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Small Business Administration and Job Creation

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Summary

The Small Business Administration (SBA) administers several programs to support small businesses, including loan guaranty programs, disaster loan programs, management and technical assistance training programs, and federal contracting programs. Congressional interest in these programs has increased in recent years, primarily because they are viewed as a means to stimulate economic activity and create jobs.

This report examines the economic research on net job creation to identify the types of businesses that appear to create the most jobs. That research suggests that business startups play an important role in job creation, but have a more limited effect on net job creation over time because fewer than half of all startups are still in business after five years. However, the influence of small business startups on net job creation varies by firm size. Startups with fewer than 20 employees tend to have a negligible effect on net job creation over time whereas startups with 20-499 employees tend to have a positive employment effect, as do surviving younger businesses of all sizes (in operation for one year to five years).

This report then examines the possible implications this research might have for Congress and the SBA. For example, the SBA provides assistance to all qualifying businesses that meet its size standards. About 97% of all businesses currently meet the SBA's eligibility criteria. Given congressional interest in job creation, this report examines the potential consequences of targeting small business assistance to a narrower group, small businesses that are the most likely to create and retain the most jobs.

In addition, the Government Accountability Office (GAO) has recommended that the SBA use outcome-based program performance measures, such as how well the small businesses do after receiving SBA assistance, rather than focusing on output-based program performance measures, such as the number of loans approved and funded. GAO has argued that using outcome-based program performance measures would better enable the SBA to determine the impact of its programs on participating small businesses. Given congressional interest in job creation, this report examines the potential consequences of adding net job creation as an outcome-based SBA program performance measure.

This report also examines the arguments for providing federal assistance to small businesses, noting that policymakers often view job creation as a justification for such assistance whereas economists argue that over the long term federal assistance to small businesses is likely to reallocate jobs within the economy, not increase them. Nonetheless, most economists support federal assistance to small businesses for other purposes, such as a means to correct a perceived market failure related to the disadvantages small businesses experience when attempting to access capital and credit.

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Small Business and Net Job Creation

The Small Business Administration (SBA) administers several programs to support small businesses, including loan guaranty programs to enhance small business access to capital; contracting programs to increase small business opportunities in federal contracting; direct loan programs for businesses, homeowners, and renters to assist their recovery from natural disasters; and small business management and technical assistance training programs to assist business formation and expansion.[1] Congressional interest in the SBA's programs has increased in recent years, primarily because they are viewed as a means to stimulate economic activity and create jobs. For example, the SBA reports that one of its primary goals is to "support small business revenue and job growth."[2]

This report opens with an assessment of the economic research on net job creation (employment gains related to business startups and expansions minus employment losses related to business deaths and contractions) to identify the types of businesses that appear to create the most jobs. That research suggests that business startups play an important role in job creation, but have a more limited effect on net job creation over time because about one-third of all startups close by their second year of existence and fewer than half of all startups are still in business after five years. However, the influence of small business startups on net job creation varies by firm size. Startups with fewer than 20 employees tend to have a negligible effect on net job creation over time whereas startups with 20-499 employees tend to have a positive employment effect, as do surviving younger businesses of all sizes (in operation for one year to five years).[3]

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[1] U.S. Small Business Administration (SBA), "Fiscal Year 2019 Congressional Budget Justification and FY2017 Annual Performance Report," p. 2, at https://www.sba.gov/sites/default/files/aboutsbaarticle/SBA_FY_19_508-Final-FINAL.PDF. For further analysis of the SBA's loan guaranty programs, see CRS Report R41146, *Small Business Administration 7(a) Loan Guaranty Program*, by Robert Jay Dilger, CRS Report R41184, *Small Business Administration 504/CDC Loan Guaranty Program*, by Robert Jay Dilger, and CRS Report R41057, *Small Business Administration Microloan Program*, by Robert Jay Dilger. For further analysis of the SBA's disaster loan programs, see CRS Report R41309, *The SBA Disaster Loan Program: Overview and Possible Issues for Congress*, by Bruce R. Lindsay. For further analysis of the SBA's contracting programs, see CRS Report R41268, *Small Business Administration HUBZone Program*, by Robert Jay Dilger.

