.9
25–34	2,181.8	1,824.3	2,114.1	2,065.5	13.0	6.1	13.2
35–44	4,132.6	3,941.1	3,781.2	3,892.5	24.4	10.8	(1.2)
45–54	3,576.0	3,995.0	4,624.6	4,593.7	28.8	12.8	15.0
55–64	2,214.3	2,274.6	3,245.5	3,289.3	20.7	15.2	44.6
65+	1,316.2	1,421.6	1,457.1	1,594.1	10.0	23.6	12.1
Educational level							
High school or less	6,055.0	5,485.1	5,712.9	5,986.7	37.6	9.1	9.1
Some college	3,575.2	3,822.5	4,322.9	4,256.9	26.7	9.4	11.4
Bachelors	2,643.4	2,838.9	3,577.4	3,583.3	22.5	11.6	26.2
Masters or above	1,648.3	1,685.9	2,125.8	2,100.0	13.2	13.3	24.6
Veteran status	2,492.5	2,029.3	1,935.9	1,790.1	11.2	14.3	(11.8)

Table A.13 Characteristics of Self-employed Individuals, 1995–2006 (continued)

Characteristic	1995	2000	2005	2006			2000–2006
				Number	Percent	Rate	Percent change
Disability	628.6	592.5	754.3	713.4	4.5	16.1	20.4
Native-born	12,411.0	12,078.8	13,329.8	13,394.9	84.1	10.2	10.9
Married	10,294.8	10,322.4	11,169.8	11,442.1	71.8	12.9	10.8
Location							
Central city	2,650.1	2,506.2	3,762.5	3,623.4	22.8	8.7	44.6
Suburban	5,988.6	6,095.6	6,752.8	7,225.5	45.4	10.5	18.5
Rural	3,382.9	3,321.5	2,926.5	2,863.9	18.0	12.1	(13.8)
Not identified	1,900.3	1,909.1	2,297.2	2,214.2	13.9	9.5	16.0

Notes: Self-employment (incorporated and unincorporated) as primary occupation during the year. Self-employment figures presented here differ from the published monthly annual averages. Asian/American Indian = Asian, Pacific, Hawaiian, American Indian, and Aleut Eskimo. Disability consists of disabilities or health problems that restrict or prevent the amount or kind of work. The rate is the self-employment total divided by the number of individuals that had any job during the year.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Commerce, Bureau of the Census, March Supplement to the Current Population Survey.

Table A.14 Characteristics of Employees by Firm Size, 1995 and 2006 (thousands unless noted)

Characteristic	1995				2006			
	<25	25-499	500+	Percent <500	<25	25-499	500+	Percent <500
Total	28,959.8	32,657.2	43,940.7	58.4	32,184.1	36,496.8	50,095.7	57.8
Gender								
Female	13,901.5	14,900.2	20,892.5	58.0	14,937.8	16,302.7	24,191.4	56.4
Male	15,058.3	17,757.0	23,048.2	58.7	17,246.3	20,194.0	25,904.3	59.1
Ethnicity / Race								
Asian / American Indian	1,273.2	1,285.6	1,870.1	57.8	1,793.9	1,920.9	3,063.7	54.8
Black	2,337.2	3,598.8	5,568.5	51.6	2,826.9	3,998.6	6,545.7	51.0
White	25,349.5	27,772.8	36,502.1	59.3	27,167.3	30,107.5	39,815.9	59.0
Multiple	NA	NA	NA	NA	396.0	469.9	670.4	56.4
Hispanic	3,582.5	3,472.1	3,510.6	66.8	6,314.2	5,766.9	5,977.2	66.9
Age								
<25	6,833.9	5,792.3	8,463.2	59.9	6,564.3	5,626.1	9,007.3	57.5
25-34	7,561.4	9,339.8	11,588.8	59.3	7,326.8	8,605.0	11,452.4	58.2
35-44	6,905.2	8,366.4	11,484.7	57.1	6,798.9	8,656.7	11,162.9	58.1
45-54	4,078.4	5,551.1	7,773.7	55.3	6,236.3	8,032.6	10,962.9	56.6
55-64	2,277.7	2,747.3	3,799.8	56.9	3,641.7	4,377.6	6,079.3	56.9
65+	1,303.1	860.3	830.6	72.3	1,616.1	1,198.7	1,430.9	66.3
Educational level								
High school or less	16,661.7	16,711.5	19,826.5	62.7	17,071.3	17,032.5	19,808.8	63.3
Some college	7,782.1	9,248.6	13,628.1	55.5	8,936.3	10,400.9	15,347.8	55.8
Bachelors	3,349.5	4,938.0	7,541.3	52.4	4,512.4	6,513.3	10,426.7	51.4
Masters or above	1,166.4	1,759.1	2,944.8	49.8	1,664.1	2,550.1	4,512.4	48.3
Veteran status								
Veteran status	2,447.5	3,357.8	5,028.0	53.6	1,933.3	2,522.2	3,875.1	53.5
Disability								
Disability	1,290.8	1,061.8	1,464.4	61.6	875.0	916.0	1,389.1	56.3
Native born								
Native born	24,592.5	28,227.0	39,258.4	57.4	25,065.1	29,738.2	42,561.6	56.3
Married								
Married	14,721.9	17,809.6	24,356.4	57.2	16,097.9	19,946.6	26,609.3	57.5

Table A.14 Characteristics of Employees by Firm Size, 1995 and 2006 (thousands unless noted) (continued)

Characteristic	1995				2006			
	<25	25-499	500+	Percent <500	<25	25-499	500+	Percent <500
Location								
Central city	6,839.5	8,256.7	10,594.6	58.8	8,698.8	9,629.6	14,067.2	56.6
Suburban	11,970.8	14,082.2	20,357.2	56.1	13,623.0	15,945.8	22,675.9	56.6
Rural	6,097.2	5,779.4	6,761.3	63.7	5,344.1	5,587.2	5,985.0	64.6
Not identified	4,052.3	4,538.8	6,227.6	58.0	4,518.3	5,334.2	7,367.6	57.2

Notes: Private sector employment, excluding self-employment (incorporated and unincorporated).

Based on longest job during the year.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Commerce, Bureau of the Census, March Supplement to the Current Population Survey.

Table A.15 Bank Lending Information by Size of Firm, 1991–2007 (change in percent of senior loan officer responses on bank lending practices)

Year	Quarter	Tightening loan standards		Stronger demand for loans	
		Large / medium-sized firms	Small firms	Large / medium-sized firms	Small firms
2007	4	19	10	-16	-8
	3	8	8	-17	-12
	2	-4	2	-19	-19
	1	0	5	-23	-5
2006	4	0	-2	-4	-13
	3	-9	-2	-2	0
	2	-12	-7	4	4
	1	-11	-7	16	5
2005	4	-9	-5	14	9
	3	-17	-11	41	35
	2	-24	-24	37	37
	1	-24	-13	46	30
2004	4	-21	-18	26	26
	3	-20	-4	31	39
	2	-23	-20	29	38
	1	-18	-11	11	22
2003	4	0	-2	-12	-4
	3	4	4	-23	-12
	2	9	13	-39	-22
	1	22	14	-32	-21
2002	4	20	18	-53	-48
	3	21	6	-45	-36
	2	25	15	-36	-29
	1	45	42	-55	-45
2001	4	51	40	-70	-50
	3	40	32	-53	-42
	2	51	36	-40	-35
	1	60	45	-50	-30
2000	4	44	27	-23	-13
	3	34	24	-5	-4
	2	25	21	-9	5
	1	11	9	9	-2

Table A.15 Bank Lending Information by Size of Firm, 1991–2007 (change in percent of senior loan officer responses on bank lending practices) (continued)

Year	Quarter	Tightening loan standards		Stronger demand for loans	
		Large / medium-sized firms	Small firms	Large / medium-sized firms	Small firms
1999	4	9	2	-2	-4
	3	5	2	0	0
	2	10	8	0	10
	1	7	4	20	11
1998	4	36	15	28	8
	3	0	-5	-9	0
	2	-7	-2	29	21
	1	2	2	26	15
1997	4	-7	-4	19	19
	3	-6	-2	13	20
	2	-7	-4	5	11
	1	-5	-5	5	15
1996	4	-8	-12	1	4
	3	-4	-2	12	18
	2	-1	2	10	24
	1	7	4	-3	14
1995	4	-3	-2	3	7
	3	-6	-2	4	25
	2	-6	-7	29	17
	1	-7	-5	35	18
1994	4	-17	-18	31	32
	3	-7	-7	31	19
	2	-12	-9	38	38
	1	-13	-12	26	26
1993	4	-18	-9	9	17
	3	-19	-12	18	14
	2	-8	-2	0	12
	1	3	-2	20	32
1992	4	4	-5	6	-2
	3	-2	-2	-9	7
	2	1	-7	6	25
	1	5	0	-27	-12

Table A.15 Bank Lending Information by Size of Firm, 1991–2007 (change in percent of senior loan officer responses on bank lending practices) (continued)

Year	Quarter	Tightening loan standards		Stronger demand for loans	
		Large / medium-sized firms	Small firms	Large / medium-sized firms	Small firms
1991	4	9	5	-30	-25
	3	12	9	NA	NA
	2	16	7	NA	NA
	1	36	32	NA	NA

Notes: NA = not available. Figures should be used with caution because the sample size of the survey is relatively small—about 80 respondents—but the respondents do represent a sizable portion of the market. Small firms are defined as having sales of less than \$50 million. The survey asks the following question to gauge lending standards: “Over the past three months, how have your bank’s credit standards for approving applications for C&I loans or credit lines—other than those to be used to finance mergers and acquisitions—to large and middle-market firms and to small firms changed?” The survey asks the following question to gauge lending demand: “Apart from normal seasonal variation, how has demand for C&I loans changed over the past three months?”

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the Federal Reserve Board.

APPENDIX B

Research Published by the Office of Economic Research, 2007

Each year, the Office of Advocacy of the U.S. Small Business Administration is tasked with documenting the importance of entrepreneurship to the American economy and with highlighting policy issues of relevance to small firms. This report summarizes the publications produced by the Office of Advocacy's Office of Economic Research in 2007.

Banking and Financial Issues

Corporate Venture Capital and the International Intensity of Portfolio Companies

Joseph A. LiPuma, released July 2007

<http://www.sba.gov/advo/research/rs306tot.pdf>

In 2000, more than \$100 billion in venture capital was disbursed, more than one-fifth by corporations. The relationship between corporate investments and the degree to which the companies receiving venture capital funds pursue international activities is investigated in this study. The study examines the prior international experience of corporate venture capital providers and the existence of international marketing and operations capability as it relates to high levels of portfolio company international intensity.

The purpose of the study is to understand how the characteristics of the funding firm influence the international growth and intensity of the portfolio company. Overall, the author finds that technology-based companies that receive corporate venture capital are larger, older, better funded, and tend to be further along in their development than ventures that have not received corporate funding. The study finds a positive and significant relationship between the receipt of corporate venture capital and higher percentages of revenues earned from foreign sources. However, there is no conclusive evidence that either corporate international diversity or prior international investing experience is a mechanism by which this relationship exists.

The Effect of Wealth and Race on Start-up Rates

Maritza Salazar (BCT Partners, Inc.), released July 2007

<http://www.sba.gov/advo/research/rs307tot.pdf>

The notion that it “takes money to make money” is commonplace in public discourse. Indeed, some researchers find that the ability to start a business would be greatly impaired without some form of financial assets or net wealth. Others, however, have found that some businesses do not require large amounts of startup capital, and therefore, one’s financial position has little to do with whether or not an individual is able to start their business. Understanding the role of wealth in predicting the likelihood of becoming self-employed may be particularly relevant for nascent minority entrepreneurs.

This research uses the Panel Study of Entrepreneurial Dynamics (PSED) to uncover whether wealth affects the startup outcomes of minorities and nonminorities differently. The author finds that at first glance, net wealth is related to the likelihood that an entrepreneur will start a company. However, a more fine-grained analysis shows that net wealth is positively correlated with the probability that a nascent entrepreneur will start a new company if the nascent entrepreneur is in the top 25 percent of the wealth distribution. This research also shows that wealth affects the business outcomes of minority entrepreneurs slightly differently than it influences the business outcomes of their white counterparts.

Income and Wealth: How Did Households Owning Small Businesses Fare from 1989 to 2004?

George W. Haynes, released June 2007

<http://www.sba.gov/advo/research/rs300tot.pdf>

The 1990s were marked by the largest peacetime expansion in the U.S. economy. Income and wealth of American households rose significantly during this period. This report continues the study of wealth and income of U.S. families that own businesses. It finds that families owning businesses remained significantly more likely to be high income earners and high wealth holders than families not owning businesses. However, income and wealth for households owning businesses are more sensitive to fluctuations in economic activities. As a result, the selection of time periods for assessing the income and wealth growth of households owning small businesses relative to non-business-owning households significantly affects the outcome of the analysis.

Consequently, when the time period from 1989, a peak year, to 2004, a mid-recovery year, is selected, it appears that households owning small businesses made less progress in accumulating wealth than other households. In other words, the likelihood of being a high-wealth household increased at a faster rate for those without a small business than for those with a small business. However, this result was not supported when the time period from 1992, an early recovery year, to 2004, a mid-recovery year, is selected; households with and without small businesses appeared to have very similar changes in income and wealth during this period.

Income and Wealth of Veteran Business Owners, 1989–2004

George W. Haynes, released October 2007

<http://www.sba.gov/advo/research/rs310tot.pdf>

This study compares changes in the income and wealth of veteran and non-veteran households; veteran small business households with veteran nonbusiness households; and veteran small business households with nonveteran small business households. Overall, the author finds that three major developments over the past two decades determined the levels and changes in the income and wealth of veteran households and veteran business households in the United States in comparison with the overall population. The number of veteran households declined from 1989 to 2004 (from 28.6 millions households in 1989 to 25.3 million households in 2004); the age composition of the head of the veteran households grew much older by 2004; and the percentage of small business owners in the population of veteran households declined (from 13.6 percent in 1989 to 12.2 percent in 2004). The likelihood of being high income has declined for these veteran small business owners by nearly 24 percent, while the likelihood of being high wealth increased by nearly 22 percent. Regression analyses that control for such variables as age suggest that veteran households generally had lower income than nonveteran households, veteran small business households had higher wealth than veteran nonbusiness households, and veteran small business households had lower wealth than nonveteran small business households. Most important, there were no substantial changes (neither increases nor decreases) in the differences in income and wealth between veteran and nonveteran households, veteran small business and veteran nonbusiness households, and veteran business and nonveteran business households from 1989 to 2004.

A Two-step Analysis of Standardized Versus Relationship Bank Lending to Small Firms

Polly Hardee, working paper released June 2007

<http://www.sba.gov/advo/research/rs305tot.pdf>

Whereas the use of credit scoring for consumer loans has been commonplace in banks for quite some time, the use of credit scoring for small business loans is a more recent phenomenon. The study attempts to answer several questions related to the use of credit scoring in small business lending:

- How have banks incorporated credit scoring in their small business lending operations?
- How does credit scoring influence the availability of credit to small businesses?
- What factors predict the likelihood of the use of small business credit scoring by banks?

