



Annual Report of the Office of Economic Research

FY 2015 / December 2015

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 policymakers. Economic research, policy analyses, and small business outreach help identify issues of concern. Regional Advocates and an office in Washington, D.C., support the Chief Counsel's efforts.

For more information on the Office of Advocacy, visit www.sba.gov/advocacy or call (202) 205-6533. Receive email notices of new Office of Advocacy information by signing up on Advocacy's Listservs at https://public.govdelivery.com/accounts/USSBA/subscriber/new?topic_id=USSBA_184.

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Foreword

Congress created the Office of Advocacy to promote policies to support the development, growth and health of small business. For more than 35 years, Advocacy's Office of Economic Research (OER) has supported this mission. Through both studies and issue briefs, Advocacy gives small business stakeholders and policymakers valuable information to develop productive small business policy. Since small businesses make up more than 99 percent of all American businesses, Advocacy believes smart policy that takes into account small business interests will benefit the economy as a whole, and Advocacy is pleased to outline the important information released during the past fiscal year.

In fiscal year 2015, Advocacy produced 26 contract and internal research reports on a variety of topics such as access to capital, employment, minority- and women-owned businesses, and veterans.

In addition to research reports, Advocacy's economic research staff initiated the office's first dialogue series about the small business economy. The new program series entitled "Small Business Economic Research Forums" gives economists and researchers an opportunity to give presentations on relevant small business issues. These forums also inform Advocacy's staff of the cutting-edge topics that are affecting small businesses. With eight forums held in FY 2015, we hope to have many more in the years to come.

As part of Advocacy's outreach efforts to better understand today's economic climate for small business, members of Advocacy's economic team also participated in many roundtables and conferences around the country, speaking on current issues affecting small business and showcasing Advocacy's reports. Through our outreach efforts, Advocacy informed different communities about specific small business research, but these meetings also identified areas of future study. Advocacy looks forward to another productive year of small business economic research, and the office appreciates feedback on future topics. For more information about the Office of Advocacy, visit www.sba.gov/advocacy.



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Introduction

One of the Advocacy's earliest mandates was "to examine the role of small business in the American economy and the contribution which small business can make in improving competition, encouraging economic and social mobility... and providing an avenue through which new and untested products and services can be brought to the marketplace."¹

Today, the Office of Advocacy's Office of Economic Research continues to advance this mission by providing small business research that is timely and relevant for use by the many stakeholders interested in small business contributions to the U.S. economy.

During the past fiscal year, from October 1, 2014 through September 30, 2015, small business was a focus of national debates about economic growth, job creation, and the regulatory environment. The Office of Economic Research responded to the pressing need for new and timely information on small firms by making more information readily available in updated formats and by commissioning research on key topics that included:

- Access to Capital
- Employment
- Innovation
- Minority- and Women-owned Businesses
- Veterans

Advocacy continues to partner with the U.S. Census Bureau to collect and report important data on small business. Advocacy economists process and analyze the data to produce easy-to-understand statistical tables and reports downloadable from Advocacy's website. All of the publications listed in this report can be found at www.sba.gov/advocacy and each report's title is an Internet link to the document. The reports are listed by subject, with the newest items first.

To bid on Advocacy contracts for economic research, visit the FedBizOpps website at www.FBO.gov and search for Advocacy.

¹ Public Law 94-305, 1976.

Advocacy Research Reports, FY 2015

Access to Capital

Peer-to-Peer Lending: A Financing Alternative for Small Businesses

Author: Miriam Segal, Advocacy Economist

Released: September 2015 **Issue Brief No. 10**

Description: Peer-to-peer lending (P2P) is an alternative funding model in which individual investors provide small sums as personal loans to individuals via Internet platforms. This issue brief builds upon existing research and discusses the emerging funding option by explaining the investment model, comparing it to traditional small business financing options, and presenting implications regarding the future of peer-to-peer lending.

Quarterly Lending Bulletin: First Quarter 2015

Author: Victoria Williams, Advocacy Economist

Released: August 2015

Description: Small business borrowing conditions continued to improve gradually in the first quarter of 2015. For example, the percent change in small business loans outstanding (in amounts of \$1 million or less) remained positive or unchanged for the sixth consecutive quarter.

