2004

The SMALL BUSINESS ECONOMY

A REPORT TO THE PRESIDENT

SBA
Office of Advocacy

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Dear Mr. President:

The Office of Advocacy of the U.S. Small Business Administration is pleased to present *The Small Business Economy: A Report to the President*. In 2003, the overall economic indicators improved as the recovery gained momentum. Small businesses have led the way. However, continued strong growth requires an environment that fosters more small business activity.

During a recent conference organized by the Office of Advocacy, Treasury Secretary John W. Snow noted that it is important for government to create an environment where entrepreneurship can thrive. Much of this year's report focuses on regulations. That is no accident. This office enforces the Regulatory Flexibility Act of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996. Moreover, your Administration has been a supporter of reducing regulatory burden for small businesses; and in August 2002, you signed Executive Order 13272, recognizing that federal agencies need to consider small firms when drafting new federal rules.

Two studies from the Office of Advocacy highlight the disadvantages faced by many entrepreneurs when it comes to government rules and regulations. First, in 2001, W. Mark Crain and Thomas D. Hopkins found that small firms with fewer than 20 employees pay nearly 60 percent more to comply with federal regulations than their larger counterparts with more than 500 employees. Small business owners often lack the time and ability to monitor the mountain of new federal regulations that may affect them, and compliance often means hiring a professional to act on their behalf. Second, we know that home-based businesses are a sizable portion of the U.S. economy, and yet regulations at all levels of government hamper them, according to research by Henry Beale.

The Office of Advocacy works diligently to ensure that small business owners have a say in the federal regulatory process. In fiscal year 2003, for instance, Advocacy's involvement resulted in more than $6.3 billion in regulatory cost savings for small entities. Yet, this is only part of the picture. Small firms also face regulatory burdens at the state level. In December 2002, the Office of Advocacy developed model legislation to encourage states to adopt regulatory flexibility initiatives. The result has been a groundswell of support from governors and state legislators. Recognizing that small businesses can be engines of growth and new jobs, several states have adopted this legislation or have issued executive orders that recognize small business burdens in the rulemaking process.

State leaders also recognize the importance of innovation to economic growth. Advocacy research shows that new firms are created around universities that devote more dollars to research and development. Therefore, research institutions generating new patents can enhance their local economies through "spin-off" ventures. Earlier this year, Advocacy funded a conference at Case Western Reserve University that explored government-university partnerships that promote entrepreneurship, and a paper from that conference discussing technology transfer appears as Chapter 3 in this volume.

Finally, there were clear signs of macroeconomic improvement in 2003, especially in the second half of the year. A growing economy means that more small business owners will prosper. Through your leadership, we will continue to focus on issues designed to create an environment where entrepreneurship can flourish.

Thomas M. Sullivan
Chief Counsel for Advocacy

Chad Moutray
Chief Economist

Acknowledgments

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Contents

Executive Summary

In this third edition of *The Small Business Economy*, the Office of Advocacy reviews the economic environment for small businesses in the year 2003, including the financial and federal procurement marketplaces. New research on the regulatory environment for home-based business and on government policies to encourage technology transfer are the subjects of Chapters 2 and 3. Advocacy's mandate to improve the regulatory environment for small businesses generates an annual report on implementation of the Regulatory Flexibility Act, included here as Chapter 4, and the results of a groundbreaking Advocacy initiative to carry regulatory flexibility successes to the state level are summarized in Chapter 5. Appendices provide additional data on small businesses, the results of Advocacy's academic focus groups in 2003, and additional information on Regulatory Flexibility Act implementation.

The Small Business Economy in 2003

The year 2003 was one of transition, as signs of economic recovery began to appear in mid-year. Real gross domestic product increased at an annual rate of 8.2 percent in contrast to lower rates in the previous quarters. The number of firms grew, and business bankruptcies declined. Corporate profits were up and sole proprietorship income increased 6.2 percent. Trends in employment over the 2002–2003 period indicated that small firms fared better in some industries than in others. This is in keeping with Joel Popkin's research on historical patterns that show, for example, service-producing firms in large and small businesses experience similar changes in a downturn, while those in goods-producing industries experience different effects based on firm size. A look at this and other research on small businesses over the business cycle can help shed some light on small business directions for 2004 and beyond.

The financial markets were on a track for supporting more growth in 2003, as low interest rates spawned corporate bond issues and generated a wave of mortgage refinancings by households. Equity markets began to rally, although this did not immediately translate into a stronger equity market for small firms. Lending to small businesses by banks showed little growth over the June 2002 to June 2003 period of observation (based on data availability), but this was expected, given that the economic pickup occurred later in the year. Bank consolidations continued to affect the relative importance of banks of different sizes in the small business loan market, with a steadily increasing share concentrated in the larger banks. Questions about how banking concentration will affect small business credit availability over the long term continue to be a topic of study for policymakers.

The federal government increased contract dollars going to small businesses in fiscal year 2003 from $89.4 billion to about $98 billion, including both prime contracts and subcontracts. As in the past, about two-thirds of the dollars in prime contracts over $25,000 were from the Department of Defense. Increasing shares of small business contract dollars were in the categories of supplies and equipment, and research and development. Minority-, women-, and veteran-owned businesses all increased their shares of contract dollars.

The Regulatory Environment for Home-based Businesses

Home-based businesses make up 53 percent of the small business population and represent a broad range of U.S. industrial sectors. Some 60 percent are in service industries, 16 percent in construction, 14 percent in retail trade, and the rest are scattered across the manufacturing, finance, transportation and communications, wholesale trade, and other industries that make up the U.S. economy. Ninety-one percent report no paid employees. Although home-based businesses are exempted from many industrial regulations, new Advocacy-sponsored research finds they face particular regulatory hurdles in two areas: Internal Revenue Service tax regulations at the federal level, and zoning regulations at the local level. The study in Chapter 2 looks in detail at the specific burdens of these regulations, identifying specific problems that are especially burdensome to these very small businesses.

Government Programs to Encourage Entrepreneurship through Technology Transfer

Some of America's best-known companies started as spin-offs of university technology development efforts. University spin-offs enhance economic development in several ways, for example, by commercializing academic inventions that might otherwise go undeveloped. Researcher Scott Shane asks the question: what policies have been best practices for encouraging economic development through the creation of university spin-off companies? The study in Chapter 3 looks at five types of government policies: funding of academic research, the provision of intellectual property rights to universities, laws to encourage university technology licensing, direct mechanisms to support the development of university spin-offs, programs to reduce financing gaps in early-stage technological development, and policies to encourage the movement of technically trained academics between academia and the private sector.

Implementing the Regulatory Flexibility Act in Fiscal Year 2003

Fiscal year 2003 was an eventful year for the U.S. Small Business Administration's Office of Advocacy, charged with implementing the federal Regulatory Flexibility Act (RFA), which requires federal agencies to review their proposed rules for their effects on small businesses and other small entities and if possible mitigate undue regulatory burdens. Chapter 4 outlines President Bush's Executive Order 13272, which required Advocacy to train the regulatory agencies of the entire federal government in their obligations under the RFA. The office instituted a Regulatory Alerts page on its website, in an effort to gain the comments of the small business community about some of the proposed rules most likely to affect them. In FY 2003, more agencies submitted draft rules to the Office of Advocacy for review, and Advocacy's involvement secured more than $6.3 billion in cost savings, as well as more than $5.7 billion in recurring annual savings on behalf of small entities.

Regulatory Flexibility Initiatives in the States

With more than two decades of experience in the effort to implement the Regulatory Flexibility Act at the federal level, and with an awareness of the additional small business burdens of regulation at the state and local levels, the Office of Advocacy in December 2002 developed a model state regulatory flexibility bill for use by state legislatures interested in mitigating the state regulatory burden for small businesses. Key regulatory flexibility provisions recommended in the model legislation include a definition of small business, an economic impact analysis, an examination of regulatory alternatives, a provision for judicial review of agency compliance, and periodic agency review of ongoing regulations. Since the introduction of the draft legislation, a number of states have taken steps to introduce or strengthen such legislation, and these efforts, detailed in Chapter 5, are showing results.

Focus Groups on Advocacy Economic Research

In an effort to review the effectiveness of the Office of Advocacy's research efforts, the office in 2003 carried out a series of focus groups across the United States. Recommendations included more participation in and sponsorship of conferences, tailoring Advocacy publications for different-including academic-audiences, revamping *The State of Small Business* report, broadening Advocacy outreach into academia, broadening understanding of historical changes in small business databases, and improving data sources about small business. The focus groups also offered a number of suggestions for further small business research. These observations are outlined in Appendix B.

1 SMALL BUSINESS TRENDS, 2003

Synopsis

Small businesses are important players in the U.S. economy. They represent about half of its output, employ about half of the private sector work force, fill niche markets, innovate, increase competition, and give individuals in all life circumstances a chance to succeed. Individual small businesses in various industries face a wide array of business conditions, and they tackle them with unique solutions using their diverse resources, with a range of outcomes. Many business owners are content to maintain a thriving business, but have no desire to expand; a few foster exceptional growth, with a large impact on the economy.[1]

Presented here in three sections is a snapshot of small business trends in 2003. First, an overall look at the small business economy shows that the recovery gained steam, particularly in the latter half of 2003. By year's end, the stage was set for small business expansion and the development of new companies. Second, financing is a vital component for start-up and survival for small business owners. An exploration of interest rate, lending, and capital market trends ends on a positive note: financial market conditions in 2003 were increasingly supportive of growth. Finally, federal procurement dollars to small firms were up in fiscal year 2003, and women-, minority-, and veteran-owned businesses made headway.

Small Business in the Economy of 2003

"In retrospect," said Federal Reserve Chairman Alan Greenspan in his February 2004 testimony before the Congress, "Last year appears to have marked a transition from an extended period of sub-par economic performance to one of

1 At a conference sponsored by the U.S. Small Business Administration's Office of Advocacy, Entrepreneurship in the 21st Century, F.M. Scherer discussed the value of a few rapidly expanding firms (http://www.sba.gov/advo/video/advo_video.html).

more vigorous expansion."[2] The equity markets had broken out of their earlier declines; the S&P 500 rose 17 percent, and the NASDAQ rose 29 percent in 2003, essentially reversing the 2002 losses.

The pace of economic expansion strengthened considerably in the second half of 2003 after almost two years of weak and uncertain recovery. A favorable monetary policy and stimulative fiscal policies were in place by the spring of 2003, but economic activity still was slowed by a number of factors. There was continued talk of further easing monetary policy to prevent deflation. In June 2003, the Federal Open Market Committee (FOMC) took further action to reduce the federal funds rate, but by just 25 basis points.

In the second half of 2003, both consumer and business confidence returned and the economy shifted into higher gear. Real gross domestic product (GDP) increased at an annual rate of 8.2 percent in the fourth quarter of 2003, in contrast to lower rates for the previous several quarters *(Table 1.1)*.

The number of businesses grew in 2003, as employer firms increased 0.3 percent and unincorporated self-employment increased 3.7 percent *(Table 1.2)*. The number of estimated new employer firms dropped 2.8 percent from the previous year but still outnumbered employer terminations, which dropped 2.5 percent. Business bankruptcies declined 9.1 percent from 2002 to 2003.[3]

Businesses across all size categories had solid returns in 2003. Corporate profits of large and small businesses were up 18.3 percent, while sole proprietorship income rose 6.2 percent. Labor and capital costs remained in check during the year as the compensation cost index rose 4 percent, while the prime rate dropped by 11.8 percent. Productivity rose 4.5 percent in 2003, only slightly lower then the 4.8 percent increase in 2002.

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2 Testimony of Chairman Alan Greenspan in the Federal Reserve Board's semiannual *Monetary Policy Report to the Congress* before the Committee on Financial Services, U.S. House of Representatives, February 11, 2004.

3 Establishment births and deaths and their associated employment from the Bureau of Labor Statistics' Business Employment Dynamics program are a relatively new data source that may provide future insight into business turnover or small business performance throughout the business cycle. With data beginning in mid-1992, the dataset does not yet contain a full business cycle for analysis. In addition, industry data were only recently released, and state and establishment size data are not yet available. In a few years, trends should be more identifiable and better detail will allow for evaluation of the small business sector.

Table 1.1 Quarterly Economic Measures, 2002–2003 (percentages)

	2002				2003			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Real GDP change (annual rates)	2.0	4.7	1.9	3.4	1.3	2.0	3.1	8.2
Unemployment rate	5.7	5.8	5.7	5.9	5.8	6.1	6.1	5.9
GDP price deflator	1.1	1.5	1.5	1.7	2.3	1.1	1.6	1.5
Productivity change	8.4	1.5	4.9	2.0	3.5	7.2	8.7	1.8
Establishment births	-4.0	3.0	-2.0	2.3	-4.9	-0.3	-0.9	NA
Establishment closures	-1.2	0.9	-2.7	1.2	1.5	-1.8	-3.0	NA

Source: U.S Small Business Administration, Office of Advocacy, from figures provided in *Economic Indicators* by the U.S. Department of Commerce, Bureau of Economic Analysis, and the U.S. Department of Labor, Bureau of Labor Statistics.

Table 1.2 Business Measures, 2002–2003

	2002	2003	Percent change
Employer firms (nonfarm)	**e** 5,678,500	**e** 5,696,600	0.3
Employer firm births	**e** 589,700	**e** 572,900	-2.8
Employer firm terminations	**e** 569,000	**e** 554,800	-2.5
Self-employment (nonincorporated)	9,926,000	10,295,000	3.7
Business bankruptcies	38,540	35,037	-9.1

e estimated.

Sources: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Commerce, Bureau of the Census; the U.S. Department of Labor; and Administrative Office of the U.S. Courts.

The signs for small business expansion were positive, and business owners indicated that they were ready to expand. A survey of firms by the National Federation of Independent Business (NFIB) at the end of 2003 showed the highest percentage since 2000 of businesses believing the following three months would be a good time to expand.[4]

Although private sector nonfarm employment fell over the 2000–2003 period, industries with fewer economies of scale and a higher share of small firm employment avoided disaster during the downturn. The two industries with the highest small firm shares of employment—construction and real estate—saw employment fall in only one of the three years. The two industries with the largest shares of large firm employment—utilities and management of companies—struggled during the downturn and lost employment in all three years. Manufacturing, another industry with a large firm presence, with 58 percent of its employment in firms with 500 or more employees, accounted for much of the overall decline across the economy. Manufacturing employment fell in all three years, from 17.3 million in 2000 to 14.5 million in 2003, a 2.7 million decline. By the beginning of 2004, employment in manufacturing had begun to rise.

Trends in employment in 2000–2003 indicated that the downturn was a crisis for some industries and nonexistent in others. Low interest rates propped up the construction and real estate industries and allowed small businesses financial flexibility—different from the experience of the downturn in 1991. The larger loss in manufacturing employment from 2000 to 2003 contrasted with the milder, 0.9 million loss from 1990 to 1993.

To evaluate the economy of 2003, it is useful to observe small businesses' role in the business cycle, the impact of economic conditions on small business outcomes, and self-employment trends.

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4 National Federation of Independent Business, *Small Business Economic Trends*, January 2004, at http://www.nfib.com/object/4147629.html.

Small Business and the Business Cycle

Individual small businesses and industries are often at different life stages; thus, it is difficult to generalize about how small businesses fare in the business cycle. In fact, many findings about small businesses actually pertain more to new businesses, since financial and other constraints force almost all businesses to start small. Business turnover—business startup and closure—is largely the domain of small businesses, as relatively few businesses grow to be large. It is business turnover that makes markets more competitive and productive.

Business turnover is a natural occurrence during a period of favorable business conditions; poorer conditions exacerbate the challenge to grow and survive, increasing turnover. As wage employment opportunities shrink in a downturn, the opportunity costs of self-employment decrease and the ranks of the self-employed tend to swell. With rising self-employment—and as firms cut supply in reaction to diminished demand—average business size declines, and the small business share of the economy increases.

The levels of self-employment fluctuated in the early 1990s around the time of the downturn, and overall increases in self-employment were delayed until a few years after the downturn began. The 2000s have so far exhibited similar self-employment and labor market trends. The unemployment rate peaked about a year and a half after both downturns, rising to 7.8 percent after the 1991 downturn and to 6.3 percent after the 2001 downturn.

Increases in self-employment are clearly seen in periods of labor market stress, but there are other, less obvious business cycle phenomena related to small businesses. The Office of Advocacy has contracted with the U.S. Census Bureau for more than a decade to produce firm size data, including tables with job creation and job loss information by firm size. Tables are based on the employment difference between the start year and end year; firms are categorized by their start year size. Data are available only with a time lag, but it is instructive to compare the figures from the 1991 and 2001 downturns.

In the period before the 1991 downturn (March 1989 to March 1990), small firms had a net employment increase of 1.4 million, 1 million more than large firms' 440,000 net increase over the period *(Appendix A, Table A.9)*. In the 1991 downturn (March 1990 to March 1991), small firms lost a net 708,000 jobs; large firms, 454,000. After the downturn (March 1991 to March 1992), small firms increased employment by a net 845,000; large firms had a 322,000 net decrease. The year before the downturn was typical of other years, with small firms creating most of the new jobs; the year of the downturn saw small firms with just under twice the net employment losses of large firms; in the year after the downturn small firms more than recovered their losses from the previous year while large firms continued to shrink.

For the 2001 downturn, complete firm size employment dynamics are not yet available, but differences in the periods are already visible. In the 2001 downturn (March 2000 to March 2001), small firms had a net job increase of 1.15 million compared with large firms' net loss of 151,000.[5]

To discover more about small firms and the business cycle, the Office of Advocacy recently funded two studies. A report by Joel Popkin, *Small Business during the Business Cycle*, focuses on the changing firm size shares of output.[6] The study notes that "different industries do react differently to cyclical changes." Some capital-intensive industries, such as manufacturing, are at the mercy of financial markets; those that are more labor-intensive, such as retail trade and services, are at the mercy of labor markets. Industries can also differ in their stages of development; for example, compare firms in a mature industry where the process of producing goods or services is time-tested to those in an embryonic industry where production processes are being tried for the first time.

Focusing on output, the Popkin report found that small and large firms in service industries were affected similarly by a downturn, while the effects differed by firm size in goods-producing industries. Large manufacturing firms are more cyclically sensitive than small manufacturing firms. These results were similar to those found in a study by the same contractor about 20 years previously.[7] The Popkin report also found reasons for the small business output

5 Note that border crossers, large firms that shrink during a downturn (becoming re-classified as small) and then grow back into large businesses as the economy expands, can skew the numbers; however, border crossers are a relatively rare occurrence.

6 Joel Popkin and Company, *Small Business During the Business Cycle*, prepared for the U.S. Small Business Administration, Office of Advocacy, 2003. See http://www.sba.gov/advo/research.

7 Joel Popkin and Company, *An Analysis of the Effect of Recessions on Small Business Output*, prepared for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service, 1981).

fluctuations. Using NFIB quarterly data, the researchers determined that credit conditions (firms' ability to secure loans at a certain time compared with the previous three months) was the main cause of small business output growth or decline. The research noted that NFIB's optimism index for small business was a good indicator of small business output.

A report by PM KeyPoint LLC, *Impact of Tight Money and/or Recessions on Small Business* focused on financing in the 1991 downturn, finding that tight money affects businesses of all sizes.[8] The study noted that SBA-guaranteed loans contributed to economic stability because they tended not to decline as much as other loans when the growth rate of the economy slowed or in the face of reduced bank capital.[9]

Small Business Demographic Trends

Some data sources are available for analysis of business owner demographic trends.[10] Hispanic-owned businesses increased significantly, rising from 5.0 percent of the total number of firms in 1995 to 7.4 percent in 2002 *(Table A.10)*. Businesses owned by people in the 55 to 64 age group also had a large share increase over this period, from 15.9 percent to 19.9 percent of businesses. Both groups also had large population increases over the seven-year period. Veteran self-employment saw a large decline, falling from 17.9 percent of the total in 1995 to 12.9 percent in 2002. Again, declines in the veteran population

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8 PM KeyPoint, LLC, *Impact of Tight Money and/or Recessions on Small Business*, prepared for the U.S. Small Business Administration, Office of Advocacy, 2003. See http://www.sba.gov/advo/research.

9 The report focused on the downturn of 1991 as the data were for 1990 to 2000. Findings may not be applicable to the 2001 downturn because of differences between the financial landscapes of 1991 and 2001.

10 The U.S. Department of Commerce, Bureau of the Census, offers detailed demographic owner information from the Economic Census, conducted in years ending in 2 and 7; however, delays in availability and continually changing data specifications make trend analysis difficult. Another data source is the joint U.S. Census Bureau and U.S. Department of Labor, Bureau of Labor Statistics (BLS) Current Population Survey. BLS publishes information on individuals whose primary occupation is unincorporated self-employment but makes microdata available for other definitions. The tax status chosen by the owner is not relevant for this analysis, so the incorporated self-employed have been included. The combined figures are available in Appendix A, Table A.10.

over the period are believed to be the cause of this decrease. Women continued to constitute about 34 percent of the total self-employed. The share of self-employed in suburban, rural, and central city areas remained level, at about 44 percent, 22 percent, and 19 percent, respectively.

Overall Comments on the General Economy

The structural changes in the economy of the 21st century are still playing themselves out, but small businesses have played an important role in leading the U.S. economy out of the recession of 2001. While employment has been an issue, especially in industries such as manufacturing, the overall unemployment rate did not reach the high levels of the 1990–1991 downturn. Real gross domestic product rose following the last quarter of 2001, albeit slowly until the last half of 2003, when it began to increase more significantly. Sole proprietors' income and corporate profits were up, and productivity was leveling off. By the end of 2003, the stage was set for companies, both large and small, to expand, and for new companies to fill new market niches.

Small Business Financial Trends

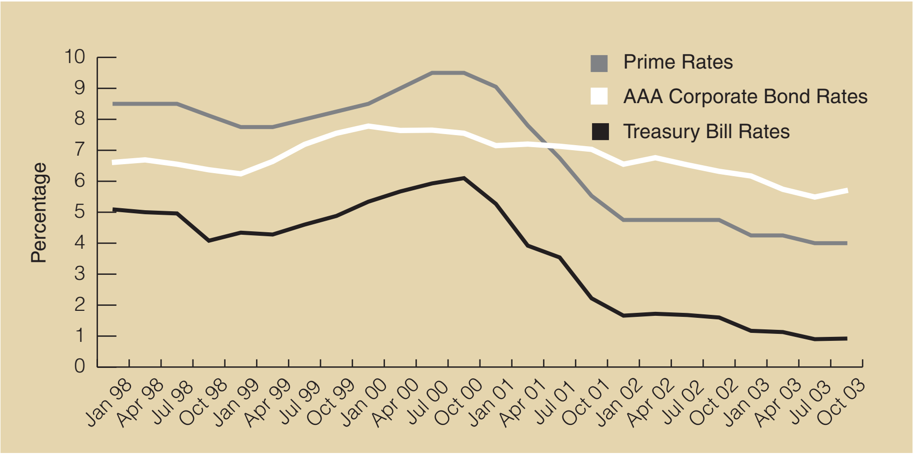
Financial market conditions became increasingly supportive of economic growth in 2003. A loose monetary policy prevailed, despite signs of economic recovery in the second half of 2003. The low-interest-rate environment spurred corporate bond issuances and generated a massive wave of mortgage refinancing activity by households. Equity markets also began to rally; however, the climb in stock prices that continued for the rest of the year failed to revive the equity capital markets for small firms—the initial public offering (IPO) market and venture capital markets remained depressed in 2003.

Interest Rate Movements

Interest rates fell for most of the first half of 2003, primarily in response to continuing weakness in real output growth and expectations for further cuts in the federal funds rate in an environment of global uncertainty, weak employment, and deflation fears.

With the economic expansion gaining traction, expectations for higher interest rates persisted throughout the second half of 2003. Treasury securities ended the year about 40 basis points above their year-earlier levels *(Chart 1.1)*.

Chart 1.1 Movements in Interest Rates, 1998 to 2003



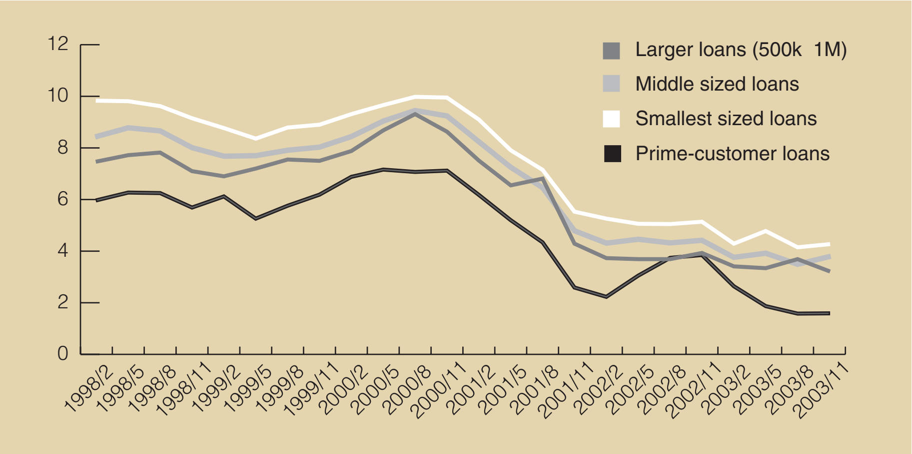
Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, various issues.

However, the risk premium improved significantly, lowering the risk spreads for corporate bonds. Rates on speculative-grade issues continued to fall over the second half of the year.

Overall, interest rates paid by small firms followed a pattern similar, with a time lag, to the overall movements in interest rates in the capital and credit markets. The prime rate, the "base" rate for most small business loans either as the index rate for rate adjustments or as the "base" for a premium add-on to fixed-rate loans, declined to 4.0 percent in mid-June.[11] Rates paid by small business owners were also lower in the four quarters of 2003 than in 2002. Rates for fixed-rate term loans (one year or longer in maturity) for the smallest loans (under $100,000) fell from 7.34 percent in November 2002 to 6.53 percent in November 2003 *(Chart 1.2 and Table 1.3)*. Interest rates on small variable-rate loans averaged around 4.25 percent in 2003 compared with about 5 percent in 2002.

11 The role played by prime rates in the interest costs paid by small firms is complex. Since most business loans are made as variable-rate loans and the spreads over the index rate charged by the lenders vary widely, changes in the prime rate become more of an indicator of the changes in the interest costs of existing loans rather than an indication of costs of borrowing to existing borrowers. With average margins of 2 to 3 percent over the prime rate, the rates paid for small firm loans in 2003 were 6 to 7 percent.

Chart 1.2 Interest Rates for Variable-Rate Loans by Loan Size, 1998 to 2003



Source: Board of Governors of the Federal Reserve System.

Table 1.3 Loan Rates Charged by Banks by Loan Size, February 2001–November 2003 (percent)

	Loan size (thousands of dollars)	Fixed-rate term loans	Variable-rate loans (2–30 days)	Variable-rate loans (31–365 days)
November 2003	1–99	6.53	4.27	6.11
	100–499	5.68	3.79	5.03
	500–999	4.99	3.22	3.94
	Minimum-risk loans	5.5	1.59	1.81
August 2003	1–99	6.68	4.15	6.34
	100–499	6.01	3.49	4.74
	500–999	5.67	3.69	3.97
	Minimum-risk loans	4.85	1.58	2.33
May 2003	1–99	6.84	4.78	6.49
	100–499	6.13	3.92	5.56
	500–999	5.83	3.34	4.21
	Minimum-risk loans	5.62	1.87	2.41
February 2003	1–99	6.8	4.29	6.05
	100–499	5.31	3.76	4.58
	500–999	3.73	3.41	4.81
	Minimum-risk loans	4.08	2.64	2.4

(continued, next page)

Table 1.3 (continued)

	Loan size (thousands of dollars)	Fixed-rate term loans	Variable-rate loans (2–30 days)	Variable-rate loans (31–365 days)
November 2002	1–99	7.34	5.14	7.11
	100–499	6.21	4.42	5.51
	500–999	5.99	3.93	4.91
	Minimum-risk loans	2.84	3.85	3.19
August 2002	1–99	7.75	5.05	7.32
	100–499	6.51	4.32	5.14
	500–999	5.92	3.69	3.88
	Minimum-risk loans	6.94	3.74	2.58
May 2002	1–99	7.75	5.06	7.09
	100–499	6.81	4.46	6.08
	500–999	6.39	3.69	5.13
	Minimum-risk loans	4.58	3.05	2.43
February 2002	1–99	7.91	5.26	7.28
	100–499	6.57	4.31	5.89
	500–999	6.41	3.73	4.45
	Minimum-risk loans	7.11	2.23	2.70
November 2001	1–99	7.97	5.53	7.59
	100–499	6.83	4.79	6.23
	500–999	6.30	4.29	4.56
	Minimum-risk loans	5.71	2.59	3.20
August 2001	1–99	8.73	7.15	8.60
	100–499	7.72	6.46	7.29
	500–999	6.63	6.81	6.06
	Minimum-risk loans	7.47	4.34	4.83
May 2001	1–99	9.12	7.91	8.87
	100–499	8.34	7.25	8.06
	500–999	7.40	6.55	6.24
	Minimum-risk loans	7.23	5.20	5.24
February 2001	1–99	9.84	9.10	9.89
	100–499	8.88	8.24	9.11
	500–999	8.08	7.51	7.75
	Minimum-risk loans	8.13	6.18	6.63

Note: Small loans refer to loans under $100,000.

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 U.S. Small Business Administration, Office of Advocacy.

Nonfinancial Credit Market Borrowing

Net borrowing in the financial markets by all nonfinancial sectors continued to increase significantly, by 22 percent—from $1,373 billion in 2002 to $1,673 billion in 2003—a pace comparable to the fast pace in 2002. The increased borrowing continued to be dominated by the household and government sectors. Business borrowing, especially by nonfinancial corporations, also increased significantly to $142 billion, adding to a very low level of borrowing of only $39 billion in 2002 *(Table 1.4)*.

Continued increases in federal government spending in a slow economy contributed to the large increase in the budget deficit. The federal budget deficit rose from $240 billion in 2002 to $415 billion in 2003, according to national income account estimates. Borrowing by the federal government increased from $258 billion to $396 billion—a 54 percent increase from an already high level in 2002. Federal borrowing accounted for more than 20 percent of total net borrowing by nonfinancial sectors in the financial markets in 2003.

Overall, state and local governments kept budgets in balance, with receipts keeping pace with expenditures. In fact, the overall state budgetary balance turned positive in the second half of 2003, offsetting the deficits in the first two quarters. However, to take advantage of low interest rates, state and local governments continued borrowing in the financial markets to fund capital construction expenditures. The net result: borrowing by state and local governments declined only slightly from the high level of $145 billion in 2002 to $119 billion in 2003.[12]

Continued borrowing and spending by the household sector enabled the U.S. economy to recover and to resume healthy rates in 2003. Net household borrowing reached another record high of $880 billion, a 13.4 percent increase over the $776 billion of 2002. Net borrowing by the household sector accounted for more than 50 percent of total nonfinancial borrowing in the credit markets.

12 See Federal Reserve Bank of St. Louis, *National Economic Trends*, August 2003, "Government Revenues, Spending, and Debt," 16.

Table 1.4 Credit Market Borrowing by the Nonfinancial Sector, 1989–2003 (billions of dollars)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total domestic borrowing	720.3	669.4	480.6	544.5	589.4	575.2	712.0	731.4	804.7	1,041.9	1,026.6	852.2	1,135.9	1,373.3	1,672.8
Government															
Federal	146.4	278.2	304	256.1	155.9	155.9	144.4	145.0	23.1	-52.6	-71.2	-295.9	-5.6	257.5	396.0
State and local	246.9	46.6	81.6	31	74.7	-46.2	-51.5	-6.8	56.1	67.7	38.5	15.5	105.8	143.9	118.7
Business															
Farm	0.6	1.0	2.1	1.3	2.6	4.4	2.9	4.8	6.2	8.0	5.5	10.9	7.5	7.9	5.5
Nonfarm noncorporate	69.6	1.1	-11.0	-16	3.2	3.3	30.6	81.4	94.7	159.7	189.4	192.9	159.2	149.0	130.9
Nonfinancial corporate	183.2	110.0	-53.0	42.7	45.5	142.3	243.7	148.8	291.1	408.4	371.6	362.0	223.6	39.3	141.8
Total	253.4	112.1	-61.9	28.0	51.3	150.0	277.2	235.0	392.0	576.1	566.5	565.8	390.3	196.2	278.2
Households	269.5	263.7	182.7	160.7	205.9	316.3	350.3	358.1	332.7	450.8	492.8	566.9	645.4	775.7	879.9
Foreign borrowing in the United States	10.2	23.9	14.8	23.7	69.8	-13.9	71.1	88.4	71.8	31.2	13.0	57.0	-49.7	6.0	-14.0

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Second Quarter 2003: Flows and Outstandings*, May 2004.

Business Borrowing

Improved optimism in the U.S. and world economies after the spring of 2003 was evidenced by further increases in before-tax corporate profits, which rose from an annual rate of $334 billion in 2002 to $417 billion in 2003 *(Table 1.5)*. The increases came mostly in the second half, when the annualized rates of corporate earnings rose to $431 billion and $461 billion in the third and fourth quarters of 2003. Because of a smaller increase in capital expenditures and rising internal funds, the demand for external financing by this sector remained very weak.

Net business borrowing by nonfinancial corporations increased in 2003. However, the increase came mostly from borrowing in the corporate bond markets—large corporations continued to take advantage of low interest rates and continued the process of debt restructuring. Net corporate borrowing increased from $39 billion in 2002 to $142 billion in 2003. Improved internal sources of funds, accompanied by continued reluctance to increase capital expenditures, reduced financing gaps for major corporations.

Net borrowing by nonfarm, noncorporate businesses continued to decline, although at slower rates—from an annual rate of $149 billion in 2002 to $131 billion in 2003 *(Table 1.6)*. Net income for the nonfarm, noncorporate sector increased from $850 billion to $890 billion, a 4.7 percent gain.

Bank Loans to Small Business

In the continued weakness and uncertain recovery in the first half of 2003, bank lending to small businesses was anemic.[13] The April edition of the Federal Reserve Board's Senior Loan Officer Survey noted that most banks "reported demand for C&I and real estate loans weakened, on net, over the past three months."[14] With declining loan loss provisions and continued

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13 Data on bank lending to small businesses become available for analysis in the fall of each year and cover the period ending in June. The accelerated recovery was not confirmed until the second half of 2003, so the analysis of small business lending activities here will not reflect the recovery.

14 Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices, April 2003, 1.

Table 1.5 Major Sources and Uses of Funds by Nonfarm, Nonfinancial Corporate Businesses, 1989–2003 (billions of dollars)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Before-tax profit	236.5	236.5	217.1	256.7	307.4	391.9	437.7	458.8	494.5	460.1	456.7	422.0	307.8	334.4	417.4
Domestic undistributed profit	32.2	20.5	8.3	33.7	55.9	106.0	111.7	108.3	120.2	65.1	63.2	2.6	-47.1	-22.2	24.5
Depreciation with inventory valuation adjustment	349.3	354.3	364.3	373.7	384.4	418.6	430.7	504.2	548.2	570.6	598.1	614.7	690.5	766.8	812.9
Total internal funds, on book basis	384.8	377.9	372.6	407.3	440.3	524.5	542.4	612.5	659.9	635.7	660.4	631.4	634.3	746.8	848.8
Net increase in liability	347.4	183.5	67.1	161.3	217.9	241.6	390.8	398.5	283.5	616.0	987.6	1,237.4	62.7	200.0	486.5
Funds raised in credit markets	183.2	110.0	-55.1	42.7	45.5	134.1	218.6	148.8	291.9	408.4	371.6	362.0	223.6	39.3	141.8
Net new equity issues	-124.2	-63.0	18.3	27.0	21.3	-44.9	-58.3	-69.5	-114.4	-215.5	-110.4	-118.2	-47.4	-41.9	-49.1
Capital expenditures	399.4	394.5	371.9	382	445.2	511.1	567.7	684.7	760.2	826.5	866.7	926.7	800.1	782.5	796.9
Net financial investment	-113.9	-68.3	62.7	-8.9	124.1	41.7	42.7	4.8	-11.1	-46.1	-17.7	-28.2	124.6	37.1	118.4

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Second Quarter 2003: Flows and Outstandings*, May 2004.

Table 1.6 Major Sources and Uses of Funds by Nonfarm, Noncorporate Businesses, 1989–2003 (billions of dollars)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Net income	407	434.9	464.1	441.0	473.9	495.3	534.2	569.7	609.9	656.5	710.6	767.3	809.6	849.5	890.2
Gross investment	77	80.6	67.5	82.9	84.4	64.7	56.4	110.8	118.5	125	148.7	160.3	164.8	168.9	173.0
Fixed capital expenditures	118	106.4	91.1	96.8	93.5	94.6	99.2	109.6	118.8	123.9	185.8	213.3	196.4	170.9	180.9
Changes in inventories	1.6	0.3	-0.1	0.1	1.3	2.5	1.9	1.1	3.0	3.6	3.5	2.9	-1.8	0.4	0.1
Net financial investments	-42.6	-26.1	-23.5	-14.1	-10.5	-32.5	-44.7	0	-3.3	-2.5	-40.6	-55.9	-29.7	-2.5	-7.9
Net increase in credit market debt	61.1	13.8	-15.0	-16.4	3.2	3.3	23.9	81.4	94.7	159.7	189.4	192.9	159.2	149	130.9
Mortgages	56.1	4.1	-9.9	-15.1	-1.5	-13.8	-2.2	50.9	47.7	117.7	135.1	137.5	121.2	132.5	150.6
Net investment by proprietors	-28.1	20.3	18.5	28.6	26.9	61.8	51.9	-18.1	-55.1	-64.8	-82.3	-35.4	-28.2	-54.8	-56.3

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, Second Quarter 2003: Flows and Outstandings* (September 2003) favorable interest margins, net operating income for all domestic chartered banks rose further, reaching a historic high of $100.5 billion, compared with $87.5 billion in 2002.[15]

Lending to Small Businesses by Commercial Banks

As expected, small business lending by banks showed a very small increase between June 2002 and June 2003. In fact, the rates of growth in the dollar amounts of loans outstanding for all three sizes of small business loans were lower in this period as compared with the previous one, when growth rates were also low. Moreover, the number and value of the smallest loans under $100,000 declined for the first time since the data on small business lending became available in 1994–1995 *(Tables 1.7, 1.8, and 1.9)*. Small business loans outstanding (loans under $1 million) grew 2.3 percent from June 2002 to June 2003, compared with a 5.1 percent increase in the previous period. Total small business loans outstanding amounted to $495 billion in June 2003, an increase of $11 billion, or half the dollar increase over the June 2001–June 2002 period *(Table 1.7)*.[16] Total business loans increased slightly, from $1.31 to $1.32 trillion, compared with a decline in the previous period. The increase came primarily from larger small business loans.

The previous fast growth in the smallest loans (for example, in the business credit card market over the past several years) seems to have come to a halt, based on the decline in both the number and dollar amount of loans under $100,000. The dollar amount was down from $128.9 billion to $125.7 billion, a 2.5 percent decline, while the number declined significantly, by 10 percent, from 15.7 million to 14.1 million *(Table 1.7)*.

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15 See "Profits and Balance Sheet Developments at the US Commercial Banks in 2003," *Federal Reserve Bulletin*, Spring 2004, Table A.1, 181.

16 Net loans outstanding can increase even with little increase in the volume of new loans, as long as the annual flow of new loans exceeds the amount of payoffs of existing loans—likely to slow in an economic slowdown.

Table 1.7 Dollar Amount and Number of Small Business Bank Loans, 2000 to 2003 (dollars in billions, numbers in millions)

Loan size		2000	2001	2002	2003	Percent change 2002–2003
Under $100,000	Dollars	121.4	126.8	128.9	125.7	-2.5
	Number	9.80	10.79	15.65	14.09	-10.0
Under $250,000	Dollars	209.4	218.4	225.0	224.0	-0.5
	Number	10.54	11.57	16.50	14.92	-9.6
Under $1 million	Dollars	437.0	460.4	484.0	495.1	2.3
	Number	11.17	12.25	17.24	15.67	-9.1
Total business loans	Dollars	1,300.3	1,324.5	1,307.0	1,318.1	0.9

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues.

Table 1.8 Change in the Dollar Amount of Business Bank Loans by Loan Size, 1996 to 2003 (percent)

Loan size	1996–1997[1]	1997–1998[2]	1998–1999[2]	1999–2000	2000–2001	2001–2002	2002–2003
Less than $100,000	2.9	3.0	2.5	6.7	4.4	1.7	-2.5
$100,000–$250,000	5.2	8.1	6.3	8.5	4.1	4.9	2.3
$250,000–$1 million	5.7	7.7	11.2	11.8	6.4	7.0	4.7
More than $1 million	11.5	13.0	14.6	16.1	0.9	-4.8	0

1 Changes for 1996–1997 and 1997–1998 were estimated based on revised estimates for Keycorp in 1997.

2 So that 1998–1999 trends could be shown, 1998 figures were revised to exclude the credit card operation of Mountain West Financial, which was purchased by a nonbank financial intermediary and thus excluded from 1999 data.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues.

Table 1.9 Change in the Number of Small Business Bank Loans by Loan Size, 1996 to 2003 (percent)

Loan size	1996–1997[1]	1997–1998[2]	1998–1999[2]	1999–2000	2000–2001	2001–2002	2002–2003
<$100,000	26.6	19.3	10.1	26.9	10.1	45.0	-10.0
$100,000-$250,000	8.6	1.8	5.4	7.0	5.9	8.8	-2.1
$250,000-$1million	8.0	1.4	7.6	8.4	7.0	9.8	0.9

1 Changes for 1996–1997 and 1997–1998 were estimated based on revised estimates for Keycorp in 1997.

2 So that 1998–1999 trends could be shown, 1998 figures were revised to exclude the credit card operation of Mountain West Financial, which was purchased by a nonbank financial intermediary and thus excluded from 1999 data.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues.

The large declines could be an accounting phenomenon caused by a revision in the reporting methodology.[17] This explanation seems plausible since many major small business credit card lenders reported declines in the number of loans outstanding in their June call reports, even though they continued to promote small business credit cards; they also reported continuing increases in both the number and dollar amounts of the smallest loans in their Community Reinvestment Act (CRA) reports for the year 2002. A more detailed examination of the database and inquiries to these lenders should shed more light on the issue.