[2] SBA, "Fiscal Year 2020 Congressional Budget Justification and FY2018 Annual Performance Report," p. 3, at https://www.sba.gov/document/report--congressional-budget-justification-annual-performance-report.

Isolating the firm-level impact of SBA loans on job creation is a daunting methodological challenge because (1) many factors influence employment and economic growth, (2) SBA loans represent a relatively small portion of the local economy, (3) "loan receipt may be subject to selection bias (positive or negative), and (4) appropriate firm-level microdata have usually been unavailable." Also, SBA lending's impact on employment "may be attenuated if the program crowds out other sources of capital, and the aggregate effect may be reduced if there are general equilibrium displacement effects (negative spillovers onto competing firms)." See J. David Brown and John S. Earle, "Finance and Growth at the Firm Level: Evidence from SBA Loans," *The Journal of Finance* Vol. LXXII, No. 3, June 2017, p. 1040. Using econometric statistical analysis, the authors linked SBA loans issued from 1992 through the third quarter of 2009, to the Census Bureau's employer and nonemployer registers, which include data on firm employment, annual payroll, establishment age, and other economic characteristics. Their analysis found that SBA loans led to "an increase of 3-3.5 jobs in the first three years after loan receipt for each million dollars of loans." See ibid., p. 1042.

[3] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml; Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, at http://www.kauffman.org/-/media/kauffman_org/research-reports-and-covers/2009/11/where_will_the_jobs_come_from.pdf; John Haltiwanger, Ron S Jarmin, and Javier Miranda, "Who Creates Jobs? Small vs. Large vs. Young," Cambridge, MA: National Bureau of Economic Research, Working Paper 16300, August 2010, at http://www.nber.org/papers/w16300; and Ian Hathaway, "Small Business and Job Creation: The Unconventional Wisdom," *Bloomberg Government*, October 31, 2011.

This information's possible implications for Congress and the SBA are then examined. For example, since its formation one of the SBA's primary goals has been to promote business competition within the various industrial classifications as a means to deter monopoly and oligarchy formation within those industries.[4] As part of that effort, the SBA provides assistance to all qualifying businesses that meet its size standards. About 97% of all business concerns currently meet the SBA's small business eligibility criteria.[5] Given congressional interest in job creation, this report examines the potential consequences of targeting SBA assistance to a narrower group, small businesses that are the most likely to create and retain the most jobs.

In addition, the Government Accountability Office (GAO) has argued that the SBA's program performance measures provide limited information about the impact of its programs on participating small businesses because those measures focus primarily on output, such as the number of loans approved and funded, rather than outcomes, such as how well the small businesses do after receiving SBA assistance.[6] Given congressional interest in job creation, this report examines the potential consequences of adding net job creation as a SBA program performance measure.

This report also examines the arguments for providing federal assistance to small businesses, noting that policymakers often view job creation as a justification for such assistance whereas economists argue that over the long term federal assistance to small businesses is likely to reallocate jobs within the economy, not increase them. Nonetheless, most economists support federal assistance to small businesses for other purposes, such as a means to correct a perceived market failure related to the disadvantages small businesses experience when attempting to access capital and credit.

Economic Research on Net Job Creation

The following sections provide an assessment of employment dynamics in the United States, starting with the latest economic data available from the U.S. Bureau of the Census concerning the number and employment of small and large enterprises, establishments, and firms (small is defined here as having fewer than 500 employees and large as having 500 or more employees). This is followed by an assessment of job gains and losses (sometimes referred to as "churning") by small and large establishments (including opening/startup establishments) using data available from the U.S. Department of Labor's Bureau of Labor Statistics (BLS).[7]

Assessments of employment dynamics usually examine the employment decisions of establishments, firms, and/or enterprises. An establishment "is a single physical location where one predominant activity occurs."[8] A firm "is an establishment or a combination of establishments" and is often "defined by its unique Employer Identification number (EIN) issued

[4] 15 U.S.C. §631 and P.L. 83-163, the Small Business Act of 1953 (as amended), Sec. 2.