Quarterly Lending Bulletin: Third and Fourth Quarter 2014

Author: Victoria Williams, Advocacy Economist

Released: June 2015

Description: Economic activity in the United States was stronger in the second half of 2014 compared to the first half of 2014. Favorable financial conditions, including declines in the cost of borrowing for most businesses and households, supported this growth.

Putting Recent Venture Capital Gains in Perspective

Author: Jonathan Porat, Advocacy Economist

Released: June 2015

Description: According to this fact sheet, the first quarter of fiscal year 2015 had the highest level of venture capital investment in a first quarter since the year 2000. This upward trend is part of a sizeable post-recessionary rebound in venture capital. The fact sheet also examines the data on venture capital investment deals since 1995 and looks at the five biggest venture capital deals in the first quarter of 2015, all of which are technology startups from California.

Equity-based Crowdfunding: Potential Implications for Small Business Capital

Author: Ryan Taylor, Advocacy Economist

Released: April 2015 **Issue Brief No. 5**

Description: Many small businesses are utilizing crowdfunding as an alternative form of funding, but one method of crowdfunding remains untapped in the United States: equity-based crowdfunding. This issue brief explores how this funding option could unlock additional capital and how it works in other countries.

Quarterly Lending Bulletin: Second Quarter 2014

Author: Victoria Williams, Advocacy Economist

Released: March 2015

Description: Small business lending has stabilized and continues to move upward. Several small business economic and lending indicators show the U.S economy is improving, as financial conditions continue to support economic growth.

Small Business Lending in the United States 2013

Author: Victoria Williams, Advocacy Economist

Released: December 2014 **Research Summary No. 427**

Description: *Small Business Lending in the United States 2013* describes trends in the small business lending market in general. It also provides data on more than 6,000 U.S. lenders, showing the emphasis on small business lending in their portfolios. The report covers the time period June 2012 to June 2013 using Call Report data from the Federal Deposit Insurance Corporation, and supplements this with Community Reinvestment Act data from 2012. During this period, small business lending improved, but at a slower pace than large business lending. However, small business lending entered positive territory in the first quarter of 2014. A data update is provided to cover these trends.

Student Debt Among Young Entrepreneurs

Author: Brian Headd, Advocacy Economist

Released: November 2014

Description: This fact sheet examines how student debt is affecting self-employment trends among younger individuals. The report finds that student debt is rising and is having a negative effect on the rate of self-employment. It also looks at other characteristics of individuals with student debt.

Quarterly Lending Bulletin: First Quarter 2014

Author: Victoria Williams, Advocacy Economist

Released: October 2014

Description: Small business loans remained constant from the last quarter of 2013 into the first quarter of 2014. This was not the case for real gross domestic product (GDP), which contracted after experiencing 11 quarters of growth. GDP rebounded in the second quarter of 2014. For the second quarter in a row, total small business loans outstanding under \$1 million remained positive.

Employment

What are the Employment Trends from New Businesses?

Author: Brian Headd, Advocacy Economist

Released: February 2015

Description: New businesses are an important source of jobs. For small firms (fewer than 500 employees) openings have accounted for 40 percent of the “new” jobs over the last two decades. However, job creation by new establishments appears to be changing. This report examines establishment births and the fact that new establishments have been getting smaller.

General

Three Reasons to Love Your Region

Author: Office of Economic Research

Released: July 2015

Description: This interactive publication was designed to encourage regional pride and unity by providing distinguishing small business facts and statistics that reflect the brightest aspects of each region of the United States. The various small business facts are divided into seven different categories: innovation; entrepreneurship; job growth and stability; demographic diversity; international involvement; and access to capital. Intermixed with these small business statistics are interesting regional fun facts and small business success stories.

Small Business Market Update, June 2015

Author: Patrick Delehanty and Jonathan Porat, Advocacy Economists

Released: June 2015

Description: This report offers a snapshot of the recent small business economy. It notes that small businesses continue to add more net new jobs than large businesses, for a total of 1.4 million net new jobs through the first three quarters of 2014. The report also examines startup rates, international trade, and venture capital.