The author conducted three basic investigations for this research. The study investigated the use of credit scoring within banks. The study estimated how small business lending and micro business lending were affected by the adoption of credit scoring by banks. Finally, the study investigated the factors that affected the likelihood that a bank would use credit scoring for small business loans. Overall, it found that while credit scoring has yet to become a primary instrument in loan underwriting for a majority of banks in the United States, there are indications that credit scoring may be making more borrowing opportunities available to small businesses.

The Value to Banks of Small Business Lending

Joe Peek, released May 2007

<http://www.sba.gov/advo/research/rs301tot.pdf>

This study investigates the contribution of relationship lending to the value of banks by estimating the market premium placed on the small business loan portfolios of banks. This approach contrasts with the previous literature that has focused almost exclusively on the value of lending relationships to the firms that obtain access to bank lending, finding that firms, both large and small, accrue substantial benefits. The underlying hypothesis of this study is that relationship lending is mutually beneficial, benefiting banks as well as the firms to which they lend. The authors find that for commercial and industrial

loans, small business lending does, in fact, add value to banking organizations overall. This evidence suggests that at least for small banks, the added revenue associated with relationship lending exceeds the added information costs associated with evaluating and monitoring small business commercial and industrial loans. Small business lending was found to be a profitable market niche for small publicly traded banking organizations in the United States.

General Small Business and Entrepreneurship

Frequently Asked Questions

Chad Moutray, released August 2007

<http://www.sba.gov/advo/stats/sbfaq.pdf>

This document serves as a summary of other research materials and provides a series of quick, easy-to-recite facts for an external audience to recognize the importance of small businesses in the economy. It is an excellent “introductory” publication for individuals to acquaint themselves with Office of Advocacy research and data.

Friends or Foes: The Spatial Dynamic between Established Firms and Entrants

Lawrence Plummer, working paper released February 2007

<http://www.sba.gov/advo/research/rs293tot.pdf>

State and municipal economic development agencies are increasingly designing policies to nurture and support home-grown businesses to achieve their growth objectives. This research explores the impact on established firms of new local entrants. It evaluates the competing views that new firms increase competition and thus hurt existing firms and, on the other hand, that new entrants provide positive spillover effects that benefit everyone, including existing firms. The author observes that in the first year of a new firm’s existence, before the entrant has time to contribute to positive local effects, its entry is more likely to hurt the financial performance of existing firms. By the third year after entry, however, the effect on the financial performance of existing firms is positive. In the short term, entrants are foes and in the long term, entrants are friends.

Quarterly Indicators: The Economy and Small Business

Chad Moutray

Fourth Quarter 2006, released February 2007:

<http://www.sba.gov/advo/research/sbqei0604.pdf>

First Quarter 2007, released May 2007

<http://www.sba.gov/advo/research/sbqei0701.pdf>

Second Quarter 2007 released August 2007:

<http://www.sba.gov/advo/research/sbqei0701.pdf>

Third Quarter 2007, released November 2007:

<http://www.sba.gov/advo/research/sbqei0703.pdf>

This regular publication pulls together data from a variety of sources to highlight quarterly economic trends relevant to small businesses.

A Real Options Model of Stepwise Entry into Self-employment

Karl J. Wennberg, Timothy Folta, and Frederic Delmar; working paper (Babson Entrepreneurship Research Conference Best Paper Award winner) released June 2007

<http://www.sba.gov/advo/research/rs304tot.pdf>

Many people do not enter directly into full-time self-employment, but choose to enter part-time. By doing so, they minimize the uncertainty related to self-employment as they can retain their employment while testing the viability of the self-employment choice. For many people, part-time self-employment represents not only a secondary income, but also a first step into full-time self-employment. The authors of this paper examine the path toward self-employment as one fraught with uncertainty. That is, an individual will consider the choice to enter into self-employment and to leave employment by others as a hedge against uncertainty. Part-time entry into self-employment allows them the strategy of limiting their investment in time and money. If successful, they can enter self-employment on a full-time basis; if not, they have limited their risk, while maintaining their full-time job elsewhere.

Small Business and State Growth: An Econometric Investigation

Donald Bruce, John A. Deskins, Brian C. Hill, and Jonathan C. Rork; released February 2007

<http://www.sba.gov/advo/research/rs292tot.pdf>

For several years, the U.S. Census Bureau has produced firm-size data for the Office of Advocacy through its Statistics of U.S. Businesses (SUSB). With data spanning 1988 to more recent years, researchers willing to investigate linkages between small firm establishment births and deaths by state now have a sufficient number of observations to conduct their analysis. The authors of this study utilize SUSB data to examine the effects of small firm establishment births and deaths on state-level changes in gross state product (GSP), state personal income (SPI), and total state employment for the years 1988 to 2002. They find that small firm establishment births have a larger impact than any other factor examined on GSP, SPI, and total state employment. In fact, the authors find that small firm establishment birth rates and death rates have equal and opposite effects on state economic growth. This is a key finding, as it suggests that economic growth will be faster when the net small firm establishment birth rate is positive (i.e., when the birth rate exceeds the death rate). The authors conclude that this general finding reveals that state efforts to promote small business formation will be more fruitful in generating economic growth than virtually any other policy option in the models.

The Small Business Economy: A Report to the President for Data Year 2006 (2007 Edition)

Kathryn Tobias, editor, with various contributors, released December 2007

http://www.sba.gov/advo/research/sb_econ2007.pdf

In this annual publication, the Office of Advocacy reviews the economic environment for small businesses in the year 2006, as well as the financial and federal procurement marketplaces. It also features chapters on minorities in business and veteran business ownership, a discussion of social entrepreneurship, an examination of the importance of preventive planning, and a review of Regulatory Flexibility Act activities for fiscal year 2007.

- Chapter 1: “The Small Business Economy” by Brian Headd, with contributions from Chad Moutray
- Chapter 2: “Small Business Financing in 2006” by Victoria Williams and Charles Ou
- Chapter 3: “Federal Procurement from Small Firms” by Major Clark and Radwan Saade
- Chapter 4: “Minorities in Business: A Demographic Review of Minority Business Ownership” by Ying Lowrey

- Chapter 5: “Characteristics of Veteran Business Owners and Veteran-Owned Businesses” by Jules Lichtenstein and Joseph Sobota
- Chapter 6: “Social Entrepreneurship and Government: A New Breed of Entrepreneurs Developing Solutions to Social Problems” by Andrew Wolk of the Massachusetts Institute of Technology and Root Cause
- Chapter 7: “Pre-venture Planning” by William Gartner of Clemson University and Jianwen (Jon) Liao of the Illinois Institute of Technology
- Chapter 8: “Regulatory Flexibility Act Implementation, FY 2007” by Janis Reyes, Claudia Rodgers, and Sarah Wickham
- Appendix Data Tables by Brian Headd and Victoria Williams

Small Business Growth: Searching for Stylized Facts

Brian Headd and Bruce Kirchhoff, working paper released October 2007

<http://www.sba.gov/advo/research/rs311tot.pdf>

The lack of data on the age of firms has hampered efforts to understand the life cycle of firms overall and by industry. There is a need to document the dynamics of new firms and the effect of the business cycle on the growth, decline, and survival of firms. This paper concludes that growing firms are generally a constant share of the economy with a minor business cycle effect; firms with employment growth outnumber firms with employment decline, and fast-growing firms in a given year tend to revert to the mean in later years.

Small Business Profiles for the States and Territories

Victoria Williams, released October 2007

<http://www.sba.gov/advo/research/profiles>

The state profiles illustrate the economic condition of small businesses in the United States overall and in each of the 50 states, the District of Columbia, and the U.S. territories. Each state profile contains sections on the following topics: the number of firms, industry composition, small business income, banking, women’s and minority business ownership, and employment.

The Small Business Share of GDP, 1998–2004

Kathryn Kobe, Economic Consulting Services, LLC, released April 2007

<http://www.sba.gov/advo/research/rs299tot.pdf>

This study extends work previously sponsored by the Office of Advocacy to examine small businesses' contribution to gross domestic product (GDP). This report considers each component of private nonfarm GDP and estimates the proportion of it attributable to small businesses and the proportion of it attributable to large businesses. Small businesses continue to play a vital role in the economy of the United States. During the 1998–2004 period, small businesses produced half of private nonfarm GDP. It is worth noting that while the share of GDP attributable to small business has remained relatively stable over the years, a detailed look at the industry level reveals a more dynamic picture. While the small business share of many of the industries studied declined over the period, strong growth in small-business-dominated sectors helped the overall share remain at 50 percent. The small business share of GDP has held virtually constant from 1998 through 2004, starting at 50.5 percent in 1998, reaching 49.9 percent in 2000, then rising to 50.7 percent in 2004. This represents several years of relative stability in the small business share since the mid-1980s.

Human Capital and Employment Benefits

Educational Attainment and Other Characteristics of the Self-employed: An Examination using Data from the Panel Study of Income Dynamics

Chad Moutray, working paper released December 2007

<http://www.sba.gov/advo/research/rs313tot.pdf>

This study examines the relationship between education and the choice to become an entrepreneur. In doing so, it builds on previous research linking entrepreneurial activity with educational attainment. Using the Panel Study of Income Dynamics (PSID), this paper finds that educational attainment is an important determinant of self-employment. Individuals with more schooling are more likely to start their own businesses, particularly in certain industries. Heads of household with post-baccalaureate experience are up to 8.3 percent more likely to be their own boss rather than work for someone else. Wealth

(as defined by home ownership or the value of one's home) and prior military service also significantly increase the likelihood of self-employment.

The Relationship between Employee Turnover and Employee Compensation in Small Business

John B. Hope and Patrick C. Mackin (SAG Corporation), released July 2007
<http://www.sba.gov/advo/research/rs308tot.pdf>

This study explores the relationship between employee turnover and firm size as it relates to compensation using the National Longitudinal Survey of Youth (NLSY). The purpose of this study is to examine whether employee turnover differences between small and large firms are the result of differences in wages and benefits or of some form of self-selection where employees of small businesses are simply more prone to high turnover rates than those in larger firms. Overall, this research finds that the employees of large establishments stay in their jobs longer than employees of small establishments. Offering benefits improves employee retention. When a firm offers benefits, it decreases the probability of an employee's leaving in a given year by 26.2 percent and increases the probability of staying an additional year by 13.9 percent. The earnings results based on the relationship between establishment size and earnings show that firm size has a positive impact on earnings for service and manufacturing occupations. These findings coincide with those of past literature showing an earnings difference based on firm size.

Self-employment in the Veteran and Service-disabled Veteran Population

Open Blue Solutions, released January 2007

<http://www.sba.gov/advo/research/rs291tot.pdf>

This study uses the Bureau of Labor Statistics' Current Population Survey (CPS) to examine the self-employment choices of veterans and service-disabled veterans, and it also examines how computer technology relates to veteran self-employment. This paper provides information about veteran entrepreneurship and illustrates the experiences of self-employed veterans in the information-based economy. Among its key findings, veterans with service-connected disabilities are self-employed at lower rates than veterans without such disabilities. Substantially all of the difference between the self-employment rates of service-disabled veterans and those of other veterans results from the service-connected disabilities themselves, and

not from differences in demographic or other characteristics. In addition, approximately one-half to two-thirds of the difference in these self-employment rates is attributable to service-disabled veterans not working at all. Controlling for the effects of service-connected disabilities results in nearly identical rates of labor force participation among service-disabled veterans and those without such disabilities.

Structural Factors Affecting the Health Insurance Coverage of Workers at Small Firms

Econometrica, Inc., released March 2007

<http://www.sba.gov/advo/research/rs295tot.pdf>

Prior research by the Office of Advocacy has shown that employees at small firms are less likely to have health insurance coverage than the employees of larger entities. This report analyzes state and metropolitan statistical area (MSA) variations in the cost of employer health care and employer-sponsored insurance (ESI) coverage rates. Several important factors are investigated, including the impact of local market characteristics, the composition of the work force, and efficiency in delivering health care services. The goal of this research is to understand the complex interactions of the health care market and the cost of insurance, and their impact on workers at small businesses. Econometrica finds that the two most important factors associated with being uninsured are wages and firm size. Individuals who work for a small firm or who receive a lower wage are less likely to have health insurance coverage. Workers at firms of 100 to 249 employees spend the most on health care expenses, suggesting that the largest firms may be more likely to self-insure and keep a closer watch on benefits and expenditures. This finding may also suggest that the employees of the medium-sized firms with 100 to 249 employees have more generous benefits.

Innovation and Technology

Entrepreneurship in the Silicon Valley during the Boom and Bust

Robert Fairlie, released March 2007

<http://www.sba.gov/advo/research/rs296tot.pdf>

The purpose of this study is to understand the impact of tight labor markets on the high-tech industry and effects on entrepreneurship in the Silicon Valley during the boom and bust cycles. This report uses a new measure of entrepreneurial

activity to study entrepreneurship from 1996 to 2005 in the Silicon Valley, the Kauffman Index of Entrepreneurial Activity (KIEA). This new measure captures the rate of business creation at the individual owner level. Economic expansion in the late 1990s generated many opportunities for business creation and productivity growth, mostly linked with investment in information and communication technologies. Regions with large concentrations of high-tech industries in San Francisco, San Jose, and especially the Silicon Valley area placed emphasis on the role of startups and entrepreneurship. This period was set apart by swiftly rising stock prices, lucrative stock options, venture capital deals, initial public offerings, and tight labor markets. Consequently, it is unclear whether this was a period of heightened entrepreneurship or one in which returns to working in firms discouraged entrepreneurship. This paper investigates the effects of tight labor markets on entrepreneurship activity in the Silicon Valley compared with California and the United States and finds that entrepreneurship rates in Silicon Valley were higher than in the rest of the United States during the expansion period of the late 1990s.

Owner Demographics

Are Male and Female Entrepreneurs Really That Different?

Erin Kepler and Scott Shane, working paper released September 2007

<http://www.sba.gov/advo/research/rs309tot.pdf>

Previous research has shown the performance of women-owned firms lagging male-owned firms on factors such as annual sales, employment growth, income, and venture survival. Reasons for the differences are often hypothesized, but empirical tests have historically suffered from data with a limited number of control variables on the motivations and characteristics of the owners. Moreover, many of the previous studies have suffered from survivor bias, as they study only existing (or surviving) businesses. This study seeks to determine why a performance difference exists for female- and male-owned ventures. The authors find that when other factors are controlled for, gender does not affect new venture performance. However, several factors—differing expectations, reasons for starting a business, motivations, and opportunities sought and types of businesses—vary between the genders, and these result in differing outcomes. Such observations should be taken into account when comparing the outcomes of ventures across genders.

