

# Office of Economic Research

# Research Publications 2002

January 2003

Created by Congress in 1976, the Office of Advocacy of the U.S. Small Business Administration (SBA) is an independent voice for small business within the federal government. Appointed by the President and confirmed by the U.S. Senate, the Chief Counsel for Advocacy directs the office. The Chief Counsel advances the views, concerns, and interests of small business before Congress, the White House, federal agencies, federal courts, and state policy makers. Economic research, policy analyses, and small business outreach help identify issues of concern. Regional Advocates and an office in Washington, DC, support the Chief Counsel's efforts.

For more information on the Office of Advocacy, visit <a href="http://www.sba.gov/advo">http://www.sba.gov/advo</a>, or call (202) 205-6533. Receive email notices of new Office of Advocacy information by signing up on Advocacy's Listservs at <a href="http://web.sba.gov/list">http://web.sba.gov/list</a>

- ☑ Small Business Advocate (newsletter)
- ☑ Advocacy Press
- ✓ Advocacy Research
- ☑ Advocacy Regulatory Communications

# Office of Economic Research

# Research Publications 2002

### Office of Advocacy

U.S. Small Business Administration Washington, D.C. January 2003

The full text of this report is available on the Office of Advocacy's Internet site at <a href="http://www.sba.gov/advo/">http://www.sba.gov/advo/</a>. Reprints in paper or microfiche are available for purchase from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.



### **Foreword**

Small businesses play a crucial role in the economic development of our nation. The Office of Economic Research (OER) within the Office of Advocacy conducts, sponsors, and promotes economic research that provides an environment for small business growth. For instance, our research indicates that small businesses comprise more than 99 percent of all employers, 51 percent of private sector employment, 52 percent of the U.S. gross domestic product, and are the source for two-thirds of net new jobs. Hence, American entrepreneurial spirit continues to keep the economy moving and will be a central engine in its overall recovery.

Each year, small business data stem from several sources, including the Bureau of the Census, the Bureau of Labor Statistics, the Federal Reserve Board, the General Services Administration's Federal Procurement Data Center, and the Statistics of Income Division of the Internal Revenue Service. Advocacy is charged with analyzing data from these various sources and disseminating professional and credible research for our internal, academic, and public policy audiences.

In 2002, Advocacy produced economic reports on a variety of topics of importance to U.S. small businesses. These reports were written by OER staff and experts under contract. A number of studies explored the characteristics of small business owners—including women and minorities; the general scope of small business in the American economy by wealth, economic growth, and industry; and the lending patterns of banks to small businesses. In addition, several research reports focused on more specific topics. Highlights include studies focusing on the effect of tax rule changes, the impact of contract bundling on small businesses, the influence of university research and development on new firm formation, the opportunities created by electronic commerce, and the value of government worker training programs. With each additional study, the crucial role that small and medium-size enterprises play in the economy is better understood.

The Office of Advocacy is fulfilling its mission of providing sound research that is important to small business entities throughout the nation. Upcoming research will continue to highlight a wide range of issues and explore the central role of small firms

in the economy. All of the studies described in this document are available on the Internet at <a href="http://www.sba.gov/advo/stats">http://www.sba.gov/advo/stats</a>. Those interested in receiving email notifications regarding economic research or other information from the Office of Advocacy should join the Listserv at <a href="http://web.sba.gov/list">http://web.sba.gov/list</a>.

Chad Moutray, Ph.D.