Small Business Profiles for the States and Territories, 2014

Author: Office of Economic Research

Released: February 2015

Description: *The Small Business Profiles for the States and Territories* are the annual snapshots of state-level small business activity. The profiles report on the number of small firms, employment, and owner demographics. They also list each state's top small business industries by number of firms and number of employees. The profiles cover the 50 states, the District of Columbia, and the United States. They also provide limited information on the U.S. territories.

The Role of Microbusinesses in the Economy

Author: Brian Headd, Advocacy Economist

Released: February 2015

Description: Microbusinesses (firms with 1-9 employees) are the most common kind of employer firm, but they account for a relatively small share of employment. This report examines microbusinesses' share of employment and longevity, as well as what industries have the highest share of microbusinesses.

Annual Report of the Office of Economic Research, FY 2014

Author: Office of Economic Research

Released: January 2015

Description: *The Annual Report of the Office of Economic Research, FY 2014* describes the publications that OER produced during the year. In fiscal year 2014, Advocacy produced 23 contract and internal research reports on a variety of topics including access to capital, employment, environment, minority- and women-owned businesses, procurement, retirement, taxation and veterans. This annual report provides details about and a link to each of OER's publications from FY 2014.

Young Businesses Are Small, But Small Businesses Are Not Necessarily Young

Author: Brian Headd, Advocacy Economist

Released: December 2014

Description: This fact sheet illustrates the relationship between firm size and age, and its comparison of small businesses and young businesses shows that these terms are not interchangeable. The median age of a small employer business is about 10 years old and not surprisingly the bulk of young businesses are small.

The Leahy-Smith America Invents Act: A Preliminary Examination of Its Impact on Small Businesses

Author: Josh Lerner, Andrew Speen, and Ann Leamon for Bella Research Group

Released: June 2015 **Research Summary No. 429**

Description: The Leahy-Smith America Invents Act of 2011 (AIA) instructed the Office of Advocacy to study the economic outcomes of the shift from a first-to-invent system (FTI) to a first-inventor-to-file (FITF) system. In the absence of robust patent licensing data, the study strives to report the outcomes by looking into stock market prices at different times during the legislative process, analyzing changes in venture capital funding, and using Canada's experience post-change to an FITF system as a case study.

Patenting and Innovative Startups: Putting the America Invents Act in a Broader Economic Context

Author: Jonathan Porat, Advocacy Economist

Released: June 2015 **Issue Brief No. 9**

Description: This issue brief summarizes some of the potential small business outcomes of the America Invents Act and contextualizes those outcomes for innovative startups. It finds that policy changes that affect patenting could affect innovative startups as they may heavily utilize patents to raise funds to continue to innovate.

Small Innovative Company Growth—Barriers, Best Practices and Big Ideas: Lessons from the 3D Printing Industry

Author: Mark Harrison, Advocacy Entrepreneur-in-Residence

Released: February 2015

Description: This report examines the challenges that confront entrepreneurs and small high-growth firms as they attempt to commercialize innovative products and services. It illustrates these issues in a case study of one industry—3D printing/advanced manufacturing. It also identifies a set of 11 barriers to small innovative company growth.

Exploring the Policy Relevance of Startup Accelerators

Author: Jonathan Porat, Advocacy Economist

Released: November 2014 **Issue Brief No. 4**

Description: Startup accelerator programs are innovative funding mechanisms that have the potential to identify high-value startup companies and help them advance to the next stage of growth. Given the possibilities of creating multi-million and sometimes multi-billion-dollar companies quickly, policymakers have been considering whether accelerators could be used to meet public policy goals. This issue brief discusses some basic illustrative quantitative analyses to explore the relevance of accelerators as a policy tool.

Innovation Accelerators: Defining Characteristics Among Startup Assistance Organizations

Author: C. Scott Dempwolf, Jennifer Auer, and Michelle D'Ippolito for Optimal Solutions Group, LLC

Released: October 2014 **Research Summary No. 425**

Description: This research report studies the phenomenon of the innovation accelerator. These popular startup assistance programs help high-value startups scale quickly. This report provides a robust definition of accelerators as well as a starting point for developing meaningful metrics to help policymakers determine the relevance of accelerators.