Educational Attainment and Other Characteristics of the Self-employed: An Examination using Data from the Panel Study of Income Dynamics

Chad Moutray, working paper released December 2007

<http://www.sba.gov/advo/research/rs313tot.pdf>

See the description of this study in the “Human Capital and Employment Benefits” section

The Effect of Wealth and Race on Start-up Rates

Maritza Salazar (BCT Partners, Inc.), released July 2007

<http://www.sba.gov/advo/research/rs307tot.pdf>

See the description of this study in the “Banking and Financial Issues” section

Income and Wealth of Veteran Business Owners, 1989–2004

George W. Haynes, released October 2007

<http://www.sba.gov/advo/research/rs310tot.pdf>

See the description of this study in the “Banking and Financial Issues” section.

Minorities in Business: A Demographic Review of Minority Business Ownership

Ying Lowrey, released April 2007

<http://www.sba.gov/advo/research/rs298tot.pdf>

This report provides information on minorities in the work force and minority-owned businesses. It includes statistics about the minority population, their labor force participation, age, education, occupation, work schedules, average personal and household income, business ownership, and business dynamics. It is an update of previous studies on minority-owned businesses and primarily uses data from the 2002 Survey of Business Owners (SBO), the latest available data from the U.S. Census Bureau. The SBO defines minority-owned businesses as entities in which minorities own 51 percent or more of the stock or equity. Six general demographic groups are classified in the SBO: Hispanic, Black, White, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander.

Self-employment in the Veteran and Service-Disabled Veteran Population

Open Blue Solutions, released January 2007

<http://www.sba.gov/advo/research/rs291tot.pdf>

See the description of this study in the “Human Capital and Employment Benefits” section.

Procurement

Impact of A-76 Competitive Sourcing on Small Government Vendors, FY 2001–FY 2006

Eagle Eye Publishers, Inc., & Jack Faucett Associates, Inc., released May 2007

<http://www.sba.gov/advo/research/rs302tot.pdf>

According to Office of Management and Budget (OMB) Circular A-76, the federal government seeks to ensure that the American people receive maximum value for their tax dollars by requiring agencies to compete with private sector firms for the opportunity to perform public sector jobs deemed by the agencies themselves to be substantially commercial in nature. OMB believes that adding an element of competition to the performance of government work ultimately lowers costs and improves the delivery of services. The authors of this study examined the small business impacts of A-76 contracting using data from the Federal Procurement Data System–Next Generation (FPDS-NG). The data show that between fiscal year (FY) 2001 and the third quarter of FY 2006, \$5.5 billion was spent on 3,735 A-76 contracts. Of the 795 companies that received these procurements, 567 companies, or 71 percent, were small. Small businesses won 65 percent of the total number of A-76 contracts.

Regional Economic Development

Entrepreneurship in the Silicon Valley during the Boom and Bust

Robert Fairlie, released March 2007

<http://www.sba.gov/advo/research/rs291tot.pdf>

See the description of this study in the “Innovation and Technology” section.

Friends or Foes: The Spatial Dynamic Between Established Firms and Entrants

Lawrence Plummer, working paper released February 2007

<http://www.sba.gov/advo/research/rs293tot.pdf>

See the description of this study in the “General Small Business and Entrepreneurship” section.

Getting the Most Bang for the Buck: An Analysis of States’ Relative Efficiencies in Promoting the Birth of Small Firms

Whitney Peake and Maria Marshall, Purdue University, working paper (USASBE Best Doctoral Paper Award 2007) released January 2007

<http://www.sba.gov/advo/research/rs290tot.pdf>

New business starts have economic and social value to communities and are often a goal of state economic development efforts. States would like to foster an environment that can nurture business births; however, analysis of the impact of their expenditures on business births is limited. This study evaluates the impact of various state expenditures on business births and gives states a benchmark for comparison with other states. Overall, it finds that state expenditures do affect the number of business births, particularly investments in human capital and roads. States with larger populations tended to be more efficient than states with small populations in supporting business births with their expenditures.

Small Business and State Growth: An Econometric Investigation

Donald Bruce, John A. Deskins, Brian C. Hill, and Jonathan C. Rork, released February 2007

<http://www.sba.gov/advo/research/rs292tot.pdf>

See the description of this study in the “General Small Business and Entrepreneurship” section.

Regulation

Evaluation of Barrier Removal Costs Associated with 2004 Americans with Disabilities Act (ADA) Accessibility Guidelines

E.H. Pechan & Associates, released November 2007

<http://www.sba.gov/advo/research/rs312tot.pdf>

The U.S. Department of Justice (DOJ) is considering amendments to the requirements for businesses to remove physical barriers to accessibility under the Americans with Disabilities Act (ADA). In 2004, the Architectural and Transportation Barriers Compliance Board (Access Board) developed recommendations to the DOJ for revised ADA accessibility guidelines (ADAAG). The 2004 ADAAG made recommendations for significant changes to the ADAAG that were adopted in 1992. In 1992 many small business owners commented that the accessibility requirements were unduly burdensome, particularly requirements to remove “architectural barriers” whenever such removal is “readily achievable.” The 2004 ADAAG standards have been similarly criticized by small firms for mandating marginal changes in accessibility after many small business owners struggled for years to come to terms with the 1992 standards. This report examines the costs of complying with the architectural barrier removal requirements set out in the 2004 ADAAG. Separate costs for small firm buildings and large firm buildings are developed to examine the magnitude of small firm costs, and whether small firms are expected to face disproportionately higher costs than large firms. The report finds that small firms face substantial costs from adoption of the barrier removal requirements in the 2004 ADAAG, and that typical small firm buildings incur significantly higher costs than large firm buildings on both a per-square-foot and per-employee basis. The difference in costs per square foot or per employee is based largely on the fixed-cost nature of most barrier removal projects.

Review and Analysis of Effect of EPA’s Toxics Release Inventory (TRI) Phase II Burden Reduction Proposal on TRI Data Uses

E.H. Pechan & Associates, released May 2007

<http://www.sba.gov/advo/research/rs303tot.pdf>

Section 313 of the Emergency Planning and Community Right to Know Act (EPCRA) requires facilities to report on various quantities of chemical

releases, and the amounts of chemicals managed on and off site. The public uses this information to estimate local health risks associated with these chemicals, and to develop policies to reduce these risks. The Environmental Protection Agency (EPA) and other regulators use this information to develop regulations and to track progress in reducing toxic chemical releases. The original regulations were adopted in 1987, and additional requirements have been added over the years. The reporting burden on businesses, particularly small businesses, has been substantial. In 1994, EPA adopted a short form, Form A, to replace the longer Form R in an attempt to reduce the burden on small firms with small amounts of chemicals handled within a facility. In December 2006, EPA adopted another reform in response to concerns that the 1994 Form A reform did not provide relief to enough facilities. Critics of the reform claim that toxics release inventory (TRI) data uses will be impaired by the 2006 changes. E.H. Pechan & Associates examined the effect of the October 2005 proposal on TRI data uses. Pechan reviewed over 2,000 comments on the proposed rule and identified 17 specific uses of TRI data, addressing national, state, and local concerns. Based on this analysis, the report found that the December 2006 final rule will not have significant impacts on data uses identified by commenters.

Tax

Small Business and State Growth: An Econometric Investigation

Donald Bruce, John A. Deskins, Brian C. Hill, and Jonathan C. Rork; released February 2007

<http://www.sba.gov/advo/research/rs292tot.pdf>

See the description of this study in the “Regional Economic Development” section.

Created by Congress in 1976, the Office of Advocacy of the U.S. Small Business Administration (SBA) is an independent voice for small business within the federal government. For more information on the Office of Advocacy and its research, visit <http://www.sba.gov/advo>, or call (202) 205-6533. Receive email notices of new Office of Advocacy information by signing up on Advocacy's Listservs at <http://web.sba.gov/list>.

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APPENDIX C

The Regulatory Flexibility Act and Executive Order 13272

The following text of the Regulatory Flexibility Act of 1980, as amended, is taken from Title 5 of the United States Code, Sections 601–612. The Regulatory Flexibility Act was originally passed in 1980 (P.L. 96-354). The act was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (P.L. 104-121).

The Regulatory Flexibility Act of 1980 as amended

Congressional Findings and Declaration of Purpose

(a) The Congress finds and declares that —

- (1) when adopting regulations to protect the health, safety and economic welfare of the Nation, Federal agencies should seek to achieve statutory goals as effectively and efficiently as possible without imposing unnecessary burdens on the public;
- (2) laws and regulations designed for application to large scale entities have been applied uniformly to small businesses, small organizations, and small governmental jurisdictions even though the problems that gave rise to government action may not have been caused by those smaller entities;
- (3) uniform Federal regulatory and reporting requirements have in numerous instances imposed unnecessary and disproportionately burdensome demands including legal, accounting and consulting costs upon small businesses, small organizations, and small governmental jurisdictions with limited resources;
- (4) the failure to recognize differences in the scale and resources of regulated entities has in numerous instances adversely affected competition in the marketplace, discouraged innovation and restricted improvements in productivity;

(5) unnecessary regulations create entry barriers in many industries and discourage potential entrepreneurs from introducing beneficial products and processes;

(6) the practice of treating all regulated businesses, organizations, and governmental jurisdictions as equivalent may lead to inefficient use of regulatory agency resources, enforcement problems and, in some cases, to actions inconsistent with the legislative intent of health, safety, environmental and economic welfare legislation;

(7) alternative regulatory approaches which do not conflict with the stated objectives of applicable statutes may be available which minimize the significant economic impact of rules on small businesses, small organizations, and small governmental jurisdictions;

(8) the process by which Federal regulations are developed and adopted should be reformed to require agencies to solicit the ideas and comments of small businesses, small organizations, and small governmental jurisdictions to examine the impact of proposed and existing rules on such entities, and to review the continued need for existing rules.

(b) It is the purpose of this Act [enacting this chapter and provisions set out as notes under this section] to establish as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.

Regulatory Flexibility Act

- § 601 Definitions
- § 602 Regulatory agenda
- § 603 Initial regulatory flexibility analysis
- § 604 Final regulatory flexibility analysis
- § 605 Avoidance of duplicative or unnecessary analyses
- § 606 Effect on other law
- § 607 Preparation of analyses

- § 608 Procedure for waiver or delay of completion
- § 609 Procedures for gathering comments
- § 610 Periodic review of rules
- § 611 Judicial review
- § 612 Reports and intervention rights

§ 601 Definitions

For purposes of this chapter —

- (1) the term “agency” means an agency as defined in section 551(1) of this title;
- (2) the term “rule” means any rule for which the agency publishes a general notice of proposed rulemaking pursuant to section 553(b) of this title, or any other law, including any rule of general applicability governing Federal grants to State and local governments for which the agency provides an opportunity for notice and public comment, except that the term “rule” does not include a rule of particular applicability relating to rates, wages, corporate or financial structures or reorganizations thereof, prices, facilities, appliances, services, or allowances therefor or to valuations, costs or accounting, or practices relating to such rates, wages, structures, prices, appliances, services, or allowances;
- (3) the term “small business” has the same meaning as the term “small business concern” under section 3 of the Small Business Act, unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register;
- (4) the term “small organization” means any not-for-profit enterprise which is independently owned and operated and is not dominant in its field, unless an agency establishes, after opportunity for public comment, one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register;
- (5) the term “small governmental jurisdiction” means governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand, unless an agency establishes, after opportunity for public comment, one or more definitions of such term which are appropriate to the activities of the agency and which are based on such

factors as location in rural or sparsely populated areas or limited revenues due to the population of such jurisdiction, and publishes such definition(s) in the Federal Register;

(6) the term “small entity” shall have the same meaning as the terms “small business,” “small organization” and “small governmental jurisdiction” defined in paragraphs (3), (4) and (5) of this section; and

(7) the term “collection of information” —

(A) means the obtaining, causing to be obtained, soliciting, or requiring the disclosure to third parties or the public, of facts or opinions by or for an agency, regardless of form or format, calling for either —

(i) answers to identical questions posed to, or identical reporting or recordkeeping requirements imposed on, 10 or more persons, other than agencies, instrumentalities, or employees of the United States; or

(ii) answers to questions posed to agencies, instrumentalities, or employees of the United States which are to be used for general statistical purposes; and

(B) shall not include a collection of information described under section 3518(c)(1) of title 44, United States Code.

(8) Recordkeeping requirement — The term “recordkeeping requirement” means a requirement imposed by an agency on persons to maintain specified records.

§ 602. Regulatory agenda

(a) During the months of October and April of each year, each agency shall publish in the Federal Register a regulatory flexibility agenda which shall contain —

(1) a brief description of the subject area of any rule which the agency expects to propose or promulgate which is likely to have a significant economic impact on a substantial number of small entities;

(2) a summary of the nature of any such rule under consideration for each subject area listed in the agenda pursuant to paragraph (1), the objectives and legal basis for the issuance of the rule, and an approximate schedule

for completing action on any rule for which the agency has issued a general notice of proposed rulemaking, and

(3) the name and telephone number of an agency official knowledgeable concerning the items listed in paragraph (1).

(b) Each regulatory flexibility agenda shall be transmitted to the Chief Counsel for Advocacy of the Small Business Administration for comment, if any.

(c) Each agency shall endeavor to provide notice of each regulatory flexibility agenda to small entities or their representatives through direct notification or publication of the agenda in publications likely to be obtained by such small entities and shall invite comments upon each subject area on the agenda.

(d) Nothing in this section precludes an agency from considering or acting on any matter not included in a regulatory flexibility agenda, or requires an agency to consider or act on any matter listed in such agenda.

§ 603. Initial regulatory flexibility analysis

(a) Whenever an agency is required by section 553 of this title, or any other law, to publish general notice of proposed rulemaking for any proposed rule, or publishes a notice of proposed rulemaking for an interpretative rule involving the internal revenue laws of the United States, the agency shall prepare and make available for public comment an initial regulatory flexibility analysis. Such analysis shall describe the impact of the proposed rule on small entities. The initial regulatory flexibility analysis or a summary shall be published in the Federal Register at the time of the publication of general notice of proposed rulemaking for the rule. The agency shall transmit a copy of the initial regulatory flexibility analysis to the Chief Counsel for Advocacy of the Small Business Administration. In the case of an interpretative rule involving the internal revenue laws of the United States, this chapter applies to interpretative rules published in the Federal Register for codification in the Code of Federal Regulations, but only to the extent that such interpretative rules impose on small entities a collection of information requirement.

(b) Each initial regulatory flexibility analysis required under this section shall contain —

- (1) a description of the reasons why action by the agency is being considered;
- (2) a succinct statement of the objectives of, and legal basis for, the proposed rule;
- (3) a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- (4) a description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- (5) an identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule.

(c) Each initial regulatory flexibility analysis shall also contain a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities. Consistent with the stated objectives of applicable statutes, the analysis shall discuss significant alternatives such as —

- (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
- (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
- (3) the use of performance rather than design standards; and
- (4) an exemption from coverage of the rule, or any part thereof, for such small entities.