Bank consolidations continued to affect the relative importance of banks of different sizes in the small business loan market. While the number of commercial banks filing call reports declined by 133 between June 2002 and June 2003, the number of the smallest banks with assets of less than $100 million

17 The difference may be between reporting on the total number of accounts and reporting on active accounts. This was pointed out in a telephone response from one bank to an inquiry by the Office of Advocacy regarding a huge decrease in the number of the smallest loans in the bank's June report. The number was substantially reduced by reporting only "active accounts." Confirmation from one major lender that experienced large declines in the numbers has also been received.

again declined significantly, by 347, from 4,369 to 4,022 *(Table 1.10)*.[18] In fact, the decline in the number of banks is confined to this size of banks; all larger bank categories increased—a continued trend from 2002. Many small profitable community banks grew and merged to become larger.[19]

The increasing importance of large banking institutions in small business loan markets is evident *(Table 1.11)*. The share of the largest banks with assets in excess of $10 billion increased from 30 percent in June 2000 to 40 percent in June 2003 for the smallest loans; their shares of small business loans between $100,000 and $250,000 and between $250,000 and $1 million also rose from 36 percent to 37.5 percent and from 36.7 percent to 40.6 percent, respectively. Increases in the large banks' share of small business lending came completely from the increasing concentration of bank assets and deposits in large institutions; total assets for this group increased from 64.2 percent to 69.5 percent of total bank assets. In fact, two studies by the Office of Advocacy found that lending to small businesses by large banks has declined as the pace of banking consolidation accelerated in the past several years.[20]

A look at multi-billion-dollar bank holding companies (BHCs) provides a similar picture. As expected, most major multi-billion-dollar BHCs have become national lenders in the small business loan markets, extending small business loans in most parts of the United States.[21] Of the $6.61 trillion in total domestic assets of all domestic banks in the United States, $4.76 trillion

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18 Changes in the number of reporting banks could also be caused by the financial reporting consolidation of several bank holding companies (BHCs). While the number of banks declined, the number of banking offices and branches continued to increase. See Federal Deposit Insurance Corporation banking statistics at http://www.fdic.gov/bank/statistical/.

19 The importance of mergers and acquisitions of community banks in increasing the availability of credit to small businesses was discussed in a recent report by PM Keypoint, *The Effects of Mergers and Acquisitions on Small Business Lending by Large Banks*, prepared for the U.S. Small Business Administration, Office of Advocacy, contract no. SBAHQ-02-Q-0024..

20 See PM Keypoint, *op. cit.*, and S. Craig and P. Hardee, *The Impact of Bank Consolidation on Small Business Credit Availability*, prepared for the U.S. Small Business Administration, Office of Advocacy, contract no. SBAHQ-01-R-0005, at http://www.sba.gov/advo/research/rs234tot.pdf.

21 For a detailed discussion of major BHCs' participation in small business loan markets across the states, see *Small Business Lending in the United States, 2002 Edition*. The study analyzed the CRA database for location specific lending by major banks. See also *Small Business Lending in the United States, 2003 Edition*, forthcoming, U.S. Small Business Administration, Office of Advocacy.

Table 1.10 Number of Reporting Banks by Asset Size, 1995 to 2003

Bank asset size	1995	1996	1997	1998	1999	2000	2001	2002	2003
Less than $100 million	6,980	6,465	6,047	5,644	5,302	5,034	4,674	4,369	4,022
$100 million–$500 million	2,521	2,548	2,590	2,656	2,683	2,751	2,777	2,839	2,990
$500 million–$1billion	256	260	292	303	290	302	320	353	393
$1billion–$10 billion	326	326	300	302	309	293	306	311	331
More than $10 billion	66	71	64	61	75	79	76	77	79
Total	10,149	9,670	9,293	8,966	8,659	8,459	8,158	7,949	7,816

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues.

Table 1.11 Changes in Shares of Small Business Loans, Total Business Loans, and Total Assets by Bank Size, 1996–2003 (percent)

	Small business loan dollars					
	<$100,000	$100,000–$250,000	$250,000–$1 million	Total business loans	Large business loan dollars (over $1 million)	Total assets
Banks with assets under $100 million						
1996	27.0	12.3	14.8	6.2	0.5	7.7
1997	24.5	10.8	13.3	5.5	0.5	6.9
1998	22.8	9.8	12.3	4.8	0.5	5.9
1999	20.5	9.5	11.2	4.2	0.5	5.2
2000	19.3	9.0	10.4	3.8	0.4	4.6
2001	16.3	13.0	9.6	3.6	0.4	4.1
2002	14.5	8.3	6.4	3.6	0.5	3.7
2003	13.1	7.8	5.9	3.3	0.5	3.1
Banks with assets of $100 million to $500 million						
1996	30.0	27.9	27.0	13.5	4.8	13.3
1997	29.4	27.6	26.6	13.1	4.7	12.9
1998	29.5	27.5	26.4	12.2	4.2	11.8
1999	28.9	27.1	26.0	11.8	4.2	11.3
2000	28.9	27.5	26.2	11.5	4.2	10.8
2001	26.1	26.3	25.0	11.7	4.7	10.3
2002	24.3	26.3	24.0	12.7	5.7	10.0
2003	23.9	27.2	25.3	13.5	6.3	9.5

(continued, next page)

Table 1.11 (continued)

	Small business loan dollars			Total business loans	Large business loan dollars (over $1 million)	Total assets
	<$100,000	$100,000–$250,000	$250,000–$1 million			
Banks with assets of $500 million to $1 billion						
1996	6.3	7.7	7.3	4.6	2.9	4.7
1997	7.0	8.5	8.1	5.0	3.1	5.0
1998	6.9	8.8	8.1	5.0	3.2	4.7
1999	6.0	8.0	7.6	4.4	2.8	4.2
2000	6.2	8.0	7.6	4.5	2.9	4.1
2001	6.7	7.4	7.9	4.8	4.7	3.9
2002	6.7	9.1	9.2	5.6	3.9	4.0
2003	6.7	9.2	9.2	6.1	4.6	4.1
Banks with assets of $1 billion to $10 billion						
1996	19.2	27.3	25.9	26.4	26.7	26.4
1997	15.9	22.8	22.0	22.5	22.9	22.6
1998	16.8	22.5	21.9	20.1	19.2	20.9
1999	15.0	20.9	20.1	17.7	16.4	18.0
2000	15.6	19.6	19.0	16.2	14.7	16.4
2001	15.1	16.9	18.9	17.0	16.0	15.7
2002	16.5	18.6	19.9	17.2	16.2	15.0
2003	16.2	18.4	19.1	16.8	15.9	13.8
Banks with assets over $10 billion						
1996	17.6	24.8	25.0	49.4	65.1	48.0
1997	23.2	30.3	30.1	53.9	68.8	52.7
1998	23.8	31.3	31.3	57.8	73.0	56.7
1999	29.6	34.4	35.1	61.9	76.2	61.3
2000	30.0	35.9	36.7	64.0	77.8	64.0
2001	35.8	36.4	38.7	62.9	75.8	66.0
2002	38.1	37.7	40.6	60.7	73.6	67.2
2003	40.2	37.5	40.6	60.3	72.7	69.5

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues. Prepared for the Office of Advocacy by James Kolari, A&M University, College Station, Tex.

was held by 61 multi-billion-dollar BHCs in June 2003 *(Table 1.12)*. This contrasted with the BHCs' $218 billion share of the $495 billion small business loan market in June 2003. As a group, these BHCs accounted for 44 percent of small business loans under $1 million and 72 percent of total domestic bank assets in the United States, compared with 45 percent of small business loans and 71 percent of total assets for 58 multibillion-dollar BHCs in June 2002.[22]

The perennial question about the impact of banking consolidations on the availability of financing to small businesses remains a major concern to small business researchers and policymakers. Several recent research studies by the Office Advocacy and other small business researchers concluded that:[23]

1. Small business credit markets remain competitive for most small firms and profitable to small business lenders.
2. Merger and acquisition (M&A) activities by giant banks and BHCs reduced their small business lending. There is evidence, however, that large banks are entering certain segments of the small business credit markets, such as credit cards, with force.
3. The availability of credit to most small firms has not been adversely affected by large bank M&As.
4. A viable and competitive community banking system exists in the United States.

Lending by Finance Companies

The market for business receivables showed little change over the 2002–2003 period. Total receivables outstanding for finance companies rose by $2.1 billion from $455.3 billion to $457.4 billion by the end of 2003 *(Table 1.13)*. Either business receivables from the sales of vehicles and equipment by small firms remained flat, or positive cash flows to small business operations over the economic recovery reduced the need to finance receivables in 2003.

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22 It is difficult to examine the change in lending activity over time for the group because of the changing composition of the group—caused by the mergers and acquisitions of these BHCs.

23 See Charles Ou, "Banking Consolidation and Small Business Lending—A Review of Recent Research," forthcoming.

Table 1.12 Large Bank Holding Companies' Amount and Share of Total Assets, Loans, and Business Lending, June 2000 to June 2003 (dollars in billions, numbers in millions)*

	2000		2001		2002		2003	
	Value	Percent of all banks	Value	Percent of all banks	Value	Percent of all banks	Value	Percent of all banks
Number of multi-billion-dollar BHCs	59	-	56	-	58	-	61	-
Loans under $100,000								
Amount (billions of dollars)	43.7	36.0	49.4	38.9	55.3	42.9	54.7	43.5
Number (millions)	3.5	35.6	4.2	38.6	7.3	46.4	7.87	55.9
Loans of $100,000 to <$250,000								
Amount (billions of dollars)	38.4	43.6	40.3	44.0	41.9	43.6	41.3	42.0
Number (millions)	0.327	44.5	0.341	43.9	0.395	46.6	0.356	43.0
Loans of $250,000 to <$1 million								
Amount (billions of dollars)	110.0	48.3	116.5	48.1	120.5	46.5	121.9	45.0
Number (millions)	0.305	48.3	0.323	47.6	0.367	49.3	0.340	45.3
Total small business loans under $1 million								
Amount (billions of dollars)	192.1	44.0	206.2	44.5	217.7	45.0	217.8	44.0
Number (millions)	4.0	36.9	4.8	39.5	8.03	46.5	8.56	54.6
Large business loans over $1 million (billions of dollars)	718.5	83.2	706.2	81.7	646.2	78.5	621.0	75.1
Total business loans (billions of dollars)	910.6	70.0	912.2	68.9	863.8	66.1	838.8	63.4
Total assets (billions of dollars)	3,713	71.0	3,903	70.3	4,189	70.9	4,762	72.1

* These numbers are not strictly comparable from year to year, as the total and changes are for the each year's existing BHCs. With all the merger and acquisition activity, it is not always clear whether all the components of the BHCs have been correctly accounted for.

Source: U.S. Small Business Administration, Office of Advocacy, *Small Business Lending in the United States*, various issues.

Table 1.13 Business Loans Outstanding from Finance Companies, December 31, 1980–December 31, 2003

	Total receivables outstanding		Annual change in chain-type* price index for GDP (percent)
	Billions of dollars	Change	
December 31, 2003	457.4	0.5	NA
December 31, 2002	455.3	1.9	NA
December 31, 2001	447.0	-2.5	NA
December 31, 2000	458.4	16.3	NA
December 31, 1999	405.2	16.6	NA
December 31, 1998	347.5	9.1	NA
December 31, 1997	318.5	2.9	NA
December 31, 1996	309.5	2.6	1.8
December 31, 1995	301.6	9.7	2.4
December 31, 1994	274.9	-6.7	2.5
December 31, 1993	294.6	-2.3	2.3
December 31, 1992	301.3	1.9	2.5
December 31, 1991	295.8	0.9	2.6
December 31, 1990	293.6	14.6	3.4
December 31, 1989	256.0	9.1	4.6
December 31, 1988	234.6	13.9	3.9
December 31, 1987	206.0	19.7	4.0
December 31, 1986	172.1	9.3	3.2
December 31, 1985	157.5	14.3	2.5
December 31, 1984	137.8	21.9	3.5
December 31, 1983	113.4	12.9	3.8
December 31, 1982	100.4	0	5.3
December 31, 1981	100.3	11.1	8.5
December 31, 1980	90.3		

* Changes from the fourth quarter of the year before.

NA = Not available.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, Table 1.52 (or 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.

Equity Borrowing in the Public Issue Markets

The U.S. stock markets rebounded significantly in 2003; however, the small business equity markets, for both initial public offerings (IPOs) and venture capital, continued to decline for the fourth consecutive year. Total IPO offerings declined 46 percent from $28.1 billion in 2002 to $16.0 billion in 2003—down to about a quarter of the volume reached during the peak year of 1999 ($61.8 billion) *(Table 1.14)*. Offerings by larger small issuers fared slightly better in dollar amounts, although not in the number of issues—the number of offerings by issuers with assets of $25 million or less fell by half to 5, while the dollar amount rose from $410 to $477 million in 2003.[24] As expected, offerings by the smallest issuers with assets of $10 million or less almost completely disappeared—to two IPOs for $17 million total in 2003.

IPO offerings by venture-backed companies painted a slightly better picture—the number of venture-backed IPOs increased from 22 in 2002 to 27 in 2003, while the total dollar amount remained almost unchanged at $1.9 billion. The average size of venture-backed IPOs thus decreased from $88 million in 2002 to $70.1 million in 2003.[25]

Venture Capital Funds

The venture capital market mirrored the IPO market, stabilizing at the beginning of 2003 and showing signs of recovery in the second half. Funds raised by venture capital firms increased to $11.0 billion in 2003 from $9.1 billion in 2002, while total disbursements declined from $21.4 billion to $18.1 billion in 2003 *(Table 1.15)*. While low in comparison to the peaks in 2000, the amounts of fund commitments and investments in portfolio companies are comparable to those of 1995–1997, when venture capital activities surged ahead after more than 10 years of activity in the $3 billion to $5 billion range. Total capital under management increased slightly to $257.5 billion by the end of 2003.

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24 Most of the activity occurred in the fourth quarter of 2003.

25 National Venture Capital Assocation, *NVCA Yearbook 2004*, Arlington, Va., June 2004, 75–76. A similar picture was observed for the alternative exit strategy, private mergers and acquisitions.

Table 1.14 Common Stock Initial Public Offerings, 1995–2003

	Common stock		
	Number	Amount (millions of dollars)	Average size (millions of dollars)
Offerings by all issuers			
2003	85	15,960.5	187.8
2002	94	28,187.0	299.9
2001	99	37,526.0	379.1
2000	383	59,547.0	155.5
1999	510	61,794.0	121.2
1998	367	38,137.0	103.9
1997	623	45,969.0	73.8
1996	850	52,190.3	61.4
1995	570	32,786.1	57.5
Offerings by issuers with assets of $25 million or less			
2003	5	476.9	95.4
2002	10	409.9	41.0
2001	14	477.0	34.1
2000	100	5,703.0	57.0
1999	168	10,522.0	62.6
1998	120	4,514.0	37.6
1997	248	5,753.0	23.2
1996	422	10,642.0	25.2
1995	248	5,603.1	22.6
Offerings by issuers with assets of $10 million or less			
2003	2	16.9	8.5
2002	4	150.4	37.6
2001	5	54.9	11.0
2000	30	932.0	31.1
1999	87	3,672.0	42.2
1998	62	2,208.0	35.6
1997	133	2,545.0	19.1
1996	268	5,474.4	20.4
1995	159	2,545.2	16.0

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

Source: Special tabulations prepared for the U.S. Small Business Administration, Office of Advocacy, by Thomson Financial Securities Data, May 2004.

Table 1.15 New Commitments, Disbursements, and Total Capital Pool of the Venture Capital Industry, 1982–2003

	Commitments	Disbursements	Initial round	Follow-on	Capital under management
2003	11.0	18.1	3.30	14.77	257.5
2002	9.1	21.4	4.35	17.07	253.2
2001	37.3	40.6	7.53	33.05	254.3
2000	105.4	105.9	29.16	76.69	227.2
1999	58.2	54.4	16.08	38.36	145.9
1998	30.4	21.2	7.30	13.94	91.4
1997	18.2	14.8	4.72	10.06	63.2
1996	11.6	11.5	4.29	7.26	49.3
1995	10.0	7.7	3.65	4.10	40.7
1994	7.8	4.2	1.73	2.47	36.1
1993	3.8	3.9	1.43	2.41	32.2
1992	5.1	3.6	1.27	2.11	30.2
1991	1.9	2.2	0.56	1.67	29.3
1990	3.3	2.8	0.84	1.97	31.4
1989	5.4	3.3	0.98	2.32	30.4
1988	4.4	3.3	1.03	2.23	27.0
1987	4.8	4.5	0.94	2.23	24.6
1986	3.7	4.1	0.89	2.09	20.3
1985	3.1	3.4	0.71	2.01	17.2
1984	3.2	3.3	0.86	2.09	13.9
1983	4.2	3.1	0.90	1.97	10.6
1982	2.0	1.8	0.59	1.00	6.7

Source: Venture Capital Journal (various issues) and *National Venture Capital Association Yearbook 2003*. Prepared by Venture Economics.

Commitments by all private limited partners declined in proportion to the decline in totals with little change in the relative shares of participation by major groups *(Table 1.16)*.

Declines in disbursements to small business portfolio companies by small business investment companies (SBICs) also paused in FY 2003. Total financing by SBICs amounted to $2.47 billion, a slight drop from $2.66 billion for FY 2002. The number of financing transactions, however, increased significantly, rising to 4,833, a historic high for the program *(Table 1.17)*. Investments by specialized SBICs (301d companies or SSBICs), most very small, showed a significant increase, rising to $47 million in FY 2003 from $32 million in the previous fiscal year.

Angel investors—informal individual investors in early stage ventures—continued to provide the equity financing hoped for by many new ventures in 2003. A report by Professor Jeff Sohl of the University of New Hampshire concluded that "the angel investor [market] has shown signs of a modest recovery in 2003, with total investments of $18.1 billion, up from the previous year [level] of $15.7 billion…A total of 42,000 entrepreneurial ventures received angel funding in 2003, a 16 percent increase from 2002. The number of active investors in 2003 was 220,000 individuals, an increase of close to 10 percent from 2002, with an average of 4–5 investors joining forces to fund an entrepreneurial start-up."[26]

Overview of Small Business Finance

While overall borrowing in the financial markets continued to show significant increases in 2003, dominated by the borrowing of the household and government sectors, business borrowing remained sluggish, with some increases by corporations in the corporate bond markets. Interest rates paid by small businesses declined further in 2003 as the demand for external financing remained weak.

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26 University of New Hampshire, Center for Venture Research, press release, "The Angel Investor Market in 2003: The Angel Market Rebounds, But a Troublesome Post Seed Funding Gap Deepens," April 2004.

Table 1.16 Sources of Capital Committed to Independent Venture Funds, 1989–2003 (percent except as noted)

	Total (billions of dollars)	Corpor-ations	Endowments/ foundations	Individuals/ families	Financial institu-tions	Pension funds	Total
2003	10.96	1.92	20.53	9.76	24.73	43.07	100.0
2002	7.67	2.35	20.86	9.13	25.42	42.24	100.0
2001	37.94	2.61	21.80	9.41	24.49	41.70	100.0
2000	105.80	3.70	21.10	11.80	23.30	40.10	100.0
1999	62.77	14.19	17.21	9.61	15.50	43.49	100.0
1998	29.68	11.86	6.30	11.32	10.34	60.14	100.0
1997	17.60	25.23	16.59	12.44	6.25	39.43	100.0
1996	12.42	19.89	11.92	6.84	3.06	58.37	100.0
1995	9.93	4.63	20.24	16.72	19.94	38.37	100.0
1994	7.81	9.35	21.90	12.16	9.73	46.85	100.0
1993	3.78	8.20	11.90	7.41	11.64	60.85	100.0
1992	5.11	3.72	21.33	12.13	17.42	45.79	100.0
1991	1.87	4.81	27.27	13.37	5.88	48.13	100.0
1990	3.25	7.38	14.15	12.62	9.85	56.31	100.0
1989	5.44	23.35	13.97	6.80	14.89	41.18	100.0

Source: Venture Capital Journal (various issues) and *National Venture Capital Association Yearbook 2003*. Prepared by Venture Economics.

Table 1.17 Disbursements to Small Businesses by Small Business Investment Companies, Initial and Follow-on Financing, FY 1992–FY 2003 (amounts in millions of dollars)

Fiscal year	Initial financing		Follow-on financing		Total	
	Number	Amount	Number	Amount	Number	Amount
2003	1,624	1,456	3,209	1,015	4,833	2,471
2002	1,060	1,274	2,944	1,386	4,004	2,660
2001	1,477	2,497	2,800	1,958	4,277	4,455
2000	2,251	3,860	2,388	1,606	4,639	5,466
1999	1,379	2,926	1,717	1,295	3,096	4,221
1998	1,721	2,037	1,725	1,202	3,446	3,239
1997	1,360	1,658	1,371	711	2,731	2,369
1996	1,081	1,022	1,026	594	2,107	1,616
1995	1,322	725	899	524	2,221	1,249
1994	1,241	517	1,107	484	2,348	1,001
1993	1,086	443	906	364	1,992	807
1992	1,056	322	943	222	1,999	544

Source: U.S. Small Business Administration, Investment Division.

Loans to small businesses by commercial banks exhibited similar developments. A large drop in the number of the smallest loans was a surprise in view of continued promotion by major credit card lenders. The SBA lending programs continued to provide a buffer in the decline in lending to small firms during the recovery in 2003.

The rebound in the stock market after March 2003 had relatively little impact on the equity market for small firms. Both the IPO and venture capital markets remained very weak, at least throughout the third quarter of 2003. All markets seemed to have rebounded in the fourth quarter of 2003.

Small Business Procurement

Small businesses are eager to pursue government contracts. In fiscal year 2003, the federal government granted more procurement dollars to small firms than in the past—a very positive sign. The federal government awarded a total of $307.5 billion in contracts for the purchase of goods, up from $259.1 billion in FY 2002 *(Table 1.18)*.[27]

Small businesses were awarded $65.8 billion in direct prime contracts, up from $54.1 billion in FY 2002. The percentage of contract dollars awarded to small business increased slightly, from 20.9 percent to 21.4 percent. Small businesses are also federal subcontractors: in FY 2003, they were awarded approximately $35 billion in subcontracts from prime contractors.[28] The total procurement

27 The U.S. Small Business Administration's Office of Government Contracting (OGC) calculates the share of federal dollars going to small businesses as part of its goaling process with other agencies. The OGC excludes certain categories of contract awards from the base or denominator of percentages awarded to small businesses because SBA officials believe that small businesses do not have a reasonable opportunity to compete for them. In the SBA's report, smaller firms won $65.5 billion in direct federal contracts in FY 2003, and approximately $35 billion in subcontracts, for a total of $100.5 billion. Using the SBA base, the percentage of awards to small businesses increased from 22.6 percent in FY 2002 to 23.6 percent in FY 2003. The SBA exclusions are not included in the data prepared under contract with the Office of Advocacy by Eagle Eye Publishers from Federal Procurement Data Center (FPDC) data. The FPDC figures differ from SBA goaling figures because no contracts are excluded from the analysis.

28 The FY 2003 figure for federal subcontracting dollars is currently unavailable. The $35 billion subcontracting level is estimated based on the FY 2002 small business subcontracting level of $34.3 billion.

Table 1.18 Total Federal Prime Contract Actions, FY 2002 and FY 2003

	Numbers as produced by Eagle Eye			Numbers as produced by SBA		
	Thousands of dollars		Small business share (percent)	Thousands of dollars		Small business share (percent)
	Total	Small business		Total	Small business	
Total, FY 2002	259,084,850	54,080,122	20.9	235,417,413	53,250,281	22.6
Actions under $25,000	14,506,369	6,854,072	47.2			
Actions over $25,000*	244,578,481	47,226,050	19.3			
Total, FY 2003	307,459,171	65,752,994	21.4	277,477,716	65,505,924	23.6
Actions under $25,000	15,140.026	5,939,664	39.2			
Actions over $25,000*	292,319,145	59,813,330	20.5			

* Reported individually.

Source: General Services Administration, Federal Procurement Data Center, Eagle Eye Publishers, and the U.S. Small Business Administration, Office of Government Contracting.

amount for small businesses in FY 2003, including both prime contracts and subcontracts, is $98 billion, an increase of about $9 billion from the previous year's $89.4 billion total.

The prime and subcontracting dollars represent a variety of goods and services provided by small businesses, including research and development, educational and training courses, paint, toiletries, military weapons, housing and hardware. These goods and services support federal civilian and military personnel around the world.

Size of Federal Contract Actions

In FY 2003, more than 95 percent ($292.3 billion) of federal procurement dollars were awarded in contract actions over $25,000.[29] Small firms' share of these contracts increased from 19.3 percent to 20.5 percent between FY 2002 and FY 2003. Over the long view, small firms have won a gradually increasing share of these larger transactions *(Table 1.19)*. Since FY 1995, the small firm percentage has ranged between 18 and 21 percent.

In contrast, although small firms have historically been more successful in competing for the smaller awards of less than $25,000, their share of these smaller awards has been on the decline. Over the FY 1990–FY 1995 period, their share of small award dollars was in the 50 to 52 percent range.[30] But in FY 1996, as procurement reforms began taking effect, their percentage and dollar shares of these small contracts actions began dropping steadily. In FY 2003, small businesses were awarded 39.2 percent—a decrease from 47.2 percent in FY 2002, but a few points higher than the 36.9 percent share in FY 2001.

Prior to enactment of the Federal Acquisition Streamlining Act (FASA), which was intended to simplify the process, only procurements of $25,000 or less could be set aside for small businesses with limited competition. Government procurement personnel may now follow a simplified small business acquisition process for purchases between $2,500 and $100,000, as long as there is a reasonable expectation of bids being received from two or more responsible small businesses whose bids are competitive and commensurate with market expectations. But because other options, including credit card purchases, are now open to contracting officers, the effect has been a decline in the percentage of small contract dollars awarded to small businesses. Thus, the perception of some potential small firm contractors is that the doorway through which they can enter the federal procurement marketplace has narrowed to the extent that they are discouraged from trying.

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29 Starting in FY 1983, the threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

30 See *The State of Small Business: A Report of the President*, editions for 1992 to 1996 (Springfield, Va.: National Technical Information Service).

Table 1.19 Federal Contract Actions over $25,000, FY 1984–FY 2002

Fiscal year	Thousands of dollars: Total	Thousands of dollars: Small business	Small business share (percent)
2003	292,319,145	59,813,330	20.5
2002	244,578,481	47,226,050	19.3
2001	223,338,280	46,764,505	20.9
2000	207,401,363	39,102,363	18.9
1999	193,550,425	35,898,754	18.5
1998	188,846,760	34,299,353	18.2
1997	188,186,629	33,924,015	18.0
1996	185,119,992	33,768,690	18.2
1995	184,426,948	33,240,512	18.0
1994	184,178,721	30,548,921	16.6
1993	183,681,389	30,318,281	16.5
1992	183,489,567	30,121,644	16.4
1991	183,081,207	29,523,629	16.1
1990	181,750,326	28,863,410	15.9
1989	181,500,339	28,046,374	15.5
1988	179,286,902	27,565,861	15.4
1987	179,227,203	26,708,810	14.9
1986	176,544,042	26,481,763	15.0
1985	172,612,189	25,753,580	14.9
1984	168,101,394	25,536,585	15.2

Note: Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

Source: General Services Administration, Federal Procurement Data Center, Eagle Eye Publishers, and *Special Report S89522C*, prepared for the U.S. Small Business Administration, Office of Advocacy (Washington, D.C.: U.S. Government Printing Office, June 12, 1989).

Sources of Small Business Awards by Department/Agency

The largest share of all federal purchases in contracts over $25,000 has historically come from the Department of Defense (DOD) *(Table 1.20)*. The DOD share of awards overall declined steadily from 80 percent of these contract dollars in FY 1985 to 66.3 percent in FY 1993. Since the early 1990s, the DOD share has remained at about two-thirds of all dollars in contracts over $25,000. DOD awards constituted some 61.7 percent of the $36.9 billion in FY 2003

Table 1.20 Procurement Dollars in Contract Actions over $25,000 by Major Agency Source, FY 1984–FY 2003

Fiscal year	Total (thousands of dollars)	Percent of total			
		DOD	DOE	NASA	Other
2003	292,319,145	67.9	7.2	4.0	20.9
2002	258,125,273	65.1	7.4	4.5	23.1
2001	248,985,613	58.2	7.5	4.5	29.8
2000	207,401,363	64.4	8.2	5.3	22.2
1999	188,846,760	66.4	8.4	5.8	19.4
1998	184,178,721	64.1	8.2	5.9	21.8
1997	179,227,203	65.4	8.8	6.2	19.5
1996	183,489,567	66.5	8.7	6.2	18.7
1995	185,119,992	64.3	9.1	6.3	20.2
1994	181,500,339	65.4	9.9	6.3	18.4
1993	184,426,948	66.7	10.0	6.4	16.8
1992	183,081,207	66.3	10.1	6.6	16.9
1991	193,550,425	70.2	9.5	6.1	14.2
1990	179,286,902	72.0	9.7	6.4	11.9
1989	172,612,189	75.0	8.8	5.7	10.6
1988	176,544,042	76.9	8.2	4.9	10.0
1987	181,750,326	78.6	7.7	4.2	9.5
1986	183,681,389	79.6	7.3	4.0	9.0
1985	188,186,597	80.0	7.7	4.0	8.3
1984	168,100,611	79.3	7.9	4	9.0

Note: DOD = Department of Defense; DOE = Department of Energy; NASA = National Aeronautics and Space Administration. Starting in FY 1983, the dollar threshold for reporting detailed information on DOD procurement actions increased from $10,000 to $25,000. For civilian agencies, a similar change was made starting in FY 1986.

Source: General Services Administration, Federal Procurement Data Center, Eagle Eye Publishers, and *Special Report 87458A*, prepared for the U.S. Small Business Administration, Office of Advocacy (Washington, D.C.: U.S. Government Printing Office, May 19, 1988).

prime contract dollars over $25,000 awarded to small businesses *(Table 1.21)*. The next largest source of federal contracting awards to small businesses was the General Services Administration, which accounted for 10.4 percent in FY 2003. Third in FY 2003 was the U. S. Department of Agriculture (USDA) at 3.5 percent. The Department of Health and Human Services was fourth in FY 2003 at 2.9 percent.

Table 1.21 Distribution of Small Business Share of Dollars in Contract Actions Over $25,000 by Procuring Agency Source, FY 2002 and FY 2003

	Total small business		Small business distribution (percent)		Rank	
	FY 2003	FY 2002	FY 2003	FY 2002	FY 2003	FY 2002
Total, all agencies	**59,813,315,875**	**53,254,769,998**				
Agency for International Development	286,346,162	320,921,413	0.48	0.60	18	16
Commission on National and Community Service	5,414,167	-	0.01	-	34	-
Commodity Futures Trading Commission	2,596,098	190,000	0.00	0.00	38	44
Consumer Product Safety Commission	3,903,553	3,281,000	0.01	0.01	36	32
Court Services and Offender Supervision Agency	-	87,000	-	0.00	-	45
Department of Agriculture	2,102,422,715	1,731,538,768	3.51	3.25	3	3
Department of Commerce	686,886,946	791,741,000	1.15	1.49	13	11
Department of Defense	36,912,997,871	28,982,728,051	61.71	54.42	1	1
Department of Education	162,806,134	233,524,805	0.27	0.44	20	19
Department of Energy	844,270,905	570,625,715	1.41	1.07	12	13
Department of Health and Human Services	1,732,359,097	1,306,105,131	2.90	2.45	4	6
Department of Homeland Security	969,767,603	-2,831	1.62	0.00	9	46
Department of Housing and Urban Development	528,899,557	303,582,445	0.88	0.57	15	17
Department of Interior	1,584,251,672	1,054,655,864	2.65	1.98	6	9
Department of Justice	903,591,865	1,238,916,424	1.51	2.33	10	8
Department of Labor	410,909,064	439,346,061	0.69	0.82	16	14
Department of State	982,884,028	681,379,788	1.64	1.28	8	12
Department of Transportation	879,082,080	1,643,943,976	1.47	3.09	11	4
Department of the Treasury	575,690,820	798,331,763	0.96	1.50	14	10
Department of Veterans Affairs	1,722,399,592	1,261,342,912	2.88	2.37	5	7
Environmental Protection Agency	295,867,425	263,216,821	0.49	0.49	17	18

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Table 1.21 (continued)

	Total small business		Small business distribution (percent)		Rank	
	FY 2003	FY 2002	FY 2003	FY 2002	FY 2003	FY 2002
Equal Employment Opportunity Commission	5,862,139	2,951,000	0.01	0.01	33	34
Executive Office of the President	39,560,087	23,984,000	0.07	0.05	22	27
Federal Election Commission	1,190,890	1,361,000	0.00	0.00	40	38
Federal Emergency Management Agency	18,280,230	56,447,000	0.03	0.11	28	22
Federal Maritime Commission	26,951	475,000	0.00	0.00	44	41
Federal Trade Commission	8,667,637	9,840,000	0.01	0.02	29	30
General Services Administration	6,201,129,970	9,090,706,212	10.37	17.07	2	2
International Trade Commission	3,371,994	4,088,000	0.01	0.01	37	31
National Aeronautics and Space Administration	1,524,160,449	1,593,733,000	2.55	2.99	7	5
National Archives and Records Administration	35,934,719	32,347,000	0.06	0.06	24	24
National Foundation on Arts and Humanities	1,120,947	441,000	0.00	0.00	41	42
National Labor Relations Board	4,246,127	56,753,000	0.01	0.11	35	21
National Mediation Board	668,973	1,783,000	0.00	0.00	42	37
National Science Foundation	7,589,001	17,260,263	0.01	0.03	31	29
National Transportation Safety Board	-	555,000	-	0.00	-	40
Nuclear Regulatory Commission	28,071,019	26,801,149	0.05	0.05	25	25
Office of Personnel Management	36,198,840	411,907,000	0.06	0.77	23	15
Peace Corps	6,846,102	1,895,000	0.01	0.00	32	36
Railroad Retirement Board	2,348,958	2,171,477	0.00	0.00	39	35

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Table 1.21 (continued)

	Total small business		Small business distribution (percent)		Rank	
	FY 2003	FY 2002	FY 2003	FY 2002	FY 2003	FY 2002
Securities and Exchange Commission	8,170,238	3,238,000	0.01	0.01	30	33
Small Business Administration	23,164,306	22,059,000	0.04	0.04	26	28
Smithsonian Institution	52,069,371	37,204,946	0.09	0.07	21	23
Social Security Administration	192,736,525	204,611,845	0.32	0.38	19	20
Trade and Development Agency	130,917	212,000	0.00	0.00	43	43
U.S. Information Agency	18,422,425	25,273,000	0.03	0.05	27	26
U.S. Soldiers' and Airmen's Home	423	1,216,000	0.00	0.00	45	39

Source: General Services Administration, Federal Procurement Data Center, and Eagle Eye Publishers.

While small businesses received more than half of their award dollars over $25,000 from the DOD in both FY 2002 and FY 2003, the total DOD dollar awards to small businesses in FY 2003 constituted 18.6 percent of the DOD's total procurement budget, up from 17 percent in FY 2002 *(Table 1.22)*. The three agencies devoting the largest shares of their contracting budgets to small business contracts, spending more than half on small businesses in FY 2003 were the Departments of Housing and Urban Development and of Commerce, both at 54.5 percent, and the U.S. Department of Agriculture, at 51.5 percent.

Product/Service Categories

Three major categories of goods and services—supplies and equipment, research and development, and other services and construction—make up the federal procurement markets. In FY 2002 and 2003, small businesses received about half of their federal procurement dollars for other services and construction, just over one-third for supplies and equipment, and the remainder—less than one-sixth—for research and development *(Table 1.23)*.

Table 1.22 Small Business Share of Dollars in Contract Actions Over $25,000 by Top 25 Major Procuring Agencies, Fiscal Years 2002 and 2003 (excluding FAA)

	FY 2003 ($000)		Small business share		
Agency	Total	Small business	FY 2003	FY 2002	FY 2003 Share rank
Department of Defense	198,393,396	36,912,998	18.61	17.25	19
Department of Energy	21,067,209	844,271	4.008	3.005	25
General Services Administration	15,358,989	6,201,130	40.37	46.67	7
National Aeronautics and Space Administration	11,671,821	1,524,160	13.06	13.82	21
Department of Veterans Affairs	6,607,232	1,722,400	26.07	27.15	16
Department of Health and Human Services	6,269,551	1,732,359	27.63	24.07	14
Department of Agriculture	4,085,001	2,102,423	51.47	46.85	3
Department of Homeland Security	3,459,440	969,768	28.03	-8.59	13
Department of Interior	3,453,840	1,584,252	45.87	47.79	4
Department of Justice	3,167,845	903,592	28.52	28.94	12
Department of Transportation	2,957,090	879,082	29.73	39.32	11
Department of Education	2,943,319	162,806	5.531	23.34	23
Department of the Treasury	2,524,241	575,691	22.81	24.05	17
Department of State	2,296,163	982,884	42.81	29.76	6
Agency for International Development	1,598,921	286,346	17.91	23.39	20
Department of Labor	1,500,950	410,909	27.38	25.9	15
Department of Commerce	1,260,290	686,887	54.5	51.74	2
Environmental Protection Agency	979,076	295,867	30.22	25.52	10
Department of Housing and Urban Development	970,049	528,900	54.52	36.32	1
Social Security Administration	534,549	192,737	36.06	36.58	9
Office of Personnel Management	305,597	36,199	11.85	57.55	22
National Science Foundation	145,039	7,589	5.232	9.288	24
Smithsonian Institution	116,779	52,069	44.59	46.06	5
National Archives and Records Administration	96,322	35,935	37.31	33.03	8
U.S. Information Agency	83,143	18,422	22.16	31.41	18

Note: All agencies are represented in the total dollars for FY 2002; the organizations listed are those agencies that awarded at least $100 million in individual contract actions over $25,000 in FY 2002.

Source: General Services Administration, Federal Procurement Data Center, and Eagle Eye Publishers.

Table 1.23 Distribution of Prime Contract Actions Over $25,000 by Major Product or Service Category for FY 2002 and FY 2003 (percent)

Product / service category	FY 2002	FY 2003
Total	**100.0**	**100.0**
Research and development	12.8	13.1
Other services and construction	51.7	51.2
Supplies and equipment	35.5	35.7

Source: General Services Administration, Federal Procurement Data Center, and Eagle Eye Publishers.

The volume of award dollars in each of the three major procurement categories increased from FY 2002 to FY 2003 *(Table 1.24)*. Contract dollars in the services and construction category, which includes activities as diverse as architectural and engineering services, data processing, telecommunications, general construction, and management support services, increased from $133.4 billion in FY 2002 to $149.7 billion in FY 2003. Expenditures for supplies and equipment, the second largest category, increased from $91.6 billion in FY 2002 to $104.4 billion. Research and development expenditures also increased from $33.2 billion in FY 2002 to $38.2 billion.

Overall, the small business market shares grew with the overall federal marketplace in FY 2003. Supplies and equipment had a dollar and percentage increase from $14.2 billion or 15.5 percent in FY 2002 to $18.7 billion or 17.9 percent—as did research and development, up from $4.2 billion and 12.6 percent in FY 2002 to $5.0 billion and 13.1 percent in FY 2003. In other services and construction, small businesses saw a dollar increase and a share decrease from $34.9 billion or 26.2 percent in FY 2002 to $36.2 billion or 24.2 percent in FY 2003.

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. Ten government agencies with extramural research and development obligations over $100 million initially participated in this program: the Departments

Table 1.24 Small Business Share of Dollars in Contract Actions Over $25,000 by Major Product or Service Category, FY 2002 and FY 2003

	FY 2002		FY 2003	
	Thousands of dollars	Small business share (percent)	Thousands of dollars	Small business share (percent)
Total	244,578,481		292,319,145	
Small business total*	47,226,050	19.3	59,813,330	20.5
Research and development				
Total	33,168,250		38,231,438	
Small business	4,162,648	12.6	4,994,182	13.1
Other services and construction				
Total	133,380,368		149,657,396	
Small business	34,892,253	26.2	36,152,021	24.2
Supplies and equipment				
Total	91,576,655		104,430,312	
Small business	14,199,868	15.5	18,667,126	17.9

* The Federal Aviation Administration did not break out product/service codes for FY 2002, so the FY 2002 figure here does not match the total shown elsewhere.

Source: General Services Administration, Federal Procurement Data Center, and Eagle Eye Publishers.

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 $15.4 billion has been awarded to small businesses over the 21 years of the program *(Table 1.25)*.[31] Participating agencies received a total of 31,259 proposals in FY 2003, up from 26,583 in FY 2002. More than 76,000 Phase I and Phase II awards have been made since the beginning of the program.

31 FY 2003 figures for the Small Business Innovation Research program are preliminary.

Table 1.25 Small Business Innovation Research Program, FY 1983–FY 2003

	Phase I		Phase II		
Fiscal year	**Number of proposals**	**Number of awards**	**Number of proposals**	**Number of awards**	**Total awards (millions of dollars)**
Total	**378,561**	**55,572**	**43,658**	**20,859**	**15,420.9**
2003	**p** 27,992	**p** 4,465	**p** 3,267	**p** 1,759	**p** 1,791.8
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

p = 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 2003).

Procurement from Minority- and Women-owned Businesses

Small women- and minority-owned businesses continue to account for a small percentage of total federal award dollars in comparison with their representation in the U.S. economy. Women-owned businesses constitute approximately 26 percent of the total nonagricultural business population of the United States, but they obtained 2.9 percent of total federal contract dollars in FY 2003, up from 2.7 percent in FY 2002 *(Tables 1.26 and 1.27)*.

Socially and economically disadvantaged businesses (minority-owned businesses) won 6.3 percent of the awards in FY 2003, up from 6.0 percent in FY 2002. The dollar value of prime contract actions awarded in FY 2003 to small socially and economically disadvantaged businesses increased, from $15.7 billion in FY 2002 to $19.3 billion in FY 2003.

Nearly all contract dollars are in larger contracts over $25,000—97.7 percent of awards to small disadvantaged businesses in FY 2002 and 93.3 percent of awards to women-owned businesses. The trends in dollars and shares to women- and minority-owned firms in these larger contracts were similar to the overall patterns. As is true for small businesses overall, fewer actual dollar amounts in the smallest contracts are going to small socially and economically disadvantaged and small women-owned firms. On the other hand, the shares of total dollars in contracts of $25,000 or less increased for small minority-owned businesses from 2.6 percent in FY 2002 to 2.9 percent in FY 2003 and for women-owned businesses from 3.1 percent to 3.9 percent.

Small disadvantaged 8(a) firms won $10.0 billion in FY 2003, up from $7.9 billion in FY 2002 *(Table 1.28)*. The 8(a) share of dollars in contracts over $25,000 increased from 3.0 to 3.4 percent over the same period.

Service-disabled veteran business owners are now among the socioeconomic groups that are measurable 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. In December 2003, this program was enhanced by section 308 of Public Law 108-183. In FY 2001, service-disabled veterans were awarded 0.25 percent of direct federal contract dollars; in FY 2002, the percentage was 0.17 percent and in FY 2003 the percentage was 0.21 percent.

Table 1.26 Total Federal Contract Actions to Small, Women-Owned, and Minority-Owned Businesses, FY 2002 and FY 2003

	FY 2002				FY 2003			
	Total	Small business	Women-owned business	Minority-owned business	Total	Small business	Women-owned business	Minority-owned business
Numbers as Produced by Eagle Eye								
Total Actions (thousands of dollars)	259,084,850	54,080,122	7,122,260	15,678,796	307,459,171	65,752,994	8,797,965	19,342,557
Percent		20.9	2.7	6.0		21.4	2.9	6.3
Actions under $25,000 (thousands of dollars)	14,506,369	6,854,072	444,640	370,702	15,140,026	5,939,664	585,512	439,470
Percent		47.2	3.1	2.6		39.2	3.9	2.9
Actions over $25,000 (thousands of dollars)	244,578,481	47,226,050	6,677,620	15,308,067	292,319,145	59,813,330	8,212,453	18,903,087
Percent		19.3	2.7	6.3		20.5	2.8	6.5
Numbers as Produced by SBA								
Total Actions (thousands of dollars)	235,417,413	53,250,281	6,826,492	15,896,739	277,477,716	65,505,924	8,277,298	19,460,670
Percent		22.6	2.9	6.7		23.6	2.9	7.0

Source: General Services Administration, Federal Procurement Data Center, Eagle Eye Publishers, and the U.S. Small Business Administration, Office of Government Contracting.