[5] SBA, "SBA's Size Standards Analysis: An Overview on Methodology and Comprehensive Size Standards Review," power point presentation, Khem R. Sharma, SBA Office of Size Standards, July 13, 2011, p. 4, at http://www.wcoeusa.org/sites/default/files/Size%20Standards%20Methodology%20from%20SBA.pdf.

[6] U.S. Government Accountability Office, *Small Business Administration: 7(a) Loan Program Needs Additional Performance Measures*, GAO-08-226T, November 1, 2007, pp. 2, 7-9, at http://www.gao.gov/new.items/d08226t.pdf.

[7] Bureau of Labor Statistics, "Research Data on Business Employment Dynamics by Age and Size," at https://www.bls.gov/bdm/business-employment-dynamics-data-by-age-and-size.htm.

[8] Akbar Sadeghi, David M. Talan, and Richard L. Clayton, "Establishment, firm, or enterprise: does the unit of analysis matter?" *Monthly Labor Review*, U.S. Bureau of Labor Statistics, November 2016, at https://doi.org/10.21916/mlr.2016.51.

by the Internal Revenue Service (IRS)."[9] An enterprise "is a firm or a combination of firms that engages in economic activities which are classified into multiple industries. An enterprise may report under one or a number of EINs."[10]

Each of these units of analysis provide information that is useful for understanding employment dynamics. As the BLS explains:

> The perception is that multiunit businesses act as a whole rather than as a collection of individual establishments. On the one hand, it could be that larger multiunit businesses make more unified decisions to control hiring, close a plant or store, or lay off workers during economic downturns. This argument supports the use of a higher level of aggregation than the establishment level. On the other hand, businesses might make such decisions on the basis of each establishment's profitability, product line, and longer term prospects for contributions to the overall business. Why restrict hiring at a fully profitable and growing location when other locations are suffering from insufficient demand? In this case, the firm may act more like a set of individual establishments rather than a unified set of establishments.[11]

Generally speaking, "the net employment change remains the same for all levels of aggregation, but the magnitude of gross job flows varies with the unit of analysis chosen."[12] There is "a higher level of churning when job flows are estimated at a lower level of aggregation (the establishment)" and a lower level of churning "at a higher level of aggregation (the enterprise or firm) [because] expansions in some units offset contractions in other units, leaving job flows at a lesser magnitude."[13]

Small and Large Business Employment

In 2016 (the most recent available data), there were nearly 7.76 million employer establishments, over 24.81 million non-employer (self-employed) establishments, and over 5.95 million employer firms.[14]

As shown in **Table 1**, small employer enterprises (fewer than 500 employees) provided almost half (47.3%) of all jobs in 2016.

[9] Ibid.

[10] Ibid.

[11] Ibid.

[12] Ibid.

[13] Ibid.

[14] U.S. Census Bureau, "Statistics of U.S. Businesses: U.S. & States, totals," at https://www.census.gov/data/tables/2016/econ/susb/2016-susb-annual.html; and U.S. Census Bureau, "Nonemployer Statistics: Geographic Area Series: Nonemployer Statistics by Legal Form of Organization for the U.S. and States: 2016," at https://www.census.gov/data/tables/2016/econ/nonemployer-statistics/2016-nonemployer.html.

Table 1. Number and Employment of Employer Enterprises, Establishments and Firms, by Enterprise Employment Size, 2016

Enterprise Employment Size	# of Employer Establishments	# of Employer Firms	# of Employees	Share of All Employees
Fewer than 20 Employees	5,355,372	5,305,960	21,037,941	16.6%
20-499 Employees	1,072,906	629,025	38,877,276	30.7%
500+ Employees	1,329,529	19,699	66,837,021	52.7%
Total	7,757,807	5,954,684	126,752,238	100.0%

Source: U.S. Census Bureau, "Statistics of U.S. Businesses: U.S. & States, totals," at https://www.census.gov/data/tables/2016/econ/susb/2016-susb-annual.html.