Chief Economist and Director

Office of Economic Research

### **Contents**

ffice of Economic Resear	rch l	Res	eai	rch	Pu	bli	ica	tio	ns	20	002	2.	٠.		 		 	 . 1
Banking/Finance															 		 	 . 1
Environmental Issues															 		 	 . 3
General Small Business	S														 		 	 . 3
Innovation															 		 	 . 6
Labor Market Issues .															 		 	 6
Procurement															 		 	 6
Regulation															 		 	 . 7
Tax Issues															 	 	 	 . 8
Technology															 		 	 . 8
Women and Minorities															 		 	 . 9

## Office of Economic Research Research Publications 2002

#### Micro-Business-Friendly Banks in the United States, 2001 Edition

Banking/Finance

Charles Ou, Economist, Office of Advocacy

Advocacy Report, August 2002

This study was based on data reported by banks to their regulating agencies through call reports for June 2001 and Community Reinvestment Act (CRA) reports for 2000. Micro-business loans (under \$100,000) outstanding increased 4.4 percent between June 2000 and June 2001 to \$126.8 billion, and the total number of these loans increased 10.1 percent over the same time period. Information in the report suggested that the promotion of business credit cards by major banks and finance companies was the primary reason for the large increase in micro-business loans. Banks that were determined to be micro-business-friendly were listed in attached tables in the report.

#### **Estimation of Small Business Wealth**

Joel Popkin and Company (contract #SBAHQ-00-M-0715) Research Summary #217, September 2002

In this study, business wealth was measured by an equity-based market value of the business. Total small business wealth grew from \$3.4 trillion in 1990 to \$8.3 trillion in 2000. Total business wealth was \$19.4 trillion in 2000. Meanwhile, corporate wealth quadrupled over the same period as the value of the stock market skyrocketed. Small firms, often privately held, were not as greatly affected by the stock market valuation increases. Hence, small business's share of total wealth declined from 59.3 percent to 42.8 percent of the total from 1990 to 2000.

#### Small Business Lending in the United States, 2001 Edition

Charles Ou, Economist, Office of Advocacy Advocacy Report, November 2002

This study, like the micro-business-friendly banks study, used June 2001 call report and 2000 CRA report data. Its primary finding was that lending to small firms increased more than lending to large businesses for the first time in years. Small business lending (loans smaller than \$1 million) increased 5.4 percent to \$460 billion, and the number of loans under \$100,000 increased 10.1 percent. Again, this is evidence of the increased proliferation of business credit cards in the small business loan market. Meanwhile, the largest loans (over \$1 million) increased just 0.9 percent.

#### Banking/Finance

## A Profile of Owners and Investors of Privately Held Businesses in the United States, 1989-1998

George W. Haynes, Associate Professor, Montana State University, and Charles Ou, Economist, Office of Advocacy (Presented at the annual conference of the Academy of Entrepreneurial and Financial Research, April 2002)

Advocacy Working Paper, November 2002

This study utilized the Federal Reserve Board's Survey of Consumer Finances (for the years 1989, 1992, 1995, and 1998) to provide estimates of the number of households owning privately held businesses in the United States, to compare the demographic and economic characteristics of business owners and non-business owners, and to examine the relationship between growth in the total number of business entities and in total business owners from 1989 to 1998. This study concluded: (1) between 13 percent and 14 percent of U.S. households owned privately held businesses; (2) these households had relatively higher income, significantly higher net worth, were led by individuals in the prime age group of 35 to 60 years of age with relatively more education than those without such businesses; and (3) the increase in the total number of business entities during the 1990s seemed to be mostly the result of individual households owning more than one business.

## The Real Effects of Liquidity on Behavior: Evidence from Regulation and Deregulation of Credit Markets

Jonathan Zinman, Massachusetts Institute of Technology Ph.D. dissertation, chapters 1 and 2 (contract #SBAHQ-01-M-0152)

Research Summary #223, November 2002

The Community Reinvestment Act (CRA) of 1976 and its 1995 reforms provided an incentive for banks to lend to small businesses in low- and moderate-income neighborhoods since a bank's CRA record is considered when the bank applies for permission to expand. The author found that the CRA incentives have led to a 12 to 15 percent increase in small business lending. There was also evidence that these changes in the availability of credit also produce real changes in the form of payroll increases and bankruptcy decreases in the affected counties. Moreover, CRA lending did not appear to be offset by any decreases in non-CRA lending—there was no crowding out.