Table 1.27 Annual Change in the Dollar Volume of Contract Actions Over $25,000 Awarded to Small, Women-Owned, and Minority-Owned Businesses, FY 1980–FY 2003 (thousands of dollars)

	Total, all business			Small business			Women-owned business			Minority-owned business		
	Total	Change from prior year		Total	Change from prior year		Total	Change from prior year		Total	Change from prior year	
	(Thousands of dollars)	Thousands of dollars	%	(thousands of dollars)	Thousands of dollars	%	(Thousands of dollars)	Thousands of dollars	%	(thousands of dollars)	Thousands of dollars	%
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	9.9	6,677,620	-3,595	*	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	5.8
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	2.8	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
1990	179,286,902	6,674,713	3.8	25,401,626	1,685,455	7.1	1,477,894	74,955	5.3	5,690,060	356,172	6.7

* Less than 0.05 percent.

(continued, next page)

Table 1.27 (continued)

	Total, all business			Small business			Women-owned business			Minority-owned business		
	Total	Change from prior year		Total	Change from prior year		Total	Change from prior year		Total	Change from prior year	
	(Thousands of dollars)	Thousands of dollars	%	(thousands of dollars)	Thousands of dollars	%	(Thousands of dollars)	Thousands of dollars	%	(thousands of dollars)	Thousands of dollars	%
1989	172,612,189	-3,931,853	-2.2	23,716,171	-1,955,147	-7.8	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	11.9	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	–	–

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), and Eagle Eye Publishers.

Table 1.28 Contract Actions Over $25,000, FY 1984–FY 2003, with Annual 8(a) Set-Aside Breakout

	Thousands of dollars		
Fiscal Year	Total	8(a) set-aside	8(a) share (percent)
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

Source: General Services Administration, Federal Procurement Data Center.

Some data are available on subcontracting for subgroups of small businesses. In FY 2003, small disadvantaged businesses were awarded approximately $6 billion in subcontracts; women-owned businesses won $750 million in subcontracts.

Overview of Small Business Procurement

The federal procurement sector offers valuable opportunities for small firms to enter the marketplace and grow, and where small firms have been in a position to take advantage of the opportunities, they have made important contributions. Ensuring that the federal contracting market remains open to small firms is an ongoing challenge.

Conclusion

In sum, the year 2003 appears to have marked a transition from a time of less than optimal economic performance to the beginnings of an expansion, which worked to the benefit of small businesses. In particular, the second half of the year saw an increase in consumer and business confidence and an increase in real gross domestic product. The economic expansion began to gain traction in the financial markets, although the equity markets for small firms remained depressed. Interest rates paid by small firms were lower in 2003. Small businesses were awarded both a larger dollar amount and share of federal contracts in fiscal year 2003 than in 2002. Businesses owned by women, minorities, and veterans also saw increases in the share and dollar amount of federal procurement. Overall, the small business economy was poised to move ahead with more vigor in 2004.

2 RULES, REGULATIONS *and* HOME-BASED BUSINESS

Synopsis

Home-based businesses make up 53 percent of the small business population and have served as the incubators for most successful businesses in existence today. The health and dynamism of the sector stems in large part from the entrepreneurial spirit so prevalent in the United States. The importance of small businesses to the economy, including their contributions to gross domestic product and employment, and their resilience in the business cycle, are well known. Less well known is that the costs imposed by federal regulations are not proportional. Crain and Hopkins (2001) showed that small businesses with fewer than 20 employees incur costs of $6,975 per employee, 60 percent more than medium-sized or large firms, to comply with federal regulations. This glaring disproportionality underlies the U.S. Small Business Administration, Office of Advocacy's mandate and efforts to work with agencies to address small business regulatory burdens. However, as important as this finding is, home-based businesses are exempted from most industrial regulations. A few questions naturally arose: was this finding uniform for all small businesses? In other words, were there burdens specific to home-based businesses?

In his research, which is the basis for this chapter, Dr. Henry Beale of Microeconomic Applications looked at instances in which home-based businesses were specifically affected by regulation, without necessarily examining the entire small business community.[1] The research suggests that Internal Revenue Service (IRS) regulations hampered home-based businesses at the federal level; zoning regulations at the local level.

Regulations of the Internal Revenue Service appear to be the most burdensome of any federal regulations on home-based businesses. All businesses are

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1 The present chapter is based largely on this research. See Henry B.R. Beale, Microeconomic Applications, Inc., *Home-Based Business and Government Regulation*, prepared for the U.S. Small Business Administration, Office of Advocacy, under contract no. SBAHQ-02-M-0464, 2004. See http://www.sba.gov/advo/research/rs235tot.pdf.

required to file federal income tax returns and related schedules. Businesses with employees must withhold and file related forms for employees. Additional forms are required for deducting depreciation and costs of the home office.

Local jurisdictions enact zoning codes to separate land uses and maintain the distinctive character of each type of neighborhood. Over about the last decade, there has been a broad movement to adopt provisions that would allow home-based businesses in residential zones. Home-based businesses were previously considered commercial operations and, as such, were prohibited in residential areas.

Characteristics of Home-based Businesses

The U.S. Small Business Administration's Office of Advocacy has sponsored much of the existing research on home-based businesses.[2] In her 2000 study, Joanne Pratt used data from the 1992 Characteristics of Business Owners (CBO) Survey.[3] The CBO Survey represents self-employed owners of businesses that filed Schedule C (proprietorship), Form 1065 (partnership), or Form 1120S (S corporation) tax returns. Filers of Form 1120 (C corporations) are not included.

Of the numerous characteristics of businesses examined by Pratt, five appear to be the most relevant for assessment of regulatory impacts on home-based businesses:

- Location of business in a home;
- Industry concentrations of home-based businesses;
- Type of business organization;
- The presence of employees; and
- Size of the business.

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2 Joanne H. Pratt, *Myths and Realities of Working at Home: Characteristics of Homebased Businesses and Telecommuters*, prepared for the U.S. Small Business Administration, Office of Advocacy (Springfield, Va.: National Technical Information Service,1993); Joanne H. Pratt, *Homebased Businesses: the Hidden Economy*, prepared for the U.S. Small Business Administration, Office of Advocacy, (Springfield, Va.: National Technical Information Service, 1999).

3 As the CBO Survey was not repeated in 1997, these are the latest detailed data on home-based businesses.

Home-based Business Location

A home-based business is defined as a business conducted out of a residence with no other headquarters location. Overall, Pratt found that about two-thirds (68 percent) of sole proprietorships, partnerships, and S corporations are home-based. Data on C corporations were available, but the percentage that is home-based presumably is quite small (although not zero).

Industry Concentrations of Home-based Businesses

New Firms at Two-Digit and Three-Digit SIC Detail

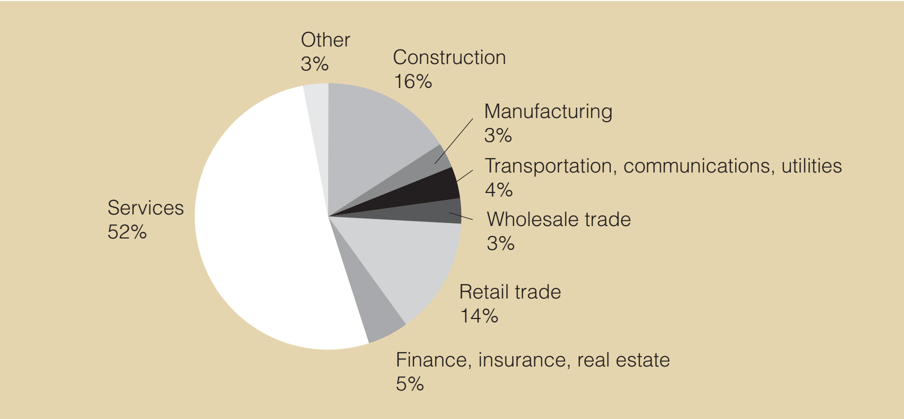
The data Pratt compiled from the CBO Survey[4] can be used to show the industry distribution of home-based businesses in several ways. Pratt's industry detail is basically at the two-digit level of Standard Industrial Classification (SIC) detail, although some three-digit industries are reported and some industries are groups of two-digit SIC codes. To obtain this level of detail, Pratt used data on new firms that opened in 1992 *(Chart 2.1)*.

The research shows that most of these new home-based businesses (52 percent) are in services; construction accounts for 16 percent; retail trade, 14 percent; and no other sector has more than 6 percent of home-based businesses. As shares of the total proprietorships, partnerships, and S corporations in each industry, home-based businesses range from 45 percent in transportation, communications, and utilities, to 78 percent in forestry, fishing, and hunting. Within individual industries, home-based businesses constitute shares ranging from 1 percent in SIC 58, eating and drinking places, to 92 percent in SIC 152, general contractors, residential.

Overall, new home-based businesses (CBO data) make up just under one-quarter (22 percent) of all establishments (Census data). In some sectors, the percentages are higher, especially in services (35 percent) and construction

4 Pratt, 1999, Table 4-2. The data in this table are not consistent, as the sum of the home-based businesses in the individual industries is nearly 50 percent higher than the total for "All SICs" in the table. The apparent source of this discrepancy is several individual figures. Based on the percentages in Pratt's table and/or the text (either specific comments or failure to comment on enormous concentrations of home-based businesses), it appears that a decimal point was inadvertently moved one place to the right for home-based businesses in SIC 3X, SIC 641, and SIC 835. These three values were divided by 10 as an attempted correction.

Chart 2.1 Distribution of Home-based Businesses by Major Sector



Source: Henry B. R. Beale, Microeconomic Applications, *Home-based Business and Government Regulation*, 2004.

(34 percent). By industry, there are more new home-based businesses, according to CBO data, than establishments, according to Economic Census data, in forestry, fishing, and hunting SIC codes 08 and 09 (161 percent); child day care SIC code 835 (138 percent); and management services SIC code 874 (118 percent). These high percentages of new businesses represent extremely rapid growth.

A look at industry concentration finds that more than 60 percent of home-based businesses are in the service and construction sectors; more than 80 percent are in 15 two-digit SIC industries; and one-quarter are in just six three-digit SIC industries.

Growth by Industry

The previous discussion used Pratt's data for new businesses. A comparison of Census data with the more detailed data compiled by Pratt shows the same relative concentration among industries. The data for all home-based businesses show that services account for about half (48 percent) of all home-based businesses. Three sectors each account for more than 10 percent of all home-based businesses: retail trade (15 percent); finance, insurance, and real estate (12 percent); and construction (11 percent). No other sector has as much as a 5 percent share of all home-based businesses.

The difference between the industry distribution of *new* home-based businesses and that of *all* home-based businesses can be interpreted as an indicator of relative growth in home-based businesses, as there will be proportionately more new firms in rapidly growing sectors and proportionately fewer new firms in slowly growing or declining sectors. Sectors with a relatively rapidly growing home-based business element include construction and services. Sectors with a relatively slowly growing home-based business element include finance, insurance, and real estate; agricultural services, forestry, fishing, and mining; and manufacturing.

Type of Organization

A comparison of the distribution by type of business organization (proprietorship, partnership, or subchapter S corporation) of home-based firms with all firms finds that a larger share of home-based businesses (91 percent, compared with 85 percent overall) are individual proprietorships *(Chart 2.2 and Table 2.1)*. Of the remainder, S corporations (5 percent), slightly outnumber partnerships (4 percent) among home-based businesses.

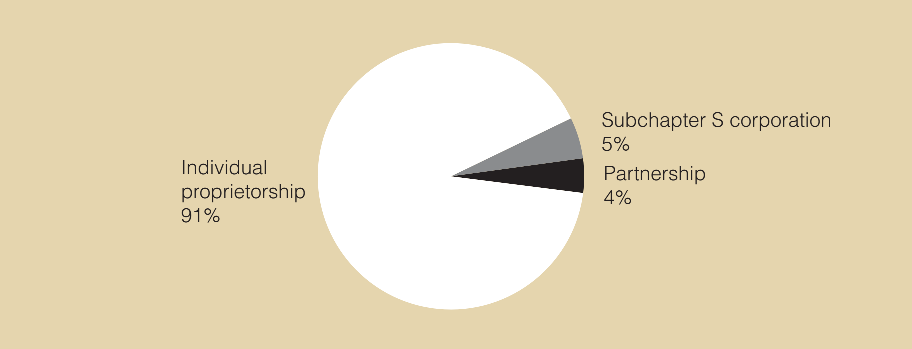
Employees

In a comparison of the employment of all and home-based proprietorships, partnerships, and S corporations, nearly all home-based businesses (91 percent) reported no paid employees, and this fraction rises to 94 percent if firms that reported payroll expenditures but no actual employees are included *(Chart 2.3 and Table 2.2)*.

Business Size

Home-based businesses operate part-time to a much greater degree than comparable non-home-based businesses reported on in the CBO. Fewer than half of home-based businesses are without employees, and no more than two-thirds of those with employees provide the primary source of income for their owners. Fewer than half of home-based businesses without employees, and fewer than one-quarter with employees, operate year-round. Home-based business

Chart 2.2 Home-based Businesses by Type of Business Organization



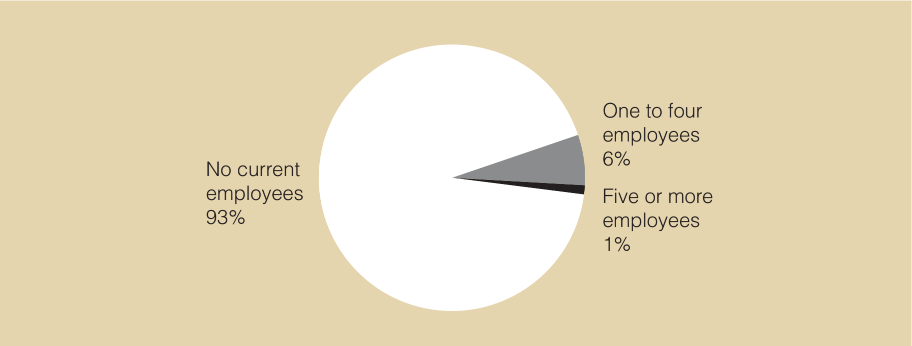
Source: Henry B. R. Beale, Microeconomic Applications, *Home-based Business and Government Regulation*, 2004.

Table 2.1 Distribution of Home-based Businesses by Type of Business Organization (numbers in thousands)

	All proprietorships, partnerships, and S corporations			Firms operated from a private residence	
	Total number	Percent of total	Number reporting home-based status	Number	Percent
Individual proprietorships	14,599	84.6	13,446	7,207	91.1
Partnerships	1,090	6.3	1,049	321	4.1
Subchapter S corporations	1,564	9.1	1.514	379	4.8
Total	17,253	100.0	16,009	7,907	100.0

Source: U.S. Department of Commerce, Bureau of the Census, 1992 Economic Census, *Characteristics of Business Owners*, table 24d.

Chart 2.3 Employment in Home-based Businesses



Source: Henry B. R. Beale, *Microeconomic Applications, Home-based Business and Government Regulation*, 2004.

Table 2.2 Distribution of Home-based Businesses and their Employment by Business Employment Size (numbers in thousands)

	All proprietorships, partnerships, and S corporations			Firms operated from a private residence	
	Total number	**Percent of total**	**Number reporting home-based status**	**Number**	**Percent**
Firms with no paid employees	14,118	81.8	12.946	7,198	90.6
Firms with paid employees	3,135	18.2	3,068	750	9.4
None at time of survey	436	2.5	425	202	2.5
1 to 4	1,716	9.9	1,689	449	5.7
5 to 9	504	2.9	491	65	0.8
10 to 19	256	1.5	248	20	0.25
20 to 49	145	0.8	140	8	0.10
50 to 99	45	0.3	44	6	0.08
100 or more	33	0.2	32	0	0.001
Total	17,253	100.0	16,015	7,948	100.0

Source: U.S. Department of Commerce, Bureau of the Census, 1992 Economic Census, *Characteristics of Business Owners*, table 24c.

owners work, on average, 26 to 35 hours per week—10 hours less than owners of similar non-home-based businesses.[5] This part-time characteristic may mean greater vulnerability to regulatory impacts because the base over which to spread costs is smaller.

The Internal Revenue Service and its Effect on Home-based Businesses

The Internal Revenue Service (IRS) affects all businesses: its regulations, like the Internal Revenue Code itself, are complex. The resulting burdens on home-based businesses are multi-faceted and complex.

Distinctive Characteristics of the Agency

The IRS is virtually unique in the degree to which its underlying statutes are as complex as the regulations that arise from them. In many instances, regulations are no more than quotations of the statute. The complexity of the regulations, therefore, is largely the result of congressional actions, not the IRS's own decisions. Tax law is made more complex, however, by numerous tax court decisions, which make distinctions that are finer than the regulations themselves.

Tax law has developed piecemeal over many decades. There is a major "reform" every decade (or more often), and lesser tinkering occurs every year. Aside from sheer complexity, this piecemeal development has two effects:

- Elements of tax law are not consistent with each other, necessitating more tax court decisions, and
- It is difficult to keep one's understanding of tax requirements current.

Principal Filing Responsibilities of a Home-based Business

Multiple IRS filing requirements are typically required of home-based businesses *(Table 2.3)*. Other filings may be called for, depending on the complexity of the business, the extent of tax avoidance, and special circumstances. The forms fall into three general categories:

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5 Pratt, 1999, 51.

Table 2.3 IRS Forms Related to Home-based Businesses

Type of form	Form number	Sole proprietorship	Partnership	S Corporation	C Corporation
Primary income tax return	1040	Owner	Partner	Shareholder	
	1065		Business		
	1120S			Business	
	1120				Business
Mandatory schedule	Schedule C	Owner			
	Schedule K-1		Business	Business	
	Schedule E		Partner	Shareholder	
Capital gains	Schedule D	Owner	Business	Business	Business
Alternative minimum tax	6251	Owner	Partner	Shareholder	
	4626				Business
Withholding and unem-ployment tax	941	Employer	Employer	Employer	Employer
	940	Employer	Employer	Employer	Employer
	8190	Employer	Employer	Employer	Employer
	Schedule SE	Owner	Partner	Shareholder	
	W-2	Employer	Employer	Employer	Employer
	W-3	Employer	Employer	Employer	Employer
Information	1099-D				Business
Forms for other payments	1099-S	Any business selling or exchanging real estate.			
	1099-M	Any business using contractors or making miscellaneous payments.			
	1096	Any business filing any type of Form 1099.			
Employee benefit plan	550 and schedules	Any business maintaining an employee benefit plan.			
Credits	3800	Any business claiming more than one type of business credit.			
	3468	Any business claiming an investment credit.			
	4255	Any business selling investment credit property.			
Business property (depreciation)	4562	Any business depreciating or amortizing business property.			
	4797	Any business selling or exchanging business property.			
	8829	Expenses for business use of the home			
Other expense	2106	Employee business expenses.			

Source: Source: Henry B. R. Beale, *Microeconomic Applications, Home-based Business and Government Regulation*, 2004.

- Income taxes;
- Employer taxes; and
- Expenses and depreciation.

Parallel forms—and in some cases the same form—are required for businesses with different types of legal organization.

Measurable Burdens Associated with Paying Taxes

Current Time Burden Estimates

The time required to complete different aspects of forms that would typically be filed by a sole proprietorship has been estimated for businesses with and without employees *(Table 2.4)*.

Factors Affecting Burdens

Current time estimates have numerous drawbacks. They are based on individual forms and schedules, so that they omit any other type of activity and ignore interactions among forms (which may increase or decrease the time required). They are also averages, which makes them essentially irrelevant for home-based businesses in several respects.

Business Size

Home-based businesses are at the small end of the size range. The effort required for a small business is clearly much less than that for a large business. On the other hand, recordkeeping and form filing are activities that are subject to large economies of scale. The current time estimates do not even address the issue of how burden varies with size.

Experience and Business Age

Federal tax forms impose an enormous learning curve. Having several quarters or years of experience filing tax returns makes the process much easier and less time consuming—unless the rules have changed. For simpler or more frequently filed forms, it usually suffices to get out the previous form and mimic it using new numbers. The experience factor has an important implication for the questions asked in this study. Burdens of federal tax recordkeeping and filing fall disproportionately on start-up businesses. By the time a business is ready to outgrow a home base, it has probably mastered the process. After start-up, hiring the first employee is the only event that adds significantly to the burden.

Table 2.4 IRS Time Burden Estimates for Filing Tax Forms for a Sole Proprietorship with and without Employees

Type of tax	Form or schedule	Learning about the law and/or form	Recordkeeping	Preparing and filing the form	Total annual time
Income tax	1040	3 hrs. 45 mins.	2 hrs. 26 mins.	6 hrs. 39 mins.	13 hrs. 10 mins.
	Schedule C	1 hr. 41 mins.	6 hrs. 4 mins.	2 hrs. 50 mins.	10 hrs. 35 mins.
Capital gains	Schedule D	2 hrs. 54 mins.	1 hr. 29 mins.	3 hrs. 12 mins.	7 hrs. 35 mins.
Alternative minimum tax	6251	1 hrs. 11 mins.	19 mins.	2 hrs. 12 mins.	3 hrs. 42 mins.
Self-employment tax	Schedule SE	14 mins.	13 mins.	26 mins.	53 mins.
Depreciation	4562	5 hrs. 57 mins.	38 hrs. 14 mins.	6 hrs. 50 mins.	51 hrs. 1 min.
	8829	7 mins.	52 mins.	1 hr. 35 mins.	2 hrs. 34 mins.
Subtotal		**15 hrs. 49 mins.**	**49 hrs. 57 mins.**	**23 hrs. 44 mins.**	**89 hrs. 30 mins.**
Withholding	8190 **a**	-	-	2 mins.	24 mins.
	941 **b**	40 mins.	12 hrs. 24 mins.	2 hrs. 5 mins.	15 hrs. 9 mins.
	W-2 **c**	-	-	30 mins.	30 mins.
	W-3 **c**	-	-	29 mins.	29 mins.
Unemployment	940	1 hr. 17 mins.	13 hrs. 45 mins.	1 hr. 48 mins.	16 hrs. 51 mins.
Information	1099-M **c**	-	-	16 mins.	16 mins.
Subtotal		**1 hr. 57 mins.**	**26 hrs. 9 mins.**	**5 hrs. 10 mins.**	**33 hrs. 39 mins.**
Total		**17 hrs. 46 mins.**	**76 hrs. 8 mins.**	**28 hrs. 54 mins.**	**123 hrs. 9 mins.**

a Filed monthly.

b Filed quarterly.

c Based on one employee and one consultant.

Source: Paperwork Reduction Act notice in the instructions for each individual form.

Records

The quality and design of business records is a very important factor in the paperwork burden of taxes. In addition to being accurate and complete, the records need to generate the numbers required by tax forms. Accounts should be designed with reference to—working backwards from—the line items of the tax forms. Accomplishing this by successive refinements of the record system can be a substantial part of the tax paperwork learning curve. The quality of records raises an important question about impacts: How much of the recordkeeping is needed to run the business, and how much is done because of IRS requirements? A business must keep some records for basic management purposes and to obtain credit from any but personal sources. Only the recordkeeping above and beyond this level is a burden attributable to the IRS. As an accountant in the home-based business community pointed out, some people do not have the recordkeeping skills needed to manage a business properly. Learning such basic skills is not a burden of paying taxes. Most of the information required for IRS filings can be retrieved from a well-organized checkbook.[6] The IRS burden is organizing the information in the right form, not keeping such basic records as a checkbook in the first place.

Computers

Using computers can greatly reduce burdens involved in recordkeeping—even apart from electronic filing or payroll. Several factors are important:

- Computers make computations rapidly and accurately. Checkbooks are a central example, but spreadsheets can also be a great help in keeping payroll or other more customized records—even if checks are written manually.
- Computers retrieve and aggregate data. If receipts and payments are appropriately annotated by account, a computer will assemble the information for a tax filing.
- Information necessary for taxes is available on line. The web is usually (if not always) the fastest way to search for and retrieve information. The IRS also has business assistance tools and information available on CD-ROM.

6 The check for withholding payments is an exception. It includes both withholding and Federal Unemployment Tax Act (FUTA) payments.

Burdens on Home-based Businesses

A sole proprietor without employees will spend an estimated 89.5 hours on the income tax return *(Table 2.4)*. Of this:

- Learning about the law and the form accounts for 18 percent of the time,
- Recordkeeping accounts for 56 percent, and
- Preparing and filing the form accounts for 26 percent.

Recordkeeping for depreciation accounts for 75 percent of the recordkeeping time and 43 percent of the entire tax preparation time required for a sole proprietor. Form 4562 is used by firms of all sizes and accounts for a significant share of the entire estimate.

The estimated time for learning about the law for depreciation is just over six hours for Form 4562 and Form 8829 combined. But IRS Publications 946 and 587, which cover these two forms, have a combined total of more than 130 pages. Estimates in Table 2.4 are based only on the instructions for the forms. Because other background work is omitted, the IRS estimates for familiarization are far too low for a new small business, even if they may be adequate for a refresher review by an experienced businessperson. Learning how to keep records is another background activity that the IRS estimates largely overlook.

The estimates in Table 2.4 for employer filings are nearly 34 hours. Estimates for recordkeeping and filing of Forms 941 and 940 are certainly biased upward by requirements of large firms; home-based businesses with very few employees will not take nearly as much time. The familiarization estimates seem low, especially for a business that is just taking on employees.

Current Re-estimation

The IRS is currently revising estimates of tax burden, using a survey-based approach that estimates the total tax burden for different types of individual business[7] and nonbusiness filers. The results are highly preliminary, but a gross

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7 Internal Revenue Service, *Individual Taxpayer Burden Model—Project Documentation*, January 31, 2003. These filers included sole proprietorships, S corporations, and partnerships with Form 1040 tax preparation services, financial advice, and various combinations of using accounting services, filing Schedule E for rental income, entity return preparation, and filing employer forms.

estimate is that individual business filers as a whole spent about 60 hours per year filing federal taxes, about five times that spent by individual non-business filers.

These estimates do not differ greatly from the Table 2.4 estimates of total nonemployer time. If one adjusts recordkeeping for depreciation downward by about 30 hours, the estimates are quite close. As a rough estimate, a home-based business will add about one hour per week to a household's federal tax return effort.

Preliminary direct cost estimates (expenditures incurred) are more detailed:

- Sole proprietorships spent:
  - Less than $300 if they filed only Schedule C,
  - About $500 if they used accounting services or filed Schedule E, and
  - Just over $1,000 if they had employees.
- Partnerships and S corporations spent:
  - About $900 if they filed only Schedule E,
  - $1,200 to $1,300 if they also filed Schedule E (rental income), also filed Schedule C, or did entity return preparation, and
  - $3,100 to $3,500 if they did entity returns preparation and used accounting services.

In very round numbers $500 would serve as an estimate of a home-based business's direct costs.

Information and Assistance

On-line Information

The IRS website, in addition to providing a considerable amount of useful information, is also a source from which all IRS forms and publications can be downloaded. Questions are answered both in FAQ format and individually.

Information on the website includes basic general information on business start-ups (both checklists and longer discussions) including some of the tax implications. Many specific topics are discussed, and searches can readily locate information and publications. Detailed information is provided though downloadable publications that are originally in hard copy.

Publications

The IRS has numerous publications to provide direction and assistance. Each form has its own set of instructions. If anything, there is almost too much information.

Individual discussions are often quite lucid. Definitions are clear and very often supplemented by examples and tables, or by parts of tax forms (in the publications) and worksheets (in the form instructions). Many of the longer publications and instructions have indices. Yet they manage to leave a reader feeling unsure about whether he knows enough. Several features contribute to this sense of confusion:

- The publications refer to provisions by tax code section number, without first explaining what the provision is.
- The publications refer to publications and worksheets by name, or refer to numbers as those "reported on Form" wxyz, which forces the reader to review earlier parts of the publication to find out what is cited.
- The publications emphasize clarity of definition either by giving examples that completely fit a definition, or by dividing cases into neat categories. This leaves a reader uninformed about situations that do not fit within the box.[8]

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8 For example, from Internal Revenue Service, Publication 587, *Business Use of Your Home*, 8, 18:

You are an employee who works at home for the convenience of your employer. You meet all the requirements to deduct expenses for the business use of your home. Your employer does not reimburse you for any of your business expenses and you are not otherwise required to file Form 2106 or Form 2106-EZ.

In discussing the deductibility of home operating expenses, all expenses are divided into three categories:

- Expenses only for the business part of the home,
- Expenses for keeping up and running the entire house, and
- Expenses only for the parts of the home not used by business.

- The publications omit some critical information that could be quite useful to a new home-based business, for example:
  - The discussion of keeping records says nothing about setting up accounts to match the IRS line items. Instead, in an example of a check disbursements journal, "frequent expenses have their own headings across the sheet."[9]
  - Form 1099-MISC, which home-based businesses are likely to need or receive, is not discussed in the basic publications for a business without employees.

The publications are not helpful in narrowing the search for information. Collectively, these publications attempt to cover almost all of an extremely complex tax law. This is a bit confusing for someone with only limited information needs. Most publications have numerous references to other often semi-duplicative publications.[10]

The publications are voluminous. A sampling of publications whose information one might expect to need—if no employees are involved—is over 300 pages long.[11] Basic publications on employees add almost another 200 pages.[12] All of this material is three columns to a page. Information is fragmented, so that it is not always easy to find what is useful.

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9 Internal Revenue Service, Publication 583, *Starting a Business and Keeping Records*, Rev. May 2002, 17–21.

10 Often these references are bunched at the beginning of a publication, where they are almost meaningless to the reader, rather than integrated into the topic to which they are relevant.

11 For example:

- Publication 334, *Tax Guide for Small Business*, is 62 pages long;
- Publication 533, *Self-Employment Tax*, is 20 pages long;
- Publication 353, *Business Expenses*, is 52 pages long;
- Publication 551, *Basis of Assets*, is 12 pages long;
- Publication 583, *Starting a Business and Keeping Records*, is 27 pages long;
- Publication 587, *Business Use of Your Home* is 27 pages long.
- Publication 946, *How to Depreciate Property*, is 107 pages long.

12 For example:

- Publication 15, 15A, and 15B, *Employer's Tax Guide*, total 148 pages; and
- Publication 505, *Tax Withholding and Estimated Tax*, is 49 pages long.

The qualities of the IRS publications can be illustrated by Publication 334, *Tax Guide for Small Businesses*, which is the basic overview of taxes for a business. It is written for a sole proprietor. This guide is well written and well organized, with headings that make it easy to scan. Terms are clearly defined and explained. It contains a table of forms that need to be filed to cover various liabilities. It has an extensive index. It includes two full-length examples of filing. But:

- It is 62 pages long;
- It makes about 90 references to 38 other IRS publications (*not* including references to forms or their instructions);
- It contains a good deal of information that a home-based business (or other relatively new small business) is not likely to need, such as:
  - Information about the accrual method of accounting, the combined method of accounting, and changing accounting methods, as well as the cash method of accounting,
  - A two-page discussion of 20 business credits (virtually all unrelated to home-based businesses) and
  - A discussion of the *Report of Cash Payments Over $10,000 Received in a Trade or Business*,
- It does not:
  - Attempt to explain what section 179 is or how it works (although it mentions section 179 repeatedly), or
  - Give an adequate discussion of the home office deduction or warn readers of the tax repercussions of qualifying for a home office and then ceasing to qualify.

Form instructions are a bit better at providing the "decision tree" information that one basically needs to know. They have to be read thoroughly, however, and are often a tough, extensive read. This contributes a good deal to the burden of learning the requirements.

Tax forms sometimes deal with complexities in the tax law by reducing the computations to a series of rote steps, typically ending in taking the greater or lesser of two values. While this approach is meant to help the taxpayer get the numbers right, it does not always work that way. Moreover, this approach completely obscures the substance of the provision, thereby eliminating understanding of what is going on and ability to check the result.

Publications and instructions reflect the tax code. Fragmenting different topics into different publications mirrors the piecemeal nature of tax legislation. Complexities and peculiarities in the concepts being explained directly reflect the tax code. Inclusion of many provisions that do not apply to a specific, simple case reflects special provisions in the tax code.

The effect of the written assistance provided by the IRS is to give a lot of information but not much direction or sense of what completion is. Confusion and uncertainty can ensue.

Deductions

In general, there is a distinction between direct regulatory impacts and recordkeeping or paperwork. In the case of the Internal Revenue Service, however, recordkeeping and direct impacts can overlap. The reason is that one can often avoid recordkeeping burdens by foregoing a deduction or other tax saving.[13] Uncertainties can lead home-based businesses to decline some deductions as a means of avoiding risk.[14] Thus individual provisions need to be examined as a whole. Issues that arise for home-based businesses include the following:

- The "exclusive use" test for deductibility of a home office;
- Deductibility of tangible personal property;
- Deductibility of health insurance.

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13 Internal Revenue Service, *Individual Taxpayer Burden Model* notes (2–3):

> Taxpayers can affect the allocation of burden among tax liability and…burden categories through their behavior…For example, taxpayers can spend more time and money…on tax planning in order to reduce the amount of tax they owe…Taxpayers may choose to ignore [a new tax] credit, resulting in no change to either tax liability or excess burden. Alternatively,…[taxpayers] may claim the credit, thus reducing their tax liability but increasing their compliance burden.

14 Several members of the home-based business community reported that some accountants advise against taking the home-office deduction because it increases the chances of being audited.

Home Offices

Qualifying the Space for Deduction

The Internal Revenue Code does not allow any deduction "with respect to the use of a dwelling unit which is used by the taxpayer" unless a taxpayer meets specific tests, such as exclusive, regular use of the home as the principal place of business.[15] If a portion of the home qualifies for the deduction, the owner must compute the business percentage of the home.[16] This percentage is then applied to all costs associated with the home itself. Since a home-based business is a business run by a resident of the household, a home-based business readily passes most of these tests.[17]

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15 26 USC Sec. 280A(c)(1) states:

A portion of the dwelling unit which is exclusively used on a regular basis—

(A) as the principal place of business for any trade or business of the taxpayer,

(B) as a place of business which is used by patients, clients, or customers in meeting or dealing with the taxpayer in the normal course of his trade or business, or

(C) in the case of a separate structure which is not attached to the dwelling unit, in connection with the taxpayer's trade or business.

In the case of an employee, the preceding sentence shall apply only if the exclusive use referred to in the preceding sentence is for the convenience of his employer.

For purposes of subparagraph (A), the term "principal place of business" includes a place of business which is used by the taxpayer for the administrative or management activities of any trade or business of the taxpayer if there is no other fixed location of such trade or business where the taxpayer conducts substantial administrative management activities of such trade or business.

The last sentence was added in a 1997 amendment to clarify the circumstances in which a home office could be deducted even if the business owner spent the majority of his working time elsewhere.

16 This is most precisely done by taking the area (square feet) of the part of the home qualifying as a percentage of the total area of the home. Using the percentage of rooms is acceptable if the rooms are of similar size.

17 For example:

- The homeowner, by definition, is not taking the deduction as an employee of another business.
- Virtually by definition, the home will be the owner's principal place of business, because the home office is the place where administrative and management activities are done.
- Similarly, virtually by definition of home-based business, the home is used for trade or business.
- The "regular use" test requires continuity of use of the home, rather than occasional or incidental use. Since the home is the only place of administration and management, any business that did not discontinue operations most of the time would pass this test.

The "exclusive use" test is the problem. To qualify for a home business deduction, the portion of the home must be used only for the trade or business. Only day-care facilities and areas used for storage of inventory or product samples are exempt. This test is nearly impossible for many—or most—home-based businesses to meet. It denies any kind of deductibility of dual-use space, thereby partially eliminating one of the principal cost and convenience advantages of a home-based business. Moreover, any family member entering the space for any personal reason technically would disqualify the space for a deduction.[18]

The requirement of exclusive use is more stringent than any tax code provision that applies to other businesses. Under this standard, regular commercial office space should not be deductible if staff brings their children to work. Yet the owner of a rented recreational home may use the property for personal use 14 days per year without disqualification of its deductibility.

The Depreciation Deduction

The portion of the home that qualifies for deduction must be depreciated as a 39-year nonresidential real property. That period is one-third longer than the longest available home mortgage. The resulting annual amount deduction is small.[19]

If a home office becomes disused (or only partially used), of course, the deduction for depreciation stops. When a house is sold, the accumulated depreciation is effectively treated as capital gains. If the home office has qualified and

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18 For example, disqualification could result from:

- A mother bringing a sleeping infant into the area to keep an eye on it while working;
- A less-than-obedient teenager deciding to use the business computer to go on line;
- Incoming personal calls on the business telephone line located in the office;
- Occasional personal use of specialized equipment such as an office copier or fax machine; or
- Completing a personal income tax return on the sole proprietorship's computer.

19 Publication 587 has an example, in which the basis is $9,200, and the annual depreciation deduction is $226.

been deducted for more than three of the five years prior to sale, the appreciation on the entire home-office percentage of the basis is treated as capital gains and taxed as such.[20]

The real benefit to a home-based business is not the deduction of depreciation on the office. If there is a qualifying home office, the owner can also deduct as a business expense a proportional share of all utilities (except telephone) and certain maintenance and repair expenses. If a home office is disallowed, these deductions are not available either.

Tax Law Rigidity

Tax law defines a home office as a real estate asset that is entirely and permanently converted to commercial use. This is an application of a legal requirement to an inappropriate situation. It is an attitude lacking in either regulatory flexibility or practicality.

The 39-year depreciation period is entirely unrealistic. Virtually no home office will qualify for long enough to be fully depreciated. Most people with home-based businesses do not live in one place that long or would not qualify every year. As a practical matter, treating a home office as a permanent commercial facility (until such use is discontinued) is not realistic. Home-based business owners are not *ipso facto* in the commercial real estate business.

The owned-home-office depreciation requirement is a doubly disproportionate burden. Most businesses rent their quarters, the commercial landlord depreciates the property, and the depreciation runs with the building. Home-based businesses whose owners rent their dwelling pay rent on the office. Only home-based business owners who are homeowners are forced to depreciate their property themselves.

Deductibility of Tangible Personal Property

Listed Property

"Certain types of property," which in this case includes computers, audio/visual equipment, etc., can be partially deducted, provided that at least 50 percent of

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20 Since tax law treats a home office as not being "lived in," the deducted depreciation—or the appreciation on the home-office percentage of the basis—is exempted from the $250,000 personal residence capital gains exclusion.

use is qualified business use. The deduction is proportional to the business use. This category probably covers most or all of the equipment the typical home office might deduct.

Section 179

Section 179 of the tax code allows the option of expensing tangible personal property[21] that has been acquired by purchase for business use (or at least 50 percent business use).[22] This is a major simplification for any micro-business, as depreciation (under IRS rules) is one of the most complicated and unfamiliar financial aspects of a business.

Expensing under section 179—like all deductions—is limited to the taxable income from the active conduct of a trade or business during the year. Section 179 property that has been elected to be expensed but cannot be expensed because of the business income year may be carried over to the following year.

Documentation of the Business Share

The provision for deducting the business-use share of listed property is simple and clear in concept. In practice, it requires detailed recordkeeping to document the fraction of use. As a practical matter, only equipment with meters (for example, automobiles and copiers) is amenable to such documentation. Otherwise, every user of the property must log on and off to keep track of total use. Enforcement of such logging of use in a household with children is

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21 There is a ceiling on the amount that can be expensed, which has been $25,000 but has recently been raised to $100,000 (if the business and purchases otherwise qualify). This ceiling would allow expensing all of the depreciable property put in service by virtually any home-based business during any one year.

22 As with a qualifying home office, there is a recapture provision. If the property is disposed of (or if business use falls below 50 percent), the remaining value, after subtraction of the depreciation that would otherwise have been allowed, must be treated as ordinary income. This recapture provision has a far lower potential for impact than the treatment of a home office. Two factors mitigate the impact of recapture of tangible property:

- Useful lives of tangible property are relatively short. The shorter the useful life is, the more probable it is that the property will have been fully (or mostly) depreciated when it is disposed of.
- Tangible property (at least most tangible property that a home-based business would use) is generally moveable. Thus a business that moved out of a residence could take the tangible property along, continue to use it, and avoid recapture.

virtually impossible.[23] This is a regulatory blind spot, which is represented by the examples in Publication 587 on calculating the deductible fraction of costs: These examples involve exclusive use of a computer by a single person.

A Conundrum

The piecemeal nature of the tax law has been noted above. Tangible personal property in a home-based business highlights the inconsistencies that result from not looking at the whole picture. Tax law simultaneously stipulates the following:

- Tangible personal property may be (at least partially) deductible if its use is as little as 50.01 percent business use, but
- The home office is disqualified if there is any nonbusiness use.

Yet IRS publications do not explain where the partially deductible furnishings and equipment are supposed to be used.

Deductibility of Health Insurance

The Internal Revenue Code contains special rules for health insurance costs of self-employed individuals. These rules have put sole proprietorships (and thus home-based business owners) at a tax disadvantage, compared with other businesses, in two respects:

- A smaller percentage was deductible, and
- The deduction was allowed for the individual, but not for the sole proprietorship.

Deductible Percentage

A C corporation may fully deduct health insurance costs as an employee benefit. In the mid 1990s, however, self-employed individuals[24] were allowed to deduct only 40 percent of such costs; 60 percent had to be treated as taxable income.

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23 "Listed property includes…any property of a type generally used for entertainment, recreation, and amusement."

24 For purposes of these provisions, "self-employed" means:

- A self-employed individual with a net profit reported on Schedule C, C-EZ, or F;
- A partner with net earnings from self-employment reported on line 15a of Schedule K-1 (Form 1065); or
- A shareholder owning more than 2 percent of the outstanding stock of an S corporation with wages from the corporation reported on Form W-2.

By statute, the percentage of health insurance costs that self-employed individuals may deduct has been increasing. Amendments in 1998[25] made health insurance costs fully deductible in 2003. Thus this statutory burden on home-based businesses has been lifted.

Deduction Not Allowed for Self-Employment Tax Purposes

The Internal Revenue Code states:

> The deduction allowable by reason of this subsection shall not be taken into account in determining an individual's earnings from self-employment (within the meaning of section 1402(a)) for purposes of chapter 2.[26]

Self-employment tax must be paid on costs of health insurance and qualified long-term care insurance (which are deductible in other contexts). This provision reduces the value of the insurance deduction by 15.3 percent.[27] Legislation has been introduced to allow self-employed business owners to deduct their health insurance costs prior to calculating their payroll taxes.[28]

Classification as an Independent Contractor

Home-based businesses are, by definition, independent businesses. The Internal Revenue Service, however, does its own defining of an independent business and an employer-employee relationship.