Job Growth and Opening/Startup Establishments

As shown in **Table 2**, from 2010 to 2018, opening/startup establishments (establishments with positive employment in March of the current year following zero employment in March of the previous year) have accounted for just under 30% of all employment gains (new jobs) in the United States each year since 2011. By definition, opening/startup establishments do not affect employment losses, which result from establishments contracting or closing.

Table 2. Net Employment Change, Gross Employment Gains and Losses Overall, and Gross Employment Gains and Share of Employment Gains From Opening/Startup Establishments, 2010-2018

Year	Net Employment Change Overall	Gross Employment Gains Overall	Gross Employment Losses Overall	Gross Employment Gains From Opening/Startup Establishments	Share of Gross Employment Gains From Opening/Startup Establishments
2010	(2,684,236)	10,075,081	(12,759,269)	3,236,263	32.1%
2011	1,908,912	11,629,458	(9,720,546)	3,334,090	28.7%
2012	2,669,334	12,215,721	(9,546,387)	3,554,056	29.1%
2013	2,120,900	12,044,755	(9,923,855)	3,491,508	29.0%
2014	2,274,389	12,282,242	(10,007,853)	3,582,255	29.2%
2015	2,717,966	12,833,679	(10,115,713)	3,691,014	28.8%
2016	2,511,589	13,167,936	(10,656,347)	3,773,906	28.7%
2017	2,032,665	12,953,630	(10,920,965)	3,797,214	29.3%
2018	2,218,592	13,117,144	(10,898,552)	3,767,667	28.7%

Source: U.S. Department of Labor, Bureau of Labor Statistics, "Table 1-A-E: Annual gross job gains and gross job losses by age and average size of establishment," at https://www.bls.gov/bdm/age_by_size/age_naics_size_20181_t1.xlsx

Job Growth and Small Establishments

As shown in **Table 3**, from 2010 to 2018, small establishments (establishments with average employment of fewer than 500 employees from March of the current year to March of the previous year) have accounted for about two-thirds of net employment gains in the United States each year since 2011.

Table 3. Net Employment Change, Gross Employment Gains and Losses, and Share of Net Employment Change From Small Establishments, 2010-2018

Year	Net Employment Change Overall	Net Employment Change by Small Establishments	Gross Employment Gains by Small Establishments	Gross Employment Losses by Small Establishments	Share of Net Employment Change From Small Establishments
2010	(2,684,236)	(1,865,292)	7,417,348	(9,282,592)	(69.5%)
2011	1,908,912	1,257,377	8,537,881	(7,280,504)	65.9%
2012	2,669,334	1,856,871	8,976,857	(7,119,986)	69.6%
2013	2,120,900	1,458,572	8,777,814	(7,319,242)	68.8%
2014	2,274,389	1,611,696	8,945,569	(7,333,873)	70.9%
2015	2,717,966	1,843,407	9,227,262	(7,383,855)	67.8%
2016	2,511,589	1,668,270	9,362,714	(7,694,444)	66.4%
2017	2,032,665	1,431,952	9,257,984	(7,826,032)	70.4%
2018	2,218,592	1,431,449	9,273,737	(7,842,288)	64.5%

Source: U.S. Department of Labor, Bureau of Labor Statistics, "Table 1-A-E: Annual gross job gains and gross job losses by age and average size of establishment," at https://www.bls.gov/bdm/age_by_size/age_naics_size_20181_t1.xlsx.

Job Growth and Large Establishments

As shown in **Table 4**, from 2010 to 2018, large establishments (establishments with an average employment of 500 employees or more from March of the current year to March of the previous year) have accounted for just under 30% of all employment gains (new jobs) in the United States each year since 2011.