§ 604. Final regulatory flexibility analysis

(a) When an agency promulgates a final rule under section 553 of this title, after being required by that section or any other law to publish a general notice of proposed rulemaking, or promulgates a final interpretative rule involving the internal revenue laws of the United States as described in section 603(a),

the agency shall prepare a final regulatory flexibility analysis. Each final regulatory flexibility analysis shall contain —

- (1) a succinct statement of the need for, and objectives of, the rule;
- (2) a summary of the significant issues raised by the public comments in response to the initial regulatory flexibility analysis, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
- (3) a description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available;
- (4) a description of the projected reporting, recordkeeping and other compliance requirements of the rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; and
- (5) a description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

(b) The agency shall make copies of the final regulatory flexibility analysis available to members of the public and shall publish in the Federal Register such analysis or a summary thereof.

§ 605. Avoidance of duplicative or unnecessary analyses

(a) Any Federal agency may perform the analyses required by sections 602, 603, and 604 of this title in conjunction with or as a part of any other agenda or analysis required by any other law if such other analysis satisfies the provisions of such sections.

(b) Sections 603 and 604 of this title shall not apply to any proposed or final rule if the head of the agency certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. If the head of the agency makes a certification under the preceding sentence,

the agency shall publish such certification in the Federal Register at the time of publication of general notice of proposed rulemaking for the rule or at the time of publication of the final rule, along with a statement providing the factual basis for such certification. The agency shall provide such certification and statement to the Chief Counsel for Advocacy of the Small Business Administration.

(c) In order to avoid duplicative action, an agency may consider a series of closely related rules as one rule for the purposes of sections 602, 603, 604 and 610 of this title.

§ 606. Effect on other law

The requirements of sections 603 and 604 of this title do not alter in any manner standards otherwise applicable by law to agency action.

§ 607. Preparation of analyses

In complying with the provisions of sections 603 and 604 of this title, an agency may provide either a quantifiable or numerical description of the effects of a proposed rule or alternatives to the proposed rule, or more general descriptive statements if quantification is not practicable or reliable.

§ 608. Procedure for waiver or delay of completion

(a) An agency head may waive or delay the completion of some or all of the requirements of section 603 of this title by publishing in the Federal Register, not later than the date of publication of the final rule, a written finding, with reasons therefor, that the final rule is being promulgated in response to an emergency that makes compliance or timely compliance with the provisions of section 603 of this title impracticable.

(b) Except as provided in section 605(b), an agency head may not waive the requirements of section 604 of this title. An agency head may delay the completion of the requirements of section 604 of this title for a period of not more than one hundred and eighty days after the date of publication in the Federal Register of a final rule by publishing in the Federal Register, not later than such date of publication, a written finding, with reasons therefor, that the final rule is being promulgated in response to an emergency that makes timely compliance with the provisions of section 604 of this title impracticable. If the agency has not prepared a final regulatory analysis pursuant to section 604 of this title within one hundred

and eighty days from the date of publication of the final rule, such rule shall lapse and have no effect. Such rule shall not be repromulgated until a final regulatory flexibility analysis has been completed by the agency.

§ 609. Procedures for gathering comments

(a) When any rule is promulgated which will have a significant economic impact on a substantial number of small entities, the head of the agency promulgating the rule or the official of the agency with statutory responsibility for the promulgation of the rule shall assure that small entities have been given an opportunity to participate in the rulemaking for the rule through the reasonable use of techniques such as—

- (1) the inclusion in an advanced notice of proposed rulemaking, if issued, of a statement that the proposed rule may have a significant economic effect on a substantial number of small entities;
- (2) the publication of general notice of proposed rulemaking in publications likely to be obtained by small entities;
- (3) the direct notification of interested small entities;
- (4) the conduct of open conferences or public hearings concerning the rule for small entities including soliciting and receiving comments over computer networks; and
- (5) the adoption or modification of agency procedural rules to reduce the cost or complexity of participation in the rulemaking by small entities.

(b) Prior to publication of an initial regulatory flexibility analysis which a covered agency is required to conduct by this chapter—

- (1) a covered agency shall notify the Chief Counsel for Advocacy of the Small Business Administration and provide the Chief Counsel with information on the potential impacts of the proposed rule on small entities and the type of small entities that might be affected;
- (2) not later than 15 days after the date of receipt of the materials described in paragraph (1), the Chief Counsel shall identify individuals representative of affected small entities for the purpose of obtaining

advice and recommendations from those individuals about the potential impacts of the proposed rule;

(3) the agency shall convene a review panel for such rule consisting wholly of full time Federal employees of the office within the agency responsible for carrying out the proposed rule, the Office of Information and Regulatory Affairs within the Office of Management and Budget, and the Chief Counsel;

(4) the panel shall review any material the agency has prepared in connection with this chapter, including any draft proposed rule, collect advice and recommendations of each individual small entity representative identified by the agency after consultation with the Chief Counsel, on issues related to subsections 603(b), paragraphs (3), (4) and (5) and 603(c);

(5) not later than 60 days after the date a covered agency convenes a review panel pursuant to paragraph (3), the review panel shall report on the comments of the small entity representatives and its findings as to issues related to subsections 603(b), paragraphs (3), (4) and (5) and 603(c), provided that such report shall be made public as part of the rulemaking record; and

(6) where appropriate, the agency shall modify the proposed rule, the initial regulatory flexibility analysis or the decision on whether an initial regulatory flexibility analysis is required.

(c) An agency may in its discretion apply subsection (b) to rules that the agency intends to certify under subsection 605(b), but the agency believes may have a greater than de minimis impact on a substantial number of small entities.

(d) For purposes of this section, the term “covered agency” means the Environmental Protection Agency and the Occupational Safety and Health Administration of the Department of Labor.

(e) The Chief Counsel for Advocacy, in consultation with the individuals identified in subsection (b)(2), and with the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, may waive the requirements of subsections (b)(3), (b)(4), and (b)(5) by including in the rulemaking record a written finding, with reasons therefor, that those requirements would not advance the effective participation of small

entities in the rulemaking process. For purposes of this subsection, the factors to be considered in making such a finding are as follows:

- (1) In developing a proposed rule, the extent to which the covered agency consulted with individuals representative of affected small entities with respect to the potential impacts of the rule and took such concerns into consideration.
- (2) Special circumstances requiring prompt issuance of the rule.
- (3) Whether the requirements of subsection (b) would provide the individuals identified in subsection (b)(2) with a competitive advantage relative to other small entities.

§ 610. Periodic review of rules

(a) Within one hundred and eighty days after the effective date of this chapter, each agency shall publish in the Federal Register a plan for the periodic review of the rules issued by the agency which have or will have a significant economic impact upon a substantial number of small entities. Such plan may be amended by the agency at any time by publishing the revision in the Federal Register. The purpose of the review shall be to determine whether such rules should be continued without change, or should be amended or rescinded, consistent with the stated objectives of applicable statutes, to minimize any significant economic impact of the rules upon a substantial number of such small entities. The plan shall provide for the review of all such agency rules existing on the effective date of this chapter within ten years of that date and for the review of such rules adopted after the effective date of this chapter within ten years of the publication of such rules as the final rule. If the head of the agency determines that completion of the review of existing rules is not feasible by the established date, he shall so certify in a statement published in the Federal Register and may extend the completion date by one year at a time for a total of not more than five years.

(b) In reviewing rules to minimize any significant economic impact of the rule on a substantial number of small entities in a manner consistent with the stated objectives of applicable statutes, the agency shall consider the following factors—

- (1) the continued need for the rule;

- (2) the nature of complaints or comments received concerning the rule from the public;
- (3) the complexity of the rule;
- (4) the extent to which the rule overlaps, duplicates or conflicts with other Federal rules, and, to the extent feasible, with State and local governmental rules; and
- (5) the length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the rule.

(c) Each year, each agency shall publish in the Federal Register a list of the rules which have a significant economic impact on a substantial number of small entities, which are to be reviewed pursuant to this section during the succeeding twelve months. The list shall include a brief description of each rule and the need for and legal basis of such rule and shall invite public comment upon the rule.

§ 611. Judicial review

- (a) (1) For any rule subject to this chapter, a small entity that is adversely affected or aggrieved by final agency action is entitled to judicial review of agency compliance with the requirements of sections 601, 604, 605(b), 608(b), and 610 in accordance with chapter 7. Agency compliance with sections 607 and 609(a) shall be judicially reviewable in connection with judicial review of section 604.
- (2) Each court having jurisdiction to review such rule for compliance with section 553, or under any other provision of law, shall have jurisdiction to review any claims of noncompliance with sections 601, 604, 605(b), 608(b), and 610 in accordance with chapter 7. Agency compliance with sections 607 and 609(a) shall be judicially reviewable in connection with judicial review of section 604.
- (3) (A) A small entity may seek such review during the period beginning on the date of final agency action and ending one year later, except that where a provision of law requires that an action challenging a final agency action be commenced before the expiration of one year, such lesser period shall apply to an action for judicial review under this section.

(B) In the case where an agency delays the issuance of a final regulatory flexibility analysis pursuant to section 608(b) of this chapter, an action for judicial review under this section shall be filed not later than—

(i) one year after the date the analysis is made available to the public, or

(ii) where a provision of law requires that an action challenging a final agency regulation be commenced before the expiration of the 1-year period, the number of days specified in such provision of law that is after the date the analysis is made available to the public.

(4) In granting any relief in an action under this section, the court shall order the agency to take corrective action consistent with this chapter and chapter 7, including, but not limited to —

(A) remanding the rule to the agency, and

(B) deferring the enforcement of the rule against small entities unless the court finds that continued enforcement of the rule is in the public interest.

(5) Nothing in this subsection shall be construed to limit the authority of any court to stay the effective date of any rule or provision thereof under any other provision of law or to grant any other relief in addition to the requirements of this section.

(b) In an action for the judicial review of a rule, the regulatory flexibility analysis for such rule, including an analysis prepared or corrected pursuant to paragraph (a)(4), shall constitute part of the entire record of agency action in connection with such review.

(c) Compliance or noncompliance by an agency with the provisions of this chapter shall be subject to judicial review only in accordance with this section.

(d) Nothing in this section bars judicial review of any other impact statement or similar analysis required by any other law if judicial review of such statement or analysis is otherwise permitted by law.

§ 612. Reports and intervention rights

(a) The Chief Counsel for Advocacy of the Small Business Administration shall monitor agency compliance with this chapter and shall report at least

annually thereon to the President and to the Committees on the Judiciary and Small Business of the Senate and House of Representatives.

(b) The Chief Counsel for Advocacy of the Small Business Administration is authorized to appear as *amicus curiae* in any action brought in a court of the United States to review a rule. In any such action, the Chief Counsel is authorized to present his or her views with respect to compliance with this chapter, the adequacy of the rulemaking record with respect to small entities and the effect of the rule on small entities.

(c) A court of the United States shall grant the application of the Chief Counsel for Advocacy of the Small Business Administration to appear in any such action for the purposes described in subsection (b).

Executive Order 13272

Federal Register
Vol. 67, No. 159
Friday, August 16, 2002

Presidential Documents

Title 3—

Executive Order 13272 of August 13, 2002

The President

Proper Consideration of Small Entities in Agency Rulemaking

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. General Requirements. Each agency shall establish procedures and policies to promote compliance with the Regulatory Flexibility Act, as amended (5 U.S.C. 601 *et seq.*) (the “Act”). Agencies shall thoroughly review draft rules to assess and take appropriate account of the potential impact on small businesses, small governmental jurisdictions, and small organizations, as provided by the Act. The Chief Counsel for Advocacy of the Small Business Administration (Advocacy) shall remain available to advise agencies in performing that review consistent with the provisions of the Act.

Sec. 2. Responsibilities of Advocacy. Consistent with the requirements of the Act, other applicable law, and Executive Order 12866 of September 30, 1993, as amended, Advocacy:

(a) shall notify agency heads from time to time of the requirements of the Act, including by issuing notifications with respect to the basic requirements of the Act within 90 days of the date of this order;

(b) shall provide training to agencies on compliance with the Act; and

(c) may provide comment on draft rules to the agency that has proposed or intends to propose the rules and to the Office of Information and Regulatory Affairs of the Office of Management and Budget (OIRA).

Sec. 3. Responsibilities of Federal Agencies. Consistent with the requirements of the Act and applicable law, agencies shall:

(a) Within 180 days of the date of this order, issue written procedures and policies, consistent with the Act, to ensure that the potential impacts of agencies’ draft rules on small businesses, small governmental jurisdictions, and small organizations are properly considered during the rulemaking process. Agency heads shall submit, no later than 90 days from the date of this order, their written procedures and policies to Advocacy for comment. Prior to issuing final procedures and policies, agencies shall consider any such comments received within 60 days from the date of the submission of the agencies’ procedures and policies to Advocacy. Except to the extent otherwise specifically provided by statute or Executive Order, agencies shall make the final procedures and policies available to the public through the Internet or other easily accessible means;

(b) Notify Advocacy of any draft rules that may have a significant economic impact on a substantial number of small entities under the Act. Such notifications shall be made (i) when the agency submits a draft rule to OIRA under Executive Order 12866 if that order requires such submission, or (ii) if no submission to OIRA is so required, at a reasonable time prior to publication of the rule by the agency; and

(c) Give every appropriate consideration to any comments provided by Advocacy regarding a draft rule. Consistent with applicable law and appropriate protection of executive deliberations and legal privileges, an agency shall include, in any explanation or discussion accompanying publication in the **Federal Register** of a final rule, the agency’s response to any written comments submitted by Advocacy on the proposed rule that preceded the

final rule; provided, however, that such inclusion is not required if the head of the agency certifies that the public interest is not served thereby. Agencies and Advocacy may, to the extent permitted by law, engage in an exchange of data and research, as appropriate, to foster the purposes of the Act.

Sec. 4. Definitions. Terms defined in section 601 of title 5, United States Code, including the term "agency," shall have the same meaning in this order.

Sec. 5. Preservation of Authority. Nothing in this order shall be construed to impair or affect the authority of the Administrator of the Small Business Administration to supervise the Small Business Administration as provided in the first sentence of section 2(b)(1) of Public Law 85-09536 (15 U.S.C. 633(b)(1)).

Sec. 6. Reporting. For the purpose of promoting compliance with this order, Advocacy shall submit a report not less than annually to the Director of the Office of Management and Budget on the extent of compliance with this order by agencies.

Sec. 7. Confidentiality. Consistent with existing law, Advocacy may publicly disclose information that it receives from the agencies in the course of carrying out this order only to the extent that such information already has been lawfully and publicly disclosed by OIRA or the relevant rulemaking agency.

Sec. 8. Judicial Review. This order is intended only to improve the internal management of the Federal Government. This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or equity, against the United States, its departments, agencies, or other entities, its officers or employees, or any other person.



THE WHITE HOUSE,
August 13, 2002.