Statutory Definition of an Employee

The Internal Revenue Code has three independent tests for determining who is an employee and who is not an employee:

- *Corporate Officers*. Corporate officers who perform services for the corporation and receive or are entitled to remuneration are defined as employees by statute.

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25 Public Law 105-277.

26 26 USC Sec. 280A(l)(2)(B)(4).

27 Nominally the self-employment tax reduces income by 7.65 percent. The business, however, also had to pay a share of 7.65 percent of pre-self-employment tax income, which is not deductible.

28 The Self-Employed Health Care Affordability Act of 2003 (H.R. 1873).

- *Common Law Employees*. The statute defines "common law" employees,[29] but the common law concept of an employee is anything but clear cut.[30] The IRS tends to view an individual as an employee unless it is demonstrated that he is self-employed.
- *Statutory Employees*. Statutory employees include occupational groups that are specified by statute.[31] The term is limited to these groups.[32] These occupational groups have slightly different variants on what constitutes an employee, which also differ from

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29 26 USC 31.3121(d)-1(c) states that an employer-employee relationship: "Exists when the person for whom services are performed has the right to control and direct the individual who performs the services, not only as to the result to be accomplished by the work but also as to the details and means by which that result is accomplished…It is not necessary that the employer actually control the manner in which the services are performed; it is sufficient if he has the right to do so. The right to discharge is also an important factor indicating that the person possessing that right is an employer. Other factors characteristic of an employer, but not necessarily present in every case, are the furnishing of tools and the furnishing of a place to work, to the individual who performs the services…" Whether the relationship of employer and employee exists under the usual common law rules will in doubtful cases be determined upon an examination of the particular facts of the case.

30 Some of the obvious questions are:

- What does it mean to have "the right to control and direct," particularly if "it is not necessary that the employer actually direct of control the manner in which the services are performed?"
- Where is the dividing line between "the result to be accomplished " and "the details and means by which that result is accomplished?"
- How much weight should be given to "other factors characteristic of an employer, [that are] not necessarily present in every case?"

31 These occupational groups include:

- Agent drivers or commission drivers who deliver food (except milk), laundry, or dry-cleaning to customers designated by their principals (regardless of who owns the vehicle), and whose compensation is a commission on sales;
- Full-time life insurance salesmen whose entire or principal business is the solicitation of life insurance and/or annuity contracts primarily for one life insurance company and who ordinarily use clerical services, office space and facilities, and materials provided without charge by the principal;
- Home workers, who perform services off the premises of the person for whom the services are performed, according to specifications furnished by that person, and upon materials or goods furnished by that person, which are then required to be returned to him; and
- Traveling salesmen whose entire or principal business activity is soliciting orders on behalf of, and transmitting the orders to, a single principal; who operate off the premises of the principal; who generally are paid by commission; and who generally are not controlled as to the details of the services or the means by which they cover their territories.

32 There are also two categories of statutory nonemployees: direct sellers and licensed real estate agents.

the characteristics of common law employees.[33] These variants may well also come into play if interpretation is inevitably in "an examination of the particular facts of the case."

IRS Instructions

The Employer's Supplemental Income Tax Guide (Publication 15-A) elaborates on the statutory discussion, particularly with respect to common law employees and indications of control and independence. Publication 15-A provides a dozen examples in several different industries to illustrate the differences between an employee and an independent contractor.[34] In these examples, however, all (or almost all) of the factors consistently indicate either that the worker is an employee or that the worker is an independent contractor. There is no indication of the relative weights accorded to each factor or how a worker would be classified if the factors are *not* consistent.

Impacts of Requirements on Home-based Businesses

The definition of "employee" can complicate the affairs of a home-based business in several ways:

- The owner of a home-based business may need to establish that he is self-employed, rather than an employee of another business.
- The owner of a home-based business may have to establish the status of people who work for/with the business.

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33 These variants include the following:

- In most cases, statutory employees do not work on the employer's premises.
- Statutory employees may use facilities and support services provided by the employer.
- Statutory employees are defined by working principally for one principal, but they may have a sideline or even work for other companies, for which they are not considered employees by this particular definition.
- Statutory employees may work with or on materials or goods provided by the employer, and if a product is involved may have to turn it over to the employer.
- Statutory employees are, in some cases, independent of the employer's control of the details of their services.

34 U.S. Department of the Treasury, Internal Revenue Service, *The Employer's Supplemental Income Tax Guide*, Publication 15-A (Revised January 2003), 5–7.

- Self-employment status is somewhat related to other aspects of tax filings.
- Classifying workers as employees (so as to meet IRS requirements) may conflict with local ordinances.

Establishing Self-Employment

There are many ways a sole proprietor can overstep the boundary between self-employment and employment[35] just as a matter of providing good service to a client. Home-based businesses—especially sole proprietorships[36]—are very small. Consequently, working on a large project for a single client can easily take up enough time to constitute a principal business activity for a whole tax year. For a home-based business owner who has recently retired from—or been downsized by—a larger firm, that company may well be the principal source of business while the home-based business gets on its feet and markets other clients. Circumstances that lead a home-based business to serve principally one client for a protracted period of time can create an appearance of being an employee of that client.

Legally, it is the employer who is responsible for withholding and paying employment taxes for an employee. Thus it is the client who is at risk if the relationship is determined to be an employer-employee relationship instead of a client-contractor relationship. Although tax law provides relief if a business subject to an employment tax examination meets tests of a reasonable basis, substantive consistency, and reporting consistency,[37] the risk may be sufficient

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35 This is especially likely to be true of a consultant in a technical field, who is working as part of a team on a large-scale project. It is less likely to be true in industries, such as construction, where contracting out specialty work (for example, plumbing or electrical work) to a licensed subcontractor is common practice.

36 If a home-based business is organized as a corporation, it does not face the problem. Corporate officers (which the owners almost certainly are in so small a business) are statutory employees of the corporation. There is no question of their being employees of another business. Statutory nonemployees, of course, also do not face this issue.

37 Section 530 of the Internal Revenue Code (26 USC) sets up the following requirements: a reasonable basis for not treating workers as employees can be established by reasonably relying on a court case or ruling issued to the employer by the IRS, an earlier IRS audit that did not reclassify similar workers as employees, knowledge that a significant segment of the industry treats such workers as independent contractors, or reliance on some other reasonable basis, such as the advice of a business lawyer or accountant. Substantive consistency means that the workers in question and similar workers must all have been treated as independent contractors. Reporting consistency requires having filed Forms 1099-MISC for all of the workers in question.

to make the potential client reluctant to use the services of a home-based business. That would cost a home-based business an important part of its potential market, and such an impact is most likely at the vulnerable start-up stage.

Workers for a Home-based Business

Home-based businesses routinely team up with other home-based businesses. They typically consider such teaming to be client-contractor (contractor-subcontractor) relationships. Such a relationship is generally plausible if the two businesses are in different lines of work and the owners have similar levels of training and/or expertise. If a home-based business claims this type of arrangement for support staff and junior workers, however, it is likely not to meet the requirements for the worker's being self-employed. This is particularly likely if the worker principally provides services to that home-based business.

If the IRS determines that a business has improperly classified workers as self-employed, the employer is liable for current and back employment taxes on the employees, as well as penalties and interest. That is a substantial impact on the finances of a home-based business.

Interdependent Tax Provisions

A home-based business that claims the deductions for a home office and business equipment strengthens its *prima facie* case for being independent, as it has demonstrated the existence of these. A home-based business that cannot qualify for these deductions or is afraid to claim them will not have this *prima facie* advantage. Conversely, a finding by the IRS that the home-based business is actually an employee jeopardizes the deductibility of the home office, which must then meet the convenience-of-the-employer test.

In most instances, the safest course of action will be to file all of the usual forms generally associated with an independent business. For a sole proprietorship, it is essential that the clients file Forms 1099-MISC to cover any payments. The home-based business owner's personal tax return should also clearly and consistently reflect the business. Paying self-employment tax is the most critical element, since the IRS's primary motivation to classify workers as employees is that employer withholding is a more reliable method for collecting the revenues than is the self-employment tax.

Employee Definitions and Local Ordinances

All zoning ordinances examined in this study limit the numbers of nonhousehold employees that a home-based business may have. The most common limit is one outside employee per home-based business. Many zoning ordinances prohibit outside employees altogether. For outside workers that meet the definition of employees, a growing home-based business is generally faced with a lose-lose choice:

- Declare the workers to be employees and violate the local zoning ordinance, or
- Declare the workers to be independent contractors and violate the Internal Revenue Code.

Zoning Ordinances

Purposes of Zoning Requirements

Zoning regulations enhance the quality of life by controlling and separating different land uses. Broad zoning classifications include:

- Agricultural, rural, and conservation zones;
- Residential zones;
- Commercial or business zones;
- Industrial zones;

Sub-classes within each major class are differentiated by density and/or specific type of use allowed. Larger jurisdictions have mixed-use zones as well. Buffer zones add distance to the separation of land uses. Overlay zones serve specific purposes (for example, historic preservation) that are different from land uses.

Residential zones are of primary interest for this study. Maintaining the residential character and quality of life (not to mention property values) is the general purpose of residential zoning. Residential sub-zones differ primarily by the density of development (dwellings per acre or square feet per lot) and by the types of dwellings allowed (single-family, two-family, multi-family). Among the objectives of residential zoning are:

- Maintaining the residential character and appearance of a neighborhood;
- Minimizing traffic, in terms of both circulation and parking; and
- Preventing other negative impacts.

Zoning regulations define permitted land uses in different zones. A home-based business is a commercial (or borderline industrial) land use in a residential neighborhood. In the past, the conflict between commercial land use and residential land use has been resolved by prohibiting home-based businesses. Where zoning codes have not been changed, home-based businesses are still in danger of being discovered and shut down.

Over the last 15 years or so, however, most zoning codes have been revised to accommodate home-based businesses to some extent. While prohibition is still the approach used with certain types of businesses, zoning codes now typically regulate home-based businesses by placing restrictions on their operations and by designating the specific zones in which they may operate.

The question is whether the restrictions that have been devised are necessary to achieve the purposes of residential zoning or whether they are unnecessarily strict in a way that adversely affects home-based businesses.

Zoning Provisions

For the case studies, the researchers downloaded and reviewed zoning ordinances, with particular attention to "home occupations" (the principal class of home-based businesses). Some types of home-based business, including bed and breakfasts and day care, are treated as separate categories in zoning codes. These two categories are businesses onto whose premises the public comes.

Restrictions on home-based businesses used in zoning codes reviewed in this study can be classified into the following groups:

- Regulation of the residential character and outward appearance of a dwelling and lot;
- Restriction of the traffic flow and maintenance of parking;
- Prohibition of external effects on adjacent properties and the neighborhood; and
- Prohibition of certain types of business.

Residential Character and Outward Appearance

Zoning codes use various provisions to maintain the residential character of the neighborhood and restrict changes in appearance. These include:

- Requiring that the business use be secondary or incidental to the residential use;
- Restricting physical changes to the dwelling;
- Restricting outdoor activities;
- Restricting signage; and
- Restrictions on commercial vehicles.

Secondary, Incidental Use

Resident Business Owner

Virtually all codes require that the dwelling be the principal residence of the business owner, and most allow unrestricted employment of residents of the dwelling. A business owner may not purchase a residence and convert it into a business without living there. This is virtually the definition of home-based business.

Accessory Buildings

Zoning codes are not consistent in their treatment of accessory buildings and garages. Some zoning codes prohibit their use. Others strongly encourage it or designate accessory buildings for storage. Rarely is any underlying purpose or benefit stated. Unless there is such a reason, a prohibition on accessory building use seems inappropriate.

Space Allowed

Most zoning codes restrict the space that a home-based business may occupy. Some jurisdictions measure the space allowed for use as a percentage of livable space; others use square feet as an alternative, or additional, measure. There is considerable imprecision and variability about what this space limitation means.

- Zoning codes differ on whether accessory buildings or unfinished cellars are included in the base of the percentage or not.[38]
- The consistency of use is virtually never addressed.[39] It is clear that the meaning of space is much more expansive than the IRS definition of a deductible home office.

Since the space limitation is generally meant as an upper limit and an indicator of secondary use, these elements of imprecision are probably not a real issue. Twenty-five percent seems reasonable, but much tighter restrictions probably are not. Applying a percentage to all finished living space appears appropriate, but allowing unfinished cellars or accessory buildings to be used in addition seems reasonable as well.

Physical Changes

Restrictions on physical changes vary enormously among local jurisdictions. This is one area in which the more severe restrictions are clearly excessive.

- At one extreme, some zoning codes have broad performance restrictions stating that the residential character of the dwelling must be maintained.
- At the other extreme, zoning codes prohibit any exterior physical change, and some codes prohibit internal changes as well.[40]
- Zoning codes also have intermediate restrictions, such as prohibiting:
  - Any major structural change to the exterior, or
  - Specific exterior changes such as new entrances, additional bathrooms, or handicap-accessible doors.

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38 The most common practice is simply not to mention such spaces either way. Some jurisdictions (especially in Maryland) do specify, but what they specify varies. In a few instances (mostly rural) a much larger area is allowed in an auxiliary building than in a dwelling.

39 Presumably the limitation applies to space that is set up for the business, but one wonders how the time-honored kitchen (or dining room) table is counted.

40 The District of Columbia strikes a balance by prohibiting changes that would make it difficult to return the space to residential use.

Any blanket prescriptive prohibitions are probably inappropriate. Particularly in older neighborhoods, residences are always being remodeled. Such remodeling often involves additions, new rooms, new entrances, and new bathrooms, among other things. As people age and become infirm, wheelchair ramps begin to appear as well. To prohibit the same type of remodeling and additions that are typical of residences is excessively strict.

Design is the real issue. Remodeling for a home-based business should be essentially indistinguishable from residential remodeling in the same neighborhood. Compliance can be reviewed in a building permit process.

Outdoor Activities

Many zoning codes specify that all business operations must take place inside the dwelling, not outside. Many prohibit outdoor storage and/or outdoor displays. Chicago prohibits construction or landscaping companies that store materials or equipment on the premises. Outdoor storage certainly has eyesore potential. If something is unobtrusive enough to have no visual impact, it probably could be stored indoors. This prohibition seems appropriate. Outdoor displays are designed to attract attention. They are inherently and intentionally obtrusive. This prohibition appears to be a reasonable policy decision.

Absolute prohibition of outside operations (on the premises) is probably too broad, as some types of operations could be performed outside quite unobtrusively. Specific uses can be accommodated, if the need arises. Talbot County, MD, which lies on the eastern shore of Chesapeake Bay, for example, allows home-based operations that repair boats in the most rural zones, thereby accommodating local watermen.

Signage

Restrictions

Restrictions on size—usually a square foot or two—are common. Signs are typically required to be flush-mounted on a wall, rather than free-standing. Some codes prohibit features that would attract attention, such as illuminated, flashing, or moving signs.

Such restrictions appear to be designed to allow customers who intend to come to a business to find it, but not to attract attention or to draw drop-in customers. That objective is reasonable, and the restrictions described above appear to be a reasonable means of attaining it.

Prohibition

Some zoning codes prohibit any signage except for residential signs. A few zoning codes also prohibit publishing the business address in a telephone listing or any print advertising. Such prohibitions are part of a strict "no visible evidence of a business" approach. A no-impact approach makes it easier to justify allowing home-based businesses. Yet many businesses will be at least inconvenienced if customers cannot readily identify their places of business. If "no visible evidence of a business" is a real community preference, prohibiting signage makes sense. Zoning authorities should verify that these are the community values.

Commercial Vehicles

Commercial vehicles parked in front of a house have a distinct visual impact; they are far more intrusive than signage. Zoning codes deal with this impact in several ways, which include:

- Restricting the size of any vehicle, typically to one-ton capacity;
- Restricting the type of vehicle to a passenger vehicle, typically specified as no more than a mini-van, pick-up, or SUV;
- Restricting the signage on a commercial vehicle, either:
  - Limiting signage to a logo or simple door-panel identification, or
  - Prohibiting it altogether;
- Imposing off-street, out-of-sight parking requirements; and/or
- Restricting use of the vehicle, such as loading or unloading or temporary storage of equipment (for example, landscaping equipment on a flat-bed truck or trailer).

Each of these approaches strikes a different balance, since each approach addresses a different aspect of the visible impact. Few home-based businesses require a heavy-duty vehicle. Some would benefit from signage on a vehicle, but they could use removable signs. Most (but perhaps not all) businesses would not need to load or unload a vehicle at the premises.[41] How to deal with commercial vehicles is a genuine policy question involving neighborhood preferences. Some combination of the above measures seems reasonable.

Traffic

Traffic generation and parking is a real hot-button issue for home-based businesses. There are four aspects of this larger issue:

- Customer traffic;
- Deliveries;
- Employee traffic;
- Parking.

Most zoning codes appear to treat these as separate issues.

Customer Traffic

There are basically two types of provisions that zoning codes use to control clients and other "visitors" to home-based businesses:

- Some zoning codes place restrictions on visitors, including limits on:
  - The number of visitors per day,
  - The number of visitors who may be on the premises at any one time, and/or
  - The hours that visitors may come.
- Some zoning codes use a standard that focuses on impacts or limits visitors to what is normal for the neighborhood.

Restrictions on visitors are an extremely blunt regulating instrument. Many factors influence a visitor's impacts—the visitor's mode of transportation,[42] the density of development of a neighborhood, the availability of daytime parking,

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41 Prohibitions on outdoor storage reduce the probability that materials or equipment will be loaded or unloaded at the premises, but the same prohibitions may induce a business person, such as a landscaper, to leave a loaded vehicle in front of the premises. Perhaps ironically, one zoning code requires materials to be delivered by the owner's vehicle rather than a much larger commercial truck.

42 Many zoning codes have a blind spot about visitors. California zoning codes tend to restrict pedestrian and vehicular visitors equally. Yet a visitor who arrives on foot (probably having taken public transportation) and one who arrives by car have very different impacts.

and how long a visitor stays. Except for restrictions on evening hours, zoning codes that specify visitor limits disregard these factors. In extreme definitions of "no-impact" home occupations, no visitors are allowed.

A performance standard is far more flexible. An appropriate general standard would appear to be the level of visitor impact generated by a single household. In reality, most home-based businesses draw far fewer visitors, in a less concentrated manner, and at a more convenient time of day than the average residential party. The root problem—if one exists—is parking.

Deliveries

Deliveries are restricted to minimize impacts such as large trucks and double-parking. Zoning codes limit the number of deliveries and occasionally the size of the truck.[43] Most often they restrict deliveries to the U.S. Postal Service or commercial carriers like FedEx or UPS. This provision functions like a well-designed performance standard. Commercial carriers already serve residential neighborhoods. Their deliveries are self-limiting, both in frequency per day and in the bulk of what is carried.

Employee Traffic

Most zoning codes allow only one nonresident employee per business[44] or else prohibit them entirely. In a few instances (for example, a home-based medical office) a second nonresident employee is allowed, and in even fewer instances a third employee or even fourth (part-time) employee is allowed. The limitation on nonresident employees is almost always stated in terms of the *number* of "employees." In most cases, making up one full-time equivalent out of two or three part-time employees (who come at different times) is not allowed.

A few zoning codes restrict only the number of employees working on the premises, implying that more employees may work elsewhere. Most zoning codes do not address—and appear not to have considered—this possibility. It seems probable that most large home-based businesses rely on this gray area.

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43 Examples of such restriction are no more than two axles and no more than 10,000 pounds gross vehicle weight.

44 More often than not, codes allow (or fail to prohibit) more than one home-based business in one residence, as long as the cumulative effect is not to violate the restrictions. Where more than one business is in one residence, there may be multiple employees present—one for each business.

Virtually no reasons are ever given in the code for the employee limitation. The most likely explanation appears to be inertia—zoning codes are still behind the learning curve—or a general sense that nonresident employees are somehow inappropriate.[45] Parking is the most likely impact of a nonresident employee, although an employee who works on the premises need not have an impact on parking.[46] Not all employees drive to work. Moreover, many employees could telecommute most of the time, working in their own homes. Many businesses inherently involve working off the premises; others could arrange to operate mostly that way.

The employee restriction may be a serious—perhaps critical—limitation on the ability of a home-based business to grow and thrive. It defeats the policy objective that home-based businesses serve as business incubators. Flexibility or small scale of operations may make it more efficient to hire several different part-time employees rather than one full-time employee. The initial growth—adding a second, third, and fourth employee—and the flexibility of part-time employees with different skill sets are precisely what zoning regulations typically prohibit. The normal path for a business is to stay in place until it outgrows its facilities and then move in order to expand. Moving early can unnecessarily consume a business's resources and income at an early stage in its growth.

Parking

Parking needs of home-based businesses are clearly a major zoning concern. Zoning codes address this issue in several ways (listed below in roughly increasing order of flexibility):

- Require off-street parking for visitors;
- Build extra parking space into the zoning requirements for home occupation;

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45 One rationale (encountered in Vermont) is that what the enabling statute provides for is a resident to run a business in his own home, with the implication that no nonresident employees are authorized. In some cases (for example, Maryland) where the concept of a no-impact business has been emphasized, a nonresident employee is excluded from the definition of no impact because some impact would result. Local jurisdictions adopt such provisions.

46 An employee may create no larger an impact than any other visitor. An employee needs parking for the whole work day, but the need for parking occurs during the time when this need interferes least with residential parking. Parking and traffic impacts do not justify a jurisdiction-wide prohibition or limit on nonresident employees.

- Require that the demand for parking of the residence and the home-based business combined not exceed the residential zoning requirements for parking; or
- Prohibit the diversion or use of residential parking when it is needed as such or require that home-occupation parking not exceed normal residential levels.

In low-density residential zones, street parking opens up during the day as commuters leave the neighborhood. Specific requirements (off-street parking or requiring more spaces) or limits on parking are not necessary.[47] Specific requirements such as off-street parking can have unintended consequences,[48] and limits on parking related to home-based businesses may be the wrong solution for a problem.[49] Prescriptive requirements can be more restrictive than is necessary and less flexible than is possible.

Limiting combined (residential and business) demand for parking is more flexible. A performance standard keyed to normal residential levels of parking is even more flexible. If daytime parking is plentiful, the standard requires no action; if impacts of business parking are imperceptible, the home-based business is in compliance. If parking is not available in a residential area, the visitor (or employee) is clearly displacing residential parking, and the business owner must make some kind of arrangement. This approach holds the home-based business owner responsible to take action only when there is a problem.

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47 Rural areas are an exception, because two-lane roads have no parking lanes. Off-street parking is a necessary matter of safety, but it also is readily available.

48 Requiring off-street parking may result in building highly visible paved off-street parking, which is hardly a more desirable solution than street parking. Some savvy jurisdictions have recognized this and have required screening or prohibited off-street parking in the front yard.

49 Where the proximity to transit nodes leads people to park during the day, the situation can be better addressed by residential permits that limit the hours of—or in extreme cases prohibit—nonresident parking. These restrictions either make home-based business visitors park relatively briefly or the business will have to make some arrangement (such as off-street parking). Focusing on home-based businesses does not deal with the real problem.

Combined Impacts

The various aspects of traffic impacts are related. Neighborhood impacts of visitors and employees boil down to parking impacts, which are largely a non-issue in neighborhoods with available daytime parking. Most other restrictions are largely redundant and excessive.

Externalities

Nuisances

Most zoning codes have a list of nuisances that are limited or prohibited. Dust, electrical interference, glare, noise, odors, smoke, and vibrations constitute most of the nuisances covered, and most of these are on any given list. These are unquestionably undesirable externalities. The basic question is not *whether* they are restricted but *how*.

At one extreme, some zoning codes prohibit any of these nuisance impacts at all, or any that is perceptible at the lot line. That may be reasonable for some effects (for example, electrical interference or vibration) but not for others (for example, noise, odors, and smoke). It could, for example plausibly prevent a professional musician from giving lessons or practicing at home.

Another approach is to prohibit such effects when they are caused by equipment used in the business. That addresses the problem. It may be both inadequate (some effects may come from other sources) and overly strict (equipment may have minimal but perceptible effects). Some zoning codes restrict the type of equipment used to residential or "hobby" equipment.

A more general approach, which is fairly widely (if unevenly) used, is to prohibit nuisance impacts that are "objectionable" or "obnoxious" or that exceed the levels normally found in a residential neighborhood. This seems more equitable. Yet it may be a little too permissive, when one considers the amount of noise emitted by the average lawn mower, leaf blower, power saw, or bagpipe. Considering whether the characteristic is objectionable or obnoxious is also important. The average fireplace chimney or barbecue emits copious, odoriferous smoke that is a fairly significant pollutant. Yet most people find these odors pleasant, rather than obnoxious.

The best performance standard would appear to have both a level component and a quality component; for example, a standard might read "dust, electrical interference, glare, noise, odors, smoke, or vibrations caused by a home occupation shall not exceed levels normally found in that residential zone, nor shall such effects be inherently objectionable or obnoxious."

Hazards

Hazards are serious. Zoning codes usually do not allow hazardous substances to be stored, much less used, on the premises. Some zoning codes generally prohibit hazardous materials; others enumerate the kind of materials.[50] Most communities appear to believe that hazardous substances should not be in a residential neighborhood—at least not in significant quantities or for other purposes than household uses. Banning them from use by a home-based business seems quite appropriate.

Prohibitions of Types of Businesses

Some zoning codes have long lists of prohibited businesses. They are prohibited because they contribute to some of the impacts discussed above, and for other reasons as well.

Retail Sales

Regular retail shops are almost universally banned for a variety of substantive reasons.[51] Many zoning codes then backtrack to consider what types of retail might be suitable and acceptable. The candidates include:

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50 Combustible materials, explosive materials, and highly flammable liquids make up a common short list. Corrosive, radioactive, and toxic materials are more exotic additions. Frequently a zoning code will cite a regulatory standard for further precision as to what is covered.

51 Retail sales could create serious congestion and parking problems in a residential neighborhood, not to mention noise and other nuisance impacts. In order to become successful, a shop could have to use the sort of displays that attract attention. Delivery by intrusive types of trucking could be an issue.

- Sale of goods made on the premises;[52]
- Mail order sales;[53] and
- Telephone sales.[54]

The type of specialty sale that does not involve repeatedly going into the shop is the sort of sale that zoning codes are most likely to allow.

Motor Vehicles, Equipment, and Body Work

Anything to do with motor vehicles—repair, servicing, painting, body work, detailing, or storing—or other major equipment is typically prohibited. This prohibition is extended to appliances—at least large ones—and to such businesses as machine shops and welding. Vehicles are too big to be stored inside. The work is noisy. It may be smelly, smoky, and dusty, and it may cause glare and even vibration. Painting should be done in a paint booth. And the whole thing is likely to be an eyesore.

Animals

Stables, kennels, and animal boarding; animal hospitals and veterinarian offices; and grooming and pet care operations all tend to be prohibited.

Large Facilities

Some businesses are just out of scale with a neighborhood or draw too many people at one time for a neighborhood to absorb. Examples include restaurants, funeral homes, crematoria, warehousing, and wholesale distribution.

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52 These, usually handicraft or art works, are often allowed. The production processes tend not to generate nuisance impacts beyond the property line. Such goods are not usually made in very large volume, nor do they sell to a mass market, so that this type of good is likely to produce low levels of traffic. The home is an excellent place for a small gallery of products The scale of everything works together here.

53 These are low impact because the customer does not come to the business either to place the order or to pick up the product. If the operation grows, there may be bottlenecks for storage and pick-ups and deliveries will increase, but these are likely to be relatively unobtrusive.

54 These are fairly similar to mail order sales in that they minimize customer contact at the front end. Delivery may be made by mail, or the customer may come to the business to pick up—and to look at more of the line. That is the type of purposeful visitor that many zoning codes make allowances for. This pattern works particularly well for consumable goods like cosmetics, where the customer has an opportunity to make choices in the shop and then reorders by telephone for mail delivery.

Mixed Cases

Some types of business are prohibited in some jurisdictions but expressly allowed in others. Businesses such as barber shops, beauty parlors, fortune telling, and nail salons are places where people traditionally congregate and which typically have a stronger visual presence than is acceptable in a residential neighborhood. Yet they are allowed as home-based businesses in some places (for example, Washington, DC).

Medical offices, including dentists, optometrists, podiatrists, and other specialties that can operate effectively in one-professional offices are prohibited in some places but allowed to be run as home-based offices in others. There are pros and cons to medical offices:

- *Con*. Medical offices generate a steady, if modest, stream of clients throughout the day—typically more visitors than zoning laws allow. They almost certainly require one outside employee and may require (and be allowed) two.
- *Pro*. A medical office seems to be an ideal home occupation. It typically requires no exterior change (although a second outside door might simplify the internal flow of people) and has no outside activities or storage. The equipment is not noisy, nor does it generate other nuisance impacts. Moreover, for seniors it is a great convenience to have medical offices in the neighborhoods.

Observations

The rationale for prohibiting some activities is clear and convincing. For some that are generally prohibited, the inappropriate aspects may be much less serious in some zones, so that a jurisdiction-wide prohibition may be too strong. For other kinds of businesses treated in different ways in different jurisdictions, community values seem to be in force.

Inter-zone Variation

In principle, the purpose for defining different residential zones is to tailor zoning restrictions to differing conditions that result in different impacts of the same activity. Visitor impacts of a home-based business are inversely related to the availability of parking, which (in turn) is inversely related to the density of development. The empirical question is whether parameters and restrictions on home-based businesses actually do vary among residential zones with different vulnerabilities to impacts.

Definitions

Jurisdiction-Wide Definitions

The parameters and restrictions for a home-based business usually occur in one (or more) of three places in zoning codes:

- They may be part of the definition of a term such as "home occupation." By themselves, definitions apply to the entire jurisdiction. This allows little flexibility beyond a permitted/prohibited distinction.
- They may occur as a separate section of a chapter on uses. Such chapters also apply to the entire jurisdiction and are less flexible than definitions.
- They may be defined as part of a list of uses in one zone. Defining a use in one zone only could provide additional flexibility, but typically other zones (for example, R-2, R-3, and R-4) allow the same uses by reference (for example, "all uses permitted in Zone R-1").

Alternative Definitions

Some flexibility is added by defining several types of business that are home-based. This can be done in two ways:

- Most zoning codes have categories other than "home occupation." Examples of the different categories of business include:[55]
  - Bed and breakfasts;
  - Child day care and residential care;
  - Massage therapy (which has its own set of regulations in Elgin, IL); and

55 Zoning codes contain distinct provisions such as length of stay and number of guest rooms (bed and breakfasts), or the maximum number of children (day care). Home day care regulations require outdoor play, for example, while zoning codes typically prohibit outside activities for home occupations.

- Joint living and work quarters (JLWQs),[56] (found in Los Angeles and Oakland, California).

- Some zoning codes use variant sets of requirements for the same general category of home-based business. For example:
  - Several Maryland local jurisdictions have special classifications of home business.[57]
  - Several other cities and towns have a second class of home occupation that allows more employees and visitors.[58]
  - San Diego County, California, and Talbot County, Maryland, both define a "cottage industry."[59]

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56 Joint living and work quarters are home-and-studio lofts, particularly for artists and design professionals, which are located in renovated, disused industrial buildings.

57 For example:

1. Frederick County's and Gaithersburg's "minor-impact" home business—and Montgomery County's "registered home occupation"—allow more vehicle trips per week than "no-impact" businesses. In Gaithersburg and Montgomery County, one employee (instead of none) is also allowed.
2. Frederick County's "professional office" allows two support employees (instead of one).
3. Howard County has rural variants of home occupations that allow additional outside employees:
   - On lots of under 40,000 square feet, up to 2 individuals (up to one full-time equivalent (FTE) may be employed, and
   - On lots of over 40,000 square feet, up to four individuals may be employed.
4. Howard County's "home-based contractor" allows one more commercial vehicle than usual to be parked and 4 to 12 employee trips per day (depending on lot size) for the specific purpose of parking or picking up vehicles and equipment.
5. Montgomery County's "home health practitioner" allows support staff, up to five patients at any appointment time, parking (if screened), an indoor waiting room, and sale of special prescriptions.

58 For example:

1. Elgin, Illinois's "conditional home occupation" allows slightly more area, use of an accessory building, an outside employee (instead of none) and more visitors than a regular home occupation.
2. Burlington, Vermont's "conditional home occupation" allows more area, outside employees (instead of none), signs (instead of none), additional visits and parking, and sale of goods fabricated on site.
3. Charlotte, Vermont's "extended home office" allows up to 3 full-time equivalents (FTEs) of outside employees (instead of none) and more vehicle trips.
4. Hartford, Vermont's "home business" allows 2 or 3 outside employees (instead of none).

59 In both cases, up to three employees are allowed, but the category itself is allowed only in the most rural zones and it requires a special use permit.

- In San Diego County, "hand manufacturing" (defined as use of power tools under 5 horsepower) is allowed.
- In Talbot County, repair of motor vehicles—including boats—is allowed.

- Illinois state law provides for two different classifications of home day care.[60]
- Several California jurisdictions have a smaller version of a bed and breakfast.[61]

Differentiation Among Zones

The stringency of zoning regulations varies from zone to zone in essentially two ways:

- Differently defined businesses (restrictions) can be allowed in different zones, or
- Different levels of permissibility can be allowed in different zones for the same definition of a business classification.

Variant Definitions

Different classifications of much the same type of business, with different restrictions, are usually assigned to different zones.[62] Some variant definitions of home occupation are almost special cases. Home occupations are generally allowed in all residential areas; variants are found in only a few. Most of the range of residential zones is covered by only one definition of any type of business. Variant definitions do not allow much flexibility beyond these special cases.

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60 These have different capacities, depending on staffing. Both the City of Carbondale and Lake County subdivide the smaller classification for zoning purposes.

61 While bed and breakfasts in California generally are allowed up to five guest rooms, Nevada County, San Diego County, and Sonoma County allow one or two guest rooms with lesser or no permit requirements, no inspection, and/or lesser parking requirements. Oakland allows up to three paying guests in a home with no regulation.

62 Examples include the following:

- Cottage industries are allowed only in the most rural zones;
- In Maryland, professional offices (Frederick County) and home health practitioners (Montgomery County) are not permitted in some zones where home occupations are generally permitted;
- In Howard County (Maryland) and Hartford (Vermont), different maximum levels of outside employees are allowed in different zones, with more employees being allowed in lower-density zones.
- Howard County allows home-based contractors only in rural and low-density residential zones.
- Elgin (Illinois) allows only residential therapeutic massage establishments in residential zones.

Permissibility

Several different approval processes are used in zoning. These involve different levels of scrutiny and (in inverse order) different degrees of restrictiveness (or certainty). These include:

- Permitted uses;
- Administrative review;
- Use permits; and
- Variances.

The terminology of permitting is not consistent across counties and cities, even in a single state. The same name for a permit may refer to different processes, or a word may have different meanings. Review and permission processes in zoning codes are generally written new for construction, rather than to changes in use. For consistency, the following discussion cites details and code provisions from one jurisdiction, Nevada County, California.

Permitted Uses

Permitted uses are uses that are in compliance with the zoning requirements.[63] They require submission of a site plan (or plot plan) that is reviewed and approved. There is no permit as such. Approving a permitted use that meets the zoning requirements is automatic; there is no discretion to deny the application.

Administrative Review

Administrative review is a somewhat more detailed review process that is used when zoning compliance is somewhat more problematic. It may or may not entail a public hearing. Its basic purpose is to ensure compliance with zoning requirements. The process results in an administrative development permit, which is nondiscretionary if the requirements are met.[64]

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63 "Permitted" uses are also referred to as "allowed uses," uses that are "permitted by plot plan review," uses that are "accessory," uses that (in the case of home-based businesses) are "considered residential," or uses that are in "zoning compliance."

64 "Uses requiring a Development Permit are those that are generally consistent with the purposes of the zoning district, but require careful review to ensure compliance with all site development standards of the Land Use and Development Code." From the Nevada County Land Use Code, Section L-II 5.5.

Use Permits

Use or "conditional use" permits are required when a proposed use may not fully meet the standard zoning requirements. A use permit also is required when a specific use is classified as an exception, so that discretionary judgment is required. JLWQs and cottage industries fall in this category. Use permits may require "maps, diagrams, plans, elevations, written reports, and other information as prescribed by the Planning Director, necessary to adequately describe the project." In Nevada County, public notice and a hearing are also required. Some degree of negotiation may be involved and may result in imposition of special conditions of approval.[65]

Variances

Variances are used when a proposed use is clearly in violation of zoning requirements, but the use is nevertheless reasonable. Other than working through the political process to get the zoning ordinance changed, a variance is the last resort of a potential home-based business.[66]

Findings

Permissibility of different uses for the 38 local jurisdictions in 5 states that were included in the case studies is reviewed. There is a fairly clear pattern:

- *Home Occupations.* In the overwhelming majority of local jurisdictions, home occupations are permitted in all residential zones. In most other cases, they are conditional (administrative review) uses in all residential neighborhoods.
- *Day Care Homes.* In the overwhelming majority of local jurisdictions, child day care homes are permitted in all residential zones. Most cases where they were conditional or special use were in denser zones.

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65 "PURPOSE. To provide for those land uses that may be appropriate and compatible in a zoning district, depending on the design of the individual project ad the characteristics of the proposed site and surrounding area." Nevada County Land Use Code, Section L-II 5.6.

66 "PURPOSE. To provide a procedure to allow a variation from the strict application of the provisions of this Chapter where special circumstances pertaining to the physical characteristics of the site are such that the literal enforcement of the requirements of this Chapter deprives such property of the privileges enjoyed by other properties in the vicinity and under identical zoning classification." Nevada County Land Use Code, Section L-II 5.7.

- *Bed and Breakfasts.* Bed and breakfasts have the most variety and are likely to be restricted or prohibited.
- *Alternative Definitions of Home Occupations.* Other classifications are often special cases in a few zones and are likely to be conditional or to require use permits.

Flexibility

The composite picture for home occupations in the local jurisdictions reviewed is that the same definition usually applies in all residential zones. Home occupations are sometimes reviewed to ensure that they comply with the regulations but they almost never are subject to the depth of review that could have allowed negotiation of less stringent requirements. Some alternative definitions of home occupations relax some standards—particularly with respect to traffic—but they apply to the relatively small segment of the population in rural areas. Child day care homes are much the same. Size definitions are the only distinguishing characteristic that involves differences either between zones or in type of review and degree of permissibility.

The overall picture of zoning restrictions on home occupations is that one size fits all residential zones. Making all home occupations subject to the same zoning restrictions regardless of characteristics of the residential neighborhood clearly is preferable to prohibiting them altogether. Yet there remains a great deal of scope for regulatory flexibility—for further relaxation of restrictions without perceptible impact on residential neighborhoods.

Quasi Zoning under Real Estate Law

In the last two or three decades, homeowner and condominium associations have become a major factor in new residential development and condominium conversion of older rental buildings. Covenants, set up when the area is developed or the building is converted, often prohibit home-based businesses. Compliance becomes a condition stated in the deed and "runs with the deed." These covenants are nominally private and voluntary contracts that fall under real estate law. Home-occupation legislation usually does not mention them—even if such state legislation exists—and provides no authority to override such restrictive covenants. Similarly, local zoning codes cannot override homeowner association prohibitions of home-based businesses, since contracts take precedence over more broadly applicable local land use regulations.

A similar situation can occur with leases. Landlords can prohibit home-based business in the language of a lease. By signing the lease, a tenant enters into a binding contract not to start a home-based business. State legislation and local ordinances respect such contracts.

Restrictive covenants and leases are private-sector analogs of zoning codes. Homeowner association bylaws can be changed by an internal political process, but this is often cumbersome and may require a super-majority. Landlords generally can be forced to change conditions in their leases only by economic pressure. They tend to become more willing to negotiate if they have difficulty renting their properties.

Private-sector agreements have rarely been addressed by any type of regulation or legislation. They are the new challenge for expanding home-based business opportunities.

Conclusion

Regulations with disproportionate burdens on home-based businesses are concentrated in two areas: 1) Federal Internal Revenue Service regulations and 2) local zoning regulations.

Internal Revenue Service regulations account for most of the federal regulatory burden on home-based businesses. Average effort appears to be roughly an hour per week—more for new businesses that have to learn the system—and it falls on all home-based businesses. Burdens arise both from the complexity of the tax code and from specific provisions.

- The tax code treats home offices as commercial buildings, which they are not. Claiming a home-office deduction is complex, the depreciation is spread over an unrealistically long time, and returning the space to residential use generally entails penalties. Other businesses do not face such requirements.
- The tax code requires that, in order to be deducted at all, a home office must be used exclusively for business. Such a requirement ignores the realities of family life and offsets many of the advantages of running a business out of a home.

- Tax code treatment is made more onerous by the fact that the deductibility of other expenses (for example, utilities and legitimate maintenance) depends on deductibility of the home office.
- The tax code allows deductions for other equipment only to the extent that they are used in the business—regardless of the necessity to the business. This requirement penalizes home-based businesses for their small scale, creates recordkeeping burdens, and is inconsistent with exclusive business use of an office.
- IRS assistance covers far too many topics that are not relevant to most home-based businesses. Inadequate tailoring to the needs of home-based businesses unnecessarily increases the familiarization and filing burdens on a home-based business.

Zoning codes in many jurisdictions have been substantially revised over the last decade or so to allow home-based businesses where they were previously prohibited. This has been a major step forward. Many of these zoning codes, however, still contain stringent restrictions that do not appear to have commensurate benefits to the community.

- Many zoning codes incorporate outright prohibitions or prescriptive requirements or limits on various aspects of home-based businesses (for example, employees, visitors, parking, exterior changes, or specific businesses). Some zoning codes use more performance-oriented provisions relating to the character of the neighborhood, which is a more flexible and efficient approach.
- Few local jurisdictions utilize the different types of residential zones as a means of varying zoning restrictions to reflect different densities and types of residential neighborhoods. Jurisdiction-wide restrictions, apparently designed for the most vulnerable neighborhoods, are far more common.

IRS regulations are particularly burdensome for start-up businesses, which must spend a great deal of effort learning the requirements. Local zoning restrictions are especially restrictive for growing home-based businesses that are taking on employees. Both stages—start-up and growth beyond one person—are critical to the life cycle of a small business, and businesses at these stages of growth bear the greatest regulatory burdens of any home-based businesses.

3 GOVERNMENT POLICIES *to* ENCOURAGE ECONOMIC DEVELOPMENT *through* TECHNOLOGY TRANSFER

Synopsis

Some of America's best-known companies are university "spin-offs" that took advantage of groundbreaking university research. However, economist Scott Shane maintains, no systematic study of the effects of these companies on economic development has been undertaken.[1] How do they contribute, directly or indirectly? And if their economic contributions are important, what best practices, especially government policies, have supported their creation?

Scott Shane conducted a careful review of the literature, focusing on how the creation of university spin-off companies to exploit knowledge developed in universities contributes to economic growth and development. He examined the effects of six types of government policies: funding of academic research, the provision of intellectual property rights to universities, laws to encourage university technology licensing, direct mechanisms to support the development of university spin-offs, programs to reduce financing gaps in early-stage technological development, and policies to encourage the movement of technically trained academics between the academic and private sectors.