#### **Emission Trading for Small Business**

Jack Faucett Associates (contract #SBAHQ-95-0594)

Research Summary #216, March 2002

This study explored the hurdles small firms face in the emission trading market. Instead of the usual command-and-control regulation, emissions trading has allowed firms to either sell or use their certificates, which gives them the ability to release a desired level of (primarily air) pollutants. Thus, these certificates have provided an economic incentive to reduce emissions as firms that have invested in cleaner technology are able to sell the certificates to those that have not. That said, many of the existing programs did not allow small firms to realize these benefits, according to this research. For example, transaction costs were too high—large firms were able to absorb these costs due to scale, but smaller firms found them prohibitive. In addition, rules and protocol development for emissions trading would affect its usefulness for small businesses—the more complicated the protocol, the more costly and less effective it would be for small firms.

#### **Small Business Economic Indicators**

Brian Headd, Economist, Office of Advocacy

Advocacy Report, January 2002

This report serves as a quick reference guide to current data on small business activity (new firms, employment, income and failures) by state. Tables listing indicators for the last 10 years by state are included.

#### **Small Business Share of Economic Growth**

Joel Popkin and Company (contract # SBAHQ-00-C-0001)

Research Summary #211, January 2002

This study measured the impact of small businesses on the overall economy. It found that the share of private, nonfarm gross domestic product (GDP) produced by small businesses remained about 50 percent over the past two decades. Preliminary findings indicated a slight increase in small business's share to 52 percent, attributable in large part to the increased share of services in the economy. While the percentage distribution of small businesses to private nonfarm GDP fell in the manufacturing and mining sectors, for instance, there were significant increases in the importance of small businesses in the service sector.

Environmental Issues

General Small Business

#### General Small Business

#### Small Business by the Numbers: Answers to Frequently Asked Questions (FAQ)

Brian Headd, Economist, Office of Advocacy

Advocacy Report, May 2002

This document was prepared as a summary of other research materials and provided a series of quick facts that demonstrate the importance of small business in the economy.

#### **Small Business State Profiles**

Victoria Williams, Economist, Office of Advocacy

Advocacy Report, August 2002

Building on information gathered from *Small Business Economic Indicators*, these profiles provided an overview of the important role small businesses play in each state. They included baseline statistics on each state's small business economy—number of firms, small business income, industrial composition, job growth, and data on minority- and women-owned businesses.

#### **Small Business Share of NAICS Industries**

Joel Popkin and Company (contract #SBAHQ-01-M-0156) Research Summary #218, September 2002

The United States adopted the North American Industrial Classification System (NAICS) in 1997 to replace the Standard Industrial Classification (SIC) system. This new system unified the classifications between the U.S., Canada, and Mexico. This study estimated the small business share of industry using this new system. Changes from SIC to NAICS affected the overall shares from sector to sector. This research concluded that the industries with the highest concentration of small businesses were construction (90 percent); arts, entertainment, and recreational services (76 percent); real estate, rental, and leasing (74 percent); other services (71 percent); professional and technical, administrative, support, and waste management (65 percent); and wholesale and retail trade (64 percent). Other shares included: educational services (43 percent); finance and insurance (29 percent); health and social services (57 percent); and mining and manufacturing (30 percent).

#### The State of Small Business: A Report of the President, 1999-2000

Released by The White House, November 2002

General Small Business

In the 1998-1999 period covered by this report, prepared by the Office of Advocacy for White House release, the number of small businesses continued to increase and the 7.9 percent growth in proprietorship income generated by smaller firms outpaced the 5 percent growth in corporate income. The report looks at small business' role in the economy, as well as growth in the number of businesses owned by women and minorities, small business employment growth, the share of federal government procurement going to small firms, the availability of financing to small businesses, and progress in efforts to mitigate regulatory burdens on small firms as a result of the implementation of the Regulatory Flexibility Act of 1980.