CONTENTS OF PREVIOUS EDITIONS

The Small Business Economy: A Report to the President, 2001–2007

The State of Small Business: A Report of the President, 1982–2000

Editions of *The Small Business Economy* and *The State of Small Business* for 1996 through the present are available on the Office of Advocacy website at <http://www.sba.gov/advo/research/> or by contacting the Office of Advocacy at 202 205-6933. Earlier editions of *The State of Small Business* may be accessed through the National Technical Information Service at www.ntis.gov or National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161, (800) 553-6847 or (703) 605-6000, TDD (703) 487-4639.

2007 THE SMALL BUSINESS ECONOMY:

A REPORT TO THE PRESIDENT

Chapter 1	The Small Business Economy	9
Chapter 2	Small Business Financing in 2006	25
Chapter 3	Federal Procurement from Small Firms	49
Chapter 4	Minorities in Business: A Demographic Review of Minority Business Ownership	67
Chapter 5	Characteristics of Veteran Business Owners and Veteran-owned Businesses	119
Chapter 6	Social Entrepreneurship and Government: A New Breed of Entrepreneurs Developing Solutions to Social Problems	151
Chapter 7	Pre-venture Planning	213
Chapter 8	Regulatory Flexibility Act Implementation, FY 2006	265
Appendix A	Small Business Data	293
Appendix B	RFA Supporting Documents	321

2006 THE SMALL BUSINESS ECONOMY:

A REPORT TO THE PRESIDENT

Chapter 1	The Small Business Economy	7
Chapter 2	Small Business Financing in 2005	15
Chapter 3	Federal Procurement from Small Firms	37

Chapter 4	Women in Business	55
Chapter 5	Entrepreneurship and Education: What is Known and Not Known about the Links Between Education and Entrepreneurial Activity	113
Chapter 6	Economic Gardening: Next Generation Applications for a Balanced Portfolio Approach to Economic Growth	157
Chapter 7	An Overview of the Regulatory Flexibility Act and Related Policy	195
Appendix A	Small Business Data	215
Appendix B	RFA Supporting Documents	245

2005 THE SMALL BUSINESS ECONOMY:

A REPORT TO THE PRESIDENT

Chapter 1	The Small Business Economy	5
Chapter 2	Small Business Financing in 2004	15
Chapter 3	Federal Procurement from Small Firms	41
Chapter 4	Minority Entrepreneurship	59
Chapter 5	Entrepreneurship and Business Ownership in the Veteran and Service-disabled Veteran Community	109
Chapter 6	A Discourse on Tax Complexity and Uncertainty and Their Effects on Small Business	145
Chapter 7	The Regulatory Flexibility Act: History and Current Status of RFA Implementation	159
Chapter 8	Small Firms: Why Market-driven Innovation Can't Get Along without Them	183
Appendix A	Small Business Data	207
Appendix B	RFA Supporting Documents	235

2004 THE SMALL BUSINESS ECONOMY:

A REPORT TO THE PRESIDENT

Chapter 1	Small Business Trends, 2003	5
Chapter 2	Rules, Regulations, and Home-based Businesses	53
Chapter 3	Government Policies to Encourage Economic Development through Technology Transfer	103
Chapter 4	Report on the Regulatory Flexibility Act (RFA), FY 2003	125
Chapter 5	Regulatory Flexibility Initiatives in the States	151
Appendix A	Small Business Data	169
Appendix B	Lessons from the Economic Research Focus Groups	195

2002–	THE SMALL BUSINESS ECONOMY:		
2003	A REPORT TO THE PRESIDENT		
	Chapter 1	The Small Business Economy, 2001-2002	1
	Chapter 2	Minorities and Women in Business	13
	Chapter 3	Small Business Financing	57
	Chapter 4	Procurement	81
	Appendix A	Small Business Data	103
	Appendix B	New Small Business Research	151
2001	THE SMALL BUSINESS ECONOMY:		
	A REPORT TO THE PRESIDENT		
	Chapter 1	The State of Small Business	7
	Chapter 2	Financing Small Business in 2000	25
	Chapter 3	Procurement	53
	Appendix	Supplementary Tables	79
1999–	THE STATE OF SMALL BUSINESS:		
2000	A REPORT OF THE PRESIDENT		
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION		
	Chapter 1	The State of Small Business	17
	Chapter 2	The Regulatory Flexibility Act: Changing the Culture of Federal Agencies	39
	Appendix A	Supplementary Tables	55
	Appendix B	Procurement	117
		THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	135
1998	THE STATE OF SMALL BUSINESS:		
	A REPORT OF THE PRESIDENT		
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION		
	Chapter 1	The State of Small Business	23
	Chapter 2	New Data for Analysis of Small Business Job Creation	47
	Chapter 3	The New American Evolution: The Role and Impact of Small Firms	75
	Chapter 4	Characteristics of Small Business Owners and Employees	95
	Chapter 5	Financing Small Business	143
	Appendix A	Supplementary Tables	181

	Appendix B Procurement	235
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	254
1997	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business	21
	Chapter 2 Financing Small Business	41
	Appendix A Supplementary Tables	69
	Appendix B Procurement	175
1996	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business	23
	Chapter 2 The White House Conference on Small Business: Implementing the Recommendations	43
	Chapter 3 Changes in Self-Employment as Small Business	85
	Chapter 4 Regulatory Relief for Small Business	131
	Chapter 5 Innovation and Small Business	139
	Appendix A Supplementary Tables	169
	Appendix B Financing Small Business	271
	Appendix C Procurement	305
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	327
1995	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business	27
	Chapter 2 Into the 21st Century: The Changing Role of Small Business by Firm Size and Employment Status	69
	Chapter 3 The Changing Work Force	89
	Chapter 4 New Research on Small Business	117
	Appendix A Supplementary Tables	133
	Appendix B Financing Small Business	275
	Appendix C Procurement	317
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	339

1994	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business	27
	Chapter 2 Health Insurance Coverage: A Profile of the Uninsured by Firm Size and Employment Status	65
	Chapter 3 Innovation by Small Firms	109
	Chapter 4 Defense Diversification and Small Business	133
	Appendix A Supplementary Tables	157
	Appendix B Small Business Financing	311
	Appendix C Procurement	351
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	381
1993	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business	21
	Chapter 2 Pension Coverage and Costs in Small and Large Business	67
	Chapter 3 Franchising: An Alternative for Small Business	109
	Appendix A Supplementary Tables	133
	Appendix B Small Business Financing	267
	Appendix C Procurement	293
	Appendix D Characteristics of Business Owners	329
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	353
1992	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	Chapter 1 The State of Small Business, 1991	1
	Chapter 2 Ten Years of Small Business in the United States	55
	Chapter 3 Highlights of Small Business Research, 1978-1992	95
	Appendix A Supplementary Tables	141
	Appendix B Small Business Financing	251
	Appendix C Procurement	303
	Appendix D Minority-Owned Business	331
	THE ANNUAL REPORT ON FEDERAL PROCUREMENT PREFERENCE GOALS	383

1991	THE STATE OF SMALL BUSINESS:	
	A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	The State of Small Business	1
	Appendix A Supplementary Tables	71
	Appendix B Small Business Financing	181
	Appendix C Procurement	220
	Appendix D Women-Owned Businesses	250
	Appendix E Black-Owned Businesses	276

1990	THE STATE OF SMALL BUSINESS:	
	A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	The State of Small Business	1
	Appendix A Supplementary Tables	68
	Appendix B Small Business Financing	159
	Appendix C Procurement	187
	Appendix D Women in Business and the Labor Force	228

1989	THE STATE OF SMALL BUSINESS:	
	A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	The State of Small Business	1
	Appendix A Supplementary Tables	42
	Appendix B Small Business Financing	119
	Appendix C Procurement	143

1988	THE STATE OF SMALL BUSINESS:	
	A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
	The State of Small Business	1
	Appendix A Supplementary Tables	57
	Appendix B Small Business Financing	151
	Appendix C Procurement	173

1987	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
Chapter 1	The State of Small Business	1
Chapter 2	Financing Patterns of Small Firms	65
Chapter 3	The Role of Small Business in Efficient Resource Allocation	105
Chapter 4	Health Care Coverage and Costs in Small and Large Business	133
Chapter 5	Effects of Industry Deregulation on the Small Business Sector	185
Chapter 6	Minority-Owned Business	223
Appendix A	The Small Business Contribution to the Service Sector	271
Appendix B	Procurement	303

1986	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
Chapter 1	The State of Small Business	1
Chapter 2	Small Business Financing	43
Chapter 3	Veterans in Business	77
Chapter 4	Self-Employment as Small Business	105
Appendix A	Women-Owned Businesses	151
Appendix B	Minority-Owned Businesses	191
Appendix C	Changing Characteristics of Workers and Size of Business	225
Appendix D	Procurement	257
Appendix E	Dimensions of Small Business	289

1985	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT	
	THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
Chapter 1	The State of Small Business	1
Chapter 2	Industrial Strategies and Small Firms	99
Chapter 3	The Effect of Deregulation on Small Business	143
Chapter 4	Small Business Financing	199
Chapter 5	Changing Patterns in Employee Benefits	245
Chapter 6	Women-Owned Business	289
Appendix A	Minority-Owned Business	339

Appendix B	Procurement	377
Appendix C	The Small Business Data Base: An Update	415

1984 THE STATE OF SMALL BUSINESS:

A REPORT OF THE PRESIDENT

THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION

Chapter 1	The State of Small Business	1
Chapter 2	The Changing Industrial and Size Composition of U.S. Business	115
Chapter 3	Historical Patterns of Small Business Financing	181
Chapter 4	Worker Characteristics and Size of Business	233
Chapter 5	Export Trade and Small Business	291
Chapter 6	Small Business and Procurement	315
Appendix A	Women-Owned Business	347
Appendix B	Minority-Owned Business	371
Appendix C	The Development of the Small Business Data Base: A Progress Report	405
Appendix D	Export Programs of the Federal Government	443
Appendix E	Federal Procurement from Small Business	453

1983 THE STATE OF SMALL BUSINESS:

A REPORT OF THE PRESIDENT

THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION

Chapter 1	Small Business in 1982	1
Chapter 2	Small Business in the U.S. Economy	27
Chapter 3	Small Business Dynamics and Methods for Measuring Job Generation	61
Chapter 4	Small Business Financing	89
Chapter 5	The Small Business Role in Innovation	121
Chapter 6	Business Formation and Dissolution	135
Chapter 7	Small Business and Regulation	165
Appendix A	Tables	183
Appendix B	The Development of a Small Business Data Base: A Progress Report	271
Appendix C	Minority-Owned and Women-Owned Business	301
Appendix D	Federal Procurement from Small, Minority-Owned, and Women-Owned Business	323
Appendix E	Tax Developments	339

1982	THE STATE OF SMALL BUSINESS: A REPORT OF THE PRESIDENT THE ANNUAL REPORT ON SMALL BUSINESS AND COMPETITION	
Chapter 1	Small Business in the U. S. Economy	37
Chapter 2	Current and Historical Trends in the Small Business Sector	63
Chapter 3	Financial Developments and the Small Business Sector	105
Chapter 4	Effect of Federal Policy on Small Business	133
Appendix A	Tables and Charts	183
Appendix B	The Small Business Data Base and Other Sources of Business Information: Recent Progress	247
Appendix C	Minority-Owned and Women-Owned Businesses	281
Appendix D	Small Business Provisions of the Securities Laws	299
Appendix E	Analysis of the Economic Recovery Tax Act of 1981	305
Appendix F	Federal Procurement from Small, Minority-Owned and Women-Owned Businesses	329
Appendix G	Federal Agency Small Business Offices	345

INDEX

- Abraham Lincoln Bicentennial
 - Commission
 - procurement by, 52 (*table*)
- Access Board
 - RFA comment letter to, 249 (*table*)
- Accommodation and food services
 - businesses by firm size in,
 - 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
- Acs, Zoltan, 93
- Administration and support
 - businesses by firm size in,
 - 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
- Advisory Commission on
 - Intergovernmental Relations
 - procurement by, 52 (*table*)
- Advocacy, U.S. Small Business
 - Administration, Office of, 48
 - 2007 research listing, 303
 - innovation studies by, 21, 93
 - international trade studies by, 101
 - new employer firms reported by, 239
 - regional advocates, 265
 - research by, 303
 - and RFA implementation, 241, 244
 - and RFA training, 246
- Africa, trade with, 71 (*table*)
- African Americans
 - as nascent entrepreneurs, 180,
 - 182 (*figure*), 185, 186 (*table*)
 - number of business owners, 296 (*table*)
 - number of employees, 298 (*table*)
 - worker training, 132, 133 (*table*)
 - workers, 112, 113 (*table*), 114
- Age
 - of business owners, 296 (*table*)
 - of employees, 298 (*table*)
 - of exporting firms, 77, 78 (*table*)
 - of nascent entrepreneurs, 180, 181 (*figure*), 185, 186 (*table*)
 - of new business owners, 165
 - and self-employment, 19
 - of workers, 112, 113 (*table*), 114
 - of workers in training, 132, 133 (*table*)
- Agency for International Development
 - procurement by, 52 (*table*), 57 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
- Aging
 - and tax policy, 161
 - of work force, 108, 111
- Agriculture
 - businesses by firm size in,
 - 284 (*table*)
 - exports in, 68, 80 (*table*)
 - startups in, 194, 195 (*table*)
 - worker training in, 135 (*table*)
- Agriculture, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- Aircraft sector
 - exporting gains in, 68
- Alabama
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Alaska
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - unemployment rate in, 21
 - see also* State data

- Alternative minimum tax, 147, 149, 151, 152
- American Legislative Exchange Council, 262
- Andean Free Trade Agreement, 95
- Angel investment, 44
- Architectural and Transportation Barriers
 - Compliance Board
 - procurement by, 52 (*table*)
- Argentina
 - entrepreneurial studies in, 237
 - firm creation activity in, 218
- Arizona
 - entrepreneurial activity in, 21
 - see also* State data
- Arkansas
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Armed Forces Retirement Home
 - procurement by, 52 (*table*)
- Armington, Catherine, 94
- Arts and entertainment
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
- Asia
 - currency exchange rates, 86
 - firm creation activity in, 218
 - trade with, 68, 71 (*table*)
- Asians
 - number of business owners, 296 (*table*)
 - number of employees, 298 (*table*)
- Australia
 - and free trade, 95, 97 (*table*)
 - entrepreneurial studies in, 237
- Automotive vehicles
 - exporting gains in, 68, 70 (*table*)
- Bahrain
 - and free trade, 95, 97 (*table*)
- Bank holding companies, 39
- Bankruptcies, 15 (*table*)
 - number of, 271 (*table*)
- Banks, 27
 - commercial and industrials loans by, 272 (*table*)
 - demand for loans in, 300 (*table*)
 - earnings of, 35
 - interest rates charged by, 29, 30 (*table*), 31 (*figure*)
 - and small business lending, 35, 37, 38 (*table*), 40 (*table*)
 - tightening standards in, 300 (*table*)
 - see also* Borrowing, Financial institutions, Financing, Lending
- Baumol, William, 94
- Belgium
 - firm creation activity in, 218
- Births of businesses, *see* Business formation
- Black Americans, *see* African Americans
- Borrowing
 - by businesses, 29, 32, 33 (*table*), 34 (*table*)
 - by governments, 29, 31, 32 (*table*)
 - by households, 29, 31, 32
 - by small businesses, 27
 - see also* Banks, Financial institutions, Financing, Lending
- Boston MSA
 - exporting by, 84 (*table*)
- Botswana
 - and free trade, 96
- Brazil
 - firm creation activity in, 218
- Broadcasting Board of Governors
 - procurement by, 52 (*table*)
- Bruce, Donald, 149, 158
- Bureau of Labor Statistics, 19
- Bush, President George W., 18
 - and E.O. 13272, 241, 243