Table 4. Net Employment Change, Gross Employment Gains and Losses, and Share of Net Employment Change From Large Establishments, 2010-2018

Year	Net Employment Change Overall	Net Employment Change by Large Establishments	Gross Employment Gains by Large Establishments	Gross Employment Losses by Large Establishments	Share of Net Employment Change From Large Establishments
2010	(2,684,236)	(818,944)	2,657,733	(3,476,677)	(30.5%)
2011	1,908,912	651,535	3,091,577	(2,440,042)	34.1%
2012	2,669,334	812,463	3,238,864	(2,426,401)	30.4%
2013	2,120,900	662,328	3,266,941	(2,604,613)	31.2%
2014	2,274,389	662,693	3,336,673	(2,673,980)	29.1%
2015	2,717,966	874,559	3,606,417	(2,731,858)	32.2%
2016	2,511,589	843,319	3,805,222	(2,961,903)	33.6%
2017	2,032,665	600,713	3,695,646	(3,094,933)	29.6%
2018	2,218,592	787,143	3,843,407	(3,056,264)	35.5%

Source: U.S. Department of Labor, Bureau of Labor Statistics, "Table 1-A-E: Annual gross job gains and gross job losses by age and average size of establishment," at https://www.bls.gov/bdm/age_by_size/age_naics_size_20181_t1.xlsx.

The Role of Small Business and Startups in Net Job Creation

Until recently, the prevailing view among economists was that although small businesses, defined as firms with fewer than 500 employees, and large businesses "provide roughly equivalent shares of jobs, the major part of job generation and destruction takes place in the small firm sector, and small firms provide the greater share of net new jobs."[15] For example, in 2010, a SBA study found that over the previous 15 years small businesses accounted for about 65% of private-sector net job creation.[16] Also, as shown in **Table 3**, small businesses have continued to account for about two-thirds of net new jobs since 2010.

However, as the availability of data concerning the life cycle of firms and establishments has improved, and the number of studies examining the relationship between job creation and business size has increased, the prevailing view that small businesses, as a whole, are responsible for the majority of net job creation has been challenged. For example, some researchers have found considerable variation in the role of small businesses in net job creation across different time periods. In some time intervals, small businesses accounted for virtually all job growth and in others they accounted for about the same proportion of new jobs as their share of existing jobs.[17]

[15] Brian Headd, "An Analysis of Small Business and Jobs," SBA, Office of Advocacy, March 1, 2010, p. 3, at https://www.sba.gov/sites/default/files/files/an%20analysis%20of%20small%20business%20and%20jobs(1).pdf.

[16] Ibid., p. 10. Net job creation refers to the net result of all hiring minus voluntary and involuntary separations.

[17] Charles Brown, James Hamilton, and James Medoff, *Employers Large and Small* (Cambridge: Harvard University Press, 1990), pp. 21, 22. The researchers argued that the "wide swings" from one period to the next were due at least in part to major shocks to specific industries, such as manufacturing, which are dominated by large businesses.

Some researchers have also argued that the role of small businesses in net job creation is overstated because most new jobs are created by new businesses and most new businesses (startups) are small because the resources needed to launch larger businesses are relatively difficult to obtain. They argue that many startups (defined as businesses in operation for less than a year), and the jobs they create, disappear within a few years.[18] For example, several studies have found that about 20% of all startups close in their first year, one-third close within two years, and fewer than half of all startups are still in business after five years.[19] Another study, an analysis of job creation in the United States from 1994 to 2006, found that startups with fewer than 20 employees had "a strong positive initial effect" on employment growth in the year the business was formed, but that positive employment effect decreased over time and was negligible after six years.[20]

However, that study also found that startups with 20-499 employees had a positive employment effect that increases after its first year in operation, reaches a maximum after five years, and then moderates. The positive employment effect from these firms continued to remain positive over the entire time period studied (1994-2006). The authors asserted that these larger small businesses were "able to increase their level of productivity sooner after entry" than startups with fewer than 20 employees "due to their size and preconditions," such as better access to capital, and, as a result, were in a better position to "challenge existing firms and increase the competitiveness of surviving existing firms."[21]

The study's authors argued that their findings suggest that the age of a business is a more important factor in understanding business employment dynamics than the size of a business:

> Our findings emphasize the critical role played by startups in U.S. employment growth dynamics. We document a rich "up or out" dynamic of young firms in the U.S. That is, conditional on survival, young firms grow more rapidly than their more mature counterparts. However, young firms have a much higher likelihood of exit so that the job destruction from exit is also disproportionately high among young firms. More generally, young firms are more volatile and exhibit higher rates of gross job creation and destruction….

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[18] Ibid.