#### Redefining Business Success: Distinguishing Between Closure and Failure

Brian Headd, Economist, Office of Advocacy

Small Business Economics (journal), Forthcoming, Accepted March 2002

Using two Census databases, the Business Information Tracking Series and Characteristics of Business Owners, it was shown that a closure is not necessarily a failure and closures are not as prevalent in new firms as is commonly believed. With regard to new firms, firms having more resources—those that are larger, with better financing, and with employees—were found to have better chances of survival. And factors that were characteristic of closure, such as having no start-up capital and having a relatively young owner, were also common in firms considered successful at closure. (Note that such inborn factors as race and gender played negligible roles in determining survivability and success at closure.) The bottom line is that few defining factors that are associated with true "failures" can be isolated. These results call into question the use of survival rates, particularly in an era of planned exit strategies.

Note: An earlier version of this paper was released in the Census Bureau's Center for Economic Studies Working Paper Series, CES-WP-01-01 (2001).

Innovation

The Influence of R&D Expenditures on New Firm Formation and Economic Growth

BJK Associates (contract #SBAHQ-00-M-0491)

Research Summary #222, October 2002

This study looked at the spillover effects of university research and development (R&D) on the local economy. It found that a university's R&D expenditures led to a significant increase in the number of firm formations in the labor market areas surrounding it. This positive effect was found to be identifiable for up to five years, although less prevalent as time elapsed. Thus, R&D expenditures contributed to the overall economy through the creation of new firms.

Labor Market Issues

#### Value of Worker Training Programs to Small Business

Carolyn Looff and Associates (contract #SBAHQ-99-R-0018)

Research Summary #213, January 2002

This study assessed the importance of government training programs to small businesses and served as an update to a study conducted in 1992. The previous research found sizeable differences between large and small firms in the awareness and use of such programs; this new study has similar findings. While overall use of training programs fell for both large and small firms, small businesses with fewer than 25 employees were even less likely than they were in 1992 to use them. About one-quarter of small firms had heard of the programs, and only 4.5 percent had used them. These same firms were less likely to provide any form of training to their employees. That said, firms that did use the government training programs were generally pleased with them.

**Procurement** 

#### The Impact of Contract Bundling on Small Business, FY 1992-FY 2001

Eagle Eye Publishers, Inc. (contract #SBAHQ-01-M-0352)

Research Summary #221, October 2002

Federal agencies have looked to contract bundling—consolidating two or more contracts for goods or services previously requisitioned under separate smaller contracts—in an effort to reduce the government's workload. However, this practice gave larger businesses a competitive advantage. The researchers found that 8.6 percent of prime contracts were bundled between fiscal years 1992 and 2001. The total value of these prime contracts was \$840.3 billion, or 44.5 percent of the total dollar value of \$1.89

trillion. The authors also concluded that existing contracts were more likely to be bundled when they were renewed and that smaller businesses were less likely to receive these awards. For instance, regression analysis showed that for every increase of 100 bundled contracts there was a decrease of 60 contracts issued to small business; also, for every additional \$100 awarded in bundled contracts, there was a decrease of \$12 to small business.

## An Evaluation of Compliance with the Regulatory Flexibility Act by Federal Agencies

Consad Research Corporation (contract #SBAHQ-99-C-0011)

Research Summary #215, March 2002

Compliance with the Regulatory Flexibility Act (RFA) of 1980 and the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 is of great interest to the Office of Advocacy. This research attempted to assess agency compliance with the RFA, and in particular examined the period after SBREFA. It found that some agencies made significant improvements in determining small business impacts in their rulemaking, while others continued noncompliance. In 1995, about 39 percent of final rule notices did not certify or explain the small business economic impacts of the regulation; by 1999, the rate of RFA noncompliance fell to 32 percent. The researchers recommended that Advocacy become more involved in pre-publication review of proposed rules and that the General Accounting Office and the Office of Management and Budget routinely document agency noncompliance.