Minority- and Women-owned Businesses

An Overlooked Demographic: Equally-Owned Businesses or EOBs

Author: Miriam Segal, Advocacy Economist

Released: June 2015 **Issue Brief No. 8**

Description: This issue brief details a frequently overlooked category of business ownership: firms owned 50 percent by men and 50 percent by women. Equally-owned businesses (EOBs) represent a significant share of firms, employment and receipts. To say that 30 percent of firms are female-owned suggests that the other 70 percent are owned by men, when in reality, 53 percent are male-owned, and 17 percent are equally-owned by men and women.

Demographic Characteristics of Business Owners and Employees: 2013

Author: Jules Lichtenstein, Advocacy Economist

Released: April 2015 **Issue Brief No. 6**

Description: This is Advocacy's second annual issue brief on business owner demographics. This year's issue brief includes not only characteristics of business owners, but also how they differ from employees. This comparison is important for measuring the overall economic well-being of the economy including the economic incentives for entrepreneurship.

Understanding the Gender Gap in STEM Fields Entrepreneurship

Author: Margaret E. Blume-Kohout for MBK Analytics, LLC

Released: October 2014 **Research Summary No. 424**

Description: This report investigates whether gender differences in exposure to industry-funded research and commercialization activities may help to explain disparities in entrepreneurial behavior among science, technology, engineering, and mathematics ("STEM") PhDs. In particular, the report examines how STEM PhDs' exposure to patenting and industry-funded research during their graduate training and postdoctoral employment influences their own propensity to engage in patenting, self-employment, or small business ventures. The report also describes how changes over time in female representation among STEM doctorates, across fields, have influenced these patenting and entrepreneurship gaps.

Veterans

Profile of Veteran Business Owners: 2013

Author: Jules Lichtenstein, Advocacy Economist

Released: May 2015 **Issue Brief No. 7**

Description: This issue brief examines the demographics of veteran business owners. Using 2013 data from Census's Survey of Income and Program Participation (SIPP), this issue brief is an update to an Advocacy profile of veteran business owners released in November 2013. The issue brief looks at a variety of characteristics of veteran business owners as compared to non-veteran business owners, such as age, gender, marital status, level of education and citizenship. It also details the features of veteran-owned businesses, including industry sector, firm size, and age of business.

Income and Net Worth of Veteran Business Owners over the Business Cycle, 1989–2010

Author: George Haynes for Haynes Consulting

Released: November 2014 **Research Summary No. 426**

Description: This report looks at the effects of two decades of economic expansion and recession on the economic fortunes of veterans and veteran small business owners. It finds that veteran small business owners did better than veterans who did not own small businesses during the 20-year-period. The economic extremes of the period 1989-2010—including the end of the longest U.S. economic expansion and the Great Recession—had similar effects on all business owners, veteran and non-veteran alike.

Small Business Economic Research Forums

In 2015, the Office of Economic Research launched the Small Business Economic Research Forums. For these forums, OER invites an expert to discuss a key economic topic and to give a presentation to Advocacy's staff. The forums are valuable to keep Advocacy's staff up-to-date on the latest data and research from other agencies and researchers. This fiscal year, OER hosted the following eight forums.

Business To Business Credit to Small Firms

Speaker: Traci Mach, Senior Economist, Division of Research and Statistics, Federal Reserve Board

Date: October 29, 2014

Description: Following the financial crisis, total loans to businesses by commercial banks dropped off substantially. While large loans began to rebound in late 2010, small loans continued to decline. Dr. Mach discussed her paper which focuses on recent trends in trade credit use by small firms based on a poll by the Credit Research Foundation.

Credit Scores and Credit Market Outcomes

Speaker: Rebel Cole, Professor of Finance, DePaul University

Date: November 4, 2014

Description: New evidence was presented on how business credit scoring affects the availability of credit to female- and minority-owned businesses.

What Can be Done About U.S. Student Loan Debt?

Speaker: Xiaoling Ang, Economist, Office of Research, Consumer Financial Protection Bureau

Date: January 14, 2015

Description: U.S. student loan debt has received a lot of attention since the financial crisis: there is currently \$1.11 trillion in outstanding educational loans, 11 percent of which is over 90 days delinquent. Concerns have been raised about student loan debt service displacing other expenditures such as home purchases, which may have potential adverse consequences for economic growth. Dr. Ang discussed her paper which focuses on how an active loan disclosure process affects the borrowing behavior of students and what it might mean for small business development and entrepreneurship.