- Business closures, 286 (*table*), 288 (*table*), 292 (*table*)
 - number of, 271 (*table*)
 - by state, 276 (*table*)
- Business contractions, 288 (*table*)
- Business creation, 165-240
 - dynamics of, 172
 - informal investment in, 213, 214 (*table*), 215 (*figure*)
 - international comparisons, 217
 - issues related to, 172
 - measures of, 173
 - number of nascent entrepreneurs, 179
 - and owner characteristics, 165
 - rate of, 169
 - reasons for, 171
 - stages of, 166
 - success of, 166
 - time devoted to, 166
 - see also* Business formation, Business starts, Entrepreneurs and entrepreneurship, Nascent entrepreneurs, Startups
- Business expansions, 288 (*table*)
- Business formation, 271 (*table*), 286 (*table*), 288 (*table*), 292 (*table*)
 - by state, 276 (*table*)
- Business owners
 - demographics of, 296 (*table*)
 - see also* Business creation, Nascent entrepreneurs
- Business services
 - employment in, 14, 16 (*table*), 17 (*table*)
- Business starts
 - number of, 271 (*table*)
 - by state, 276 (*table*)
 - see also* Business creation, Business formation, Nascent entrepreneurs, Startups
- Business turnover
 - by state, 276 (*table*)
 - by type of business change, 286 (*table*), 292 (*table*)
- Businesses
 - borrowing by, 29, 32, 33 (*table*), 34 (*table*)
 - by firm size, 278 (*table*)
 - by firm size and state, 281 (*table*)
 - by firm size and industry, 284 (*table*)
 - by state, 274 (*table*)
 - turnover in, 286 (*table*), 288 (*table*), 292 (*table*)
- CAFTA-DR, 95
- California
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Canada
 - currency exchange rates, 86, 86 (*figure*)
 - entrepreneurial studies in, 237
 - and free trade, 95, 96, 97 (*table*)
 - firm creation activity in, 218, 219 (*figure*)
 - as importer of U.S. goods, 103
 - trade with, 70, 71 (*table*)
- Capital gains taxes, 149
- Center for Venture Research, 44
- Centers for Medicare and Medicaid Services
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
 - RFA comment letter to, 249 (*table*)
- Chamber of Commerce, U.S., 262
- Chemical Safety and Hazard Investigation Board
 - procurement by, 52 (*table*)
- Chemicals
 - exporting gains in, 68
- CHI Research, 94
- Chicago MSA
 - exporting by, 84 (*table*)

- Chile
 - and free trade, 95, 97 (*table*)
- China
 - currency exchange rates, 86, 88 (*figure*)
 - exports from, 70
 - firm creation activity in, 218, 219 (*figure*)
 - imports by, 68, 103
- Cities
 - number of business owners in, 296 (*table*)
 - number of employees in, 298 (*table*)
 - see also* Metropolitan statistical areas
- Citizenship
 - of business owners, 296 (*table*)
 - of employees, 298 (*table*)
 - of nascent entrepreneurs, 188 (*table*)
- Claims Court, U.S.
 - procurement by, 52 (*table*)
- Cline, Robert, 156, 158
- Clinton, President William Jefferson, 96
- Colombia
 - and free trade, 95
- Colorado, *see* State data
- Commerce, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
 - and TPCC, 96
- Commercial and industrial loans, 15 (*table*), 272 (*table*)
- Commission on Civil Rights
 - procurement by, 52 (*table*)
- Committee for Purchase from People who are Blind or Severely Disabled
 - procurement by, 52 (*table*)
- Commodity Futures Trading Commission
 - procurement by, 52 (*table*)
- Compensation cost index, 272 (*table*)
- Competitiveness
 - in international trade, 85, 88
- Comprehensive Employment and Training Act, 121
- Computers
 - exporting gains in, 68
- Connecticut
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Construction
 - businesses by firm size in, 284 (*table*)
 - employment in, 14, 16 (*table*)
 - and entrepreneurial activity, 20
 - exports in, 80 (*table*)
 - startups in, 194, 195 (*table*)
 - worker training in, 135 (*table*)
- Consumer price index, 12 (*table*), 18, 272 (*table*)
- Consumer Product Safety Commission
 - procurement by, 52 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
 - RFA comment letter to, 249 (*table*)
- Consumer sentiment, 11, 12 (*table*)
- Consumer services
 - startups in, 195 (*table*)
- Consumption expenditures, 9 (*table*)
- Contractions of businesses, 288 (*table*)
- Corporate income tax, 147
- Corporate profits, 15 (*table*)
- Corporation for National and Community Service
 - procurement by, 52 (*table*)
- Corporations
 - as exporters, 77, 78 (*table*)
 - profits of, 272 (*table*)
 - as startups, 196 (*table*)
 - and tax policy, 149, 151, 154
- Costa Rica
 - and free trade, 95
- Court of International Trade, U.S.
 - procurement by, 52 (*table*)
- Court of Veteran Appeals, U.S.

- procurement by, 52 (*table*)
- Court Security
 - procurement by, 52 (*table*)
- Creative destruction, 168
- Credit markets, 28, 29, 32, 35
- Current Population Survey, 19, 174
- Dallas MSA
 - exporting by, 84 (*table*)
- Deaths of firms, *see* Business closures
- Defense, U.S. Department of
 - procurement by, 47, 49, 51 (*table*), 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- Defense Nuclear Facilities Safety Board
 - procurement by, 52 (*table*)
- Delaware, *see* State data
- Demographics
 - of employees, 298 (*table*)
 - of the self-employed, 296 (*table*)
- Denali Commission
 - procurement by, 52 (*table*),
- Denett, Paul, 48
- Denmark
 - firm creation activity in, 218
- Detroit MSA
 - exporting by, 84 (*table*)
- Disabilities
 - business owners with, 296 (*table*)
 - employees with, 298 (*table*)
- District of Columbia
 - entrepreneurial activity in, 21
- GDP growth in, 21
 - see also* State data
- Dollar
 - strength or weakness of, 11
- Dominican Republic
 - and free trade, 95, 97 (*table*)
- Economic growth, 8
 - and new firm creation, 170
- Economic slowdown, 28
- Economic Stimulus Act of 2008, 18
- Economies of scale in training, 109
- Ecuador
 - and free trade, 95
- Education
 - of business owners, 296 (*table*)
 - of employees, 298 (*table*)
 - employment in, 14, 16 (*table*), 17 (*table*)
 - financing and tax policy, 153
 - of nascent entrepreneurs, 183, 184 (*figure*), 185, 188, 189 (*table*)
 - and self-employment, 19
 - of workers, 112, 113 (*table*), 144 (*table*)
 - of workers in training, 132, 133 (*table*)
 - see also* Training
- Education, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- Educational services
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
- 8(a) program, 61, 62 (*table*), 63 (*table*), 65 (*table*)
- El Salvador
 - and free trade, 95, 97 (*table*)
- Election Assistance Commission
 - procurement by, 52 (*table*),
- Electronic Subcontracting Report System, 49
- Employee benefits cost index, 272 (*table*)
- Employee compensation, 272 (*table*)
- Employees
 - characteristics of, 112, 113 (*table*)
 - demographics of, 298 (*table*)
- Employers
 - by firm size, 278 (*table*)
 - by firm size and industry, 284 (*table*)

- by firm size and state, 281 (*table*)
- number of, 270 (*table*)
- turnover in, 286 (*table*)
- Employment, 12 (*table*), 14, 16 (*table*), 17 (*table*), 272 (*table*)
 - by firm size, 111, 278 (*table*)
 - by firm size and industry, 284 (*table*)
 - by firm size and state, 281 (*table*)
 - by type of business change, 288 (*table*), 292 (*table*)
- Employment change
 - by size of business, 294 (*table*)
- Employment cost index, 15 (*table*)
- Energy, U.S. Department of
 - procurement by, 51 (*table*), 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- Energy costs, 8, 18, 28
- Energy products
 - exporting gains in, 68
- Entrepreneurial activity
 - international comparisons, 217
- Entrepreneurs and entrepreneurship
 - characteristics of, 169
 - defined, 167
 - and job satisfaction, 171
 - “nascent,” 171, 176
 - see also* Business creation, Nascent entrepreneurs, Startups
- Environmental friendliness
 - standards for measuring, 90
- Environmental Protection Agency
 - procurement by, 52 (*table*), 57 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*),
 - RFA comment letter to, 249 (*table*)
 - SBIR awards by, 59
 - SBREFA provisions about, 243
- Equal Employment Opportunity
 - Commission
 - procurement by, 52 (*table*)
- Equity markets, 272 (*table*)
- Establishments
 - by firm size, 278 (*table*)
 - number of, 270 (*table*)
 - openings and closings of, 292 (*table*)
- Estate tax, 147, 149, 152
- Ethnicity
 - of business owners, 296 (*table*)
 - business owners with multiple, 296 (*table*)
 - of employees, 298 (*table*)
 - of nascent entrepreneurs, 180, 182 (*figure*), 185, 186 (*table*)
 - of new business owners, 165
 - see also* African Americans, Hispanic Americans, White Americans, Race
- Euro
 - exchange rate with dollar, 85, 86 (*figure*)
- Europe
 - firm creation activity in, 218, 219 (*figure*)
 - trade with, 70, 71 (*table*)
- Exchange rates, 86 (*figure*), 87 (*figure*)
 - risk associated with, 101
- Executive Office of the President
 - procurement by, 52 (*table*)
- Executive Order 12870, 96
- Executive Order 13272, 241, 242, 243
 - text of, 335
 - training requirement, 246
- Expansions of businesses, 288 (*table*)
- Export assistance centers, U.S., 99
- Exporters
 - characteristics of, 76, 78 (*table*)
- Export-Import Bank, U.S., 100
- Exporting
 - challenges to, 101
- Exports, 7, 9 (*table*), 11, 28, 67, 69 (*table*)
 - by small businesses, 67
 - value of, 72

- Failure, *see* Business closures
- Fairlie, Robert W., 20
- Family owned businesses
and exporting, 78 (*table*)
- Farm Credit Administration
procurement by, 52 (*table*)
- Farm income, 272 (*table*)
- Federal Aviation Administration
regulatory cost savings by,
251 (*table*), 261 (*table*)
RFA comment letter to, 249 (*table*)
- Federal Communications Commission
procurement by, 52 (*table*)
regulatory cost savings by, 251 (*table*),
261 (*table*)
RFA comment letter to, 249 (*table*)
- Federal Election Commission
procurement by, 52 (*table*)
- Federal Emergency Management Agency
procurement by, 52 (*table*), 57 (*table*)
- Federal Energy Regulatory Commission
procurement by, 52 (*table*)
- Federal Financial Institutions
Examination Council
procurement by, 52 (*table*)
- Federal funds rate, 28
- Federal government
borrowing by, 31, 33 (*table*)
and formal training, 121
- Federal Housing Finance Board
procurement by, 52 (*table*)
- Federal Labor Relations Authority
procurement by, 52 (*table*)
- Federal Maritime Commission
procurement by, 52 (*table*)
- Federal Mine Safety and Health
Review Commission
procurement by, 52 (*table*)
- Federal Open Market Committee, 27, 28
- Federal procurement, 47-65
see also Procurement
- Federal Public Defenders
procurement by, 52 (*table*)
- Federal Reserve System, Board of
Governors of
and monetary policy, 18, 28, 29
procurement by, 52 (*table*)
- Federal Trade Commission
procurement by, 52 (*table*)
- Final regulatory flexibility analysis, 242
- Finance and insurance
businesses by firm size in, 284 (*table*)
exports in, 80 (*table*)
startups in, 195 (*table*)
worker training in, 135 (*table*)
- Finance companies, 39, 42 (*table*)
- Financial institutions
earnings of, 35
and small business borrowing, 27, 35,
37, 38 (*table*), 40 (*table*)
see also Banks, Borrowing,
Financing, Lending
- Financial sector
employment in, 14, 16 (*table*)
- Financing, 27-46
sources and uses of, 36 (*table*)
see also Banks, Borrowing, Financial
institutions, Lending
- Finland
firm creation activity in, 218
- Firm creation, *see* Business creation,
Business formation, Business
starts, Startups
- Fish and Wildlife Service
regulatory cost savings by,
251 (*table*), 261 (*table*)
RFA comment letter to, 249 (*table*)
- Fishing, hunting, and trapping
exports in, 80 (*table*), 83
see also Agriculture
- Flexibility of small businesses, 108, 110

- Florida
 exporting in, 77, 81 (*table*), 83 (*table*)
 unemployment rate in, 21
see also State data
- Food and Drug Administration
 regulatory cost savings by, 251 (*table*),
 261 (*table*)
- Food costs, 18
- Food, feeds, and beverages
 exporting gains in, 68, 70 (*table*)
- Food services
 businesses by firm size in, 284 (*table*)
- Foreign Agricultural Service, 100
- Foreign exchange rates, 86 (*figure*),
 87 (*figure*)
- Forestry, *see* Agriculture
- Fort Worth MSA
 exporting by, 84 (*table*)
- Fox, William, 158
- Free trade agreements, 95
- Free Trade Area of the Americas, 96
- Friedman, Thomas, 102
- Full-time workers, 115 (*table*)
 as nascent entrepreneurs, 185
 and training, 134 (*table*)
- Gender
 of nascent entrepreneurs, 180, 181
 (*figure*), 182 (*figure*), 183 (*figure*),
 184 (*figure*), 185, 186 (*table*), 187
 (*table*), 189 (*table*), 190 (*table*),
 191 (*table*), 192 (*table*)
 of new business owners, 165
 of workers, 113 (*table*), 114
 of workers in training, 132,
 133 (*table*)
see also Women, Men
- General Services Administration
 procurement by, 52 (*table*), 57 (*table*)
 RFA comment letter to, 249 (*table*)
- Georgia, *see* State data
- Germany
 firm creation activity in, 218
- Global competition, 102
- Global Competitiveness Index, 91
Global Competitiveness Report, 91
- Global Entrepreneurship Monitor, 94,
 217, 239
- Global Innovation Index, 92
- Goods production
 employment declines in, 111
- Government Accountability Office
 procurement by, 52 (*table*)
- Government Printing Office
 procurement by, 52 (*table*)
- Government
 employment in, 14, 16 (*table*), 17 (*table*)
 and training costs, 138 (*table*)
see also Federal government, State
 and local government
- Great Britain, *see* United Kingdom
- Greece, entrepreneurial studies in, 237
- Green taxation, 162
- Gross domestic product, 7, 8, 9 (*table*), 18,
 21, 28, 67, 69 (*table*), 272 (*table*)
 implicit price deflator, 272 (*table*)
- Guam, *see* State data
- Guatemala
 and free trade, 95, 97 (*table*)
- Gurley-Calvez, Tami, 149
- Hawaii
 exporting in, 77, 81 (*table*), 83 (*table*)
 GDP growth in, 21
 unemployment rate in, 20
see also State data
- Health and Human Services, U.S.
 Department of
 procurement by, 51 (*table*), 52 (*table*),
 57 (*table*)
 regulatory cost savings by, 251 (*table*),
 261 (*table*)