#### Analysis of State Efforts to Mitigate Regulatory Burdens on Small Business

Management Research and Planning Corporation (contract #SBA-HQ-00-M-0796) Research Summary #219, September 2002

This report outlined responses to a survey that explored the extent of efforts at the state level to protect the interests of small businesses in the regulatory process. In particular, it assessed whether states have an entity similar to the Office of Advocacy at the federal level, legislative authorities similar to the Regulatory Flexibility Act of 1980 and the Small Business Regulatory Enforcement Fairness Act of 1996, or executive orders similar to EO 12866 (concerning regulatory planning and review) or EO 13272 (on proper consideration of small entities in agency rulemaking).

Regulation

#### Tax Issues

#### **Rules Versus Discretion in Tax Policy**

Radwan Saade (Presented at the annual conference of the National Tax Association, November 2002)

Advocacy Working Paper, November 2002

The research suggested that the rules-versus-discretion debate is relevant to tax policy, and dealt with issues not related to arguments about the appropriate size of government. The study extended the Barro Gordon framework to evaluate the proper role for rules in fiscal policy. The method suggested in this study emphasized the importance of the unexpected changes in tax rates, and recognized that they are a direct consequence of discretionary fiscal policy. A theoretical model was developed to demonstrate that a policymaker with an infinite term would favor rules that resist unforeseen changes in future tax rates. Rules were proven sustainable. Upon introducing discount rates (e.g., a finite term for the policymaker), the study demonstrated that it is rational for the tax authority to favor a discretionary regime over rules. In that setting, the rules' equilibrium was no longer inherently sustainable, hence the call for explicit binding constraints.

#### **Technology**

#### **Impact of E-Commerce on Auto Dealers**

Jack Faucett Associates (contract # SBAHQ-00-M-0798)

Research Summary #212, January 2002

This study explored the impact of the Internet in the automobile retail sector. Eighty percent of U.S. new car dealers were small businesses, and new vehicle sales accounted for approximately 19 percent of total U.S. retail sales. In 2000, 83 percent of dealerships had a website, and on average dealers completed 6.2 percent of sales exclusively over the Internet. Twelve percent of dealers used the Internet for business-to-business transactions with their suppliers. Dealerships that used the Internet longer tended to experience greater results than those with a shorter experience in e-commerce. Meanwhile, state franchise laws, while favoring small business interests, also tended to make it more difficult to enter the online auto market.

#### E-Biz.com: Strategies for Small Business Success

Joanne H. Pratt (contract #SBAHQ-00-C-0004)

Research Summary #220, October 2002

Electronic commerce has allowed small business owners to rethink their business strategies. Technological improvements have made the cost of setting up an Internet site relatively low; thus, small businesses could capitalize in a niche market with little

start-up investment, without the traditional "brick and mortar" structures, and without being in a central location for distribution purposes. In addition, the ability to do a keyword search meant that businesses could successfully market their niche without expensive mass mailings. The researchers found that the smallest firms (with fewer than 10 employees) benefited the most from being online: 35 percent gained 10 to 99 percent of their current sales directly or indirectly from their websites.

#### An Investigation of Venture Capital in Women- and Minority-Led Firms

CB Associates (contract #SBAHQ-00-M-0329)

Research Summary #214, January 2002

This study examined the participation of women- and minority-owned firms in the venture capital markets. The proportion of funds that women-led ventures received was small relative to the whole, although there was a slight increase in investments between 1995 and 1998. The women-led ventures that were most likely to receive funding tended to be in the Northwest or West and were in the computer hardware and software sectors. The data on minority-led ventures was more limited, and the researchers collected anecdotal information to compensate in part for this. Funding to minorities tended to be more focused in the computer and information systems, health care services, and communications sectors. Minority women seeking capital faced greater hurdles than either white women or minority men.

#### Race and Gender Differences in Business Ownership and Business Turnover

Richard J. Boden, Associate Professor, University of Toledo, and Brian Headd, Economist, Office of Advocacy

Business Economics (journal), October 2002

This paper added to the limited literature on owner demographics for business survival. Using hazard models, the authors found differences across race and gender of ownership in business dissolution rates and factors related to dissolution.