1 In its annual review of small business research, the Office of Advocacy this year includes the work of a guest contributor, Scott Shane, Department of Economics, Weatherhead School of Management, Case Western Reserve University, Cleveland, Ohio. This chapter was prepared for a conference sponsored by the Office of Advocacy. It will appear in its original form in S. Shane (ed.), *Government-University Partnerships to Enhance Economic Development through Entrepreneurship*, 2005, Aldershot, UK: Edward Elgar Publishing. Sources referenced in the footnotes appear at the end of the chapter. The views presented here are those of the author and not of the U.S. Small Business Administration or the Office of Advocacy.

Introduction

The federal and state governments in the United States have long partnered with universities to promote economic development. In fact, even the land grant system that led to the formation of many American universities is, itself, based on the idea that universities should be established to create knowledge that entrepreneurs could use to improve local agriculture and manufacturing.[2]

Over the past 25 years, several policies put in place to encourage the formation of companies to exploit new knowledge created in academia by faculty, staff, and students of research universities (university spin-offs). A review here of many of the policies adopted by federal and state governments to enhance economic development through the creation of university spin-off companies will help identify some best practices.

The first of three sections reviews evidence that the creation of spin-off companies enhances economic development. The second reviews policies designed to promote economic development through the creation of new companies to exploit academic inventions. The third offers some implications from the review of policies about best practices.

University Spin-offs Enhance Economic Development

Some of America's best-known technology companies, including such household names as Cirrus Logic, Genentech, Hewlett Packard, Lycos, and Yahoo! are university spin-offs. Given the prominence of these companies, even casual observation would suggest that the formation of spin-off companies is an important contributor to economic development. However, perhaps surprisingly, a systematic study of the effect of university spin-off companies on economic development has never been undertaken, making it difficult to assess the importance of spin-off companies to economic development.

2 Golub, 2003; Rosenberg and Nelson, 1994.

Nevertheless, taken together, the fragmentary evidence on this topic does suggest that the creation and growth of new companies to exploit university technology enhances economic development. For example, research by the Association of University Technology Managers (AUTM), the trade association of university technology licensing offices, estimates that, from 1980 to 1999, the direct economic impact of university spin-off companies was $33.5 billion, or roughly $10 million per company founded.[3]

University spin-offs also appear to have valuable job creating capabilities. From 1980 to 1999, American university spin-offs were estimated to have generated 280,000 jobs, a rate of job creation per company that greatly exceeds the rate of the average new company in the U.S. economy during the same period (Cohen, 2000). The job creation rate of spin-off companies exceeds the rate of job creation by established company licensees of university inventions, making them more valuable mechanisms for job creation than the alternative methods of technology transfer and commercialization by existing firms. One university's technology licenses, those of the Massachusetts Institute of Technology (MIT), Pressman, et al., (1995) showed that spin-off companies accounted for 70 percent of the new jobs created from Institute-licensed technology, even though the spin-offs constituted only 35 percent of the licensees. Charles and Conway (2001) report similarly strong job creation properties of university spin-offs in the United Kingdom, suggesting that the job creation properties of university spin-offs is not restricted to the United States.

University spin-offs also enhance economic development because they commercialize academic inventions that would otherwise go undeveloped. Surveys of potential licensees for university technologies reveal that spin-offs tend to commercialize different inventions from those commercialized by established companies. In particular, spin-offs focus on inventions that are too uncertain or early stage for established companies to pursue.[4] Spin-offs also permit the development of inventions that require substantial inventor involvement by overcoming incentive problems in ensuring further inventor involvement.[5]

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3 Pressman, 1999.

4 Thursby and Thursby, 2000; Thursby, et al., 2001.

5 Lowe, 2002; Jensen and Thursby, 2001.

In fact, several researchers have noted that many university spin-offs have been founded precisely because established firms were unwilling to license specific technologies, and the inventors of those technologies founded companies to make sure that their inventions would be further developed.[6]

Several empirical studies also document the greater likelihood of university spin-offs to invest in the further commercial development of academic technologies once they are licensed than is the case for established firm licensees. For instance, Pressman, et al., (1995) found that spin-offs accounted for three-quarters of the induced investment in the development of MIT technologies even though they made up only one-third of licensees. Similarly, Mustar (1997) and Blair and Hitchens (1998) found that French and British university spin-offs, respectively, invest more heavily in research and development than typical start-up companies.

The indirect economic impact of university spin-offs may be even larger than their direct effects. As spin-offs undertake business activity, they tend to exert multiplier effects on the economy through their hiring of employees and their sourcing of supply and production. These multiplier effects stimulate economic development. Because university spin-offs tend to be founded near the universities that spawned them, whether those spin-offs are located in the United States, Canada, Sweden, or the United Kingdom,[7] their multiplier effects on economic development tend to be localized.

As a result of these multiplier effects, university spin-offs can have a dramatic effect on the economy of a region. University spin-offs can make economies less dependent on older industries by diversifying a region's economic base.[8] They can create new industrial clusters, as occurred with biotechnology in Northern California. Perhaps more important, these clusters, once created, facilitate the development of a financing infrastructure that supports the creation and development of other types of new technology companies. For example, Audretsch and Stephan (1996) found that venture capitalists opened offices in areas near

6 Matkin, 1990; Lowe, 2002; Hsu and Bernstein, 1997.

7 Pressman, 2002; Tornatsky, et al., 1995; Wright, et al., 2002; Wallmark, 1997.

8 McQueen and Wallmark, 1991.

universities where leading biotechnology researchers worked as a way to facilitate the financing of their firms, thus providing a financing infrastructure for other companies.

The magnitude of the effect of university spin-offs on transforming a regional economy can be quite large. Goldman (1984) estimated that almost three-quarters of the high technology companies founded in the Route 128 corridor in the early 1980s were initially based on MIT-created technologies. Mustar (1997) calculated that 40 percent of new French high technology start-ups from 1987 to 1997 were based on university technologies. Wickstead (1985) estimated that almost one-fifth of the Cambridge, England, technology start-ups were university spin-offs. Therefore, even though systematic evidence is lacking for the impact of university spin-off companies on economic development, fragmentary evidence does suggest that these companies have an important impact on economic development.

The Effect of Government Policies

The evidence presented raises the central question of this chapter: What policies have been best practices for encouraging economic development through the creation of university spin-off companies? A review of available evidence suggests that federal and state governments have had a significant effect on the formation and growth of university spin-off companies, thus both directly and indirectly enhancing economic development, with six categories of policies: 1) funding of academic research; 2) the provision of property rights for academic inventions to universities, not the inventors themselves; 3) the Bayh-Dole Act and related laws to encourage university technology licensing, particularly to small firms; 4) the use of direct mechanisms to support the development of spin-off companies; 5) programs to reduce the financing gap in early-stage technological development; and 6) policies to encourage movement of technically trained academics between the academic and private sectors.

Federal Funding of Academic Research

Although frequently overlooked, perhaps the most important government policy that has encouraged the use of universities to promote economic development through university spin-offs is the federal government's policy of providing funding to academics at American universities to conduct research, particularly in the biomedical area. Beginning in World War II, when the federal government began providing funding to engineering schools for academic research to help the war effort,[9] the federal government has been the primary source of research and development dollars in American universities. In fact, currently, the federal government pays for approximately 60 percent of all research conducted at American research universities,[10] an amount equal to approximately $30 billion per year.

The vast amount of federal funding has allowed universities to dramatically increase their research and development expenditures over the past five decades. Since the 1950s, the real (1996 dollars) value of university research and development expenditures has gone up over 25 times *(Chart 3.1)*. The result of this intense effort to support academic research has made universities far more important to technology creation in the United States than they once were. Whereas in 1960, American universities undertook only 7.4 percent of the research and development (R&D) expenditure in this country; in 1997, they undertook 14.5 percent.[11]

The level of government funding of research in American universities is important in explaining the role of university spin-off companies in promoting economic development. Research on university technology transfer shows a direct empirical relationship between the amount of research and development expenditure at universities and the number of licenses and spin-off companies they create.[12] Moreover, controlling for other factors, the level of research funding has a significant positive effect on spin-off company creation.[13] Data from AUTM suggests that the R&D cost of each spin-off is approximately $9.2 million.[14]

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9 Mowery and Sampat, 2001b.

10 Geiger, 1993.

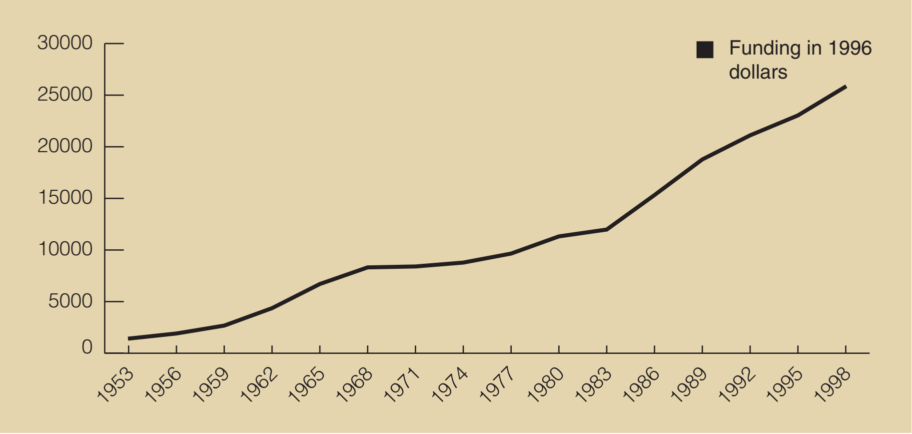
11 Mowery, et al., 2001.

12 Adams and Griliches, 1996; Siegel, et al., 1999.

13 DiGregorio and Shane, 2003.

14 Siegel, et al., 1999; Payne and Siow, 2003. Each additional $4.62 million in R&D leads to approximately one additional patent. Each $4.51 million in R&D leads to approximately one additional license.

Chart 3.1 Real University Research and Development Expenditures from 1953 to 2000



(millions of 1996 dollars)

Source: National Science Foundation, *Science and Engineering Indicators* (Washington, DC: U.S. Government Printing Office, 2002).

The best case for the value of federal funding of university research is in the biomedical area. Federal funding of biomedical research at American universities has grown dramatically since the 1970s when the war on cancer was first initiated.[15] This remarkable investment in biomedical research at universities has led to a dramatic increase in biomedical inventions at universities, which have grown from 11 percent of all university patenting in 1971 to 48 percent in 1997.[16] Moreover, perhaps because of intensive government funding, the growth in the university share of inventions in the biomedical area has exceeded that in other fields *(Chart 3.2)*.

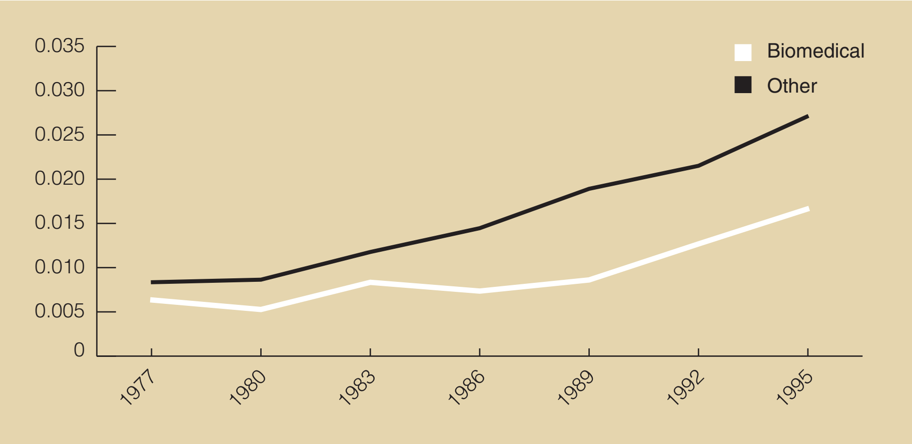
More important, the substantial National Institutes of Health (NIH) funding of biomedical research at American universities and hospitals, particularly of molecular biology research, has led to many of the scientific discoveries underlying the formation of biotechnology companies by university researchers.[17]

15 Mowery and Sampat, 2001b.

16 Mowery, 2001.

17 Mowery and Sampat, 2001b; Etzkowitz, 1989.

Chart 3.2 Growth in the University Share of Patents (university proportion of total patents issued in year)



Source: National Science Foundation, *Science and Engineering Indicators*, various years.

Biotechnology, as an industry, remains very closely tied to academic research, with American universities producing many of the technological discoveries that have led to the formation and growth of these firms. Stephan (2001), for example, reports that the 52 newly public biotechnology companies she studied had 420 university scientists affiliated with them.

Provision of Property Rights to Institutions

Another important aspect of policy that encourages economic development through university spin-offs is the U.S. federal government policy of placing property rights for federally funded inventions developed in universities in the hands of academic institutions rather than with the inventors themselves. This approach makes the United States different from Japan and most European nations, which place property rights to inventions developed on university campuses with individual inventors.[18]

18 Schmiemann and Durvy, 2003.

The assignment of property rights to universities rather than inventors provides three benefits that encourage university spin-offs and their subsequent effect on economic development. First, such a policy permits an entrepreneurial attitude to develop among faculty and university administrators.[19] Second, such a policy leads academic institutions to develop offices of technology transfer, which build expertise in developing new companies.[20] Third, such a policy makes it easier to pool the risks and costs of developing and licensing inventions over a large number of technologies, making decision makers more willing to bear the risks and costs of starting companies.[21]

Comparisons of the United States to other countries, like Japan and Sweden, which produce a large amount of new technology in universities, but generate few spin-off companies, shows the advantages of assigning property rights to universities in generating university spin-offs. For example, in Sweden where patents are assigned to university researchers, not their institutions, the rate of patenting per inventor is half that of comparable U.S. universities. Similarly, Japan is second in the world after the United States in the creation of genetic sequencing discoveries, yet has very few biotechnology spin-offs in this area.[22]

Perhaps the best evidence for the value of the assignment of intellectual property rights to universities lies in an examination of Japan before and after a change in intellectual property laws. In 1998, Japan shifted to a policy of assigning intellectual property rights for inventions developed by faculty and staff of universities from the inventors themselves to the institutions in which they worked.[23] Since the passage of this law, Japan has seen a dramatic increase in the number of spin-off companies created, from 17 in 1997 to 100 in 2000.[24]

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19 Goldfarb and Henrekson, forthcoming.

20 Henrekson and Rosenberg, forthcoming; Golub, 2003.

21 Goldfarb and Henrekson, forthcoming; Collins and Wakoh, 2003.

22 Zucker and Darby, 2001.

23 Walsh and Cohen, 2004.

24 Kneller, 2003.

The Bayh-Dole Act

The Bayh-Dole Act of 1980, which gave universities the right to own federally funded inventions developed on their campuses and ended the requirement that universities use institutional patent agreements negotiated bilaterally with government agencies (Mowery, 2001), was another important policy that enhanced the rate of formation of university spin-off companies. The act's stated goal is "to encourage maximum participation of small business firms in federally supported research and development efforts." Perhaps the most important contribution of the Bayh-Dole Act to economic development through spin-off company creation has been to make spin-off companies acceptable, and even desirable, at universities. The typical American university administrator was once a staunch opponent of involvement in the creation of new companies based on research on campus.[25] However, the act helped transform the thinking among administrators at U.S. universities to a view of spin-off companies as something for universities to create.[26]

The Bayh-Dole Act also enhanced the use of university technology as a vehicle for economic development by making exclusive licensing of university inventions easier to undertake. Prior to the passage of the Bayh-Dole Act in 1980, federal government funding agencies required special justification to grant exclusive licenses. By establishing federal government support for exclusive licensing of inventions resulting from research funded by a university,[27] the Bayh-Dole Act made it easier for universities to engage in exclusive licensing than had been the case under the previous institutional regime.[28]

Exclusive licensing is important in enhancing the creation of spin-off companies for two reasons. Because start-up companies rarely have other competitive advantages at the time they are founded, they are often unwilling to develop new technology unless they have exclusive rights to use that technology once it is developed. In addition, spin-off companies often require additional external funding to support their development of technology, which is often at

25 Mowery, et al., 2001.

26 Bok, 2003.

27 Mowery, et al., 2001.

28 Pressman, et al., 1995.

a pre-commercialization stage prior to licensing. Investors are more likely to finance new ventures that have exclusive licenses to technology because such licenses minimize competition.

The existing evidence suggests that exclusive licensing enhances spin-off company formation. Pressman (2002) reports that 90 percent of start-up company licenses issued in 1992 by American universities were exclusive, as compared with only 37 percent of licenses to established companies. Moreover, Roberts and Malone (1996) contrasted several research universities and found that Stanford University's opposition to exclusive licenses hindered its rate of spin-off company formation. Furthermore, Hsu and Bernstein (1997) used interviews with spin-off company founders to show that many of the founders of MIT and Harvard University spin-offs would not have founded companies if they could not obtain exclusive licenses.

In addition to the U.S. evidence, patterns of spin-off company activity in Japan following its 1998 policy change suggest the importance of exclusive licensing to the creation of spin-off companies. Kneller (2003) reports a dramatic increase in spin-off activity in Japan after Japanese universities were given the right to make exclusive licenses to their inventions. Prior to these policy changes spin-offs were difficult to undertake in Japan because they lacked clear title to inventions. Thus, exclusive licensing was difficult and fundraising was nearly impossible.[29]

Direct Mechanisms to Support Spin-off Company Creation

Federal and state governments have also encouraged economic development through spin-off company creation by undertaking direct mechanisms. In case studies of university spin-offs, Feldman and Kelley (2002) report that state funding that subsidizes the development of new technologies through incubator facilities and applied research grants enhances the development of technologies by university spin-off companies. Other case study evidence suggests that state programs to create buffer institutions that translate academic

29 Walsh and Cohen, 2004.

research into a more commercial form enhance spin-off company creation by reducing the cost of development of technology and by reducing the need for academics to translate their work into commercial form.[30]

Research also has shown that states that allow their public institutions to give university spin-offs access to university research laboratories and facilities facilitate spin-off company creation by reducing the cost to the firms of using resources such as wet labs.[31] These policies also encourage the creation of spin-offs by facilitating a continuing relationship between the university laboratory that generated the spin-off's technology and the spin-off company. The ongoing relationship is important to the development of a spin-off's technology.[32]

Governments also facilitate the development of spin-off companies through procurement. Federal procurement contracts for the use of computers by the U.S. military for air defense facilitated the development of spin-off companies in the computer industry.[33] Many university spin-offs benefit indirectly from procurement policies because these firms have contracts and strategic alliances with aerospace and defense-related companies that are themselves heavy recipients of federal government contracts.[34] A particularly important direct mechanism by which state governments enhance the development of spin-off companies lies in the willingness to permit the investment of state government funds in spin-off companies in return for equity. These policies help spin-off companies by allowing them to conserve cash as well as by providing them with the legitimacy of association with a government agency or university.[35]

Feldman and Kelley (2002) report variation in state policies toward allowing state universities and government agencies to make equity investments in technology spin-offs in lieu of license fees; and Tornatzky , et al., (2002) find that legislation that allows equity participation in start-ups at public

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30 Brooks and Randazzese, 1998.

31 Tornatsky, et al., 1995.

32 Mustar, 1997; Steffensen, et al., 1999; Lowe, 2002.

33 Etzkowitz, 1989.

34 Feldman, 1994; Saxenian, 1994; Leslie 1993.

35 Feldman, 2001.

institutions encourages new firm formation. DiGregorio and Shane (2003) showed that universities permitted to make equity investments in spin-off companies had a 69 percent higher level of spin-off company creation than universities not permitted to make these investments. Lockett , et al., (2002) found similar results in a study of spin-offs out of universities in the United Kingdom.

Policies to Reduce the Financing Gap

A fifth governmental approach to enhancing economic development through the formation of spin-off companies lies in policies to reduce financing gaps for early-stage technology development. Because the technologies that spin-off companies exploit are typically very early in their development, the costs of technical and market development are often quite high, and spin-offs need to obtain external capital to finance their development. However, the long and uncertain time horizon of this development makes it difficult for spin-offs to raise capital from the private sector. Public sector funding fills this financing gap, allowing companies to develop technology to a point at which it is of interest to private sector investors, by providing a subsidy that reduces the cost to private sector investors of financing the development of the technology, and by reducing the level of risk borne by private investors.

Several researchers have pointed to variation across countries or states in pre-stage funding and its effects on spin-off company formation. For instance, Tornatsky, et al., (1995) found that states with technology development financing programs have more university spin-offs than other states. Collins and Watoh (2003) attribute the U.S. advantage over Japan in creating new technology companies out of universities to the presence of organizations that provide pre-seed stage capital.

Several studies have looked at the effect of specific funding programs on the development of small, high technology companies, many of which are university spin-offs. One set of studies has looked at the Small Business Innovation Research (SBIR) program, in which federal government agencies funding innovation research are required to set aside 2.5 percent of their budgets for contracts with small businesses. Audretsch (2003) explains that the SBIR program is important to financing the development of technology by small firms because it creates an early-stage capital pool approximately two-thirds the size of the entire venture capital industry.

Receipt of SBIR grants encourages the formation of spin-off companies. Lerner (1999) showed that receiving SBIR grants increased the likelihood that firms would receive venture capital funding. Audretsch, et al., (2000) showed that SBIR grants increased the formation of biotechnology companies by motivating academic researchers to undertake more commercial activity, by providing a demonstration effect to other scientists and engineers, and by making more capital available to spin-off companies.

Similarly, several studies have shown the effect of the Advanced Technology Program (ATP) of the National Institute of Standards and Technology on university spin-off development. Lowe (2002) provides case study evidence that ATP grants bridged a funding gap that allowed University of California spin-offs to develop prototype products from proof of concept technology and then raise private sector capital. Feldman and Kelley (2003) found that winning an ATP award helps companies obtain venture capital financing because of the beneficial signal provided by the award.

Policies to Enhance Labor Market Mobility

A final area of government involvement that enhances economic development through the creation of spin-off companies is policies that affect academic labor market mobility. In general, policies that enhance the willingness of academics to participate in the formation of spin-off companies encourage the formation of these companies and their subsequent effects on economic development. For instance, Gittleman (2000) explains that spin-off company formation is much lower in France than in the United States because French academics are barred by law from taking an equity share in start-up companies, which reduces their incentive to form companies.

Moreover, university spin-offs are more common in the United States than in most European countries because faculty of European universities cannot easily take leaves of absence to found companies to exploit their technological discoveries. Research shows that leaves of absence are important to facilitating spin-off companies because faculty members do not want to bear the downside risk of giving up secure positions to start companies.[36]

36 Kenney, 1986.

Even within the United States, the data suggest a relationship between leave-of-absence policies and the formation of spin-off companies. For instance, states that restrict the leaves of absence of their faculty members have fewer spin-off companies than those institutions that do not restrict leaves of absence.[37] Kenney and Goe (forthcoming) show that the state of California policy on leaves of absence hinders spin-off company formation out of the computer science department at the University of California at Berkeley and makes it much lower than the rate of spin-off company creation at the comparable department at Stanford University.

Policy Implications

Having reviewed literature concerning university spin-offs and the policies federal and state governments have used to encourage their formation and growth, this reviewer suggests that university spin-offs are important contributors to economic development.

While not many large sample statistical studies are available to support this proposition, significant amounts of fragmentary data, when amassed, provide support for the contribution of university spin-offs to economic development. First, a casual glance at the origins of major high technology firms reveals that many of them originated with university inventions. Second, university spin-offs tend to commercialize technologies that otherwise would have gone untapped by the private sector, making them an important part of an effective innovation system. Third, studies have documented that spin-off companies induce relatively large amounts of investment (compared with established firm licensees of university inventions) and have a job creation rate that exceeds that of the average start-up firm. Moreover, the localization of spin-off companies around the universities that spawn them allow localities near those universities to benefit from economic diversification, and support the development of a venture financing infrastructure for new companies.

Federal and state governments have had significant effects on the formation and growth of university spin-off companies, both directly and indirectly enhancing economic development through academic entrepreneurship. Again, systematic large sample evidence for the effects of many government policies are lacking; however, a review of existing literature—fragmentary as it may be—suggests several "best practices" in which government policies enhance economic development through enhancements to spin-off company creation.

First, policies of intensive federal funding of academic research, particularly in the biomedical areas, enhance spin-off company creation because investment in research and development is an important precursor to the development of high technology companies.

Second, the provision of property rights for federally funded academic inventions to universities, not the inventors themselves, is beneficial. Such a policy generates an institutional support system, creates an incentive for universities to market technologies and search out entrepreneur-licensees who would commercialize their inventions by starting companies, and makes it easier to pool the risks and costs of developing and licensing inventions over a large number of technologies.

Third, the passage of laws like the Bayh-Dole Act, which gives universities the rights to federally funded inventions, enhances economic development through academic entrepreneurship by making exclusive licensing of university inventions—something of great importance to spin-offs—easier to undertake. These laws also encourage faculty and administrators on university campuses to be more supportive of spin-offs.

Fourth, federal and state governments have also encouraged economic development through spin-off company creation through direct mechanisms. Policies that subsidize the development of new technologies through incubator facilities, procurement, buffer institutions, and applied research grants enhance the development of technologies by university spin-off companies. In particular, policies that permit government entities, such as state universities, to take equity in return for making cash payments to help develop spin-off companies are important mechanisms of economic development.

Fifth, state and federal government programs to reduce the financing gap in early-stage technological development enhance the growth of university spin-offs and facilitate economic development. Such funding allows companies to develop technology to a point at which it is of interest to private sector investors, provides a subsidy that reduces the cost to private sector investors of financing the development of the technology, and reduces the level of risk borne by private investors.

Sixth, government policies that enhance the willingness of academics to participate in the formation of spin-off companies encourage the formation of these companies and their subsequent effects on economic development. In particular, policies that facilitate leaves of absence from academic institutions and permit academics to hold equity in spin-offs based on their own inventions enhance spin-off company creation and the economic development that comes along with it.

In short, in the absence of conclusive evidence of the economic development value of university spin-offs or the government policies that facilitate their development and growth, partial evidence does suggest that university spin-offs are important contributors to economic development. Moreover, best practices can be identified in several areas for policy makers to use in enhancing economic development through the creation and development of spin-off companies.

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4 REPORT *on the* REGULATORY FLEXIBILITY ACT, FY 2003

Synopsis

The Regulatory Flexibility Act of 1980 (RFA) requires agencies to consider the effects of their rules on small entities and examine effective alternatives that minimize impact on small entities. Similarly, E.O.13272 provides federal agencies new direction in their efforts to assess the impact of their rules on small entities in accordance with the RFA. It also directs the Office of Advocacy to provide agencies with information on how to comply with the Executive Order.

Fiscal year 2003 was an eventful year as the Office of Advocacy continued its efforts to encourage federal agencies to comply with the RFA and E.O.13272. Over the year, the Office of Advocacy created and implemented its RFA training program, developed model state regulatory flexibility legislation, formally commented on a variety of federal agency rules and actions, and testified before Congress on agency compliance with the RFA. Advocacy also relied extensively on small entities to identify rules that warranted the office's involvement. To facilitate this, the Office of Advocacy launched a new Regulatory Alerts webpage to highlight notices of proposed rulemaking that may significantly affect small entities and to provide links to allow users to comment directly on proposals.

On the federal level in FY 2003, more agencies submitted draft rules to Advocacy for review, and additional agencies approached Advocacy seeking assistance in complying with the RFA and E.O. 13272. Advocacy's involvement secured more than $6.3 billion in regulatory cost savings and more than $5.7 billion in recurring annual savings on behalf of small entities.

Throughout fiscal year 2003, the Office of Advocacy continued to build working relationships with small entities, federal agencies, and the Office of Information and Regulatory Affairs at the Office of Management and Budget. As a result, federal agencies are approaching Advocacy for input earlier in the rulemaking process. Likewise, on a regular basis, small entities are requesting assistance from the Office of Advocacy on rules they believe will significantly affect them.

Overview of the RFA

The Office of Advocacy's *Report on the Regulatory Flexibility Act, Fiscal Year 2003* for the first time combined the *Annual Report of the Chief Counsel for Advocacy on Implementation of the Regulatory Flexibility Act* with Advocacy's report on *Agency Compliance with Executive Order 13272* (E.O. 13272).[1]

The RFA, enacted in 1980, requires federal regulatory agencies to determine the impact of their rules on small entities, consider effective alternatives that minimize small entity impacts, and make their analysis available for public comment. Signed by President Bush in August 2002, E.O. 13272 requires agencies to establish written procedures and policies on how they measure the impact of their regulatory proposals on small entities, notify the Office of Advocacy of draft rules that are expected to have a significant economic impact on a substantial number of small entities under the RFA, consider the Office of Advocacy's comments on proposed rules, and publish a response to those comments with the final rule. E.O. 13272 also requires the Office of Advocacy to provide periodic notification, as well as training, to all of the agencies on how to comply with the RFA.

Throughout 2003, the Office of Advocacy continued its efforts to represent small entities before regulatory agencies, lawmakers, and policymakers. The Office of Advocacy worked closely with small entities to identify and comment on agency rules that would affect their interests. Taking its direction from small entities, the Office of Advocacy focused on the issues that were most important to them. As a result, Advocacy was able to reduce the regulatory burden on small entities and achieve significant cost savings.

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1 On September 3, 2003, Advocacy submitted its first report on agency compliance with E.O. 13272 to the Office of Management and Budget (OMB). This chapter excerpts the *Report on the Regulatory Flexibility Act, Fiscal Year 2003*. Both full reports are found on the Office of Advocacy's website at http://www.sba.gov/advo/laws/flex/03regflx.pdf.

History of the RFA

Before Congress enacted the Regulatory Flexibility Act[2] (RFA) in 1980, federal agencies did not recognize the pivotal role of small business in an efficient marketplace, nor did they consider the possibility that agency regulations could put small businesses at a competitive disadvantage with large businesses or even constitute a complete barrier to small business market entry. Similarly, agencies did not appreciate that small businesses were restricted in their ability to spread costs over output because of their lower production levels. As a result, when agencies implemented "one-size-fits-all" regulations, small businesses were placed at a competitive disadvantage with respect to their larger competitors. This problem was exacerbated by the fact that small businesses were also disadvantaged by larger businesses' ability to influence final decisions on regulations. Large businesses have more resources and can afford to hire staff to monitor proposed regulations to ensure effective input in the regulatory process. As a result, consumers and competition were penalized, while larger companies were rewarded.

The White House has taken a leadership position in standing up for small business since 1980, when the first White House Conference on Small Business was held. There, small business delegates told the President and Congress that they needed relief from the unfair burdens of federal regulation. The President listened when small businesses explained that the burden of federal agency regulations often fell hardest on them. They asserted that "one-size-fits-all" regulations, although easier to design and enforce, disproportionately affected small businesses. This led the federal government to recognize the different impacts of regulations on firms of different sizes and the disparity between large and small firms in the level of input in the regulatory process. In 1980, Congress and the President enacted the RFA to alter how agencies craft regulatory solutions to societal problems and to change the "one-size-fits-all" regulatory approach.[3]

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2 The Regulatory Flexibility Act, Pub. L. 96-354, 94 Stat. 1164 (codified at 5 U.S.C. § 601 et seq.), became law on September 19, 1980.

3 Congress agreed with small businesses when it specifically found in the preamble to the RFA that "laws and regulations designed for application to large-scale entities have been applied uniformly to small [entities,…] even though the problems that gave rise to the government action may not have been caused by those small entities." As a result, Congress found that these regulations have "imposed unnecessary and disproportionately burdensome demands" upon small businesses with limited resources, which, in turn, has "adversely affected competition." FINDINGS AND PURPOSES, Pub. L. No. 96-354.

In 1993, the President issued Executive Order 12866, which required federal agencies to determine whether a regulatory action was "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the analytical requirements of the executive order. In September 2003, OMB issued Circular A-4, which provides guidance to federal agencies for preparing regulatory analyses of economically significant regulatory actions under Executive Order 12866.[4]

In 1996, Congress and the President helped the Office of Advocacy to more effectively implement the RFA by enacting the Small Business Regulatory Enforcement Fairness Act (SBREFA).[5] SBREFA amended the RFA to allow a small business, appealing from an agency final action, to seek judicial review of an agency's compliance with the RFA. Not surprisingly, this change has encouraged agencies to increase their compliance with the requirements of the RFA.

In 2002, President Bush signed Executive Order 13272, titled Proper Consideration of Small Entities in Agency Rulemaking. The executive order (E.O.) requires agencies to place emphasis on the consideration of potential impacts on small entities when promulgating regulations in compliance with the Regulatory Flexibility Act (RFA). Advocacy is required to provide the agencies with information and training on how to comply with the RFA and must report to OMB annually on agency compliance with the E.O. By signing the executive order, the President provided another important tool in the small business arsenal to ensure that federal regulatory agencies comply with the RFA and include Advocacy in the process.

Analysis Required by the RFA

The RFA requires each federal agency to review its proposed and final rules to determine if the rules will have a "significant economic impact on a substantial number of small entities." Section 601 of the RFA defines small entities

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4 See the Advocacy website at http://www.sba.gov/advo/laws/sum_eo.html for a summary of Executive Order 12866; for more detail, visit, http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf. The circular replaces the January 1996 "best practices" and the 2000 guidance documents on Executive Order 12866.

5 Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. 104-121, 110 Stat. 857 (codified at 5 U.S.C. § 601 et. seq.).

to include small businesses, small organizations; and small governmental jurisdictions. Unless the head of the agency can certify that a proposed rule is not expected to have a significant economic impact on a substantial number of small entities, an initial regulatory flexibility analysis (IRFA) must be prepared and published in the *Federal Register* for public comment.[6] If the analysis is lengthy, the agency may publish a summary and make the analysis available upon request. This initial analysis must describe the impact of the proposed rule on small entities. It must also contain a comparative analysis of alternatives to the proposed rule that would minimize the impact on small entities and document their comparative effectiveness in achieving the regulatory purpose.

When an agency issues a final rule, it must prepare a final regulatory flexibility analysis (FRFA), unless the agency head certifies that the rule will not have a significant economic impact on a substantial number of small entities and provides a statement containing the factual basis for the certification. The final regulatory flexibility analysis must:

- provide a succinct statement of the need for, and objectives of, the rule;
- summarize the issues raised by public comments on the IRFA (or certification) and the agency's assessment of those issues;
- describe and estimate the number of small entities to which the rule will apply or explain why no such estimate is available;
- describe the compliance requirements of the rule, estimate the classes of entities subject to them and the type of professional skills essential for compliance;
- describe the steps followed by the agency to minimize the economic impact on small entities consistent with the stated objectives of the applicable statutes; and

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6 If a regulation is found not to have a significant economic impact on a substantial number of small entities, the head of an agency may certify to that effect, but must provide a factual basis for this determination. This certification must be published with the proposed rule or at the time of publication of the final rule in the *Federal Register* and is subject to public comment in order to ensure that the certification is warranted. See 5 U.S.C. 605(b).

- give the factual, policy, and legal reasons for selecting the alternative(s) adopted in the final rule, and explain why other alternatives were rejected.

The FRFA may be summarized for publication with the final rule. However, the full text of the analysis must be available for review by the public. The RFA is built on the premise that when an agency undertakes a careful analysis of its proposed regulations, with sufficient small business input, the agency can and will identify the economic impact on small businesses. Once an agency identifies the impact a rule will have on small businesses, the agency is expected to seek alternative measures to reduce or eliminate the disproportionate small business burden without compromising public policy objectives. The RFA does not require special treatment or regulatory exceptions for small business, but mandates an analytical process for determining how best to achieve public policy objectives without unduly burdening small businesses.

The Small Business Regulatory Enforcement Fairness Act of 1996

SBREFA amended the RFA in several critical respects. The SBREFA amendments to the RFA were specifically designed to ensure meaningful small business input during the earliest stages of the regulatory development process. Most significantly, SBREFA authorized judicial review of agency compliance with the RFA, and strengthened the authority of the Chief Counsel for Advocacy to file *amicus curiae* briefs in regulatory appeals brought by small entities.

SBREFA also added a new provision to the RFA requiring the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) to convene small business advocacy review panels (SBREFA panels) to review regulatory proposals that may have a significant economic impact on a substantial number of small entities. The purpose of a panel is to ensure small business participation in the rulemaking process, to solicit comments, and to discuss less burdensome alternatives to the regulatory proposal. Included on the panel are representatives from the rulemaking agency, the Office of Management and Budget's Office of Information and Regulatory Affairs, and the Chief Counsel for Advocacy. The Office of Advocacy assists the rulemaking agency in identifying small entity representatives from affected industries, who provide advice and comments to the SBREFA panel on the potential impacts of the proposal. Finally, the panel must develop a report on its findings and submit the report to the head of the agency within 60 days.

Additionally, SBREFA amended the RFA to bring certain interpretative rulemakings of the Internal Revenue Service (IRS) within the scope of the RFA. The law now applies to those IRS rules (that would normally be exempt from the RFA as interpretative) published in the *Federal Register* that impose a "collection of information" requirement on small entities.[7] Congress took care to define the term "collection of information" to be identical to the term used in the Paperwork Reduction Act, which means that a collection of information includes any reporting or recordkeeping requirement for more than nine people.[8]

Executive Order 13272

On March 19, 2002, the President announced his Small Business Agenda, which included the goal of "tearing down the regulatory barriers to job creation for small businesses and giv[ing] small business owners a voice in the complex and confusing federal regulatory process."[9] To accomplish this goal, the President sought to strengthen the Office of Advocacy by enhancing its relationship with the OMB's Office of Information and Regulatory Affairs (OIRA) and creating an executive order that would direct agencies to work closely with the Office of Advocacy and properly consider the impact of their regulations on small entities. On August 13, 2002, the President delivered on his promise when he signed Executive Order 13272, titled Proper Consideration of Small Entities in Agency Rulemaking.[10]

The executive order (E.O.) first required federal regulatory agencies to establish written procedures and policies on how they intend to measure the impact of their regulatory proposals on small entities, and vet those policies with the

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7 5 U.S.C. § 601(b)(1)(a).

8 Id. § 601.

9 President Bush's Small Business Agenda, announced March 19, 2002, can be viewed at http://www.whitehouse.gov/infocus/smallbusiness/regulatory.html.

10 Exec. Order No. 13272, 67 Fed. Reg. 53461 (Aug. 16, 2002), available on the Office of Advocacy website at http://www.sba.gov/advo/laws/eo13272.pdf.

Office of Advocacy before publishing them.[11] Second, the agencies must notify the Office of Advocacy of draft rules expected to have a significant economic impact on a substantial number of small entities under the RFA.[12] Third, agencies must consider the Office of Advocacy's written comments on proposed rules and publish a response to those comments with the final rule.[13] The Office of Advocacy, in turn, must provide periodic notification, as well as training, to all federal regulatory agencies on how to comply with the RFA.[14] These preliminary steps set the stage for agencies to work closely with the Office of Advocacy and properly consider the impact of their regulations on small entities.

E.O. 13272 required agencies to submit to Advocacy by November 13, 2002, draft written procedures and policies on how the agency will consider the economic impacts on small entities. Advocacy had 60 days to provide comments on each agency's draft procedures. By February 13, 2003, agencies were to have considered Advocacy's comments and made their final procedures available to the public through the Internet or other easily accessible means.[15]

E.O. 13272 also directs the Office of Advocacy to report to OMB at least annually on agency compliance with the executive order.[16] Advocacy's first report to OMB was published in September 2003.[17] Advocacy's comments on the agencies' draft procedures were submitted as confidential interagency communications to encourage agencies to further refine their documents in response to the comments prior to their publication. As a result, Advocacy's first report did not detail the substance of Advocacy's comments on agency

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11 Id. § 3(a).

12 Id. § 3(b). Under the Regulatory Flexibility Act (RFA), an agency must determine if a rule, if promulgated, will have a "significant economic impact on a substantial number of small entities." If the head of the agency certifies the rule will not have such an impact, further analysis under the RFA is not needed. If, however, the agency cannot certify the rule, the agency must perform regulatory flexibility analysis under the RFA (5 U.S.C. § 603–605).

13 Id. § 3(c).

14 Id. § 2(a)–(b).

15 Id. § 3(a).

16 Id. § 6. Advocacy's annual reports on implementation of the Regulatory Flexibility Act are available on the Office of Advocacy website at http://www.sba.gov/advo/laws/flex/.

17 Agency Compliance with Executive Order 13272; A Report to the Office of Management and Budget is available on Advocacy's website at http://www.sba.gov/advo/laws/eo13272_03.pdf.

submittals under section 3(a) of E.O. 13272. Instead, the first report summarized the first year of activities pursuant to E.O. 13272, focused on agency compliance with the E.O.'s three key requirements, and spotlighted the high achievement and early involvement of some agencies.

Has E.O. 13272 Made a Difference?

Although the RFA has been in existence for more than 20 years, agency compliance has been inconsistent, and many of the original concerns regarding the disproportionate impact of federal regulations on small entities persist today. E.O. 13272 provides a renewed incentive for agencies to upgrade their compliance with the RFA and give proper consideration to small entities in the agency rulemaking process.

Since August 13, 2002, Advocacy has worked to spread the word regarding the requirements of the new executive order through memoranda to agency heads[18] and roundtables with agency general counsels. As part of this outreach, Advocacy instituted an e-mail address, *notify.advocacy@sba.gov*, to make it easier for agencies to comply electronically with the notice requirements of the E.O. and the RFA.

Since August 13, 2002, some agencies have responded to the E.O. by soliciting Advocacy's input on rules during the development stage. This crucial early involvement enables Advocacy to identify potential RFA compliance problems and to address them with the agency more thoroughly. Since the signing of E.O. 13272, agencies are increasingly coming to Advocacy before a rule is published in the *Federal Register* and before regulatory approaches are selected. Many agencies have yet to recognize the value of soliciting Advocacy's input early in the rule development process. With the new E.O. and leadership from the White House, agencies are increasingly recognizing the importance of small business to this nation's economy and the benefit of considering the impacts of their rulemakings on small entities.

As previously mentioned, E.O. 13272 required Advocacy to issue notices to agencies on the basic requirements of the RFA by November 13, 2002, and

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18 Memorandum dated August 22, 2002, available on Advocacy's website at http://www.sba.gov/advo/laws/memoeo02_0822.pdf; memorandum dated November 13, 2002, available at http://www.sba.gov/advo/laws/memorfa02_1013.pdf.

to provide training to agencies on compliance with the RFA.[19] On November 13, 2002, Advocacy posted on its website an RFA compliance guide for federal agencies and solicited input on its contents. With the benefit of input from agencies and others, Advocacy made further revisions to the guide, which was issued in final form in May 2003.[20]

In June 2003, Advocacy awarded a contract to Gillespie Associates to develop an RFA training curriculum based on Advocacy's RFA guide pursuant to section 2(b) of E.O. 13272. The training was pilot tested with the assistance of three federal agencies to obtain feedback before implementing the training government-wide.[21] On July 23, 2003, Advocacy held its first training pilot at the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). The second involved the EPA on July 24, 2003, and the third, the Department of Transportation's Research and Special Programs Administration (RSPA) on August 7, 2003.