The Fragmentary and Fragile Recovery in Construction

Speaker: Ken Simonson, Chief Economist, Associated General Contractors of America

Date: February 25, 2015

Description: Construction, a sector long dominated by small and startup businesses, experienced the longest and steepest downturn of any industry between 2006 and 2011. Four years past the low point, the recovery remains uneven. This presentation explored the nature of the recovery, the industry's prospects for 2015, and the data sources available for understanding its condition.

When is Capital Taxed Under a VAT? The Hidden Effects of Exemption

Speaker: Alex Yuskavage, Financial Economist, Office of Tax Analysis, Department of the Treasury

Date: March 11, 2015

Description: This presentation explored whether exemption provisions under a value-added tax (the most common of which is a small business registration exemption) end up creating embedded taxes on investment and the policy implications of a VAT for small businesses.

Exploring New Sources of Community Development Capital

Speaker: Amanda Roberts and Marysol McGee, Senior Community Development Analysts, Federal Reserve Board

Date: April 8, 2015

Description: Advances in technology, financial innovation, and increased investor interest in social impact have created new classes of lenders. Many serve low- and moderate-income (LMI) groups. The Federal Reserve's Community Development staff has investigated alternative and peer-to-peer lending, crowdfunding, and impact investing as ways to expand access to credit for underserved people. This session highlighted the emerging on-line landscape and discussed implications for LMI communities.

Shifts in U.S. Household Wealth: Examining Data from the Survey of Consumer Finances

Speaker: Kevin Moore, Senior Economist, Microeconomics Survey Section, Federal Reserve Board

Date: May 13, 2015

Description: Using data from the Federal Reserve Board's Survey of Consumer Finances (SCF), the presenter examined the role of business equity in household wealth across various household characteristics, such as income, education, age and race. He also examined the evolution of business equity over economic expansions and contractions, drawing on the SCF data from 1989 to 2013.

Declining Discount Rates, Hurdle Rates, and Intergenerational Equity in Policy Analysis

Speaker: Daniel Wilmoth, Advocacy Economist

Date: September 9, 2015

Description: Discount rates are used to adjust the costs and benefits of policies for differences in timing. However, the appropriate discount rate is uncertain. One method that has been proposed for dealing with that uncertainty is to use declining discount rates. However, the use of declining discount rates is shown to undermine the value of the analysis of costs and benefits for identifying desirable policies. A different method for dealing with that uncertainty was presented and shown to have advantages relative to the declining discount rate.

Data Access

While not a data collection agency, in fiscal year 2015 the Office of Advocacy continued to organize downloadable data related to small businesses and provide links to data on its website at <https://www.sba.gov/advocacy/firm-size-data>. Data cover businesses with and without employees—employer and nonemployer firms. About three-quarters of firms are nonemployer firms; but the larger share of receipts and payroll are in employer firms. The bulk of employer firms are small firms, but data are also provided on large firms for comparison purposes.

Researchers, policymakers, small business trade associations, small businesses and members of the media interested in small businesses can use the data to investigate their status and role in the economy.

Small Business Data Resources Tool

<https://www.sba.gov/content/small-business-data-resources>

The Office of Advocacy provides a valuable research tool for small business researchers and policymakers—a hyperlinked listing of Small Business Data Resources. The tool lists databases by federal agency or private sector source, hyperlinks the listings to their websites, and keys them to the small-business related topics on which they provide information—all in two one-page summaries. Key topics include demographics, employment, exports, finance, firm size data, firms and establishments, health care, income and sales, pension coverage, taxes, and training.

Although the list includes many of the most widely used data resources, Advocacy notes that inclusion of any specific database on the list does not constitute an endorsement by the Office of Advocacy or the Small Business Administration.