Unconditionally, white non-Hispanic owners had their highest survival rates in goodsproducing industries while the other owner groups fared better in services. In fact, industries largely differed with regard to survival factors for the different owner groups, making economy-wide generalizations for owner groups problematic. The findings largely corroborated what other researchers have found, but did so with the most robust data source to date—a matched U.S. Census Bureau database of employers and owner demographics.

Women and Minorities

### Index

Advocacy, Office of, role in RFA compliance, 7	employment growth in small businesses, 3, 6
arts industry, small business share of, 4	by state, 4
automobile dealers, and electronic commerce, 8	entertainment industry, small business share of, 4
bank lending to small businesses, 1, 2	environment, 3
bankruptcy, effects of credit availability on, 2	equity of small businesses, 1
BJK Associates, 6	Executive Order 12866, 7
Boden, Richard J., 10	Executive Order 13272, 7
Business Information Tracking Series, 5	failures, 3, 5, 10
business formation, 3	Faucett, Jack, Associates, 3, 8
business closures, 3, 5, 10	Federal Reserve Board data, 2
business ownership, 2, 10	financial industry, small business share of, 4
businesses, number of, 5	financing available to small businesses, 1, 2, 5, 9
by state, 4	fiscal policy, 8
call report data, 1	franchise laws, effects on auto dealers, 8
Census Bureau data, 5, 10	frequently asked questions, 4
Characteristics of Business Owners data, 5	General Accounting Office, 7
communications industry, venture capital availability in	goods-producing industries, survival rates in, 10
Community Reinvestment Act,	government procurement from small firms, 5, 6
ata, 1	government training programs, 6
effects of, 2	gross domestic product, small business share of, 3
computer industry, and venture capital availability, 9	Haynes, George W., 2
Consad Research Corporation, 7	Headd, Brian, 3, 4, 5, 9
construction, small business shares of, 4	health services
contract bundling, 6	small business share of, 4
credit cards, small business use of, 1, 2	venture capital availability in, 9
demographics of business owners, 2, 10	income
Eagle Eye Publishers, Inc., 6	of business owners, 2
economic indicators, 3, 4, 5	of businesses, 3, 5
educational services, small business share of, 4	by state, 4
electronic commerce	industrial sectors
auto dealers' use of, 8	small business shares of, 4
small business use of, 9	by state, 4
emission trading, 3	innovation, 6

Internet services industries use by auto dealers, 8 small business importance in, 3, 4 use by small businesses, 9 survival rates in, 10 investors, 2, 9 small business profiles by state, 4 job growth, 5 Small Business Regulatory Enforcement Fairness Act, 7 by state, 4 Standard Industrial Classification system, 4 labor market, 6 states, lending to small businesses, 1, 2 small business data for, 4 Looff, Carolyn and Associates, 6 stock market and small businesses, 1 Management Research and Planning Corporation, 7 Survey of Consumer Finances, 2 manufacturing, small business share of, 3, 4 survival rates of businesses, 5, 10 micro-business lending, 1 tax policy, 8 mining, small business share of, 3, 4 technology, 8, 9 minority-owned businesses, 5, 10 training, value to small businesses, 6 by state, 4 university research and development, 6 use of venture capital by, 9 venture capital, 9 North American Industrial Classification System, 4 waste management services, small business share of, 4 Office of Management and Budget, 7 wealth of small businesses, 1 Ou, Charles, 1, 2 wholesale trade, small business share of, 4 Popkin, Joel, and Company, 1, 3, 4 Williams, Victoria, 4 Pratt, Joanne H., 9 women-owned businesses, 5, 10 procurement, 5, 6 by state, 4 use of venture capital by, 9 professional services, small business share of, 4 real estate, small business share of, 4 Zinman, Jonathan, 2 recreational services, small business share of, 4 regulation effects on small business, 5, 7 state initiatives in, 7 Regulatory Flexibility Act, 5, 7 research and development, 6 retail trade, small business share of, 4 rules versus discretion in tax policy, 8 Saade, Radwan, 8