Each training pilot provided a valuable forum for input and discussion on the presentation and content of the curriculum, including the use of team exercises as a training tool. Based on an assessment of the pilots and the input received from participants from each agency, the Office of Advocacy revised the RFA training plan. Specifically, revisions ensured participants now have sufficient time for the exercises and improved the coordination between the pre-training reading materials and the participants' guide used for the classroom training. Advocacy also revised the group exercises used in the training to provide examples of good analysis under the RFA, as well as to identify frequent missteps by agencies in fulfilling their RFA requirements.

Advocacy is working with Gillespie Associates to create an online computer-based RFA training program. The online training will be valuable for both new employees and as a review session for existing employees. The online training module will be developed through Advocacy's FY 2004 budget.

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19 Exec. Order No. 13272, § 2(a), 2(b), (Aug. 13, 2002).

20 *A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act* is available on Advocacy's website at http://www.sba.gov/advo/laws/rfaguide.pdf.

21 The July/August 2003 edition of Advocacy's monthly newsletter, *The Small Business Advocate*, contained an article describing the pilot training sessions at http://www.sba.gov/advo/news/julaug03.pdf.

In an effort to determine the number of agencies that need training, Advocacy has identified 66 departments, agencies, and independent commissions that promulgate regulations affecting small business. These 66 are the key agencies of concern to Advocacy and the small business community. Because some are large or include a number of sub-agencies, it will take more than 66 training sessions to accomplish the task. Advocacy plans to complete training for all 66 before FY 2008, with approximately 25 agencies trained per year. The government-wide rollout of the training began in October 2003.

The comprehensive RFA training will help agencies overcome the inertia caused by past practices and will lead regulatory agencies toward exemplary RFA compliance. The RFA training addresses the basics and complexities of how to comply with the RFA and when to seek input from Advocacy. It will help to solidify what a few agencies already know about the RFA and will sharpen agency knowledge of how to perform an RFA analysis.

Training the entire federal government is a challenge for Advocacy, given limited resources. This top priority will result in increased demands on the office as agencies begin to use Advocacy as a resource in their efforts to improve RFA compliance. Through training, Advocacy seeks to have agencies take ownership of their responsibilities under the E.O. and the RFA and to be consistent in properly considering the impacts of their rules on small entities and seeking regulatory alternatives to minimize those impacts.

The ultimate test of agency compliance with E.O. 13272 is whether an agency gives proper consideration to impacts on small entities and makes changes to reduce those impacts. Advocacy will seek to fulfill that objective through early involvement in rulemakings and/or submission of public comments on proposed rules. Under the E.O., agencies must give every appropriate consideration to comments provided by Advocacy on a draft rule, and must include a discussion or explanation of the agency's response to Advocacy's comments published with the final rule in the *Federal Register*. In the past year, a handful of agencies issued final rules that were the subject of Advocacy public comments. Each of these agencies addressed the comments; however, they did not all adopt Advocacy's recommendations on behalf of small entities. More time is needed to assess overall agency compliance with this important provision of the E.O. The E.O. provisions requiring consideration of Advocacy's concerns will assist agencies in promulgating regulations with an eye toward reducing their burden on small entities.

Advocacy is optimistic that small businesses will begin to feel the benefits of E.O. 13272 when agencies adjust their regulatory development processes to accommodate the requirements of the RFA and the E.O. As more agencies work with the Office of Advocacy earlier in the rule development process and give small entity impacts appropriate consideration, small businesses will see progress. The E.O. is an important tool designed to guarantee small businesses a seat at the table where regulatory decisions are made. 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.

Federal Agencies' Response to the RFA

The general purpose of the RFA is clear. However, in monitoring agency compliance, the Office of Advocacy has found over the years, and reported to the President and Congress, that many federal agencies failed to conduct the proper analyses as required by the law. In recent years, Advocacy has noticed an increase in the number of agencies that make a good faith effort to comply with the RFA. Some agencies continue to fall short and others with generally good RFA compliance from time to time fail to comply on particular rulemakings.

However, agencies still fail to appreciate the RFA's requirement to consider less burdensome regulatory alternatives. Often, agencies are not aware of less burdensome alternatives that can be equally effective in achieving the agency's public policy objectives. At a minimum, if an agency cannot identify viable alternatives to their proposal, Advocacy encourages the agency to solicit comments on regulatory alternatives and to carefully consider those brought to their attention by small entities during the rulemaking process.

An agency's failure to weigh alternatives properly not only defeats the core purpose of the RFA, but effectively excludes small entities from meaningful opportunities to influence the regulatory development process as Congress intended. Until 1996, there was no legal consequence for an agency's failure to comply with the RFA, nor did small entities have a civil remedy to seek redress. Although the RFA authorized the Chief Counsel for Advocacy to file *amicus curiae* briefs in court cases involving agency regulation, prior to SBREFA, Advocacy could not successfully raise the issue of agency noncompliance because the provisions of the RFA were not directly reviewable by courts.

The Role of the Office of Advocacy

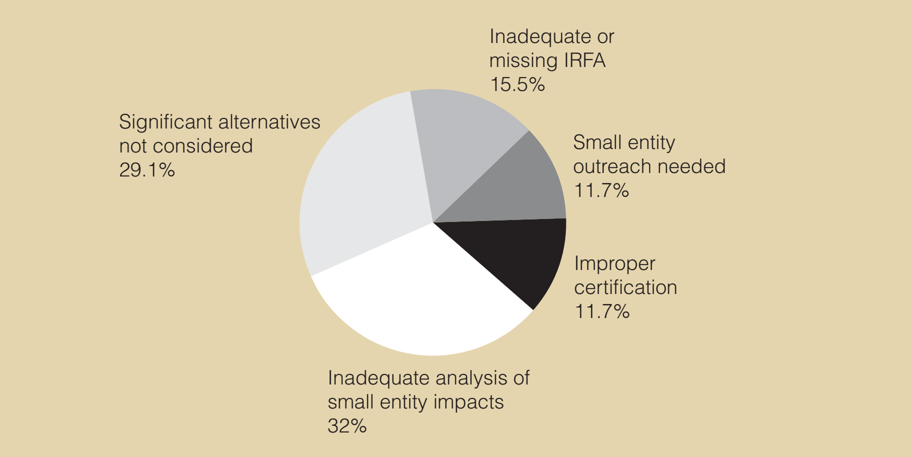
By independently representing the views of small business, the Office of Advocacy is an effective voice for small business before Congress and federal regulatory agencies. Since its founding in 1976, the Office of Advocacy has pursued its mission in two ways: by creating research products that help lawmakers understand the contribution of small businesses to the U.S. economy and through regulatory experts who monitor federal agency compliance with the RFA and work to convince federal agencies to consider the impact of their rules on small businesses before the rules go into effect. In 2003, Advocacy added a new component: reducing regulatory burdens for small businesses at the state level by involving its regional advocates in promoting state model legislation based on Advocacy's experience with the federal Regulatory Flexibility Act and E.O.13272. The regional advocates, located in SBA's 10 regions, help identify regulatory concerns of small business by monitoring the impact of federal and state policies at the grassroots level.

Advocacy promotes agency compliance with the RFA in several ways. Advocacy staff members regularly review proposed regulations and work closely with small entities, trade associations, and federal regulatory contacts to identify areas of concern, and then work to ensure that the RFA's requirements are fulfilled. Comment letters in FY 2003 addressed a number of compliance issues *(Chart 4.1)* and were particularly addressed to a number of agencies *(Chart 4.2)*.[22] In addition, Advocacy's RFA training sessions, as required by E.O. 13272, provide agencies with the tools and information they need to consider the impact of their regulations on small entities.

Early intervention by the Office of Advocacy has helped federal agencies develop a greater appreciation of the role small business plays in the economy and the rationale for ensuring that regulations do not erect barriers to competition. The Office of Advocacy continues to provide economic data, whenever possible, to help agencies identify industries or industrial sectors dominated by small firms. Statistics show regulators why rules should be written to fit

22 Chart 4.2 reflects the agencies that were recipients of Advocacy comment letters and initiatives, but does not reflect on these agencies' overall RFA compliance.

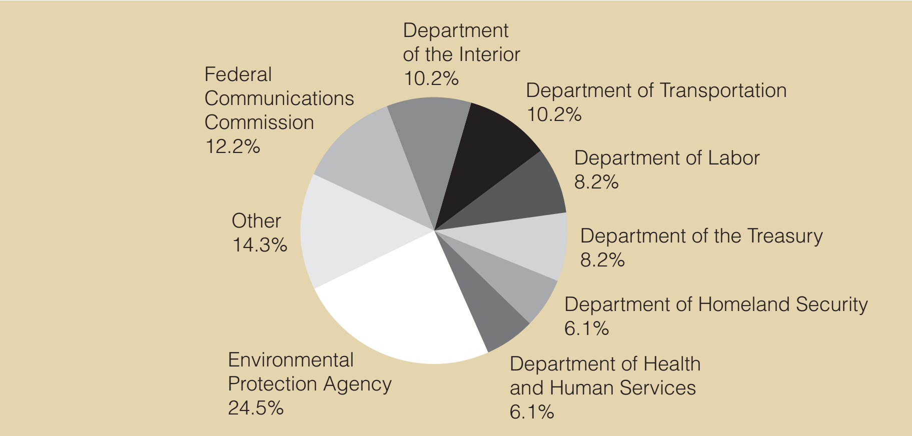
Chart 4.1 Advocacy Comments, by Key RFA Compliance Issue, FY 2003 (percent)



Note: Throughout fiscal year 2003, the Office of Advocacy advised many agencies on how to comply with the RFA. Illustrated here are the key concerns raised by Advocacy's comment letters and pre-publication review of draft rules. The chart highlights areas for improved compliance based on Advocacy's analysis of its FY 2003 comment letters and other regulatory interventions summarized in this report.

Source: U.S. Small Business Administration, Office of Advocacy, 2003.

Chart 4.2 Advocacy RFA Comments by Agency, FY 2003 (percent)



Notes: Agencies identified here were the focus of many of Advocacy's letters and regulatory interventions during fiscal year 2003. With the volume of rulemakings in progress each year, Advocacy cannot review every rule for RFA compliance, instead taking its direction from small businesses and focusing its regulatory interventions on rulemakings that small businesses identify as a priority. This chart simply illustrates the distribution of Advocacy's comment letters and other regulatory interventions across agencies and may not reflect on the agencies' overall RFA compliance records.

Source: U.S. Small Business Administration, Office of Advocacy, 2003.

the economics of small businesses if public policy objectives will not otherwise be compromised. Advocacy makes the statistics available on its Internet website and maintains a database of information on trade associations that can be helpful to federal agencies seeking input from small businesses.

The Office of Advocacy also promotes agency compliance with the RFA through its collaboration with a network of small business representatives. Advocacy staff regularly meet with small businesses and their trade associations regarding federal agency responsibilities under the RFA, factors to be addressed in agency economic analyses, and the judicial review provision enacted in the SBREFA amendments. Roundtable meetings with small businesses and trade associations focus on specific regulations and issues, such as procurement reform, environmental regulations, and industrial safety. Advocacy also plays a key role as a participant in the SBREFA panels convened to review EPA and OSHA rules *(Table 4.1)*.

As regulatory proposals and final rules are developed, the Office of Advocacy may become involved through pre-proposal consultation, interagency review under E.O. 12866, formal comment letters and informal comments to the agency, congressional testimony and "friend of the court" briefs *(Table 4.2)*.

Advocacy intervened and assisted small businesses in obtaining cost savings in a number of instances *(Table 4.3)*. The Office of Advocacy calculates savings based on agency data or industry estimates in the absence of agency data. In FY 2003, revisions to federal agency actions and rulemakings in response to Advocacy's interventions produced first-year cost savings of more than $6.3 billion *(Table 4.4)*.

The Office of Advocacy continues to work through the RFA and SBREFA processes to bring about better rulemaking at federal agencies. Executive Order 13272 also encourages federal agencies to revisit the importance of the RFA and improve their compliance.

Overall, in FY 2003, the Office of Advocacy continued to see an increase in the number of agency inquiries requesting information on how to comply with the RFA and how to address RFA issues in the context of specific rules. Such inquiries provide Advocacy with opportunities to provide agencies one-on-one guidance, as well as opportunities to address the concerns of small entities before a rule is proposed or finalized.

Table 4.1 SBREFA Panels Through Fiscal Year 2003

Rule Subject	Date Convened	Report Completed	NPRM[1]	Final Rule Published
Environmental Protection Agency				
Non-Road Diesel Engines	03/25/97	05/23/97	09/24/97	10/23/98
Industrial Laundries Effluent Guideline	06/06/97	08/08/97	12/12/97	Withdrawn[2]
Stormwater Phase 2	06/19/97	08/07/97	01/09/98	12/08/99
Transport Equipment Cleaning Effluent Guideline	07/16/97	09/23/97	06/25/98	08/14/00
Centralized Waste Treatment Effluent Guideline	11/06/97	01/23/98	01/13/99	12/22/00
Underground Injection Control Class V Wells	02/17/98	04/17/98	07/29/98	12/07/99
Ground Water	04/10/98	06/09/98	05/10/00	
Federal Implementation Plan for Regional Nitrogen Oxides Reductions	06/23/98	08/21/98	10/21/98	
Section 126 Petitions	06/23/98	08/21/98	09/30/98	05/25/99
Radon in Drinking Water	07/09/98	09/18/98	11/02/99	
Long Term 1 Enhanced Surface Water Treatment	08/21/98	10/19/98	04/10/00	01/14/02
Filter Backwash Recycling	08/21/98	10/19/98	04/10/00	06/08/01
Light Duty Vehicles/Light Duty Trucks Emissions and Sulfur in Gasoline	08/27/98	10/26/98	05/13/99	02/10/00
Arsenic in Drinking Water	03/30/99	06/04/99	06/22/00	01/22/01
Recreational Marine Engines	06/07/99	08/25/99	10/05/01 08/14/02	11/08/02
Diesel Fuel Sulfur Control Requirements	11/12/99	03/24/00	06/02/00	01/18/01
Lead Renovation and Remodeling Rule	11/23/99	03/03/00		
Metals Products and Machinery	12/09/99	03/03/00	01/03/01	05/13/03
Concentrated Animal Feedlots	12/16/99	04/07/00	01/12/01	02/12/03

1 Notice of proposed rulemaking (NPRM).

2 Proposed rule was withdrawn August 18, 1999. EPA does not plan to issue a final rule.

3 President Bush signed Senate J. Res. 6 on 03/20/01, which eliminates this final rule under the Congressional Review Act.

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Table 4.1 (continued)

Rule Subject	Date Convened	Report Completed	NPRM[1]	Final Rule Published
Reinforced Plastics Composites	04/06/00	06/02/00	08/02/01	04/21/03
Stage 2 Disinfection Byproducts	04/25/00	06/23/00		
Long Term 2 Enhanced Surface Water Treatment	04/25/00	06/23/00	08/11/03 08/18/03	
Emissions from Non-Road and Recreational Engines and Highway Motorcycles	05/03/01	07/17/01	10/05/01 08/14/02	11/08/02
Construction and Development Effluent Guideline	07/16/01	10/12/01	06/24/02	
Aquatic Animal Production Industry	01/22/02	06/19/02	09/12/02	
Lime Industry—Air Pollution	01/22/02	03/25/02	12/20/02	
Non-Road Diesel Emissions—Tier 4 Rules	10/24/02	12/23/02	05/23/03	
Occupational Safety and Health Administration				
Tuberculosis	09/10/96	11/12/96	10/17/97	
Safety and Health Program Rule	10/20/98	12/19/98	Withdrawn	
Ergonomics Program Standard	03/02/99	04/30/99	11/23/99	11/14/00[3]
Electric Power General, Transmission, and Distribution	05/01/03	06/30/03		
Confined Spaces in Construction	09/25/03	11/25/03		
Occupational Exposure to Crystalline Silica	10/21/03	12/21/03		

1 Notice of proposed rulemaking (NPRM).

2 Proposed rule was withdrawn August 18, 1999. EPA does not plan to issue a final rule.

3 President Bush signed Senate J. Res. 6 on 03/20/01, which eliminates this final rule under the Congressional Review Act.

Table 4.2 Regulatory Comment Letters Filed by the Office of Advocacy, Fiscal Year 2003*

Date	Agency	Comment Subject
10/28/02	HUD	Notice of Proposed Rulemaking on the Real Estate Settlement Procedures Act (RESPA); Simplifying and Improving the Process for Obtaining Mortgages to Reduce Settlement Costs to Consumers; 67 Fed.Reg. 49134 (July 29, 2002).
10/28/02	DOC/NOAA	The New England Groundfish Management Plan
10/30/02	DOL/OSHA	Ergonomics for the Prevention of Musculoskeletal Disorders: Guidelines for Nursing Homes; 67 Fed. Reg. 55884 (August 30, 2002).
11/08/02	DOC/NOAA	The New England Groundfish Management Plan.
11/14/02	Treasury/IRS	Guidance on Reporting of Deposit Interest Paid to Nonresident Aliens; 67 Fed. Reg. 50386 (August 2, 2002).
11/27/02	HHS/FDA	Support for the Petition for Continuation of Stay of Action; FDA Final Rule on Policies, Requirements and Procedures; Prescription Drug Marketing Act of 1987; Prescription Drug Amendments of 1992; 64 Fed. Reg. 67720 (December 3, 1999).
12/04/02	Treasury/IRS	Notice of Proposed Rulemaking: Excise Taxes; Definition of Highway Vehicle; 67 Fed. Reg. 38913 (June 6, 2002).
12/13/02	GSA	Notice of Proposed Rulemaking; Federal Acquisition Regulation; Procurement of Printing and Duplicating through the Government Printing Office; 67 Fed. Reg. 68914 (November 13, 2002).
12/23/02	EPA	Transmittal letter to Christine Todd Whitman, Administrator, EPA, regarding the Report of the Small Business Advocacy Review Panel on Control of Emission of Air Pollution from Land-Based Nonroad Compression Ignition Engines.
01/13/03	SEC	Notice of Proposed Rulemaking; Strengthening the Commission's Requirements Regarding Auditor Independence; 67 Fed. Reg. 76780 (December 13, 2002).
01/24/03	DOL/ETA	Notice of Proposed Rulemaking; Unemployment Compensation—Trust Fund Integrity Rule: Birth and Adoption Unemployment Compensation; Removal of Regulations; 67 Fed. Reg. 72122 (December 4, 2002).
01/27/03	DOI/FWS	Notice of Proposed Rulemaking; Florida Manatees; Incidental Take During Specified Activities; 67 Fed. Reg. 69078 (November 14, 2002).

* *Note:* The complete text of Advocacy's regulatory comment letters is available on Advocacy's website, http://www.sba.gov/advo/laws/comments/. *See page 150 for a list of abbreviations.*

(continued, next page)

Table 4.2 (continued)

Date	Agency	Comment Subject
01/28/03	DOT	Notice of Proposed Rulemaking; Participation by Disadvantaged Business Enterprises in Airport Concessions; 67 Fed. Reg. 76327 (December 12, 2002).
02/05/03	FCC	Initial Regulatory Flexibility Analysis for Triennial Review of Unbundling Obligations of Incumbent Local Exchange Carriers; CC Dkt. No. 01-338; FCC 01-361.
02/06/03	OMB	In response to the Office of Information and Regulatory Affair's (OIRA) report to Congress titled *Stimulating Smarter Regulation*, which listed 267 rules recommended for reform, the Office of Advocacy highlighted 30 regulations and guidance documents that are high priorities for reform to benefit small businesses.
02/28/03	FCC	Federal-State Joint Board on Universal Service, et alia; CC Docket No. 96-45; FCC 02-329.
03/14/03	DOT	Notice of Proposed Rulemaking; Computer Reservations System (CRS) Regulations; Statements of General Policy; 67 Fed. Reg. 69366 (November 15, 2002).
03/24/03	EPA	Notice of Proposed Rulemaking; Acquisition Regulation: Background Checks for Environmental Protection Agency (EPA) Contractors Performing Services On-Site; 68 Fed. Reg. 2988 (January 22, 2003).
04/07/03	HHS/FDA	Proposed Rule; Dietary Supplements Containing Ephedrine Alkaloids; Reopening of the Comment Period; 68 Fed. Reg. 10417 (March 5, 2003).
04/09/03	FCC	Broadcast Ownership Rules MB Dkt. No. 02-277; FCC 02-249.
05/12/03	DHS/Customs	Notice of Proposed Rulemaking on the Tariff Treatment Related to Disassembly Operations Under the North American Free Trade Agreement; 68 Fed. Reg. 12011 (March 13, 2003).
05/14/03	FCC	Basic and Enhanced 911 Provision by Currently Exempt Wireless and Wireline Services; CC Dkt. No. 94-102; FCC 02-326.
05/15/03	HHS/OCR	Health Insurance Portability and Accountability Act of 1996 (HIPAA)—Standards for Privacy of Individually Identifiable Health Information.
06/03/03	DOI/FWS	Notice of Proposed Rulemaking; Establishment of Three Additional Manatee Protection Areas in Florida; 68 Fed. Reg. 16602 (April 4, 2003).
06/04/03	OMB	Comments Regarding the Draft Report of the Small Business Paperwork Relief Task Force;68 Fed. Reg. 25165 (May 9, 2003).

* *Note:* The complete text of Advocacy's regulatory comment letters is available on Advocacy's website, http://www.sba.gov/advo/laws/comments/.

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Table 4.2 (continued)

Date	Agency	Comment Subject
06/10/03	Commerce/ NMFS	Proposed Emergency Rule on the Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Northeast Multispecies; 68 Fed. Reg. 20096 (April 24, 2003).
06/24/03	DOL	Proposed Rulemaking; Defining and Delimiting the Exemptions for Executive, Administrative, Professional, Outside Sales and Computer Employees 68 Fed. Reg.15559 (March 31, 2003).
06/27/03	DOL/OSHA	Reply to the notification letter regarding a small business review panel on Electric Power Generation, Transmission, and Distribution.
06/27/03	DOI/FWS	Arizona Pygmy-owl Critical Habitat Designation; 67 Fed. Reg. 71032 (November 27, 2002).
07/07/03	Treasury/ FinCen	Notice of Proposed Rulemaking on the Financial Crimes Enforcement Network; Anti-Money Laundering Programs for Investment Advisers; 68 Fed. Reg. 23646 (May 5, 2003).
07/07/03	DOJ/ATF	Notice of Proposed Rulemaking on Commerce in Explosives; 68 Fed. Reg. 4406 (January 29, 2003).
08/14/03	FCC	Rules and Regulations Implementing the Telephone Consumer Protection Act (TCPA) of 1991 (also known as the “Do-Not-Call” and the “Do-Not-Fax” rule); CG Dkt No. 02-278; FCC 03-153.
08/20/03	EPA	Notice of Proposed Rulemaking on the Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel; 68 Fed. Reg. 28328 (May 23, 2003).
8/25/03	FCC	Petition for Reconsideration; Rules and Regulations Implementing the Telephone Consumer Protection Act (TCPA) of 1991 (also known as the “Do-Not-Call” and the “Do-Not-Fax” rule); CG Dkt No. 02-278; FCC 03-153.
09/02/03	EPA	Toxic Chemical Release Reporting; Alternate Threshold for Low Annual Reportable Amounts; Request for Comment on Renewal Information Collection; 68 Fed. Reg. 39071 (July 1, 2003).
09/09/03	Treasury/IRS	To Assistant Deputy Commissioner David A. Mador supplementing previous comments submitted by the Office of Advocacy in regard to Excise Taxes: Communications Services, Distance Sensitivity; 58 Fed. Reg. 15690 (April 1, 2003).
09/26/03	DOT/NHTSA	In Support of Petition for Reconsideration—Denman Tire Corporation; Federal Motor Vehicle Safety Standards; Tires; 68 Fed. Reg. 38116 (June 26, 2002).

* *Note:* The complete text of Advocacy’s regulatory comment letters is available on Advocacy’s website, http://www.sba.gov/advo/laws/comments/.

Table 4.3 Regulatory Cost Savings, Fiscal Year 2003

The Office of Advocacy's involvement in the following rulemaking activities during Fiscal Year 2003 resulted in first-year regulatory cost savings of more than $6.3 billion,[1] and more than $5.7 billion in ongoing annual savings.[2]

Agency	Subject Description	Cost Savings
EPA	*Metal Products and Machinery Effluent Guidelines.* EPA excluded three significant industrial sectors from a final rule imposing additional water pollution regulations.	**$1 billion in one-time small business savings.** *Source:* EPA.
EPA	*Toxic Substance Control Act Inventory Update Rule.* EPA's final rule: 1) increased the threshold triggering processing and use reporting responsibilities; and 2) eliminated the proposed confidential business information reassertion requirements.	**$4.9 million in annual small business cost savings.** *Source:* EPA.
EPA	*Spray and Pour Polyurethane Foam Allocation Rule.* EPA's final rule created a petition process to allow small businesses that use or manufacture polyurethane foam access to a chemical EPA had originally proposed to ban.	**$75 million in sales would have been lost in 2003, and $50 million in 2004.** *Source:* Advocacy estimate based on EPA data.
EPA	*Industrial Boilers and Process Heaters Air Toxics Rule.* EPA's proposed rule exempts small boilers commonly used by smaller businesses from further, potentially costly emission control requirements.	**$354 million in first-year savings; additional $18 million in annual savings.** *Source:* EPA and the furniture manufacturing industry.
DOI/ NPS	*Special Regulation for Areas of the National Park System.* The National Park Service (NPS) postponed for one year the implementation of a rule to restrict snowmobile use in Yellowstone National Park, the John D. Rockefeller, Jr., Memorial Parkway, and portions of the Grand Teton National Park.	**$15 million savings in potential economic loss to small businesses.** *Source:* NPS.
NEFMC and NMFS	*New England Ground Fish Management Plan.* The New England Fishery Management Council postponed further action on Amendment 13 pending the results of a confirmation study and two independent research studies.	**The average estimated reduction in total fishing income that was avoided for the given period was $51.2 million.** *Source:* NEFMC.

1 These cost savings consist of foregone capital or annual compliance costs that otherwise would be required in the first year of a rule's implementation.

2 The Office of Advocacy captures cost savings in the fiscal year and quarter in which the regulating agency agrees to changes resulting from the Office of Advocacy's intervention. The results reported for any quarter, therefore, do not reflect the total of Advocacy's interventions to date that may produce quantifiable cost savings in the future. In addition, because agencies may make further revisions to a rule, cost savings may adjust over time based on new information and/or further negotiations.

(continued, next page)

Table 4.3 (continued)

Agency	Subject Description	Cost Savings
DHS/INS	*Rule Limiting the Period of Admission for B Nonimmigrant Aliens.* The INS withdrew a draft final rule from OMB review that would have eliminated the 6-month minimum admission period for B-2 visitors for pleasure. A default admission period of 30 days would have been imposed, which could have severely affected small businesses	**Small businesses in the travel industry saved approximately $2.1 billion annually.** *Source:* DOC.
Treasury/ IRS	*Rule on the Definition of Highway Vehicle and the repeal of the exemption from excise taxes of "mobile machines."* The IRS delayed further action on a proposed rule that would eliminate a 30-year definition that exempted certain vehicles from highway use excise taxes.	**Delaying the rule saved small businesses approximately $460 million in increased taxes and compliance costs.** *Source:* FHWA.
DOI/ FWS	*Rule Limiting the Construction of Docks in Florida.* The FWS withdrew a proposed rule that would have significantly limited dock construction in 12 Florida counties and required dock construction firms in the state to obtain letters of authorization from the agency before building.	**Cost savings amount to $102 million annually for affected small businesses in Florida.** *Source:* FMCA.
DOI/ FWS	*Rule Designating Critical Habitat.* Due to potential economic impacts on small developers and builders, FWS excluded Solano County and four other counties from the final rule designating critical habitat in California and Oregon.	**Excluding Solano County produced cost savings of $141 million in the first year and annually.** *Source:* FWS.
EPA	*Miscellaneous Coating Manufacturing Air Toxics Rule.* EPA adopted recommended alternatives to minimize the cost burden on affected small business manufacturers of a proposed air toxics standard for companies that produce paints, inks, and adhesives.	**Produced first year cost savings of $22.5 million and annual compliance cost savings of $12 million.** *Source:* NPCA.
EPA	*Construction General Permits Rule.* The EPA adopted a final general permit for construction sites affecting one or more acres to: (1) eliminate certain pollutant budget requirements in the permit; and (2) have EPA determine whether a construction projects causes or contributes to water quality violations.	**Cost savings in monitoring and consultant fees amount to $200 million in the first year and annually.** *Source:* Advocacy estimate based on EPA data.
EPA	*Lime Manufacturing Air Toxics Rule.* EPA's rule created a separate subcategory for facilities with wet scrubbers.	**Produced cost savings of $800,000 annually.** *Source:* NLA.

(continued, next page)

Table 4.3 (continued)

Agency	Subject Description	Cost Savings
EPA	*Reinforced Plastics Air Toxics Rule.* In the final rule that requires the manufacturers of reinforced plastic parts to reduce emissions of certain specific toxic air pollutants from their plants, EPA adopted a recommendation that the 95 percent capture and control requirements be applied only to new plants and not existing plants.	**Produced cost savings for small businesses of about $4 million in the first year and annually.** *Source:* EPA and ACMA.
EPA	*Miscellaneous Plastic Parts and Products Air Toxics Rule.* In the final rule that requires certain plastic parts manufacturers to reduce the emissions of volatile organics from products used to coat parts in the manufacturing process, EPA incorporated suggested alternatives for complying with multiple overlapping rules.	**Produced implementation cost savings of $20 million in the first year and annually.** *Source:* Advocacy estimate based on EPA data.
FCC	*Triennial Review of Unbundled Network Elements (UNE) Obligations.* The FCC adopted a recommendation that the FCC retain the UNE obligations to preserve the viability of competitive telecommunications carriers' access to unbundled network elements.	**Produced cost savings of $1.6 billion in the first year and annually.** *Source:* ALTS.
FCC	*Rule Limiting Fax Communications.* The FCC stayed enforcement of a rule that required any person to obtain prior express permission in writing, with a signature from the recipient, before sending an unsolicited fax advertisement.	**Cost savings estimates not yet available.**
DOT/ FMCSA	*Hours of Service of Drivers, Driver Rest and Sleep for Safe Operations.* The FMCSA's final rule limiting the number of hours that drivers of commercial motor vehicles can work incorporated small business suggestions to exempt the intercity motor coach industry and drop the proposed requirement for electric on-board recorders.	**Produced a savings of $180 million in first-year capital costs and $18 million in annually recurring maintenance costs.** *Source:* FMCSA.
SEC	*Securities and Exchange Commission Procurement Action.* The SEC revised a sole source solicitation that would have prevented small business competition.	**Resulted in a small business contractor winning the contract for a one-time value of $59,970.** *Source:* SEC.
DOD	*Department of the Army Procurement Action.* The Department of the Army agreed to exercise the next option year of a contract serviced by small business.	**The contract is valued at $372,000 annually.** *Source:* Army.
FTC	*Telemarketing Sales Rule.* In its final rule, the FTC adopted recommendations to let small businesses update their company-specific Do Not Call lists quarterly instead of monthly. The rule also allows small businesses to receive access to five area codes from the national Do Not Call Registry without charge.	**Produced cost savings of $31 million in the first year and annually.** *Source:* FTC.

Table 4.4 Summary of Regulatory Cost Savings, FY 2003 (In Dollars)

Rule / Intervention[1]	First-Year Cost	Annual Cost
EPA Metal Products and Machinery Effluent Guidelines	1,000,000,000	1,000,000,000
EPA TSCA Inventory Update Rule Amendments[2]	4,912,500	4,912,500
EPA Spray and Pour Polyurethane Foam Allocation Rule	75,000,000	50,000,000
EPA Industrial Boilers and Process Heaters Air Toxics Rule[3]	354,198,684	18,198,684
NPS Special Regulation for Areas of the National Park System	15,000,000	
NMFS New England Groundfish Management Plan (Amendment 13)	51,200,000	
INS Limiting the Period of Admission for B Nonimmigrant Aliens	2,100,000,000	2,100,000,000
IRS Mobile Machinery[4]	460,000,000	460,000,000
FWS Limiting the Construction of Docks in FL[5]	102,000,000	102,000,000
FWS Critical Habitat in California and Oregon	141,000,000	141,000,000
EPA Miscellaneous Coating Manufacturing Air Toxics Rule	22,500,000	12,000,000
EPA Construction General Permits	200,000,000	200,000,000
EPA Lime Manufacturing Air Toxics Rule	800,000	800,000
EPA Reinforced Plastics Air Toxics Rule[6]	4,000,000	4,000,000
EPA Miscellaneous Plastic Parts Air Toxics Rule	20,000,000	20,000,000
FCC Triennial Review—Unbundled Network Elements[7]	1,600,000,000	1,600,000,000
FMCSA Hours of Service Rule	180,000,000	18,000,000
SEC Procurement Action	59,970	
DOD Army Procurement Action	372,000	372,000
FTC Telemarketing Sales Rule	31,000,000	31,000,000
TOTAL	**6,362,043,154**	**5,762,283,184**

1 The Office of Advocacy bases its cost savings estimates on agency data and industry 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, savings are limited 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 All figures were provided on a per-reporting-cycle basis. Advocacy took the difference between the costs put forth in the proposed rule and those provided in EPA's amended proposal and divided by the length of the reporting cycle. To that figure were added the cost savings from EPA agreeing to drop the confidential business information (CBI) reassertion requirements.

3 A study commissioned by the furniture manufacturing industry revealed first-year and annual costs of $18 million. EPA data suggest that 1,386 boilers were exempted (1,344 after accounting for the 42 boilers already taken into account by the furniture manufacturing study) with average costs of retrofitting of $250 million. Annual costs are those derived by the furniture manufacturing study: $18 million.

4 The final annual revenue impact is $462 million (based on Frank Swain's congressional testimony May 1, 2003, citing Federal Highway Administration estimates).

5 Based on estimates from the Florida Marine Construction Association (FMCA), the rule would have cost their members approximately $102 million per year in lost business, and 996 jobs would also be lost. Most of the loss is borne by Southwest Florida. FMCA estimates that its members account for 10 percent of all revenues for the total marine contracting industry.

6 The October 2001 analysis by Environomics, prepared for the Composites Fabricators Association, estimated that imposing the 95 percent capture and control on existing plants would have cost about $40 million annually, or about 2.4 times the EPA estimate. EPA staff estimates that about 10 percent of the affected firms are small, making the small business savings roughly $4 million per year.

7 According to the Association for Local Telecommunications Services (ALTS), had the unbundling obligations been lifted, most competitive local exchange carriers (CLECs) would have gone out of business. Those remaining would have worked out leasing agreements with the regional Bell operating companies (RBOCs). We are using the $1.6 billion increase in market capitalization for CLECs as proxy for the cost savings achieved by the FCC rule allowing the CLECs to continue their reliance on unbundled network elements (UNE) obligations. The CLECs in the ALTS study employ 70,000 employees.

Abbreviations

ACMA	American Composites Manufacturers Association
ALTS	Association for Local Telecommunications Services
ATF	Bureau of Alcohol, Tobacco, Firearms and Explosives
CBI	confidential business reassertion
CLECS	competitive telecommunications carriers
DHS	Department of Homeland Security
DOC	Department of Commerce
DOD	Department of Defense
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOT	Department of Transportation
E.O.	Executive Order
EPA	Environmental Protection Agency
ETA	Employment and Training Administration
FCC	Federal Communications Commission
FDA	Food and Drug Administration
FHWA	Federal Highway Administration
FinCen	Financial Crimes Enforcement Network
FMCA	Florida Marine Construction Association
FMCSA	Federal Motor Carrier Safety Administration
FRFA	final regulatory flexibility analysis
FTC	Federal Trade Commission
FWS	Fish and Wildlife Service
GSA	General Services Administration
HIPAA	Health Insurance Portability and Accountability Act of 1996
HHS	Department of Health and Human Services
HUD	Department of Housing and Urban Development
INS	Immigration and Naturalization Service
IRFA	initial regulatory flexibility analysis
IRS	Internal Revenue Service
NEFMC	New England Fishery Management Council
NHTSA	National Highway Traffic Safety Administration
NLA	National Lime Association
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPRM	notice of proposed rulemaking
NPS	National Park Service
OCR	Office of Civil Rights
OIRA	Office of Information and Regulatory Affairs
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
P.L.	Public Law
RESPA	Real Estate Settlement Procedures Act
RFA	Regulatory Flexibility Act
RSPA	Research and Special Programs Administration
SBA	Small Business Administration
SBREFA	Small Business Regulatory Enforcement Fairness Act
SEC	Securities and Exchange Commission
TSCA	Toxic Substances Control Act
UNE	unbundled network elements
U.S.C.	United States Code

5 REGULATORY FLEXIBILITY INITIATIVES *in the* STATES

Synopsis

Small businesses are key producers in the U.S. economy, but they spend more per employee to comply with regulations than their larger counterparts, according to recent research. Federal measures to lessen the relatively higher regulatory costs for small businesses were developed in the Regulatory Flexibility Act of 1980 and the Small Business Regulatory Enforcement Fairness Act of 1996, along with two presidential executive orders.

The U.S. Small Business Administration's Office of Advocacy was charged to monitor and support federal agency compliance with the regulatory flexibility initiatives. In fiscal year 2003 alone, the office documented more than $6.3 billion in regulatory cost savings to small businesses through the regulatory flexibility efforts of federal agencies. With more than two decades of experience in this effort, the Office of Advocacy developed a model bill to be used by states interested in emulating and building on the federal efforts.

Key regulatory flexibility provisions recommended in the model legislation include a definition of small business, an economic impact analysis, an examination of regulatory alternatives, a provision for judicial review of agency compliance, and periodic agency review of regulations.

Most of the U.S. states and territories have at least some provisions allowing for economic impact analysis of regulations, according to Advocacy's compilation of relevant state statutory references. A number of states have been active in the past year in introducing, passing, and implementing legislation more specifically addressing regulatory flexibility concerns. Several governors have signed legislation or executive orders to improve the regulatory climate for small businesses.

The Model Legislation Initiative

One mission of the U.S. Small Business Administration's Office of Advocacy is to help reduce the regulatory burden on small businesses. While the focus of that activity has been mostly at the federal level, Advocacy recognizes that state and local governments can also be a source of burdensome regulations.

A 2001 study funded by Advocacy, *The Impact of Regulatory Costs on Small Firms*, by W. Mark Crain and Thomas D. Hopkins, shows that small businesses spend nearly $7,000 each year per employee to comply with federal regulations.[1] That is $2,500 more per employee than large firms spend. President George W. Bush has an active small business plan that includes reducing federal regulatory burdens on small business.

The Office of Advocacy presented draft model regulatory flexibility legislation, based upon the best practices of several states, for consideration by state legislatures in December 2002. Since the introduction of the draft legislation, presented in a report titled, *Small Business Friendly Regulation: Model Legislation for States*, many states have taken steps to introduce or strengthen regulatory flexibility legislation.[2]

These state initiatives are showing results. One example of how states can fix one size-fits-all rules involved a New York Department of Motor Vehicles regulation for safety devices and road restrictions for trailers and towing. While intended to cover highway transportation, the rules covered farm equipment and imposed mandates on farmers who hauled fertilizer spreaders across roads to reach different acreage. The work of the New York State Governor's Office of Regulatory Reform led to a rule change that took small business concerns into account by relieving farmers of the need to undertake costly retrofitting to meet trailer standards. The rule change saved the New York farming industry as much as $120 million and was done without compromising highway safety.

1 See the full study at http://www.sba.gov/advo/research/rs207tot.pdf.

2 The model legislation is on the Office of Advocacy website at http://www.sba.gov/advo/laws/law_modeleg.html.

Why Regulation Matters in the States

In September 1980, the U.S. Congress enacted the Regulatory Flexibility Act (RFA), which mandated that federal agencies consider the impact of their regulatory proposals on small entities, analyze equally effective alternatives, and make their analyses available for public comment.[3]

The law was not intended to create special treatment for small businesses. Congress intended that agencies consider impacts on small business to ensure that, in their efforts to fulfill their public responsibilities, their regulatory proposals did not have unintended anticompetitive impacts and that agencies explored less burdensome alternatives that were equally or more effective in implementing agency objectives.

In March 1996, amendments to the RFA, in the form of the Small Business Regulatory Enforcement Fairness Act (SBREFA) became law.[4] SBREFA raised the stakes for regulatory agencies. Congress had finally been persuaded by 15 years of uneven compliance with the RFA and by the repeated urging of the small business community, to authorize the courts to review agency compliance with the RFA. "Judicial review" was thought to be the incentive that was lacking in the original statute. SBREFA also reinforced the RFA requirement that agencies reach out and consider the input of small businesses in the development of regulatory proposals, subjecting this outreach to judicial review as well.

The great need for reducing the economic impact of regulation on small businesses does not stop at the federal level. More than 93 percent of businesses in every state are small businesses *(Chart 5.1)*.[5] These small businesses should be protected from state regulations that require them to bear disproportionate costs and burdens. Small employers can help fix problems if they have a voice in the process.

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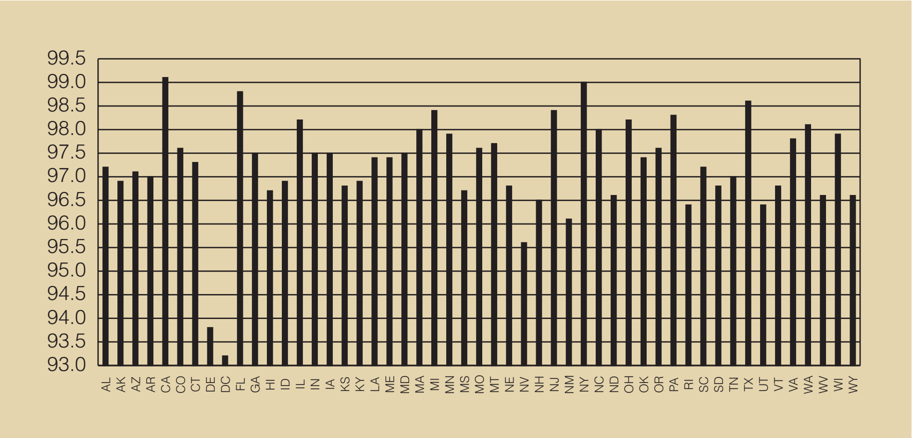
3 Pub. L. No. 96-354, 94 Stat. 1164 (codified at 5 USC § 601 et seq.)

4 Pub. L. No. 104-121, 110 Stat. 857 (codified at 5 USC § 601 et. seq.)

5 The information in this chart is based on information from data collected by the U.S. Department of Commerce, Bureau of the Census, 2001. The chart excludes Guam, Puerto Rico, and the Virgin Islands because no data were available.

Chart 5.1 Percentage of Businesses that are Small, 2001



Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Department of Commerce, Bureau of the Census.

In a survey of state legislation, the Office of Advocacy found that many states lack legislation that allows for the kind of regulatory flexibility provided in the federal law.[6] Of the states that do have some form of regulatory flexibility, many are missing key legislative components. Advocacy drafted model legislation to help state legislators create a structure in which small businesses can have meaningful input in the development of state policies and rules.