[19] Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, p. 5, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2009/11/where_will_the_jobs_come_from.pdf; and Dane Stangler and Paul Kedrosky, "Neutralism and Entrepreneurship: The Structural Dynamics of Startups, Young Firms, and Job Creation," Kaufman Foundation Research Series: Firm Formation and Economic Growth, September 2010, p. 5, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2010/09/firmformationneutralism.pdf.

Some studies have found that startup survival rates vary by industry and region and depend, "at least to some extent, on when in the business cycle the establishment is born," with lower survival rates if they were formed during, or just before the onset of, recessions. See Kevin Cooksey, Karina Beckmanm, and Akbar Sadeghi, "Assessing the Strength of Entrepreneurship in America with the BLS Business Employment Dynamics," U.S. Bureau of Labor Statistics, presented at the "Meeting of the Group of Experts on Business Registers," organized by the United Nations Economic Commission for Europe (UNECE), Eurostat and the Organisation for Economic Co-operation and Development (OECD), September 27, 2017, Paris, France, pp. 9, 10, at https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.42/2017/US.pdf.

[20] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, pp. 13, 14, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml.

[21] Ibid., p. 14.

> Understanding the process of job creation by private sector businesses requires understanding this dynamic. Policies that favor various simply defined classes of businesses (e.g., by size) and ignore this fundamental dynamic will likely have limited success.[22]

A 2012 study using U.S. Census Bureau employment data from 1998 to 2011 also found that the age of a business is a more important factor in understanding business employment dynamics than the size of a business. The study's authors found that young firms, defined as firms in their first two years of existence, have higher job creation and job destruction rates than older firms, higher rates of net job creation than older firms, and exhibit significantly higher worker churning (job switching) than older firms.[23]

In sum, the prevailing view of the economic literature concerning startups is that they have a significant role in job creation because, by definition, they add jobs to the economy in their founding year and, for the most part, are not old enough to eliminate them yet. However, the positive effect of startups on net job creation diminishes over time because "most businesses start small, stay small, and close just a few years after opening."[24]

The Role of Surviving Startups in Net Job Creation

Several economic studies have argued that in any given year nearly all net job creation in the United States since 1980 has occurred in businesses that are less than five years old.[25] This would seem to suggest that if the SBA were to target its resources to promote net job creation that it would consider targeting those resources to small businesses that are less than five years old. However, other studies have found that startups account for nearly all of the positive employment effect of businesses that are less than five years old in any given year and, as mentioned previously, the positive employment effect of startups diminishes over time.

For example, one study found that, in 2005, nearly all net job creation in that year came from businesses that were less than six years old. However, when the employment effect of startups was separated from the employment effect of businesses in operation for one to five years, startups accounted for nearly all of that year's net job creation and relatively young businesses (in operation for one year to five years) accounted for most of that year's job losses.[26]

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[22] John Haltiwanger, Ron S Jarmin, and Javier Miranda, "Who Creates Jobs? Small vs. Large vs. Young," Cambridge, MA: National Bureau of Economic Research, Working Paper 16300, August 2010, pp. 3, 30, at http://www.nber.org/papers/w16300.

[23] John Haltiwanger, Henry Hyatt, Erika McEntarfer, and Liliana Sousa, "Job Creation, Worker Churning, and Wages at Young Businesses," Kaufman Foundation Research Series: November 2012, p. 2, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2012/11/bds_report_7.pdf.

[24] Brian Headd, "An Analysis of Small Business and Jobs," SBA, Office of Advocacy, March 1, 2010, p. 7, at https://www.sba.gov/sites/default/files/files/an%20analysis%20of%20small%20business%20and%20jobs(1).pdf.

[25] Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, p. 4, at http://www.kauffman.org/-/media/kauffman_org/research-reports-and-covers/2009/11/where_will_the_jobs_come_from.pdf; and Dane Stangler and Paul Kedrosky, "Neutralism and Entrepreneurship: The Structural Dynamics of Startups, Young Firms, and Job Creation," Kaufman Foundation Research Series: Firm Formation and Economic Growth, September 2010, pp. 2, 8, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2010/09/firmformationneutralism.pdf.