- SBIR awards by, 59
- Health care and social assistance sector, 16
 - (*table*), 17 (*table*)
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 194, 195 (*table*)
- Health insurance
 - deductibility, 150
 - as small business issue, 20
 - and tax policy, 153
- High technology, 47
- Hispanic Americans
 - and entrepreneurial activity, 20
 - as nascent entrepreneurs, 180, 182 (*figure*), 185, 186 (*table*)
 - number of business owners, 296 (*table*)
 - number of employees, 298 (*table*)
 - and self-employment, 7
 - and small business, 19
 - workers, 112, 113 (*table*), 114
 - workers in training, 132, 133 (*table*)
 - see also* Ethnicity, Race
- Home mortgages, 29
- Homeland Security, U.S. Department of
 - procurement by, 49, 51 (*table*), 52 (*table*), 57 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
 - RFA comment letter to, 249 (*table*)
- Honduras
 - and free trade, 95, 97 (*table*)
- Hours worked, 272 (*table*)
- Households
 - borrowing by, 29, 31, 32
- Housing and Urban Development, U.S. Department of
 - procurement by, 49, 52 (*table*), 57 (*table*)
- Housing starts, 10 (*figure*), 12 (*table*), 27
- Houston MSA
 - exporting by, 84 (*table*)
- HUBZones, 61
- Hunting, *see* Agriculture
- Hurricanes Katrina and Rita, 21
- Idaho
 - entrepreneurial activity in, 21
 - unemployment rate in, 20
 - see also* State data
- Illinois, *see* State data
- Immigrants
 - as nascent entrepreneurs, 188 (*table*)
 - and new firm creation, 171
 - workers, 114
- Impact Technologies, 59
- Imports, 9 (*table*), 68, 69 (*table*)
- Income, 15 (*table*), 272 (*table*)
 - of nascent entrepreneurs, 182, 183 (*figure*), 185, 188, 189 (*table*)
- Income tax policy, 149
 - see also* Tax policy
- Incorporations, 174
- India
 - firm creation activity in, 218, 219 (*figure*)
- Indiana, *see* State data
- Indonesia
 - firm creation activity in, 219
- Industrial production, 11, 12 (*table*), 88, 89 (*figure*)
- Industrial supplies
 - exporting gains in, 68, 70 (*table*)
- Industries
 - employer and nonemployers firms in, 284 (*table*)
 - of exporters, 77, 80 (*table*)
 - of small firm workers, 115 (*table*)
 - of startup businesses, 194
 - of workers in training, 132, 134 (*table*), 135 (*table*)
- Inflation, 18, 272 (*table*)
- Information
 - businesses by firm size in, 284 (*table*)

- employment in, 14, 16 (*table*), 17 (*table*)
- exports in, 80 (*table*)
- startups in, 195 (*table*)
- Information and Regulatory Affairs, Office of
 - and RFA implementation, 243
- Information security measurement, 90
- Initial public offerings, 27, 39, 43 (*table*)
- Initial regulatory flexibility analysis, 242
- Innovation
 - and global competitiveness, 91
 - measures of, 92
 - and new firm creation, 170
 - role in competitiveness, 88
- Innovation Confidence Index, 92
- Institute for Innovation and Information Productivity, 92
- Institute for Supply Management
 - manufacturing index, 11, 12 (*table*)
- Insurance
 - businesses by firm size in, 284 (*table*)
- Intellectual property
 - as exporting challenge, 103
- Interest rates, 18, 28, 29 (*figure*), 30 (*table*)
 - prime rate, 272 (*table*)
- Interior, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
- Internal Revenue Service
 - RFA comment letter to, 249 (*table*)
- International competitiveness, 85, 88
- International Organization for Standardization, 90
- International trade, 67-106
 - programs supporting, 99
- International Trade Administration, 103
 - export assistance from, 99
 - procurement by, 52 (*table*)
- Intrapreneurs, 169
- Investment, 9 (*table*)
 - in small businesses, 39
- Iowa, *see* State data
- Ireland
 - firm creation activity in, 218
- Israel
 - and free trade, 95, 97 (*table*)
- Italy
 - firm creation activity in, 218
- Japan
 - currency exchange rates, 86, 87 (*figure*)
 - firm creation activity in, 218, 219 (*figure*)
 - as importer of U.S. goods, 103
- Job creation, 7, 19, 170
 - by size of business, 294 (*table*)
 - small business role in, 107, 109, 111
 - see also* Business creation
- Job satisfaction of entrepreneurs, 171
- Job Training Partnership Act, 122
- John F. Kennedy Center for the Performing Arts
 - procurement by, 52 (*table*)
- Jordan
 - and free trade, 95, 97 (*table*)
- Judicial Branch
 - procurement by, 52 (*table*)
- Justice, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
- Kansas, *see also* State data
- Kauffman Index of Entrepreneurial Activity, 7, 20, 21
- Kentucky
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Kirchhoff, Bruce, 94
- Labor, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - RFA comment letter to, 249 (*table*)
- Labor force
 - as small business issue, 20

- trends in, 107, 110
- Large businesses
 - and training, 109
 - and training costs, 136, 136 (*table*), 137 (*figure*), 138 (*table*), 139 (*figure*)
- Latin America
 - firm creation activity in, 218, 219 (*figure*)
 - trade with, 70, 71 (*table*)
- Legislative Branch
 - procurement by, 52 (*table*)
- Leisure
 - employment in, 14, 16 (*table*), 17 (*table*)
- Lending
 - by finance companies, 39, 42 (*table*)
 - see also* Banks, Borrowing, Financial institutions, Financing
- Lesotho
 - and free trade, 96
- Library of Congress
 - procurement by, 52 (*table*)
- Loan rates, 15 (*table*)
 - see also* Interest rates
- Local governments
 - borrowing by, 31, 33 (*table*)
 - see also* State and local governments
- Los Angeles MSA
 - exporting by, 84 (*table*)
- Louisiana
 - entrepreneurial activity in, 21
 - GDP growth in, 21
 - see also* State data
- Machinery sector
 - exporting gains in, 68
- Maine, *see* State data
- Malaysia
 - firm creation activity in, 219
- Management of companies
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
- Managerial practices standards, 90
- Manpower Development and Training Act, 121
- Manufacturing
 - businesses by firm size in, 284 (*table*)
 - employment in, 14, 16 (*table*), 17 (*table*), 111
 - employment and output in, 87, 89 (*figure*)
 - exports in, 72, 73 (*table*), 74 (*table*), 76 (*figure*), 77, 80 (*table*)
 - output in, 11, 12 (*table*)
 - sales in, 272 (*table*)
 - startups in, 195 (*table*)
 - worker training in, 135 (*table*)
- Marital status
 - of nascent entrepreneurs, 187 (*table*)
 - of workers, 112, 113 (*table*)
 - of workers in training, 132, 133 (*table*)
- Maryland, *see* State data
- Massachusetts
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- Men
 - and entrepreneurial activity, 20
 - number of male employees, 298 (*table*)
 - and training, 132, 133 (*table*)
 - see also* Gender
- Merit Systems Protection Board
 - procurement by, 52 (*table*)
- Metal products
 - exporting gains in, 68
- Metropolitan statistical areas
 - exporting by, 79, 84 (*table*)
- Mexico
 - firm creation activity in, 218
 - and free trade, 95, 96, 97 (*table*)
 - as importer of U.S. goods, 103
- Miami MSA

- exporting by, 84 (*table*)
- Michigan
 - business taxes in, 157
 - unemployment rate in, 21
 - see also* State data
- Middle East
 - trade with, 71 (*table*)
- Midwest
 - entrepreneurial activity in, 21
- Millennium Challenge Corporation
 - procurement by, 52 (*table*)
- Mining
 - businesses by firm size in, 284 (*table*)
 - employment in, 16 (*table*), 17 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)
 - worker training in, 135 (*table*)
- Minnesota
 - unemployment rate in, 21
 - see also* State data
- Minorities
 - and small business, 19
 - workers, 112, 113 (*table*), 114
 - see also* Ethnicity, Race
- Minority-owned businesses
 - federal procurement from, 61, 62 (*table*), 63 (*table*)
 - see also* Ethnicity, Race
- Mississippi
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - unemployment rate in, 21
 - see also* State data
- Missouri, *see* State data
- Montana, GDP growth in, 21
 - see also* State data
- Morocco
 - and free trade, 95, 96, 97 (*table*)
- Mortgages, 18
- NAFTA, 95, 96
- Namibia
 - and free trade, 96
- Nascent enterprises, *see* Startups
- Nascent entrepreneurs, 171, 176, 179
 - aspirations of, 191
 - characteristics of, 180, 184, 185, 192
 - education of, 183, 184 (*figure*), 185, 188, 189 (*table*)
 - experience of, 190 (*table*)
 - gender of, 180, 181 (*figure*), 182 (*figure*), 183 (*figure*), 184 (*figure*), 185, 186 (*table*), 187 (*table*), 189 (*table*), 190 (*table*), 191 (*table*), 192 (*table*)
 - immigrant status of, 188 (*table*)
 - income of, 182, 183 (*figure*), 185, 188, 189 (*table*)
 - marital status of, 187 (*table*)
 - motivations of, 191 (*table*), 192 (*figure*)
 - see also* Business creation, Startups
- NASDAQ, 272 (*table*)
- National Academy of Sciences
 - business dynamics study, 171, 232, 233 (*figure*)
- National Aeronautics and Space Administration
 - procurement by, 51 (*table*), 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- National Archives and Records Administration
 - procurement by, 52 (*table*)
- National Association for the Self-Employed, 262
- National Association of Manufacturers, 102
- National Capital Planning Commission
 - procurement by, 52 (*table*)
- National Commission on Libraries and Information Science
 - procurement by, 52 (*table*)

- National Endowment for the Arts
 - procurement by, 52 (*table*)
- National Endowment for the Humanities
 - procurement by, 52 (*table*)
- National Federation of Independent Business, 11, 12 (*table*), 20, 262
- National Gallery of Art
 - procurement by, 52 (*table*)
- National Labor Relations Board
 - procurement by, 52 (*table*)
- National Mediation Board
 - procurement by, 52 (*table*)
- National Science Foundation
 - procurement by, 52 (*table*)
 - SBIR awards by, 59
- National Transportation Safety Board
 - procurement by, 52 (*table*)
- Native Americans
 - number of business owners, 296 (*table*)
 - number of employees, 298 (*table*)
- Native-born
 - business owners, 296 (*table*),
 - employees, 298 (*table*)
- Nebraska
 - unemployment rate in, 20
 - see also* State data
- Netherlands
 - entrepreneurial studies in, 237
 - firm creation activity in, 218
- Networks and innovation, 94
- Neubig, Thomas, 156, 158
- Nevada
 - unemployment rate in, 21
 - see also* State data
- New business
 - PSED definition of, 177
 - see also* Business creation
- New employer firms
 - as measure of business activity, 174
 - see also* Employers
- New entrepreneurs, *see* Nascent entrepreneurs
- New Hampshire, *see* State data
- New Jersey
 - unemployment rate in, 21
 - see also* State data
- New Mexico
 - unemployment rate in, 21
 - see also* State data
- New York
 - GDP growth in, 21
 - see also* State data
- New York City MSA
 - exporting by, 84 (*table*)
- Nicaragua
 - and free trade, 95, 96, 97 (*table*)
- Nonemployers
 - by firm size, 278 (*table*)
 - number of, 270 (*table*)
 - by state, 274 (*table*)
 - see also* Employers
- North Carolina, *see* State data
- North Dakota
 - GDP growth in, 21
 - see also* State data
- Norway
 - entrepreneurial studies in, 237
 - firm creation activity in, 218
- Nuclear Regulatory Commission
 - procurement by, 52 (*table*), 57 (*table*)
- Occupational Safety and Health
 - Administration
 - RFA comment letter to, 249 (*table*)
 - SBREFA provisions about, 243
- Occupational Safety and Health Review
 - Commission
 - procurement by, 52 (*table*)
- Office of Federal Inspector for Alaska
 - Natural Gas Transportation System
 - procurement by, 52 (*table*)

- Office of Federal Procurement Policy, 48
- Office of Government Ethics
 - procurement by, 52 (*table*)
- Ohio
 - business taxes in, 157
 - see also* State data
- Oil prices, 8, 10 (*figure*), 87, 88 (*figure*)
- Oklahoma
 - GDP growth in, 21
 - see also* State data
- Oman
 - and free trade, 95
- One-stop career centers, 122
- On-the-job training, 128, 129 (*table*), 139 (*figure*)
- Optimism of consumers, 11, 12 (*table*)
- Oregon
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - GDP growth in, 21
 - see also* State data
- Output, 15 (*table*), 272 (*table*)
- Pacific region
 - trade with, 68, 71 (*table*)
- Palmetto Consulting, 101
- Panama
 - and free trade, 95
- Panel Study of Entrepreneurial Dynamics,
 - 165, 167, 172
 - conceptual model of, 176, 177 (*figure*)
 - future applications, 224
 - research implications of, 220
 - research procedure, 178, 178 (*table*), 234, 236 (*table*)
- Partnerships
 - as exporters, 77, 78 (*table*)
 - as startups, 196 (*table*)
 - and tax policy, 149
- Part-time workers, 114, 115 (*table*)
 - as nascent entrepreneurs, 185
 - and training, 134 (*table*)
- Patent and Trademark Office
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
- Patents, 47
- Paulson, Treasury Secretary Henry, 86
- Payroll by firm size, 278 (*table*)
- Peace Corps
 - procurement by, 52 (*table*)
- Pennsylvania, *see* State data
- Pension tax credits, 150
- Personal Responsibility and Work Opportunity Reconciliation Act, 122
- Personnel Management, Office of
 - procurement by, 52 (*table*), 57 (*table*)
- Peru
 - and free trade, 95
- Philippines
 - firm creation activity in, 219
- Phillips, Andrew, 158
- Pipeline and Hazardous Materials Safety Administration
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
- Prime rates, 272 (*table*)
- Private industry councils, 122
- Procurement, 47-65
 - 8(a) program, 61, 62 (*table*), 63 (*table*), 65 (*table*)
 - from HUBZone businesses, 61, 62 (*table*), 63 (*table*)
 - from minority-owned businesses, 61, 62 (*table*), 63 (*table*)
 - from small firms, 47-65
 - from veteran-owned businesses, 61, 62 (*table*), 63 (*table*)
 - from women-owned businesses, 61, 62 (*table*), 63 (*table*)
- Producer price index, 12 (*table*), 272 (*table*)
- Productivity, 87, 272 (*table*)
 - and new firm creation, 170
 - and training, 107