Aware of the state economic benefits of less burdensome regulations, the Office of Advocacy wants to build on the successes of federal regulatory flexibility and of states that have led the way with legislative and executive approaches of their own. In fiscal year 2003, the cost savings to small businesses from federal regulatory flexibility was more than $6.3 billion.[7] The Office of Advocacy has urged state policymakers to enact regulatory flexibility legislation or amend current legislation in order to pass on similar cost savings to state economies.

6 See *Regulatory Flexibility Legislation in the States*.

7 See *Annual Report of the Chief Counsel for Advocacy on the Implementation of the Regulatory Flexibility Act, Fiscal Year 2003*. (http://www.sba.gov/advo/laws/flex/)

The Model Legislation

Every state has some version of an Administrative Procedures Act (APA). The APA generally delineates the procedures and substantive efforts state agencies must undertake when they create or amend regulations. The model legislation is intended to be part of or an adjunct to a state's APA. While each state may have provisions that may generically provide some protection for small businesses (such as an economic impact analysis of any affected entity), agencies should be specifically aware of their rules' impacts on small businesses.

The Office of Advocacy crafted the model legislation to be small-business-specific, where agencies are required to analyze a rule's cost to small businesses and propose less burdensome alternatives. Specific suggested provisions recommended in the model legislation include a definition of small business, an economic impact analysis, an examination of alternatives, judicial review, and periodic review.

Small Business Definition

Before agencies can focus specifically on the burdens to small businesses when proposing rules, they must know what qualifies as a small business. On the federal level, small business definitions come from federally established industry size standards.[8] In the model legislation, these complex standards were simplified into two main components:

- First, a business must be independently owned and operated. This ensures that small subsidiaries of giant corporations are not inadvertently included as small businesses. Small businesses normally bear a disproportionate burden of regulatory costs, so a definition that includes all businesses or large businesses does not paint an accurate picture of the economic impact on small businesses.
- Second, a business must either employ fewer than 500 full-time employees or have gross annual sales of less than $6 million. These are benchmark numbers based on average federal size standards. Some states with regulatory flexibility acts have chosen size standard numbers that better reflect the sizes of small businesses in their state. Arizona, for example, has a small business definition of 100 or fewer employees, which accounts for 97 percent of the firms in the state *(Chart 5.1)*.

If a state chooses to use a small business definition different from the one provided in the model legislation, several factors should be taken into account. It is important that the definition be easily understandable so that a business owner will know if his/her business qualifies as a small business. The definition should also capture a significant number of the businesses in the state, but should be limited in such a way that it excludes large businesses. A good definition will be flexible enough to allow agencies to protect small business interests adequately.

Economic Impact Analysis

A key to reducing economic impacts on small businesses is deducing the impact a proposed rule may have on small businesses. If an agency is not required to determine specific detailed information about impacts, it is difficult to establish whether small businesses are affected by the rule and what alternatives might be implemented. The model legislation identifies four specific areas that agencies should address in determining if a rule has an adverse impact on small businesses:

- First, an agency should identify what small businesses would be subject to the regulation and how many are in the state. This is an important first step because it not only allows the agency to focus on the specific industry or sub-industry their regulation is affecting, but it allows businesses to be on notice that a rule will affect them. In this way, the agency can forge a relationship with the small businesses affected and the small businesses will have a way to communicate their concerns to the agency effectively.
- Second, once the business population is determined, the agency should project what reporting, recordkeeping, and administrative costs are required for the small business to comply with the rule. This effort will give the agency a realistic idea of the costs to small businesses and will let business owners know whether or not the rule will unduly burden their business.

- Third, the agency should not only gather the data on costs to small businesses, but interpret it by stating the probable effect the rule would have on small businesses. If the proposed rule requires compliance time of 1,000 person-hours annually, the agency may state that each business will need to hire the equivalent of a part-time employee year-round to comply. A Fortune 500 company might have no problem complying, but a mom-and-pop business with five employees would see a drastic increase in labor costs. Requiring agencies to state the small business effects allows both the agency and the affected small businesses to better understand what the result of the regulation will be to businesses in the state.
- Finally, the analysis should include descriptions of other solutions that would achieve the purpose of the regulation. In the model legislation, Advocacy was careful to note that such alternatives should be *less* costly or *less* intrusive to small businesses. This measure requires agencies to think outside the box, to solicit the advice and expertise of affected small businesses, and to ensure that the rule they are proposing is the best alternative for achieving their public policy goals.

Examining Alternatives

It is important that agencies craft rules that fit their intended purpose in a way that is the least costly and burdensome to small businesses. Because this may be difficult to do, the model legislation suggests five specific alternatives agencies should consider when proposing rules:

- Agencies should consider establishing less stringent compliance or reporting requirements for small businesses. Unlike a large business that has staff strictly dedicated to filing reports, small business owners are often required to handle reports in addition to their regular responsibilities. In addition, compliance and reporting costs tend to be much higher for small businesses because of their limited resources. An added benefit of establishing different compliance requirements for small businesses, therefore, is that the requirements are commensurate with the experiences of small and large businesses.

- A second alternative to consider is establishing less stringent schedules or deadlines for compliance or reporting requirements for small businesses. Similar to the first alternative, this encourages agencies to tailor their rule to the different types of businesses rather than adopting a one-size-fits-all standard of compliance. A tiered system whereby small businesses report to the agency less often, for example, saves small companies time and money without reducing the amount of information an agency receives. This may also make practical sense because some reporting events occur much less frequently in small businesses than they do in larger ones. For example, an Occupational Safety and Health Administration (OSHA) reporting standard for accident reports can recognize that small companies may have one or two accidents a year to report, where larger companies may have one or two daily, weekly, or monthly.
- Third, agencies should consider consolidating or simplifying the compliance or reporting requirements for small businesses. This alternative is valuable when there are local, state, and federal requirements in the same area. For example, if a business has to report disease outbreaks in their nursing homes to the federal Centers for Disease Control and Prevention as part of a U.S. Department of Health and Human Services regulation, the same information or the same form could be used to report the outbreak to similar state agencies. Agencies should make their best effort to avoid duplicative reporting or compliance standards.
- Establishing performance standards for small businesses to replace design or operational standards is a fourth way to achieve the agency's goal without adversely affecting small businesses. For example, a performance standard can be used to control pollution emissions: a state environmental agency can request that an industry reduce smokestack emissions while leaving the methods of reducing emissions up to each individual business. This allows a small business to look for innovative and perhaps less costly solutions to their emission problem, rather than being required to retrofit their building and/or equipment to comply with the rule.

- Finally, an agency should consider exempting small businesses from all or any part of the requirements contained in the proposed regulation. For example, for years the Environmental Protection Agency (EPA) required small gas station owners to report to the EPA that gasoline was present on their premises. This reporting was in addition to the reporting required by state and local emergency planning commission offices, local fire departments, and state underground storage tank (UST) offices. While it was obvious that all retail gas stations had gasoline present on their premises, about 200,000 small gasoline outlets across the country were required by EPA to report this fact year after year, expending about 558,000 hours in paperwork and more than $16 million in costs per year. Finally in 1999, the EPA was persuaded to eliminate this costly and duplicative reporting requirement. EPA realized that the reporting was not only duplicative and unnecessary, but extremely burdensome for small gas stations.

Judicial Review

One lesson the Office of Advocacy has learned about regulatory flexibility at the federal level is that regulatory flexibility cannot and will not work unless agencies have an incentive to do good economic and alternatives analyses of their regulations. One way to help ensure agencies do adequate analyses is to entitle small businesses to judicial review of a rule's compliance with the regulatory flexibility guidelines.

It should be noted that judicial review of these laws usually entitles a procedural, rather than a substantive analysis. If the agency has completed a proper economic impact analysis and examination of alternatives, they will likely prevail in the review suit. This legislation is not meant to be outcome-determinative, but to simply heighten agencies' awareness of the difficulties facing small businesses and to look for opportunities to reduce unnecessary burdens.

Periodic Review

The periodic review provisions in the model legislation are in place to help agency regulators assess the continued need for regulations and their continuing impact on small businesses. The model legislation discusses periodic review in three main parts:

- First, the model legislation encourages agencies to review rules in existence at the time of enactment of the legislation within four years of its enactment—important to ensure that existing rules will, within a short period of time, comply with the small business analysis provisions of the legislation. Any regulations that are either outdated or unduly burdensome can be addressed quickly. The subsection anticipates that some agencies' reviews may take longer than four years, and it allows for one-year extensions to complete this portion of the periodic review.
- Second, the model legislation suggests that agencies review their rules every five years to ensure that they are still necessary and in compliance with regulatory flexibility standards. This language ensures that agencies are continually aware of the number of rules they have promulgated and can periodically assess their necessity and usefulness. It should be noted that the four- and five-year periods used in the model are illustrative of the general amount of time between reviews. Several states have review periods that are shorter or longer than five years. The key in these two provisions is to ensure that regulations are reviewed periodically and that the time period between reviews is reasonable in length.
- Finally, the model legislation tasks agencies with considering several specific factors in determining if a rule needs modification or rescission. These factors help agencies frame their analyses of existing rules to allow for the careful scrutiny of the most burdensome aspects.

The model legislation asks agencies to look specifically at rules and assess 1) the continued need for a rule; 2) the nature of complaints and comments received from the public concerning a rule; 3) the complexity of the rule; 4) the extent to which a rule overlaps, duplicates, or conflicts with other federal, state, and local governmental rules; and 5) the degree to which technological, economic, or other factors have changed in the area affected by the rule. Such scrutiny has resulted in great economic benefits federally. Regulations are not made in a vacuum; the model legislation is designed to ensure that the regulatory environment can adapt to the changing needs in the industry it regulates.

Progress Report on the State Regulatory Flexibility Initiatives

States have enacted a variety of regulatory flexibility provisions in the more than two decades since the federal RFA was passed *(Table 5.1)*. Since the Office of Advocacy's model legislation was introduced in December 2002, several state legislatures have made efforts to enact or amend regulatory flexibility laws.

In 2003, Georgia, North Carolina, Oregon, Rhode Island, South Carolina, Texas, and West Virginia all introduced regulatory flexibility legislation that did not make it through the legislative process before their legislative session ended. There were indications in several of these states that the legislation would be reintroduced in the following session. The Wyoming legislature approved an interim study on state regulatory flexibility. New Jersey and Wisconsin both introduced regulatory flexibility legislation in 2003. Missouri passed regulatory flexibility legislation by an overwhelming majority in both the House and Senate; however, the governor vetoed the bill. Missouri Governor Bob Holden did sign Executive Order 03-15 to implement some elements of regulatory flexibility. State legislators and small business groups were actively advocating small business regulatory initiatives throughout all of 2003.

In Massachusetts, Governor Mitt Romney signed Executive Order 453 (No. 3-11), which requires small business impact statements and recognition of alternatives. The executive order also creates a Small Business Advocate position, which Governor Romney has filled. West Virginia Governor Bob Wise signed Executive Order 20-03 to improve the regulatory climate for small businesses in the state.

Two states, North Dakota and Colorado, introduced and passed new regulatory flexibility provisions into law during the 2003 legislative session. Both states are in the beginning stages of implementing new regulatory flexibility

Table 5.1 State Regulatory Flexibility Statutes (by Statute Reference Number), 2003

State	Citation information	Small business definition	Economic impact analysis	Examining alternatives	Judicial review	Periodic review	Exemptions	Rules review committee
Alabama	Ala. Code §							41-22-22
Alaska	Alaska Stat. §							44.62.125
Arizona	Ariz. Rev. Stat. Ann.	41-1001(19)	41-1052; 41-1055; 41-1056.01	41-1055	41-1034; 41-1051; 41-1052	41-1056	41-1057; 41-1005; 41-1044	41-1057
Arkansas	Ark. Code Ann. §							
California	Cal. Gov. Code §	11342.610	11346.2; 11346.3; 11346.9	11346.2; 11347.6	11349; 11350	11349.7	11346.1; 11353; 11356; 11361	
Colorado	Colo. Rev. Stat. Ann. §	24-4-102	24-4-103	24-4-103			24-4-103	
Connecticut	Conn. Gen. Stat. Ann. §	4-168a(a)(2)	4-168a(c)	4-168a(b)	4-175; 4-183	4-170(a) repealed	4-168a(d)	4-170
Delaware	Del. Code tit. 29, §	10403(3)	10404	10404	10141	10407		
Washington DC	DC Code Ann. §							
Florida	Fla. Stat. Ann. §	120.54(3)(b)(2)(a); 120.52(16) & (17)	120.54(3)(b) (1) and (2)	120.54(1)(d); 120.54(3)(b)(2)(a); 120.541	120.68; 120.545; 120.56	120.74	120.50; 120.63; 120.80; 120.81	120.545
Georgia	Ga. Code Ann. §	50-13-4(a)(3)	50-13-4(a)(3) & (4)	50-13-4(a)(3)	50-13-19; 50-13-10; 50-13-13; 50-13-20		50-13-4(b)	

Guam	5 GCA		9301[1]		9309			
Hawaii	Haw. Rev. Stat. Ann. §	201M-1	201M-2	201M-2	201M-6	201M-7		201M-5
Idaho	Idaho Code §					67-5291		
Illinois	5 Ill. Comp. Stat. Ann.	100/1-75; 100/1-80; 100/1-85	100/5-30(c)	100/5-30(a)		100/5-130[2]		100/5-90
Indiana	Ind. Code Ann. §		4-22-2-28[1]			4-22-2-46; 4-22-2.5-2[3]		4-22-2-28; 4-22-2-46
Iowa	Iowa Code Ann. §		17A-4A[4]		17A-19	17A-33[2]		17A-8
Kansas	Kan. Sta. Ann. §		77-416(b)[1]	77-416(b)				77-436; 77-423
Kentucky	Ky. Rev. Stat. Ann. §	13A.210(5); 13A.010	13A.240[1]	13A.210	13A.337	13A.345		13A.020
Louisiana	La. Rev. Stat. Ann. §		49:953[1]		49:965.1	49:968	49:967	
Maine	Me. Rev. Stat. Ann. tit. 5	8052(5-A)		8052(5-A)	8058; 11001; 8072	8071; 8072	8054	

1 Not small-business-specific.

2 Periodic review of small business rules only.

3 This provision imposes expiration dates on rules rather than requiring periodic review.

4 Iowa repealed its small business regulatory flexibility statute in 1998 (see 17A.31). The statute cited allows for a regulatory flexibility analysis, which includes an economic impact analysis and examination of alternatives, if requested by the Administrative Rules Coordinator or the Administrative Review Committee (ARC). An interested party can petition the ARC or ARRC to request a regulation be reviewed, but ultimately the ARC/ARRC decides whether or not to request such an analysis (see 17A.7).

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Table 5.1 (continued)

State	Citation information	Small business definition	Economic impact analysis	Examining alternatives	Judicial review	Periodic review	Exemptions	Rules review committee
Maryland	Md. Code Ann. St. Gov.		10-124[1]		10-222; 10-125	10-132.1; 10-133		2-502
Massachusetts[5]	Mass. Gen. Law. Ann. §		30A-5	30A-5	30A-7			
Michigan	Mich. Comp. Laws Ann.	24.207a	24.240; 24.245	24.240	24.264; 24.301		24.315	24.234; 24.235
Minnesota	Minn. Stat. Ann. §		14.131[1]	[6]	14.69	14.3691	14.03	
Mississippi	Miss. Code. Ann. §		25-43-6(2)(d)	25-43-6(2)(g)	25-43-17		25-43-6(4)	
Missouri[7]	Mo. Ann. Stat. §							
Montana	Mont. Code Ann. §							
Nebraska	Neb. Rev. Stat. §							84-907.07
Nevada	Nev. Rev. Stat.	233B.0382	233B.0608; 233B.0609	233B.0608; 233B.0609	233B.105; 233B.110; 233B.130	233B.050		233B.067
New Hampshire	N.H. Rev. Stat. Ann. §	541-A: 5(IV)(e)	541-A:5(IV)(e)		541-A:13; 541-A:24	541-A:2	541-A:21	541-A:2
New Jersey	N.J. Stat. Ann. §	52:14B-17; 52:14B-25	52:14B-19; 52:14B-25	52:14B-18; 52:14B-25		52:14B-5.1		
New Mexico	N.M. Stat. Ann. §							
New York	NY CLS St. Admin P Act §	102(8)	202-b(2)	202-b(1)	205	207	202-b(3)	Executive Order 20[1]
North Carolina	N.C. Gen. Stat. §		150B-21.4[1]					150B-21.16
North Dakota	N.D. Cent. Code §	28-32-08.1	28-32-08.1	28-32-08.1	28-32-08.1	28-32-18.1	28-32.08.1	28-32-17

Ohio	Ohio Rev. Code Ann. §	121.24(A)(9) & (10)	121.24(E); 127.18			119.032	121.24(F)	Yes
Oklahoma	75 Okla. Stat. Ann. tit. 75. §	502(4)	504	504	505	307.1; 250.10		Yes
Oregon	Or. Rev. Stat. §	183.310(9)	183.335(2)(b)	183.540	183.090; 183.480	183.720		
Pennsylvania	71 Pa. Cons. Stat. Ann.		745.5(9) & (10)[1]		745.12a	745.8a[8]		
Puerto Rico	H.B. 3038, No. 454	§2(c) & (d)	§4	§4	§11	§10		
Rhode Island	R.I. Gen. Laws §	42-35-1(i)	42-35-3(4)	42-35-3(4)	42-35-15; 42-35-7	42-35-4.2[9]		
South Carolina	S.C. Code Ann. §		1-23-10(7);[1] 1-23-115		1-23-380; 1-23-120			
South Dakota	S.D. Codified Laws §							1-26-1.1
Tennessee	Tenn. Code Ann. §							

5 Massachusetts Governor Mitt Romney signed Executive Order (EO) 453 (No. 3-11) on September 25, 2003. The EO requires small business impact statements and recognitions of alternatives, and creates a Small Business Advocate position. Katherine Kottaridis has been appointed as the Small Business Advocate.

6 Minnesota has legislation that allows adversely affected small businesses to apply for a variance (exemption or other alternative) from an existing regulation if they can show economic hardship, among other factors. The application costs, at a minimum, $10 (see 14.055 and 14.056).

7 Missouri's economic impact analysis looks at the impact of bills, rather than regulations, on small businesses (see 23.140). After vetoing Senate Bill 69 in 2003, Governor Bob Holden signed Executive Order (EO) 03-15 to implement regulatory flexibility, on August 25, 2003.

8 Review of a rule is mandatory in Pennsylvania if requested by a third party.

9 This Rhode Island provision requires rules to be re-filed periodically.

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Table 5.1 (continued)

State	Citation information	Small business definition	Economic impact analysis	Examining alternatives	Judicial review	Periodic review	Exemptions	Rules review committee
Texas	Tex. Govt. Code Ann. §	2006.011; 2006.001	2006.002	2006.002	2006.013	2001.039	2006.012	
Utah	Utah Code Ann. §		63-46a-4(5)(1)[1]		63-46a-12.1	63-46a-11.5[3]	63-46a-12.1; 63-46a-11	63-46a-11
Vermont	Vt. Stat. Ann. §	3-801(12)	3-838	3-832	3-815		3-816; 3-832	3-817; 3-820
Virgin Islands								
Virginia	Va. Code Ann. §					2.2-4017		
Washington	Wash. Rev. Code Ann. §	19.85.020	19.85.030; 19.85.040	19.85.030	34.05.570	34.05.630		34.05.610
West Virginia[10]	W. Va. Code §					29A-3-16		29A-3-10
Wisconsin	Wis. Stat. Ann. §	227.114(1)(a)	227.114(2)	227.114(2)	227.52; 227.40		227.24	227.19; 227.26
Wyoming	Wyo. Stat. Ann. §							28-9-101

10 Governor Bob Wise signed Executive Order (EO) 20-03 on August 27, 2003 which charged the West Virginia Small Business Development Center (SBDC) with establishing guidelines for agencies to follow when issuing regulations that may impact small businesses. To date, it is unclear what steps have been taken to implement the EO.

Note that some states' regulatory flexibility legislation is stronger than others' and their relative strengths are ascertainable only by examining the laws themselves.

Source: Compiled by U.S. Small Business Administration, Office of Advocacy, from state statutory information. See the Office of Advocacy's website, www.sba.gov/advo, for state website information.

systems. Colorado's Department of Regulatory Agencies (DORA) created an Internet-based regulatory alerts system that allows any small business owner, trade association, chamber of commerce, or interested person to sign up to receive notification of proposed new or amended rules.

Conclusion

As state governments have recognized the importance of ensuring that the small business sector is not unduly burdened by regulation, they have enacted regulatory flexibility measures to give small businesses a voice in the rule development process. The effectiveness of these measures will vary, based on the nature and extent of the provisions enacted and the level of their implementation and enforcement. With nearly a quarter century of regulatory flexibility monitoring experience, the Office of Advocacy is in an excellent position to outline the regulatory flexibility measures that have been most effective at the federal level. The model legislation offered by the Office of Advocacy has been introduced and adopted in a number of states and is an important step toward empowering America's productive small business sector.

APPENDIX A
Supplementary Tables

Table A.1 U.S. Business Measures, 1980–2003

Year	Real GDP (billions of 2000 dollars)	Employer firms	Establishments*	Self-employment (thousands)	Self-employment rate (percent)	Nonfarm business tax returns	Nonfarm sole proprietorships	Employer births	Employer terminations	Business bankruptcies
2003	10,398	**e** 5,696,600	NA	10,295	7.0	26,915,900	18,684,200	**e** 572,900	**e** 554,800	35,037
2002	10,083	**e** 5,678,500	NA	9,926	6.9	26,347,100	18,336,500	**e** 589,700	**e** 569,000	38,540
2001	9,867	5,657,774	7,095,302	10,109	7.0	25,631,200	17,904,900	585,140	553,291	40,099
2000	9,817	5,652,544	7,070,048	10,215	7.2	25,106,900	17,570,500	574,300	542,831	35,472
1999	9,470	5,607,743	7,008,444	10,087	7.2	24,750,100	17,377,100	579,609	544,487	37,884
1998	9,067	5,579,177	6,941,822	10,303	7.5	24,285,900	17,183,700	589,982	540,601	44,367
1997	8,704	5,541,918	6,894,869	10,513	7.7	23,857,100	17,176,000	590,644	530,003	54,027
1996	8,329	5,478,047	6,738,476	10,489	7.8	23,115,300	16,955,000	597,792	512,402	53,549
1995	8,032	5,369,068	6,612,721	10,482	7.9	22,555,200	16,424,000	594,369	497,246	51,959
1994	7,836	5,276,964	6,509,065	10,648	8.1	22,191,000	16,154,000	570,587	503,563	52,374
1993	7,533	5,193,642	6,401,233	10,279	8.0	20,874,796	15,848,000	564,504	492,651	62,304
1992	7,337	5,095,356	6,319,300	9,960	7.8	20,476,775	15,495,000	544,596	521,606	70,643
1991	7,101	5,051,025	6,200,859	10,274	8.1	20,498,855	15,181,000	541,141	546,518	71,549

1990	7,113	5,073,795	6,175,559	10,097	8.0	20,219,400	14,783,000	584,892	531,400	64,853
1989	6,981	5,021,315	6,106,922	10,008	8.1	19,560,700	14,298,000	NA	NA	62,449
1988	6,743	4,954,645	6,016,367	9,917	8.2	18,619,400	13,679,000	NA	NA	62,845
1987	6,475	NA	5,937,061	9,624	8.0	18,351,400	13,091,000	NA	NA	81,463
1986	6,264	NA	5,806,973	9,328	7.9	17,524,600	12,394,000	NA	NA	79,926
1985	6,054	NA	5,701,485	9,269	8.0	16,959,900	11,929,000	NA	NA	70,644
1984	5,814	NA	5,517,715	9,338	8.2	16,077,000	11,262,000	NA	NA	64,211
1983	5,424	NA	5,306,787	9,140	8.2	15,245,000	10,704,000	NA	NA	62,412
1982	5,189	NA	4,633,960	8,898	8.1	14,546,000	10,106,000	NA	NA	69,242
1981	5,292	NA	4,586,510	8,735	8.0	13,858,000	9,585,000	NA	NA	48,086
1980	5,162	NA	4,543,167	8,642	8.1	13,021,600	8,932,000	NA	NA	43,252

* Units with paid employees in the fourth quarter through 1983. 1984 on includes units active in any quarter of the year.

e estimated

NA = Not available

Sources: U.S. Small Business Administration, Office of Advocacy, from sources as follows: real gross domestic product (GDP) from the U.S. Department of Commerce, Bureau of Economic Analysis; employer firms, births, and terminations from the U.S. Department of Commerce, Bureau of the Census, with 2002 and 2003 estimates based on U.S. Census Bureau and Department of Labor data; establishments from the U.S. Census Bureau; self-employment (unincorporated, primary occupation) from the the U.S. Department of Labor, Bureau of Labor Statistics; self-employment rate based on the civilian labor force; nonfarm business tax returns and nonfarm sole proprietors from the Internal Revenue Service; bankruptcies from the Administrative Office of the U.S. Courts (business bankruptcy filings).

Table A.2 Macroeconomic Indicators, 1990–2003

	1990	1995	2000	2002	2003	Percent Change 2002–2003
Gross domestic product (GDP) (billions of dollars)[1]						
Current dollars	5,803.1	7,397.7	10,100.8	10,480.8	10,987.9	4.8
Constant dollars (billions of 2000 dollars)	7,112.5	8,031.7	9,866.6	10,083.0	10,398.0	3.1
Sales (billions of dollars)[2]						
Manufacturing	242.7	290.0	330.9	324.3	333.3	2.8
Wholesale trade	149.5	176.2	225.1	228.5	240.4	5.2
Retail trade	153.7	189.0	263.1	269.2	283.3	5.2
Income (billions of dollars)						
Compensation of employees[3]	3,351.0	4,177.0	5,940.4	6,019.1	6,198.1	3.0
Nonfarm proprietors' income	349.9	469.5	745.6	783.4	827.4	5.6
Farm proprietors' income	31.1	22.7	25.0	14.3	19.5	36.4
Corporate profits[4]	408.6	696.7	770.4	904.2	1,069.9	18.3
Output and productivity (business sector indexes, 1992=100)						
Output	98.6	111.5	140.6	143.8	149.1	3.7
Hours of all persons worked	102.6	109.5	118.9	116.0	115.1	-0.8
Productivity (output per hour)	96.1	101.7	118.3	124.0	129.6	4.5

1 *Small Business Share of Private, Nonfarm Gross Domestic Product* by Joel Popkin and Company (Office of Advocacy funded study) estimates small businesses (fewer than 500 employees) created 52 percent of the total nonfarm private output in 1999.

2 U.S. Census Bureau, *Statistics of U.S. Business*, showed that in 1997, small firms (fewer than 500 employees) accounted for 24.8 percent of manufacturing, 52.6 percent of retail, 46.8 percent of wholesale sales.

3 Statistics of U.S. Businesses, Bureau of the Census, showed that in 2001, small firms accounted for 44.3 percent of annual payroll, and 49.9 percent of total nonfarm private employment.

4 With inventory valuation adjustment and capital consumption adjustments.

(continued, next page)

Table A.2 (continued)

	1990	1995	2000	2002	2003	Percent Change 2002–2003
Employment and compensation						
Nonfarm private employment (millions)[3]	91.1	97.9	110.7	108.8	108.4	-0.4
Unemployment rate (percent)	5.6	5.6	4.7	5.8	6.0	3.4
Total compensation cost index (December) (June 1989=100)	107.0	126.7	157.2	162.3	168.8	4.0
Wage and salary index (December) (June 1989=100)	106.1	123.1	153.3	157.5	162.3	3.1
Employee benefits cost index (December) (June 1989=100)	109.4	135.9	166.7	174.6	185.8	6.4
Bank loans, interest rates, and yields						
Bank commercial and industrial loans (billions of dollars)	641.2	723.8	1,028.4	963.5	898.2	-6.8
Prime rate (percent)	10.01	8.83	6.91	4.67	4.12	-11.8
U.S. Treasury 10-year bond yields (percent)	8.55	6.57	5.02	4.61	4.01	-13.0
Price indices (inflation measures)						
Consumer price index (urban) (1982–1984=100)	130.7	152.4	177.1	179.9	184.0	2.3
Producer price index (finished goods) (1982=100)	119.2	127.9	140.7	138.9	143.3	3.2
GDP implicit price deflator (2000=100)	81.6	92.1	102.4	103.9	105.7	1.7

Source: U.S. Small Business Administration, Office of Advocacy, from the Bureau of Economic Analysis, and *Economic Indicators*, March 2000 and March 2004.

Table A.3 Number of Businesses by State, 2002–2003

	Employer firms		Self-employment (thousands)	
State	**2002**	**2003**	**2002**	**2003**
United States	**e 5,678,500**	**e 5,696,600**	**9,926**	**10,295**
Alabama	85,895	85,768	122	136
Alaska	16,511	16,825	29	32
Arizona	107,894	109,692	157	162
Arkansas	60,668	60,416	101	100
California	1,022,192	1,063,230	1,521	1,568
Colorado	140,704	143,821	172	199
Connecticut	96,677	95,969	126	116
Delaware	25,097	25,280	18	21
District of Columbia	26,503	26,633	12	16
Florida	413,476	426,245	460	504
Georgia	194,062	196,921	258	315
Hawaii	28,800	29,217	50	42
Idaho	40,633	41,539	66	69
Illinois	278,839	281,869	353	342
Indiana	124,673	125,129	193	209
Iowa	68,466	68,737	135	132
Kansas	67,757	68,095	119	127
Kentucky	87,589	81,407	135	122
Louisiana	93,989	94,437	133	158
Maine	39,180	39,691	65	70
Maryland	133,536	134,447	166	170
Massachusetts	173,896	175,827	213	225
Michigan	211,567	210,803	297	290
Minnesota	131,646	133,419	242	219
Mississippi	53,409	53,641	109	98
Missouri	129,777	131,464	205	212

e estimated.

(continued, next page)

Table A.3 (continued)

	Employer firms		Self-employment (thousands)	
State	**2002**	**2003**	**2002**	**2003**
Montana	33,339	33,991	61	61
Nebraska	45,342	45,595	96	95
Nevada	47,340	48,929	53	55
New Hampshire	39,211	39,508	57	55
New Jersey	274,966	268,203	203	212
New Mexico	42,066	41,731	74	81
New York	474,425	478,270	551	592
North Carolina	178,560	179,580	261	252
North Dakota	18,639	18,817	40	43
Ohio	230,705	229,648	327	316
Oklahoma	75,250	75,486	148	155
Oregon	100,726	102,862	154	153
Pennsylvania	268,723	271,459	385	382
Rhode Island	32,295	32,594	26	32
South Carolina	89,634	90,998	112	121
South Dakota	22,803	23,161	51	47
Tennessee	108,928	110,427	243	236
Texas	394,303	398,928	826	895
Utah	56,346	58,507	69	84
Vermont	20,755	20,922	38	37
Virginia	165,185	167,527	183	209
Washington	200,909	206,699	228	243
West Virginia	37,364	37,144	46	49
Wisconsin	122,249	123,800	212	209
Wyoming	19,339	19,616	26	27

Notes: State totals do not add to the U.S. figure as firms can be in more than one state. U.S. 2002 and 2003 estimates are based on U.S. Census Bureau and U.S. Department of Labor, Employment and Administration data. Self-employment is based on primary occupation unincorporated status.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Labor, Employment and Training Administration, and the U.S. Census Bureau.

Table A.4 Business Turnover by State, 2002–2003

State	Firm births		Firm terminations		Business bankruptcies	
	2002	2003	2002	2003	2002	2003
United States	**e 589,700**	**e 572,900**	**e 569,000**	**e 554,800**	**38,540**	**35,037**
Alabama	9,534	9,014	12,062	10,927	381	287
Alaska	2,270	2,441	2,541	2,507	120	121
Arizona	14,291	13,322	17,642	15,488	756	701
Arkansas	5,381	7,253	4,491	6,918	282	429
California	130,840	113,500	156,858	140,435	5,141	4,501
Colorado	25,290	22,400	10,332	13,243	590	552
Connecticut	8,726	8,501	11,383	11,044	181	187
Delaware	3,223	3,439	3,891	3,148	649	505
District of Columbia	4,157	4,052	3,973	3,874	52	55
Florida	72,720	69,711	52,241	56,665	1,803	1,534
Georgia	28,756	24,217	31,479	25,898	1,359	1,585
Hawaii	3,555	3,658	3,994	4,010	53	72
Idaho	5,039	5,998	7,040	6,742	260	225
Illinois	27,342	28,933	32,093	41,112	1,240	991
Indiana	13,530	13,452	16,156	15,137	661	640
Iowa	5,660	5,534	7,480	7,378	354	323
Kansas	6,703	7,625	6,876	8,392	238	303
Kentucky	8,526	8,155	11,614	10,801	445	327
Louisiana	9,810	9,298	14,416	12,171	672	499
Maine	4,428	4,033	5,042	4,715	101	105
Maryland	20,576	20,687	20,927	21,697	873	523
Massachusetts	21,262	18,984	20,532	21,870	380	396
Michigan	22,799	22,022	26,975	24,748	802	684
Minnesota	13,683	14,652	12,851	17,928	1,729	1,379
Mississippi	6,256	6,020	7,160	7,267	309	282
Missouri	16,337	15,947	21,653	20,190	394	378

e estimated.

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Table A.4 (continued)

State	Firm births		Firm terminations		Business bankruptcies	
	2002	2003	2002	2003	2002	2003
Montana	3,569	4,548	4,445	4,679	120	98
Nebraska	4,372	4,311	5,234	5,050	152	238
Nevada	8,826	9,749	8,667	8,939	462	321
New Hampshire	4,562	4,653	5,418	4,598	212	178
New Jersey	29,916	29,236	31,571	36,827	689	734
New Mexico	5,281	5,508	7,949	5,770	693	774
New York	59,571	60,569	63,631	61,199	2,585	1,987
North Carolina	22,950	22,465	22,184	23,234	576	528
North Dakota	1,356	1,456	1,893	2,049	116	105
Ohio	22,379	22,227	24,269	23,544	1,538	1,426
Oklahoma	8,702	8,802	8,923	8,434	607	612
Oregon	13,160	13,842	14,793	14,194	1,606	1,591
Pennsylvania	31,939	31,214	35,859	32,917	1,263	1,193
Rhode Island	3,397	3,465	4,981	4,103	65	48
South Carolina	10,266	10,759	11,491	10,711	178	142
South Dakota	1,389	1,338	2,098	1,899	119	110
Tennessee	15,982	17,700	16,514	16,315	735	597
Texas	54,009	52,677	58,114	55,461	2,994	3,153
Utah	10,431	10,656	11,272	10,368	602	519
Vermont	2,331	2,122	3,501	2,584	91	78
Virginia	21,438	22,069	20,305	20,539	969	956
Washington	37,562	36,136	40,782	35,345	698	737
West Virginia	3,944	4,126	5,595	5,550	357	290
Wisconsin	12,172	12,400	13,651	12,629	856	722
Wyoming	2,275	2,419	2,895	2,921	47	44

Notes: State totals do not add to the U.S. figure, as firms can be in more than one state. U.S. estimates are based on U.S. Census Bureau and Department of Labor Employment and Training Administration data. On occasion, some state terminations result in successor firms which are not listed as new firms.

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.

Table A.5 Private Firms, Establishments, Employment, Annual Payroll and Receipts by Firm Size, 1988–2001

				Employment size of firm					
Item	Year	Non-employers	Employer totals	0*	0–19	20–99	100–499	<500	500+
Employer firms	2001	16,979,498	5,657,774	703,837	5,036,845	518,258	85,304	5,640,407	17,367
	2000	16,529,955	5,652,544	726,862	5,035,029	515,977	84,385	5,635,391	17,153
	1999	16,152,604	5,607,743	709,074	5,007,808	501,848	81,347	5,591,003	16,740
	1998	15,708,727	5,579,177	711,899	4,988,367	494,357	80,075	5,562,799	16,378
	1997	15,439,609	5,541,918	719,978	4,958,641	487,491	79,707	5,525,839	16,079
	1996	NA	5,478,047	717,991	4,909,983	476,312	76,136	5,462,431	15,616
	1995	NA	5,369,068	688,584	4,807,533	469,869	76,222	5,353,624	15,444
	1994	NA	5,276,964	691,141	4,736,317	452,383	73,267	5,261,967	14,997
	1993	NA	5,193,642	671,306	4,661,601	445,900	71,512	5,179,013	14,629
	1992	14,325,000	5,095,356	644,453	4,572,994	439,084	69,156	5,081,234	14,122
	1991	NA	5,051,025	NA	4,528,899	439,811	68,338	5,037,048	13,977
	1990	NA	5,073,795	NA	4,535,575	453,732	70,465	5,059,772	14,023
	1989	NA	5,021,315	NA	4,493,875	443,959	69,608	5,007,442	13,873
	1988	NA	4,954,645	NA	4,444,473	430,640	66,708	4,941,821	12,824
Establishments	2001	16,979,498	7,095,302	705,612	5,093,660	670,477	315,856	6,079,993	1,015,309
	2000	16,529,955	7,070,048	730,027	5,093,832	674,106	312,112	6,080,050	989,998
	1999	16,152,604	7,008,444	711,990	5,068,096	670,822	309,211	6,048,129	960,315
	1998	15,708,727	6,941,822	713,512	5,048,528	674,503	307,294	6,030,325	911,497
	1997	15,439,609	6,894,869	721,844	5,026,425	682,580	308,633	6,017,638	877,231
	1996	NA	6,738,476	720,241	4,976,014	636,285	280,635	5,892,934	845,542
	1995	NA	6,612,721	690,772	4,876,327	638,616	283,993	5,798,936	813,785

	1994	NA	6,509,065	693,992	4,809,575	631,324	283,782	5,724,681	784,384
	1993	NA	6,401,233	673,408	4,737,778	631,873	285,184	5,654,835	746,398
	1992	14,325,000	6,319,300	646,065	4,653,464	634,713	283,719	5,571,896	747,404
	1991	NA	6,200,859	NA	4,603,523	593,248	260,595	5,457,366	743,493
	1990	NA	6,175,559	NA	4,602,362	590,496	254,747	5,447,605	727,954
	1989	NA	6,106,922	NA	4,563,257	586,494	252,335	5,402,086	704,836
	1988	NA	6,016,367	NA	4,516,707	581,622	244,697	5,343,026	673,341
Employment	2001	0	115,061,184	0	20,602,635	20,370,447	16,410,367	57,383,449	57,677,735
	2000	0	114,064,976	0	20,587,385	20,276,634	16,260,025	57,124,044	56,940,932
	1999	0	110,705,661	0	20,388,287	19,703,162	15,637,643	55,729,092	54,976,569
	1998	0	108,117,731	0	20,275,405	19,377,614	15,411,390	55,064,409	53,053,322
	1997	0	105,299,123	0	20,118,816	19,109,691	15,316,863	54,545,370	50,753,753
	1996	0	102,187,297	0	19,881,502	18,643,192	14,649,808	53,174,502	49,012,795
	1995	0	100,314,946	0	19,569,861	18,422,228	14,660,421	52,652,510	47,662,436
	1994	0	96,721,594	0	19,195,318	17,693,995	14,118,375	51,007,688	45,713,906
	1993	0	94,773,913	0	19,070,191	17,420,634	13,825,238	50,316,063	44,457,850
	1992	0	92,825,797	0	18,772,644	17,121,010	13,307,187	49,200,841	43,624,956
	1991	0	92,307,559	0	18,712,812	17,146,411	13,143,390	49,002,613	43,304,946
	1990	0	93,469,275	0	18,911,906	17,710,042	13,544,849	50,166,797	43,302,478
	1989	0	91,626,094	0	18,626,776	17,353,444	13,373,640	49,353,860	42,272,234
	1988	0	87,844,303	0	18,319,642	16,833,702	12,761,379	47,914,723	39,929,580

* A firm is an aggregation of all establishments (locations with payroll in any quarter) owned by a parent company, and employment is measured in March (start-ups, closures, and seasonal firms could have zero employment).

(continued, next page)

Table A.5 (continued)

Item	Year	Non-employers	Employer totals	Employment size of firm: 0*	0–19	20–99	100–499	<500	500+
Annual payroll (thousands of dollars)	2001	NA	3,989,086,323	34,289,996	603,848,633	624,313,095	539,384,914	1,767,546,642	2,221,539,681
	2000	NA	3,879,430,052	38,594,167	591,123,880	608,446,434	527,544,627	1,727,114,941	2,152,315,111
	1999	NA	3,554,692,909	34,264,682	561,547,424	564,974,625	474,607,339	1,601,129,388	1,953,563,521
	1998	NA	3,309,405,533	31,634,539	535,184,511	531,231,157	446,353,485	1,512,769,153	1,796,636,380
	1997	NA	3,047,907,469	29,732,398	503,130,254	494,617,183	418,452,574	1,416,200,011	1,631,707,458
	1996	NA	2,848,623,049	27,583,182	481,008,640	465,229,685	384,020,002	1,330,258,327	1,518,364,722
	1995	NA	2,665,921,824	25,787,172	454,009,065	437,065,364	361,060,815	1,252,135,244	1,413,786,580
	1994	NA	2,487,959,727	24,081,138	432,791,911	408,053,078	335,573,696	1,176,418,685	1,311,541,042
	1993	NA	2,363,208,106	22,361,727	415,254,636	385,005,072	316,183,732	1,116,443,440	1,246,764,666
	1992	NA	2,272,392,408	21,432,778	399,804,694	368,969,129	298,174,483	1,066,948,306	1,205,444,102
	1991	NA	2,145,015,851	NA	381,544,608	352,032,797	279,436,898	1,013,014,303	1,132,001,548
	1990	NA	2,103,971,179	NA	375,313,660	352,390,861	279,451,864	1,007,156,385	1,096,814,794
	1989	NA	1,989,941,554	NA	357,259,587	332,733,188	264,144,335	954,137,110	1,035,804,444
	1988	NA	1,858,652,147	NA	342,168,460	315,751,201	244,647,178	902,566,839	956,085,308
Receipts (thousands of dollars)	1997	586,315,756	18,242,632,687	190,570,902	2,786,839,570	2,519,756,576	2,161,615,554	7,468,211,700	10,774,420,987

* A firm is an aggregation of all establishments (locations with payroll in any quarter) owned by a parent company, and employment is measured in March (start-ups, closures, and seasonal firms could have zero employment).

NA = Not available.

Notes: This table does not show job growth, as firms can annually change size classes. See www.sba.gov/advo/stats/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. Business and Nonemployer Statistics.