[26] Scott Shane, "Entrepreneurial Job Creation Statistics are Economic Rorschach Test," *Economic Trends*, March 15, 2010, at http://smallbiztrends.com/2010/03/entrepreneurial-job-creation-statistics-are-an-economic-rorschach-test.html.

Another study found that startups accounted for a significant number of new jobs, but that "the bulk of job flows take place in existing firms' expansions and contractions."[27] The study also found that continuing firms accounted for 69% of the net jobs created from 1993 to mid-2008 and firm turnover (firm births minus deaths) accounted for 31% of the net jobs created over that time period.[28]

A 2010 study examined the employment effect of employer firms from 1977 to 2005 as they aged from birth to year five. The study found that, overall, relatively young businesses (in operation for one year to five years) are net job destroyers, but that the net job creation among surviving firms over the first five years of their existence was able to partially balance out the jobs lost by failed and shrinking businesses that started in the same year that they did.[29] The study found that although about half of all firms fail within five years "when a given cohort of startups reaches age five, their employment level is 80% of what it was when it began."[30] The authors argued that their findings suggest that "it is true that new startups matter" in net job creation even though "many firms fail in their first few years," but that "if we are looking for employment that lasts" it is the surviving startups that "are vital."[31]

Another study examined the shares of net job creation, in 2007, from businesses of different ages in an attempt to isolate the contribution of businesses that have survived for at least one year. The study found that net job creation, in 2007, came primarily from three sources: startups, surviving young businesses (in operation for one to five years), and the oldest (and largest) surviving businesses (in operation for more than 28 years). They found relatively little net job creation, in 2007, from businesses that were in operation for at least 6 years but less than 28 years.[32] The authors called this a "barbell effect, with job creation occurring at the youngest and oldest ends of the firm age spectrum, and mostly flat in between."[33]

The authors noted that they were unable to break out the effects of mergers and acquisitions on their findings, but that they suspected the net addition of jobs in the oldest (and largest) businesses came primarily from the acquisition of younger businesses that "pioneer innovations" that create jobs.[34] The authors also found "very little relationship" between the amount of small business employment in an industry and that industry's job growth. They did find what they termed "an incredibly tight relationship" between any particular industry's job growth and the performance of young businesses (less than six years old) within that industry. They concluded that this relationship suggested that "young companies are the engines of job creation."[35]

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[27] Brian Headd, "An Analysis of Small Business and Jobs," SBA, Office of Advocacy, March 1, 2010, pp. 8, 9, at https://www.sba.gov/sites/default/files/files/an%20analysis%20of%20small%20business%20and%20jobs(1).pdf.

[28] Ibid., pp. 9, 10.

[29] Michael Horrell and Robert Litan, "After Inception: How Enduring is Job Creation by Startups?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, July 2010, p. 5, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2010/08/firmformationinception8210.pdf.

[30] Ibid., pp. 4, 8-10.

[31] Ibid., p. 10.

[32] Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, pp. 6-7, at http://www.kauffman.org/-/media/kauffman_org/research-reports-and-covers/2009/11/where_will_the_jobs_come_from.pdf.

[33] Ibid., p. 5.

[34] Ibid., p. 10.

[35] Ibid., p. 8.

A study using Census Bureau employment data from 1980 to 2009 reached a similar conclusion. The study's author found that "young businesses, not necessarily small businesses, are responsible for the substantial majority of net job creation in the U.S. economy."[36] Also, another study, using Census Bureau employment data from 1998 to 2011, found that young firms, defined as employers in the first two years of existence, had much higher job creation rates than older firms, higher job destruction rates than older firms, and, overall, higher net job creation rates than older firms. Specifically, the study's authors found that "for the youngest firms, the net job creation rate in [economic] booms exceeds 10% and, even in the recent recession, exceeded 6%. In contrast, the net job creation rates for mature businesses are positive in [economic] booms and negative in recessions."[37]