Downloadable Firm Size Data

<https://www.sba.gov/advocacy/firm-size-data>

The Office of Advocacy posts firm size data from a number of sources on its website. For research purposes, Advocacy defines a small business as an independent business having fewer than 500 employees, but many firm size classes are provided. Firm size data for employer firms are from three sources: the Statistics of U.S. Businesses (SUSB), Business Dynamics Statistics (BDS), and Business Employment Dynamics (BED) programs. Data on nonemployers are available from the Nonemployer Statistics (NE) program. The programs are annual and are from the U.S. Census Bureau, except for the Business Employment Dynamics, which is quarterly and from the U.S. Department of Labor, Bureau of Labor Statistics. BDS and BED have an age component. All of the programs are essentially based on the universe of private-sector businesses.

Detailed data on owner and business characteristics are available from the U.S. Census Bureau's Survey of Business Owners (SBO) in years ending in 2 or 7. The SBO, which is part of the Economic Census,

provides data and a microdataset for activity in 2007. With data collection now beginning for economic activity in 2012, data will be available in 2015 (see www.census.gov/econ/sbo/ for details).

Statistics of U.S. Businesses

The Office of Advocacy partially funds the U.S. Census Bureau to produce annual data by employer firm size in the Statistics of U.S. Businesses (SUSB) program. SUSB's employer data include the number of firms, number of establishments, employment, and annual payroll for employment firm size categories by location and industry. Receipts and data by receipt size class are available in Economic Census years (i.e. years ending in 2 or 7). A firm is defined as an aggregation of all establishments owned by a parent company (within a geographic location and/or industry) with some annual payroll. The data consist of static and dynamic data. Static data provide a "snapshot" of firms at a point in time. Dynamic data follow firms from year to year and report job creation and destruction and business births and deaths. Much of the data is listed in time series format with some data available as far back as 1988, but the latest data available lags a few years.

The industry detail available is at the NAICS 6-digit level, meaning that data is available for over 1,000 industries. Geographic data for some of the data items is also available at the county and metropolitan statistical area level, but data this detailed tends to be aggregated to a relatively high industry level.

Business Dynamics Statistics

Business Dynamics Statistics (BDS) include employer firm data by firm age.² BDS contains annual data for states, major industry, and some metropolitan statistical area data. While a relatively new datasource, Census provides a plethora of historical data for BDS with data going back to 1977, but the most current data lags a few years. BDS provides the number of firms, establishments, and employment, along with some dynamics, so firm and job creation can be analyzed.

Business Employment Dynamics

Business Employment Dynamics (BED) contains employer firm data with a focus on employment changes from establishment entry, growth, decline, and exit. Much of the information dates to mid-1992.³ The data are quarterly and some establishments may close and reopen during the year. BLS presents the data in two ways to capture the seasonal firms by listing establishment openings—establishments that did not exist in the previous quarter—and establishment births—establishments that did not exist in the previous year. Classifications are similar for closings and deaths. Some employment data are by firm size such as job creation and destruction, but much of BED is establishment-based and does not contain an establishment or firm size component. Annually, BED provides the number of firms and employment by firm size.

² See the background paper, *Business Formation and Dynamics by Business Age: Results from the New Business Dynamics Statistics*, by John Haltiwanger, Ron Jarmin, and Javier Miranda for information on the data program, www.ces.census.gov/docs/bds/bds_paper_CAED_may2008_dec2.pdf.

³ See the background paper *Measuring Job and Establishment Flows with BLS Longitudinal Microdata* by Timothy Pivetz, Michael Searson, and James Spletzer for information about the data program, www.bls.gov/opub/mlr/2001/04/art2full.pdf.

BED quarterly data only lags a few quarters, giving users the best insight into current small business conditions.

Nonemployer Statistics

Nonemployer data provide the number of firms and receipts by state, metropolitan statistical area, and county with industry detail. A nonemployer firm is defined as one that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Note that nonemployer businesses can have more than one owner and are a business. Thus, referring to the nonemployer data as self-employed data (which is the occupation of someone) is not entirely accurate. Nonemployers account for about three percent of business receipts, and about three-quarters of all businesses. The nonemployer section also contains capital expenditure data for both employers and nonemployers.

With nonemployer and SUSB data in recent years, the U.S. Census Bureau has begun using noise infusion for disclosure avoidance. This allows the agency to provide more data instead of merely providing a disclosed code for a data cell.