Table A.6 Employer Firms and Employment by Firm Size and State, 2001

	Firms				Employment			
		Employment size of firm				Employment size of firm		
State	Total	0–19	<500	500+	Total	0–19	<500	500+
United States	**5,657,774**	**5,036,845**	**5,640,407**	**17,367**	**115,061,184**	**20,602,635**	**57,383,449**	**57,677,735**
Alabama	78,797	67,319	76,554	2,243	1,620,952	292,352	794,201	826,751
Alaska	15,956	14,071	15,455	501	214,297	52,730	127,680	86,617
Arizona	93,947	79,970	91,188	2,759	1,941,599	325,437	930,077	1,011,522
Arkansas	51,600	44,688	50,068	1,532	995,521	185,683	476,874	518,647
California	668,068	582,808	662,327	5,741	13,239,616	2,392,301	6,994,468	6,245,148
Colorado	117,449	102,556	114,572	2,877	1,986,570	387,557	1,009,068	977,502
Connecticut	77,855	66,508	75,754	2,101	1,555,214	279,023	779,713	775,501
Delaware	20,305	16,754	19,045	1,260	389,376	64,149	170,340	219,036
District of Columbia	16,250	12,274	15,148	1,102	422,549	53,417	204,091	218,458
Florida	358,413	323,691	354,193	4,220	6,431,696	1,169,508	2,867,902	3,563,794
Georgia	161,508	139,192	157,537	3,971	3,498,583	551,219	1,527,952	1,970,631
Hawaii	24,619	20,889	23,817	802	441,856	88,951	254,333	187,523
Idaho	32,364	28,155	31,362	1,002	467,316	112,210	263,344	203,972
Illinois	252,908	217,078	248,476	4,432	5,447,349	890,262	2,653,856	2,793,493
Indiana	115,326	97,516	112,429	2,897	2,601,738	433,295	1,271,943	1,329,795

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Table A.6 (continued)

	Firms				Employment			
		Employment size of firm				Employment size of firm		
State	**Total**	**0–19**	**<500**	**500+**	**Total**	**0–19**	**<500**	**500+**
Iowa	64,884	55,714	63,251	1,633	1,255,162	232,352	657,115	598,047
Kansas	61,039	51,915	59,116	1,923	1,118,898	212,451	595,881	523,017
Kentucky	71,846	60,703	69,651	2,195	1,497,466	265,613	752,825	744,641
Louisiana	81,295	69,173	79,213	2,082	1,599,482	303,176	851,436	748,046
Maine	34,193	30,159	33,312	881	500,030	116,572	295,372	204,658
Maryland	106,687	91,025	104,073	2,614	2,091,198	379,507	1,095,277	995,921
Massachusetts	149,029	128,399	146,038	2,991	3,129,980	520,371	1,552,309	1,577,671
Michigan	192,712	166,559	189,624	3,088	4,008,572	717,845	2,036,446	1,972,126
Minnesota	117,023	100,200	114,536	2,487	2,418,159	407,594	1,225,737	1,192,422
Mississippi	47,556	40,690	45,973	1,583	926,868	171,676	450,821	476,047
Missouri	116,814	99,914	114,018	2,796	2,404,489	415,970	1,189,345	1,215,144
Montana	28,363	25,314	27,723	640	301,460	95,978	210,531	90,929
Nebraska	41,347	35,510	40,028	1,319	746,168	145,111	382,742	363,426
Nevada	40,744	33,793	38,951	1,793	916,981	134,711	399,125	517,856
New Hampshire	31,931	27,101	30,826	1,105	556,877	114,034	305,830	251,047
New Jersey	202,240	178,076	198,983	3,257	3,622,788	686,363	1,822,062	1,800,726
New Mexico	35,333	30,042	33,940	1,393	553,357	124,185	320,443	232,914
New York	426,489	380,776	422,230	4,259	7,428,349	1,424,732	3,837,631	3,590,718

North Carolina	163,553	141,652	160,222	3,331	3,431,554	594,184	1,601,227	1,830,327
North Dakota	17,141	14,628	16,563	578	257,335	60,555	166,322	91,013
Ohio	211,163	179,605	207,366	3,797	4,932,943	803,642	2,398,684	2,534,259
Oklahoma	70,023	60,695	68,183	1,840	1,212,230	245,307	648,089	564,141
Oregon	85,029	74,025	82,981	2,048	1,364,924	297,116	759,233	605,691
Pennsylvania	236,843	204,040	232,914	3,929	5,123,111	879,064	2,534,387	2,588,724
Rhode Island	25,221	21,478	24,310	911	414,638	86,166	241,851	172,787
South Carolina	77,996	66,900	75,789	2,207	1,596,385	284,144	745,967	850,418
South Dakota	20,743	17,852	20,077	666	310,035	72,146	187,220	122,815
Tennessee	100,867	85,259	97,888	2,979	2,378,510	366,698	1,050,692	1,327,818
Texas	369,330	321,041	364,263	5,067	8,161,321	1,348,422	3,770,740	4,390,581
Utah	47,679	40,725	45,977	1,702	914,829	161,977	436,596	478,233
Vermont	18,948	16,489	18,333	615	260,227	67,311	164,876	95,351
Virginia	140,462	120,838	137,312	3,150	2,943,854	502,932	1,404,129	1,539,725
Washington	137,713	120,403	135,071	2,642	2,294,285	479,524	1,252,478	1,041,807
West Virginia	32,917	28,213	31,786	1,131	555,613	119,766	300,072	255,541
Wisconsin	115,520	98,269	113,132	2,388	2,400,575	432,096	1,292,011	1,108,564
Wyoming	16,254	14,200	15,702	552	178,299	55,250	122,105	56,194

Notes: 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 (start-ups after March, closures before March, and seasonal firms could have zero employment). See www.sba.gov/advo/stats/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Department of Commerce, Bureau of the Census.

Table A.7 Employer Firms and Employment by Firm Size and Industry, 2001

Industry		Total	0–19	20–99	100–499	0–499	500+
Total	**Firms**	**5,657,774**	**5,036,845**	**518,258**	**85,304**	**5,640,407**	**17,367**
	Employment	**115,061,184**	**20,602,635**	**20,370,447**	**16,410,367**	**57,383,449**	**57,677,735**
Agriculture, forestry, fishing, and hunting	Firms	25,802	24,171	1,325	219	25,715	87
	Employment	183,476	86,736	47,780	29,348	163,864	19,612
Mining	Firms	19,340	16,334	2,204	477	19,015	325
	Employment	485,565	66,864	81,720	65,955	214,539	271,026
Utilities	Firms	7,283	5,893	904	272	7,069	214
	Employment	654,484	23,015	39,840	43,115	105,970	548,514
Construction	Firms	691,110	630,479	53,223	6,379	690,081	1,029
	Employment	6,491,994	2,445,277	2,007,060	1,074,961	5,527,298	964,696
Manufacturing	Firms	305,160	222,184	62,851	15,592	300,627	4,533
	Employment	15,950,424	1,255,654	2,601,404	2,780,908	6,637,966	9,312,458
Wholesale trade	Firms	346,027	293,814	40,906	8,052	342,772	3,255
	Employment	6,142,089	1,331,887	1,496,448	1,036,659	3,864,994	2,277,095
Retail trade	Firms	735,135	662,922	60,957	8,839	732,718	2,417
	Employment	14,890,289	2,913,484	2,264,439	1,284,481	6,462,404	8,427,885
Transportation and warehousing	Firms	157,197	138,209	15,038	2,836	156,083	1,114
	Employment	3,750,663	518,790	577,811	461,137	1,557,738	2,192,925
Information	Firms	77,459	65,154	9,038	2,134	76,326	1,133
	Employment	3,754,698	270,180	357,581	367,236	994,997	2,759,701
Finance and insurance	Firms	230,595	210,135	15,197	3,654	228,986	1,609
	Employment	6,248,400	701,387	609,248	630,378	1,941,013	4,307,387

Real estate and rental and leasing	Firms	247,582	233,053	10,927	2,385	246,365	1,217
	Employment	2,013,673	694,852	388,140	297,915	1,380,907	632,766
Professional, scientific, and technical services	Firms	682,278	635,250	38,425	6,178	679,853	2,425
	Employment	7,156,579	2,110,446	1,444,537	1,034,036	4,589,019	2,567,560
Management of companies and enterprises	Firms	26,794	7,187	5,258	7,651	20,096	6,698
	Employment	2,879,223	18,954	69,003	237,516	325,473	2,553,750
Administrative and support and waste management and remediation services	Firms	308,502	269,867	27,643	7,819	305,329	3,173
	Employment	9,061,987	1,011,065	1,103,237	1,411,383	3,525,685	5,536,302
Educational services	Firms	63,690	47,844	11,887	2,970	62,701	989
	Employment	2,612,430	217,714	499,234	520,133	1,237,081	1,375,349
Health care and social assistance	Firms	540,976	473,020	50,717	13,700	537,437	3,539
	Employment	14,534,726	2,279,569	2,010,298	2,615,958	6,905,825	7,628,901
Arts, entertainment, and recreation	Firms	99,124	84,047	12,204	2,294	98,545	579
	Employment	1,780,362	314,007	493,641	385,430	1,193,078	587,284
Accommodation and food services	Firms	416,464	332,965	73,725	8,102	414,792	1,672
	Employment	9,972,301	1,762,077	2,795,087	1,442,031	5,999,195	3,973,106
Other services (except public administration)	Firms	658,412	611,924	40,788	4,439	657,151	1,261
	Employment	5,370,479	2,483,350	1,463,977	646,300	4,593,627	776,852
Auxiliaries, except corporate, subsidiary, and regional managing offices	Firms	5,401	326	990	1,702	3,018	2,383
	Employment	1,022,114	940	11,121	45,487	57,548	964,566
Unclassified	Firms	78,644	78,315	329	0	78,644	0
	Employment	105,228	96,387	8,841	0	105,228	0

Notes: Employment is measured in March, thus some firms (start-ups after March, closures before March, and seasonal firms) will have zero employment. Firms are an aggregation of all establishments owned by a parent company within an industry. See www.sba.gov/advo/stats/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, based on data provided by the U.S. Department of Commerce, Bureau of the Census.

Table A.8 Nonemployer Firms and Receipts by State, 1997–2001

	Nonemployers					Receipts (millions of dollars)				
State	**1997**	**1998**	**1999**	**2000**	**2001**	**1997**	**1998**	**1999**	**2000**	**2001**
United States	**15,439,609**	**15,708,727**	**16,152,604**	**16,529,955**	**16,979,498**	**586,316**	**643,721**	**667,220**	**709,379**	**729,922**
Alabama	208,305	213,556	219,932	223,103	229,687	7,599	8,317	8,517	8,827	9,180
Alaska	48,964	47,900	48,441	47,691	46,643	1,610	1,605	1,828	1,721	1,722
Arizona	240,925	248,462	260,743	268,969	276,858	8,677	10,152	10,944	11,931	12,071
Arkansas	143,236	147,162	151,948	152,871	156,711	4,887	5,299	5,664	5,738	5,851
California	1,936,556	1,971,388	2,050,809	2,103,178	2,149,145	85,758	93,825	98,923	106,592	107,605
Colorado	303,196	311,855	325,432	333,364	341,380	10,928	12,452	13,319	14,278	14,841
Connecticut	206,352	210,682	211,724	217,323	220,751	9,438	10,503	10,574	11,563	11,816
Delaware	37,783	39,244	39,181	41,082	42,303	1,484	1,720	1,734	1,854	1,963
District of Columbia	30,468	30,810	31,486	32,941	33,929	1,249	1,413	1,380	1,503	1,609
Florida	961,637	987,458	1,031,053	1,074,020	1,119,416	37,307	42,657	44,572	48,137	50,308
Georgia	419,856	435,338	452,567	468,430	492,725	17,187	19,041	20,297	21,143	22,046
Hawaii	70,203	71,039	72,610	73,810	74,969	2,350	2,560	2,664	2,836	2,902
Idaho	79,240	80,506	83,083	84,378	85,480	2,665	2,811	3,006	3,103	3,205
Illinois	637,794	640,441	665,553	668,171	692,871	23,008	25,085	25,926	26,162	27,692
Indiana	302,082	304,764	312,840	319,415	323,178	9,570	10,448	10,728	11,426	11,590
Iowa	164,267	165,933	169,753	171,483	173,658	4,605	5,043	5,199	5,464	5,606
Kansas	154,619	152,816	155,052	156,897	159,244	4,769	5,086	5,197	5,467	5,725

Kentucky	212,238	217,806	222,304	226,193	230,083	6,866	7,509	7,773	8,124	8,485
Louisiana	216,095	219,073	228,628	234,114	241,640	7,670	8,407	8,687	9,267	9,390
Maine	95,557	97,068	96,884	98,499	99,709	3,025	3,250	3,296	3,602	3,667
Maryland	298,912	303,243	307,535	322,819	331,177	10,731	11,796	11,470	12,829	13,189
Massachusetts	399,906	402,837	404,333	410,481	412,941	16,635	18,183	18,386	19,811	20,052
Michigan	490,096	497,944	506,038	526,958	535,202	17,566	19,610	19,691	20,910	21,328
Minnesota	304,038	307,038	313,444	317,874	324,967	10,115	11,179	11,648	12,163	12,475
Mississippi	121,668	125,634	130,932	134,853	139,078	4,426	4,909	5,074	5,365	5,457
Missouri	297,332	302,681	310,678	311,786	319,456	9,427	10,270	10,729	11,201	11,662
Montana	67,187	68,038	69,327	70,243	71,298	2,026	2,187	2,290	2,352	2,446
Nebraska	99,298	100,146	102,137	103,272	105,475	2,934	3,196	3,233	3,406	3,565
Nevada	93,777	99,353	106,416	113,744	119,228	4,326	4,874	5,179	5,900	6,083
New Hampshire	84,981	86,035	86,589	88,899	90,333	3,344	3,743	3,894	4,153	4,361
New Jersey	457,920	465,587	471,485	482,699	495,109	21,185	22,971	23,407	25,100	25,635
New Mexico	96,964	97,101	99,319	81,398	100,502	2,897	3,142	3,217	2,433	3,446
New York	1,101,776	1,137,871	1,168,595	1,202,943	1,258,822	46,492	50,302	51,298	53,764	55,922
North Carolina	419,458	430,891	445,159	462,182	474,905	14,618	16,202	16,899	18,255	18,640
North Dakota	38,642	38,543	38,921	39,624	40,615	1,122	1,179	1,226	1,285	1,348
Ohio	575,489	579,907	591,150	602,921	608,520	19,939	21,690	21,930	23,132	23,352
Oklahoma	213,146	214,323	217,991	219,026	221,777	7,151	7,474	7,842	8,293	8,808

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Table A.8 (continued)

	Nonemployers					Receipts (millions of dollars)				
State	**1997**	**1998**	**1999**	**2000**	**2001**	**1997**	**1998**	**1999**	**2000**	**2001**
Oregon	209,846	209,844	212,334	212,165	213,523	7,491	8,058	8,486	8,436	8,663
Pennsylvania	612,630	613,272	614,594	632,469	639,679	23,565	25,063	24,651	27,029	27,212
Rhode Island	56,281	57,336	57,664	59,406	60,516	2,057	2,265	2,265	2,496	2,584
South Carolina	188,081	193,626	200,265	206,770	212,413	6,835	7,601	7,968	8,558	8,696
South Dakota	46,311	46,288	47,469	48,177	49,016	1,327	1,420	1,457	1,556	1,624
Tennessee	316,604	325,676	335,266	339,361	349,957	11,911	13,090	13,599	14,098	14,582
Texas	1,170,566	1,188,028	1,236,927	1,271,401	1,319,388	46,724	51,130	54,434	58,278	60,538
Utah	126,190	129,525	134,513	135,794	138,928	4,601	5,271	5,645	5,652	5,816
Vermont	49,032	49,835	49,696	51,220	52,136	1,502	1,659	1,649	1,828	1,857
Virginia	349,652	355,519	360,974	373,384	384,276	11,749	13,010	13,129	14,393	15,163
Washington	315,367	315,472	321,766	326,397	326,821	11,405	12,374	13,098	13,979	13,736
West Virginia	79,608	80,771	81,212	81,838	82,791	2,112	2,245	2,262	2,376	2,464
Wisconsin	255,299	258,776	264,657	268,268	273,758	8,478	9,392	9,834	10,417	10,693
Wyoming	34,179	34,286	35,195	35,651	36,511	974	1,053	1,104	1,194	1,256

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Census Bureau, Nonemployer Statistics.

Table A.9 Employer Firm Births and Deaths and Net Employment Change by Employment Size of Firm, 1989–2001

		Firms				Employment			
			Beginning year employment size of firm				Beginning year employment size of firm		
Period	Industry	Total	<20	<500	500+	Total	<20	<500	500+
2000–2001	Firm births	585,140	558,037	584,837	303	3,418,369	1,821,298	3,108,501	309,868
	Firm deaths	553,291	523,960	552,839	452	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	31,849	34,077	31,998	-149	999,970	1,111,183	1,150,875	-150,905
1999–2000	Firm births	574,300	548,030	574,023	277	3,228,804	1,792,946	3,031,079	197,725
	Firm deaths	542,831	514,242	542,374	457	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	31,469	33,788	31,649	-180	3,359,419	1,593,466	2,505,712	853,707
1998–1999	Firm births	579,609	554,288	579,287	322	3,247,335	1,763,823	3,011,400	235,935
	Firm deaths	544,487	514,293	544,040	447	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	35,122	39,995	35,247	-125	2,587,738	1,363,258	1,743,027	844,711
1997–1998	Firm births	589,982	564,804	589,706	276	3,205,451	1,812,103	3,002,401	203,050
	Firm deaths	540,601	511,567	540,112	489	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	49,381	53,237	49,594	-213	2,813,177	1,386,293	1,734,576	1,078,601

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Table A.9 (continued)

		Firms				Employment			
			Beginning year employment size of firm				Beginning year employment size of firm		
Period	Industry	Total	<20	<500	500+	Total	<20	<500	500+
1996–1997	Firm births	590,644	564,197	590,335	309	3,227,556	1,813,539	3,029,666	197,890
	Firm deaths	530,003	500,014	529,481	522	3,274,604	1,620,797	2,960,814	313,790
	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	60,641	64,183	60,854	-213	3,104,283	1,557,696	2,354,202	750,081
1995–1996	Firm births	597,792	572,442	597,503	289	3,255,676	1,844,516	3,055,596	200,080
	Firm deaths	512,402	485,509	512,024	378	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	85,390	86,933	85,479	-89	1,867,245	1,435,453	1,459,512	407,733
1994–1995	Firm births	594,369	568,896	594,119	250	3,322,001	1,836,153	3,049,456	272,545
	Firm deaths	497,246	472,441	496,874	372	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	97,123	96,455	97,245	-122	3,591,567	1,677,783	2,613,305	978,262
1993–1994	Firm births	570,587	546,437	570,337	250	3,105,753	1,760,322	2,889,507	216,246
	Firm deaths	503,563	476,667	503,125	438	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	67,024	69,770	67,212	-188	1,944,460	1,311,540	1,593,350	351,110

1992–1993	Firm births	564,504	539,601	564,093	411	3,438,106	1,750,662	3,053,765	384,341
	Firm deaths	492,651	466,550	492,266	385	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	71,853	73,051	71,827	26	1,948,253	1,475,828	1,787,236	161,017
1991–1992	Firm births	544,596	519,014	544,278	318	3,200,969	1,703,491	2,863,799	337,170
	Firm deaths	521,606	492,746	521,176	430	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	22,990	26,268	23,102	-112	523,111	1,142,469	844,698	-321,587
1990–1991	Firm births	541,141	515,870	540,889	252	3,105,363	1,712,856	2,907,351	198,012
	Firm deaths	546,518	516,964	546,149	369	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	-5,377	-1,094	-5,260	-117	-1,161,716	550,925	-707,518	-454,198
1989–1990	Firm births	584,892	558,478	584,660	232	3,211,064	1,886,311	3,090,643	120,421
	Firm deaths	531,400	502,685	530,991	409	3,198,829	1,683,174	2,988,436	210,393
	Existing firm expansions	-	-	-	-	12,084,225	3,266,584	6,854,850	5,229,375
	Existing firm contractions	-	-	-	-	10,253,279	1,953,484	5,554,339	4,698,940
	Net change	53,492	55,793	53,669	-177	1,843,181	1,516,237	1,402,718	440,463

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 were not calculated when changes included negative numbers. New firms represent new original establishments and deaths represent closed original establishments. See www.sba.gov/advo/stats/data.html for more detail.

Source: U.S. Small Business Administration, Office of Advocacy, from data provided by the U.S. Department of Commerce, Bureau of the Census.

Table A.10. Characteristics of Self-Employed Individuals, 1995–2002 (thousands unless noted)

	1995		2000		2001		2002		
Characteristic	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Rate**
Total	**13,921.9**	**100.0**	**13,832.4**	**100.0**	**13,722.4**	**100.0**	**14,697.8**	**100.0**	**9.7**
Sex									
Female	4,614.7	33.1	4,819.6	34.8	4,711.3	34.3	4,927.8	33.5	6.9
Male	9,307.2	66.9	9,012.8	65.2	9,011.0	65.7	9,770.0	66.5	12.1
Race									
Asian/American Indian	547.5	3.9	759.8	5.5	745.0	5.4	728.2	5.0	9.4
Black	612.1	4.4	679.3	4.9	711.5	5.2	753.7	5.1	4.5
White	12,762.4	91.7	12,393.3	89.6	12,265.9	89.4	13,072.2	88.9	10.4
Multiple	NA		NA		NA		143.7	1.0	7.7
Origin or Descent									
Hispanic	698.9	5.0	775.6	5.6	942.1	6.9	1,081.9	7.4	5.8
Age									
<25	501.0	3.6	375.8	2.7	382.4	2.8	493.4	3.4	2.1
25–34	2,181.8	15.7	1,824.3	13.2	1,921.1	14.0	1,929.4	13.1	5.8
35–44	4,132.6	29.7	3,941.1	28.5	3,702.1	27.0	3,925.8	26.7	10.5
45–54	3,576.0	25.7	3,995.0	28.9	3,981.3	29.0	4,160.8	28.3	12.4
55–64	2,214.3	15.9	2,274.6	16.4	2,523.5	18.4	2,928.3	19.9	16.0
65+	1,316.2	9.5	1,421.6	10.3	1,212.0	8.8	1,260.1	8.6	22.2

Educational Level									
High school or less	6,055.0	43.5	5,485.1	39.7	5,408.7	39.4	5,865.1	39.9	8.9
Some college	3,575.2	25.7	3,822.5	27.6	3,553.1	25.9	3,886.9	26.4	8.9
Bachelor's degree	2,643.4	19.0	2,838.9	20.5	2,962.4	21.6	3,017.9	20.5	10.7
Master's degree or above	1,648.3	11.8	1,685.9	12.2	1,798.1	13.1	1,927.8	13.1	13.7
Veteran Status	2,492.5	17.9	2,029.3	14.7	1,890.0	13.8	1,902.7	12.9	13.0
Disability	628.6	4.5	592.5	4.3	530.1	3.9	558.5	3.8	12.6
Born in the United States	12,411.0	89.1	12,078.8	87.3	11,838.0	86.3	12,669.2	86.2	9.8
Location									
Central city	2,650.1	19.0	2,506.2	18.1	2,600.7	19.0	2,774.1	18.9	8.0
Suburban	5,988.6	43.0	6,095.6	44.1	6,081.0	44.3	6,484.3	44.1	9.8
Rural	3,382.9	24.3	3,321.5	24.0	3,106.1	22.6	3,253.4	22.1	12.3
Not identified	1,900.3	13.7	1,909.1	13.8	1,934.5	14.1	2,186.0	14.9	10.4

Notes: Represents individuals whose primary occupation was self-employment (incorporated and unincorporated) during the year. Asian/American Indian=Asian, Pacific, 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 percent with any self-employment earnings out of the total 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 Current Population Surveys.

APPENDIX B
Lessons from the Economic Research Focus Groups

Synopsis

The Office of Advocacy is charged with researching the importance of small businesses in the U.S. economy. In addition, economic research is conducted on public policy issues relevant to small firms. As part of this process, Advocacy releases a number of reports and data tabulations each year and responds to inquiries from a variety of constituents—academics, policymakers, the media, and entrepreneurs. Each product provides background to help the public decipher the current state of small business.

It is crucial for any entity to evaluate its effectiveness from time to time, and feedback from peers can be helpful. With this in mind, the Office of Advocacy conducted 10 focus groups, one in each of the SBA regions, to discuss small business research and data products. Such assessments will allow Advocacy to gauge the success of its work to date and where necessary redirect its efforts to areas that may be more useful for the academic community.

It is important to encourage academics to focus on small businesses in both research and the classroom. Such efforts both extend the work of Advocacy and of other sources, such as the Kauffman Foundation, and promote a new generation of entrepreneurs and small business researchers.

Outlined here are the lessons learned from the focus groups and changes within the Office of Advocacy that have resulted from them.

Encouraging More Small Business Research and Classroom Discussion

Those who are familiar with the Office of Advocacy tend to refer to Advocacy materials in the classroom, or in speeches and research. One of the most often referenced Office of Advocacy publications is Frequently Asked Questions

(FAQ). Participants in the first focus group in Chicago said it was an excellent resource that "should be in the hands of every student in the country." But a number of the participants had not heard of Advocacy or its research before the focus groups.

A recent Students in Free Enterprise (SIFE) survey found that two-thirds of college students intend to be entrepreneurs at some point in their future, and Census data show that about half of all private sector workers are employed by a small business. This lends credence to discussing small businesses in the curriculum. Moreover, entrepreneurs are certainly not all business or economics majors; hence, students in disciplines across the academic spectrum might benefit from entrepreneurial education, especially those in high technology or health fields.

College students are often exposed to examples of large businesses in their programs and textbooks. It is often assumed that MBAs will graduate to work for a large firm, which may or may not be the case. Participants in the Phoenix focus group noted that many entrepreneurs started their careers in a big firm, but later used their experiences to start their own companies. For those who do start their own ventures, some are unaware of the differences between running a small business and managing a large firm, based on their educational training. A small business development center participant in Nashville said that many of her clients are embarrassed to admit that although they have business degrees, their small business is struggling.

Engaging students with small business examples is becoming a larger priority, though, in many business programs. Professors supplement the textbooks with small business cases, although focus group participants suggested that Advocacy work with textbook authors to ensure greater small business coverage and accuracy in statistics. A Denver focus group attendee suggested that the role of business schools is to provide the value-added elements that will make a business more successful, and that it should not delve into providing how-to skills in starting a business. That said, several universities have students work on consulting projects for existing—usually small—businesses that provide very practical experiences for both parties.

One of the best ways to promote small business research is to involve more faculty and students in it and to make more academics aware of contracting opportunities. Encouraging more graduate students to bid on small business research opportunities issues can be very helpful, as they often will not pursue such research without funding. There are challenges, though, in encouraging more faculty and students to bid on these solicitations. “There is a perception that Advocacy only gives money to small businesses,” one participant at the Nashville focus group said, “and faculty members and students do not always realize how they might bid as a consultant.” Another challenge is that the tenure process places different values on consulting work through small business set-asides versus research conducted using federal grants (for example, at the National Science Foundation). Some universities, though, are starting to recognize the value of consulting.

Encouraging others to research small business issues can also involve recognition, not just dollars. For instance, “best paper” awards, such as those offered by the Office of Advocacy from time to time, not only provide important recognition for quality work, but could also motivate others. Some of the focus group participants suggested creating a visiting scholar or fellowship program.

Another avenue for developing Advocacy small business resources is sponsorship of or participation in conferences. These events allow the greater academic community to become more acquainted with the Office of Advocacy, its economists, and its products. In fact, a number of Advocacy economists have become quite respected through their participation at such events. Many professors and student organizations are eager to have guest speakers, and Advocacy’s involvement is an excellent opportunity for discussing the importance of small businesses and small business research.

Overcoming the Lack of Small Business Data

Quality statistics are vital. Would-be entrepreneurs need specialized information for their business plans. Policymakers need to understand the importance of small business in the economy and to be informed about issues of relevance. Moreover, access to data drives research for academics and other researchers.

The need for more access to small business data is an issue that permeated each of the focus group conversations. Many researchers are reluctant to pursue small business research because of data constraints. For example, a Washington, D.C., participant suggested that a lack of understanding of the definitional changes over the past decade or two "undermines the confidence in the data and in potential research in this area." More needs to be done to improve the understanding of historical databases.

To conduct research, academics need access to microdata. Privacy concerns continue to keep disaggregated data out of reach. Participants in the focus groups said they had attempted to use the Longitudinal Establishment and Enterprise Microdata (LEEM, also known as the Business Information Tracking Series or BITS) and described the approval process as "daunting." Research is often thwarted or held up because of limited access.

The Kauffman Foundation has funded an expert panel with the National Academy of Sciences (NAS) to make recommendations on how researchers might be able to make better use of federal data sources, according to Robert Litan, the Kauffman Foundation's vice president for research and policy, who spoke at the Kansas City focus group. This panel will convene for two years and has sought the cooperation of a number of federal agencies. One option might be to allow for "cleansed" data to be made available to researchers that would avoid the privacy concerns currently at issue in data sources such as LEEM. Dallas focus group members believed that with greater access to data sources, more academics would be enticed to conduct small business research.

Another challenge is the lack of data on nonemployer businesses. More than 70 percent of all businesses in the United States have no employees other than the owner(s). Almost all of the research on small firms is on employer businesses, and little is known about nonemployers. However, work is being conducted at the U.S. Census Bureau so that research on nonemployers can be conducted in the near future.

The lag in small business data is another hindrance. Academic researchers know that the past can be used to help understand the present or future and are comfortable using statistics that are two or three years old. Students and other parties—such as those attempting to start a business, policymakers, and the media—are more interested in up-to-date information. Attempting to ascertain the current national or local state of small business is more difficult when the data are two or three years old.

Making the Focus Group Suggestions a Reality

The various focus group participants gave many suggestions for the Office of Advocacy. The office has already acted on a few of them, and intends to adjust its strategies moving forward on others.

1. **Participating in and Sponsoring Conferences.** One of the best methods of increasing Advocacy's exposure to the academic community is through participation in and sponsorship of conferences. Advocacy co-sponsored a forward-looking conference titled Entrepreneurship in the 21st Century with the Ewing Marion Kauffman Foundation in March 2004,[1] and provided funds for another conference, Creating Enterprise: Government-University Partnerships to Enhance Economic Development Through Entrepreneurship, in April 2004. In addition, Advocacy has organized sessions at the American Economic Association, Academy of Entrepreneurial Finance, Eastern Economic Association, and United States Association for Small Business and Entrepreneurship meetings in the past year. More participation is planned.

2. **Tailoring Advocacy Publications for Different Audiences.** The Office of Advocacy makes its research available to constituencies with a variety of concerns, including academics, policymakers, small business owners, and the media. Some products are geared exclusively for one audience or another; others are more broadly targeted. It was suggested that Advocacy tailor some of its products for different audiences. Specifically, the Frequently Asked Questions (FAQ) publication, while valuable overall, might have limited interest for some students; a version prepared specifically with information relevant to academics might be more helpful. As a result, Advocacy released *Small*

1 See the conference on video at http://www.sba.gov/advo/video/advo_video.html and the conference proceedings at http://www.sba.gov/advo/stats/proceedings_a.pdf and http://www.sba.gov/advo/stats/proceedings_b.pdf.

Business Resources for Faculty, Students, and Researchers: Answers to Frequently Asked Questions in March 2004.[2] The feedback on this new resource has been positive to date.

3. **Revamping *The State of Small Business*.** Between 1982 and 2000, the Office of Advocacy prepared *The State of Small Business: A Report of the President* for release by the White House. Starting with the 2001 edition, the Office of Advocacy began preparing *The Small Business Economy: A Report to the President*, a successor publication written, edited, and released by Advocacy. The advantage is simple: this new publication should be more relevant and timely than its predecessor had become. One of the focus groups suggested that Advocacy re-tool this publication, which has been widely mimicked to great success overseas and in some states. Advocacy will seek to be more creative with this annual document, *The Small Business Economy: A Report to the President*, and bring in outside voices from time to time, so that it will better incorporate the current state of small business knowledge.

4. **Broadening Advocacy Outreach into Academia.** Advocacy has actively engaged faculty and some textbook authors about its resources and is promoting a dialogue to widen its overall outreach. In fact, many of the focus group participants have invited the Office of Advocacy's regional advocates to be guest lecturers in their classrooms as a result of the contact made at the focus group meetings. Other suggestions are also being considered, such as contacting library organizations, meeting with student organizations, and supporting the creation of a web portal for small business research.[3]

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2 The "Academic FAQ" is available at http://www.sba.gov/advo/stats/arsbfaq.pdf.

3 The Kauffman Foundation has already committed to developing such a portal and is already publishing a weekly e-mail entitled National Dialogue on Entrepreneurship for small business research and relevant issues.

5. **Understanding Historical Changes to Small Business Databases.** Few current researchers are aware of the databases that have been used to measure small businesses' impacts over the past decades, and some changes in them may limit time series analysis. Advocacy is currently drafting a paper that will discuss the various datasets and explain how potential researchers might use them for analysis.

6. **Improving Data Sources.** Advocacy will join the Kauffman Foundation in a panel study of experts at the National Academy of Science (NAS) looking at federal business data sources. Advocacy will contribute both feedback and a small amount of financial support to the study. The Office of Advocacy is very interested in any endeavor that will widen access to data for researchers.

7. **Suggested Research Topics.** A number of possible avenues for research were discussed. Many of these suggestions were considered in the formulation of Advocacy's latest competitive solicitations.

Conclusion

The academic community has provided a number of valuable lessons for the Office of Advocacy's research, data products, and outreach. Entrepreneurs provide a vital source of economic growth to the nation, yet there has not been enough research or discussion of small business issues in professional journals or the classroom, especially outside of business disciplines. Therefore, it is important for the office to encourage discussions of small business topics in the academic community through conferences, competitive research contracts, "best paper" awards, guest lectures, and circulation of Advocacy and other small business research in the classroom. The office has already begun to revamp some of its publications—with more to come—with an eye toward keeping them fresh and relevant and targeting the various audiences who might read them.

One challenge in promoting small business economic studies is the lack of data. Advocacy has been encouraged to document the data sources that are available and to work toward wider access to new data sources for academic researchers.

In conclusion, the Office of Advocacy learned a great deal from the many participants in the focus groups and is grateful for their time and comments. As important as the knowledge gained from these sessions are the networking opportunities each provided. Since the focus groups convened, many have continued dialogue with the office, and several regional advocates have guest lectured in courses. It is hoped that the positive efforts of the focus groups will continue to bear fruit.

Economic Research Focus Group Participants

SBA Region V—Chicago, Illinois (May 16, 2003)

DePaul University

Gerald Hills, Professor, Institute for Entrepreneurial Studies, University of Illinois at Chicago

Jianwen Liao, Assistant Professor, Northeastern Illinois University

Per Strömberg, Associate Professor, Graduate School of Business, University of Chicago

William Testa, Senior Economist and Vice President, Federal Reserve Bank of Chicago

Harold Welsch, Professor, DePaul University

SBA Region III—Washington, DC (May 30, 2003)

U.S. Small Business Administration, Office of Advocacy

Zoltan Acs, Professor, University of Baltimore[4]

Catherine Armington, Consultant

Douglas Holtz-Eakin, Director, Congressional Budget Office

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4 The comments of Zoltan Acs are included here from a phone conversation after the meeting. He was unable to attend.

Scott Shane, Professor/Area Chair, University of Maryland

Roger Stough, Director, Mason Enterprise Center, George Mason University

Jiawen Yang, Associate Professor, George Washington University

SBA Region II—New York, New York (June 27, 2003)

U.S. Small Business Administration, Regional Office

Thomas Bryant, Professor, Rutgers, The State University of New Jersey-Newark

Bruce Kirchoff, Distinguished Professor, New Jersey Institute of Technology

E.J. McMahon, Senior Fellow, Center for Civic Innovation, Manhattan Institute

Edward Rogoff, Director, Lawrence Field Center for Entrepreneurship and Small Business, Baruch College

Alan Steinberg, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Lawrence White, Professor, New York University

SBA Region VII—Kansas City, Missouri (August 27, 2003)

Ewing Marion Kauffman Foundation

Wendell Bailey, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Rob Chernow, Senior Vice President for Entrepreneurship, Ewing Marion Kauffman Foundation

Mark Drabenstott, Vice President and Director, Center for the Study of Rural America, Federal Reserve Bank of Kansas City

O. Homer Erekson, Dean, Henry W. Bloch School of Business and Public Administration, University of Missouri at Kansas City

David Frankland, CEO and President, KC Catalyst

John Green, Jr., President, International Assembly for Collegiate Business Education

Kate Pope Hodel, Director, Ewing Marion Kauffman Foundation

Robert Litan, Vice President for Research and Policy, Ewing Marion Kauffman Foundation

Mike Nichols, MoFast Director, Missouri Small Business Development Centers

Susan Oswalt, Director, Western Missouri Women's Business Center

Mary Paulsell, Associate Director, Missouri Small Business Development Centers

James Puetz, Professor, Rockhurst University

E.J. Reedy, Research Assistant, Ewing Marion Kauffman Foundation

Gwendolyn Richtermeyer, Director, Business Research and Information Group, University of Missouri at Kansas City

Dawn Peters, Students in Free Enterprise

Genaro R. Ruiz, Manager, Business and Economic Development, Hispanic Economic Development Corporation

Lonnie Scott, President, Minority Supplier Council of Kansas City

Robert Stromm, Director, Ewing Marion Kauffman Foundation

Ron Trewyn, Vice President for Research and Dean of the Graduate School, Kansas State University

Gerald Udell, Executive Director, Center for Business and Economic Research, Southwest Missouri State University

SBA Region IV—Nashville, Tennessee (September 12, 2003)

National Federation of Independent Business

James Blumstein, Professor, Vanderbilt Law School, Vanderbilt University

Germain Böer, Director, Owen Entrepreneurship Center, Vanderbilt University

Donald Bruce, Assistant Professor, University of Tennessee at Knoxville

Pat Gartland, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

John Gonas, Assistant Professor, Belmont University

David Penn, Director, Business and Economic Research Center, Middle Tennessee State University

Marsha Reel, Director, SBDC, Tennessee Technical University

Tami Richards, Graduate Student, University of Tennessee at Knoxville

Steven Yoho, Associate Professor, Lipscomb University

SBA Region VIII—Denver, Colorado (October 3, 2003)

Federal Reserve Bank of Kansas City, Denver Branch

Joe Alexander, Dean, Monfort School of Business, University of Northern Colorado

Ariel Cisneros, Community Affairs Advisor, Federal Reserve Bank of Kansas City, Denver Branch

Roderick Eggert, Professor and Division Director, Colorado School of Mines

Steve Hartley, Chair, Department of Marketing, Daniels College of Business, University of Denver

Jim Henderson, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Wade Hudson, Graduate Student, Department of Economics, Colorado State University

SBA Region VI—Dallas, Texas (January 15, 2004)

Federal Reserve Bank of Dallas

Cary Broussard, Sr. Vice President, Wyndam Hotels, representing Women Impacting Public Policy

Severyn Ciosmak, Associate Research Specialist, Institute for Economic Advancement, University of Arkansas at Little Rock

Jeffrey Collins, Director, Center for Business and Economic Research, University of Arkansas at Fayetteville

Steven Craig, Professor, Department of Economics, University of Houston

Pauline Hardee, Lecturer, Department of Economics, University of Houston

David Hoopes, Assistant Professor, Strategy and Entrepreneurship Department, Southern Methodist University

Frank Hoy, Professor, Department of Management and Marketing, University of Texas at El Paso; President, United States Association for Small Business and Entrepreneurship (USASBE), 2003

Joseph Peña, President, PAZ, and Advisor, U.S.-Mexico Chamber of Commerce

J. William Petty, Professor, Department of Finance, Baylor University

Till Phillips, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Harvey Rosenblum, Senior Vice President and Director of Research, Federal Reserve Bank of Dallas

Kenny Simpson, Executive Vice President, Rural Enterprises of Oklahoma Incorporated

Jerry White, Director, Carruth Institute for Entrepreneurship, Southern Methodist University

SBA Region IX—Phoenix, Arizona (February 12, 2004)

Arizona State University, Carey School of Business

Lydia Aranda, Director, Small Business Services, Arizona Department of Commerce and Governor's Small Business Advocate

Sara Auffret, Assistant Director, Media Relations and Public Information, Arizona State University

Mary Lou Bessette, Director Center for the Advancement of Small Business, Arizona State University

Arthur Blakemore, Chair, Department of Economics, Arizona State University

William Boyes, Professor, Department of Economics, Arizona State University

Rafael Bradley, Vice President for Client Services, Thomas, Warren and Associates, LLC

Elizabeth Farquhar, Media Relations, Carey School of Business, Arizona State University

William Glick, Chair, Department of Management, Arizona State University

Dennis Hoffman, Associate Dean, Carey School of Business, Arizona State University

Tim Hogan, Director, Seidman Research Institute, Arizona State University

Rebecca Holmes, Senior Economist, Strategic Economic Services, Salt River Project

Michael Hull, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Tim Littlefield, Vice President, Cranial Technologies

Joan Stewart, President, Small Business High Technology Institute

Milt Stewart, Former Chief Counsel, Office of Advocacy, U.S. Small Business Administration

Steven Stralser; Visiting Professor; Thunderbird, The International Graduate School of Management[5]

E.H. (Gene) Warren, Jr., President and CEO, Thomas, Warren & Associates, LLC

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5 Steven Stralser was unable to attend the focus group. His input, gained from a different meeting, is included in this document.

Patricia Watkins; Former Resources Librarian, International Business Information Centre, Thunderbird, The International Graduate School of Management

Stephen West, Vice President for Marketing, Thomas, Warren & Associates, LLC

SBA Region X—Seattle, Washington (March 5, 2004)

U.S. Small Business Administration, Regional Office

Sun-Jin Jeannie Choi, Coordinator, International Relations, Lake Washington College Foundation

Carolyn Clark, State Director, Washington Small Business Development Center, Washington State University (via teleconference from Spokane)

Bruce Finnie, Associate Professor, Pacific Lutheran University

Adam Forest, Visiting Assistant Professor, Seattle University

Michael Franz, Counselor, Washington Small Business Development Center

Hart Hodges, Director, Center for Economic and Business Research, Western Washington University

Suresh Kotha, Director, Center for Technology Entrepreneurship, University of Washington

Norris Krueger, Assistant Professor, Boise State University

Chuck Lare, President, Lare & Associates LLC

Jim McCullough, Director, School of Business and Leadership, University of Puget Sound

Bob Meredith, SBA Seattle District Administrator

Norm Proctor, Regional Advocate, Office of Advocacy, U.S. Small Business Administration

Darlene Robbins, SBA Economic Development Specialist

Robert Schwartz, Professor, Eastern Washington University (via teleconference from Spokane)

Michael Verchot, Director, Business and Economic Development Program, University of Washington

Robert Wiltbank, Doctoral Student, University of Washington

SBA Region I—Boston, Massachusetts (April 30, 2004)

Pioneer Institute

Robert Ayan, Program Manager, MIT Entrepreneurship Center

Stephen Adams, President/CEO, Pioneer Institute

Candida Brush, Professor, Boston University

Silvia Dorada, Associate Professor, University of Massachusetts at Boston

Gretchen Effgen, Presidential Management Fellow, Office of the Regional Administrator, U.S. Small Business Administration

John Friar, Executive Professor, Northeastern University

Andrew Goldberg, Director of Programs and Development, InnerCity Entrepreneurs, Boston University Entrepreneurial Management Institute

Paul Mamane, Lecturer, Boston College

James Palma, Research Manager, Economic and Public Policy Research, Donahue Institute, University of Massachusetts at Amherst

Alla Yakovlev, Assistant Director, Center for Urban Entrepreneurship, Pioneer Institute

Index