- Professional, scientific, and technical services
 - businesses by firm size in, 284 (*table*)
 - exports in, 77, 80 (*table*)
 - startups in, 195 (*table*)
- Profits, corporate, 272 (*table*)
- Property tax, 153
- Proprietorships
 - as exporters, 77, 78 (*table*)
 - income of, 15 (*table*) 272 (*table*)
 - as startups, 196 (*table*)
 - and tax policy, 149
- Public administration startups, 195 (*table*)
- Puerto Rico
 - regulatory flexibility success story, 263
- Quality
 - measurement standards, 90
 - role in competitiveness, 88
- Race
 - of workers, 113 (*table*)
 - of workers in training, 132, 133 (*table*)
 - see also* African Americans, Ethnicity, Hispanic Americans, Minorities, White Americans
- Railroad Retirement Board
 - procurement by, 52 (*table*)
- Real estate
 - businesses by firm size in, 284 (*table*)
 - startups in, 195 (*table*)
- Receipts
 - by firm size, 278 (*table*)
 - of exporting firms, 78 (*table*)
- Regulation
 - and exporting, 103
 - as small business issue, 20
- Regulatory Flexibility Act of 1980, 241
 - 2007 report, 241-268
 - comment letters, 248 (*figure*), 249 (*table*)
 - cost savings, 241, 251 (*table*), 261 (*table*)
 - and economic data, 247
 - effectiveness measures, 247
 - provisions of, 242
 - section 610 review, 245
 - text of, 321
 - training in, 248
- Regulatory Review and Reform initiative, 245
- Research and development, 90
 - and startup businesses, 198
- Research sponsored by Office of Advocacy, 303
- Retail trade
 - businesses by firm size in, 284 (*table*)
 - employment in, 16 (*table*), 17 (*table*)
 - exports in, 77, 80 (*table*)
 - sales in, 272 (*table*)
 - startups in, 194, 195 (*table*)
 - worker training in, 135 (*table*)
- Rhode Island, *see* State data
- Rural areas
 - number of business owners in, 296 (*table*)
 - number of employees in, 298 (*table*)
- S&P composite, 272 (*table*)
- Sales, 272 (*table*)
- Sales tax, 148
- San Jose MSA
 - exporting by, 84 (*table*)
- SBA Procurement Scorecard, 48
- Scheirer, William, 93
- Schilling, Melissa, 94
- SCORE, 99
- Seattle MSA
 - exporting by, 84 (*table*)
- Securities and Exchange Commission
 - procurement by, 52 (*table*), 57 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*)

- RFA comment letter to, 249 (*table*)
- Selective Service System
 - procurement by, 52 (*table*)
- Self-employment, 7, 12 (*table*), 14, 19, 270 (*table*)
 - demographics of, 296 (*table*)
 - as measure of labor force activity, 173
 - by state, 274 (*table*)
- Self-employment Assistance Program, 123
- Senior Loan Officer Opinion Survey, 36
- Services
 - businesses by firm size in, 284 (*table*)
 - employment in, 14, 16 (*table*), 17 (*table*)
 - and entrepreneurial activity, 20
 - exports in, 77, 80 (*table*)
 - international trade in, 70, 72 (*table*)
 - job growth in, 111
 - training of workers in, 132, 134 (*table*), 135 (*table*)
- Shane, Scott, 94
- Singapore
 - and free trade, 95, 97 (*table*)
- Size
 - of exporting firms, 77, 78 (*table*)
 - of small businesses, 48
- Small Business & Entrepreneurship Council, 262
- Small Business Administration, U.S.
 - export assistance from, 99
- Office of Government Contracting, 47
 - procurement by, 52 (*table*)
 - recertification regulation, 48
 - and TPCC, 99
 - see also* Advocacy, U.S. Small Business Administration
- Office of Government Contracting, 47
 - Office of Government Contracting, 47
- Small business development centers, 99
- Small Business Economy, The*
 - contents of previous editions, 337
- Small Business Innovation Research, 47, 59, 60 (*table*)
- Small Business Regulatory Enforcement Fairness Act, 242
- Small Business Technology Transfer, 47
- Small businesses
 - amount of training provided by, 124, 125 (*table*), 126 (*table*), 127 (*figure*)
 - and international trade, 67-106
 - lending to, 35, 37, 38 (*table*), 40 (*table*)
 - procurement from, 49, 50 (*table*)
 - and training, 107-146
 - and training costs, 136, 136 (*table*), 137 (*figure*), 138 (*table*), 139 (*figure*)
 - see also* Business
- Small disadvantaged businesses
 - federal procurement from, 61, 62 (*table*), 63 (*table*), 64 (*table*)
- Smithsonian Institution
 - procurement by, 52 (*table*), 57 (*table*)
- Social assistance
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
- Social Security Administration
 - procurement by, 52 (*table*), 57 (*table*)
- South
 - entrepreneurial activity in, 21
- South African Customs Union, 96
- South Carolina, *see* State data
- South Dakota
 - unemployment rate in, 20
 - see also* State data
- South Korea
 - and free trade, 95
- Spain
 - firm creation activity in, 218
- Special Rail Reorganization Court
 - procurement by, 52 (*table*)
- Startups
 - activities to create, 204 (*table*), 205 (*table*)
 - characteristics of (summary), 199
 - customers of, 197 (*table*)

- family ownership of, 199
- growth expectations of, 198 (*table*)
- by industry, 194, 195 (*table*)
- investment in, 205 (*table*), 213, 214 (*table*), 215 (*figure*)
- legal form of, 196 (*table*)
- location of, 196 (*table*)
- market impact (expected) of, 197 (*table*)
- outcomes, 206, 207 (*table*), 209 (*figure*)
- process to create, 202
- profile of, 194
- size expectations of, 198 (*table*)
- success characteristics, 210
- team characteristics, 199, 200 (*table*)
- technological emphasis of, 197 (*table*)
- see also* Business creation, Business formation, Business starts, Nascent entrepreneurs
- State, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - regulatory cost savings by, 251 (*table*), 261 (*table*)
- State and local tax policy, 147, 153
 - and aging of population, 161
 - apportionment formulas, 156
 - combined reporting requirements, 156
 - and corporations, 154
 - decoupling from federal provisions, 157
 - and health care inflation, 153
 - individual income tax, 160
 - property tax, 153, 160
 - sales tax, 158
 - see also* Tax policy
- State data
 - business turnover, 276 (*table*)
 - employers and employment, 281 (*table*)
 - employers and nonemployers by size, 274 (*table*)
 - exporting, 81 (*table*), 83 (*table*)
 - GDP, 22 (*table*)
 - macroeconomic indicators, 22 (*table*)
 - number of businesses, 274 (*table*)
 - per capita income, 22 (*table*)
 - regulatory flexibility provisions, 262, 263, 266 (*table*), 267 (*figure*)
 - self-employment, 274 (*table*)
 - training provided, 123
 - unemployment rates, 22 (*table*)
- State governments
 - borrowing by, 31, 33 (*table*)
- State Justice Institute
 - procurement by, 52 (*table*)
- Streamlined Sales Tax Project, 158
- Suburbs
 - number of business owners in, 296 (*table*)
 - number of employees in, 298 (*table*)
- Success
 - in creating businesses, 166, 210
- Survey of Income and Program Participation, 112, 117, 142
- Swaziland
 - and free trade, 96
- Sweden
 - entrepreneurial studies in, 237
 - firm creation activity in, 218
- Switzerland
 - firm creation activity in, 218
- Tax Court, U.S.
 - procurement by, 52 (*table*)
- Tax policy, 147-164
 - and aging of population, 161
 - alternative minimum tax, 147, 149, 151, 152
 - apportionment formulas, 156
 - capital gains taxes, 149
 - carried interest, 150
 - combined reporting requirements, 156
 - corporate taxes, 151, 154
 - decoupling from federal provisions, 157

- determination of nexus, 147, 155
- estate taxes, 152
- expensing, 152
- future trends, 161
- green taxation, 162
- and health care cost inflation, 153
- health insurance deductibility, 150
- income taxes, 149
- and Internet sales, 159
- pension startup credit, 150
- property tax, 153, 160
- rates, 149
- as small business issue, 20
- technology for, 162
- see also* State and local tax policy
- Tax Policy Center, 151
- Tax rebates, 18
- Tax returns
 - number of, 270 (*table*)
- Tennessee
 - entrepreneurial activity in, 21
 - see also* State data
- Terminations
 - number of, 271 (*table*)
 - by state, 276 (*table*)
- Texas
 - business taxes in, 157
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - GDP growth in, 21
 - see also* State data
- Textiles
 - exporting gains in, 68
- Thailand
 - and free trade, 96
 - firm creation activity in, 219
- Thermacore, 59
- Time Domain Corporation, 59
- Total entrepreneurial activity index, 217
- Trade, *see* Exporting, International trade
- Trade and Development Agency, U.S.
 - procurement by, 52 (*table*)
- Trade deficit, 11
- Trade Promotion Coordinating
 - Committee, 96
- Training in small businesses, 107-146
 - amount of, 145 (*table*), 146 (*table*)
 - amount provided by small businesses, 124, 125 (*table*)
 - in basic skills, 118, 119 (*table*)
 - characteristics of, 110, 116
 - costs of, 135, 136 (*table*), 137 (*figure*), 138 (*table*), 139 (*figure*)
 - federal government role in, 121
 - formal vs. informal, 119
 - general vs. specific, 118
 - to improve job skills, 124, 125 (*table*), 138, 139 (*table*), 140 (*table*), 145 (*table*), 146 (*table*)
 - intensity of, 127, 128 (*table*)
 - for job search, 124, 125 (*table*), 138, 139 (*table*), 140 (*table*), 145 (*table*), 146 (*table*)
 - measurement of, 117
 - on or off the job, 128, 129 (*table*), 130 (*figure*)
 - purposes of, 144 (*table*)
 - sources of, 130, 131 (*table*), 131 (*figure*)
 - in specific skills, 119 (*table*)
 - state role in, 123
 - trends by firm size, 125, 126 (*table*), 127 (*figure*)
 - types, 117
 - and worker characteristics, 132
- Transportation, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
 - SBIR awards by, 59
- Transportation and warehousing
 - businesses by firm size in, 284 (*table*)
 - exports in, 77, 80 (*table*)
 - startups in, 195 (*table*)
 - worker training in, 135 (*table*)

- Treasury bond yields, 272 (*table*)
- Treasury securities, 28
- Treasury, U.S. Department of
 - procurement by, 52 (*table*), 57 (*table*)
- Turnover by type of business change, 286 (*table*), 288 (*table*), 292 (*table*)

- Unemployment, 12 (*table*), 14, 272 (*table*)
- Unemployment insurance filings, 174
- Unemployment Insurance Trust Fund, 123
- Unions
 - and small firm workers, 114, 115 (*table*)
 - and workers in training, 134 (*table*)
- United Arab Emirates
 - and free trade, 96
- United Kingdom
 - currency exchange rates, 86, 86 (*figure*)
 - entrepreneurial studies in, 237
 - firm creation activity in, 218, 219 (*figure*)
 - as importer of U.S. goods, 103
- University of Michigan consumer sentiment survey, 11, 12 (*table*)
- Unskilled workers
 - small business employment of, 108, 111
- U.S., *see next word in name*
- Utah
 - employment growth in, 21
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - GDP growth in, 21
 - unemployment rate in, 20
 - see also* State data
- Utilities
 - businesses by firm size in, 284 (*table*)
 - exports in, 80 (*table*)
 - startups in, 195 (*table*)

- Venture capital, 271, 44, 45 (*table*)
- Vermont
 - unemployment rate in, 21

- see also* State data
- Veteran-owned businesses
 - federal procurement from, 61, 62 (*table*), 63 (*table*)
- Veterans
 - number of business owners, 296 (*table*)
 - number of employees, 298 (*table*)
 - workers, 113 (*table*)
 - workers in training, 132, 133 (*table*)
- Veterans Affairs, U. S. Department of
 - procurement by, 49, 51 (*table*), 52 (*table*), 57 (*table*)
- Vietnam
 - firm creation activity in, 219
- Virgin Islands, *see* State data
- Virginia
 - unemployment rate in, 20
 - see also* State data

- Wages and salaries
 - growth in, 14, 15 (*table*)
 - growth by firm size, 110
 - index of, 272 (*table*)
 - of small firm workers, 114, 115 (*table*)
 - of workers in training, 132, 134 (*table*)
- Washington
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - GDP growth in, 21
 - see also* State data
- Wealth of nascent entrepreneurs, 182, 183 (*figure*), 185
- Welfare recipients
 - training provided to, 121
- West
 - entrepreneurial activity in, 21
- West Virginia
 - exporting in, 77, 81 (*table*), 83 (*table*)
 - see also* State data
- White Americans
 - as nascent entrepreneurs, 180, 182 (*figure*), 185, 186 (*table*)

number of business owners,
296 (*table*)
number of employees, 298 (*table*)
and training, 132, 133 (*table*)
as workers, 112, 113 (*table*)

Wholesale trade

businesses by firm size in, 284 (*table*)
employment in, 14, 16 (*table*),
17 (*table*)
exports in, 72, 73 (*table*), 74 (*table*),
76 (*figure*), 77, 80 (*table*)
sales in, 272 (*table*)
startups in, 195 (*table*)
worker training in, 135 (*table*)

Wisconsin, *see* State data

Women

as nascent entrepreneurs, 180,
181 (*figure*), 182 (*figure*),
183 (*figure*), 184 (*figure*),
185, 186 (*table*), 187 (*table*),
189 (*table*), 190 (*table*),
191 (*table*), 192 (*table*)
number of business owners, number
of, 296 (*table*)
number of employees, 298 (*table*)
and small business, 19
and worker training, 132, 133 (*table*)
as workers, 113 (*table*), 114

Women-owned businesses

federal procurement from, 61,
62 (*table*), 63 (*table*)

Women's business centers, 99

Workers

characteristics of, 112, 113 (*table*),
115 (*table*)
see also Employees

Workforce Investment Act, 122

World Economic Forum, 91

World Trade Organization, 96

Wyoming

unemployment rate in, 20
see also State data