The finding that "young companies are the engines of job creation" seems to contradict the previously mentioned finding that businesses between the ages of one year and five years are net job destroyers.[38] Both findings are supported by empirical evidence. The explanation for the different findings is largely due to the way the studies treat the role of startups in net job creation. If the job creation that occurs from startups is excluded from the analysis, then the evidence seems to suggest that older businesses have a larger role in net job creation than younger businesses. If the job creation that occurs from startups is included in the analysis, then the evidence seems to suggest that younger businesses have a larger role in net job creation than older businesses.[39] Also, as mentioned previously, if the analysis focuses on business survivors, then the evidence seems to suggest that the "barbell effect" takes place, with younger businesses and much older (and larger) businesses having a larger role in net job creation than businesses that are in operation for at least 6 years but less than 28 years.[40]

The Role of High-Impact Businesses in Net Job Creation

Because most small businesses start and remain small, some economists have focused their research on the role of what the SBA and others refer to as "high-impact" businesses (sometimes referred to as gazelles), instead of the relative roles of small versus large businesses, in job

[36] Ian Hathaway, "Small Business and Job Creation: The Unconventional Wisdom," *Bloomberg Government*, October 31, 2011.

[37] John Haltiwanger, Henry Hyatt, Erika McEntarfer, and Liliana Sousa, "Job Creation, Worker Churning, and Wages at Young Businesses," Kaufman Foundation Research Series: November 2012, p. 2, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2012/11/bds_report_7.pdf.

[38] Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, p. 8, at http://www.kauffman.org/-/media/kauffman_org/research-reports-and-covers/2009/11/where_will_the_jobs_come_from.pdf; and Michael Horrell and Robert Litan, "After Inception: How Enduring is Job Creation by Startups?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, July 2010, p. 5, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2010/08/firmformationinception8210.pdf. Also see Scott Shane, "To Create Jobs, Help Existing Small Employers," *Bloomberg Businessweek*, October 29, 2010, at https://www.bloomberg.com/news/articles/2010-10-29/to-create-jobs-help-existing-small-employers.

[39] Scott Shane, "Entrepreneurial Job Creation Statistics are Economic Rorschach Test," *Economic Trends*, March 15, 2010, at http://smallbiztrends.com/2010/03/entrepreneurial-job-creation-statistics-are-an-economic-rorschach-test.html.

[40] Dane Stangler and Robert E. Litan, "Where Will The Jobs Come From?" Kaufman Foundation Research Series: Firm Formation and Economic Growth, November 2009, p. 5, at http://www.kauffman.org/-/media/kauffman_org/research-reports-and-covers/2009/11/where_will_the_jobs_come_from.pdf. Also see John Haltiwanger, Ron S Jarmin, and Javier Miranda, "Who Creates Jobs? Small vs. Large vs. Young," Cambridge, MA: National Bureau of Economic Research, Working Paper 16300, August 2010, p. 24, at http://www.nber.org/papers/w16300. They found that "conditional on survival, young firms exhibit substantially higher growth than more mature firms."

creation.[41] High-impact businesses are defined as having sales that have doubled over the most recent four-year period and have an employment growth quantifier of two of more over the same time period. The employment growth quantifier equals the product of a firm's absolute change and percent change in employment.[42]

High-impact businesses account for a relatively small percentage of businesses (typically 5% to 6% of all businesses with employees), yet account for "almost all [net] job creation in the economy."[43]

An analysis of employment in the United States from 1994 to 2006 found that there were 352,114 high-impact businesses during the 1994-1998 four-year time period, 299,973 during the 1998-2002 four-year time period, and 376,605 during the 2002-2006 four-year time period.[44] The study found that high-impact businesses

- accounted for nearly all employment growth in the economy;
- came in all sizes (e.g., from 1994 to 2006, businesses with fewer than 20 employees accounted for 93.8% of high-impact businesses and 33.5% of job growth among high-impact businesses; businesses with 20-499 employees accounted for 5.9% of high-impact businesses and 24.1% of job growth among high-impact businesses; and businesses with 500 or more employees accounted for 0.3% of high-impact businesses and 42.4% of job growth among high-impact businesses);
- existed in all regions, all states, and all counties;
- tended to be located in a metropolitan area (77.6% compared with 22.4% in a rural area), and within 20 miles of a central business district (53.2%);
- existed in nearly all industries; and
- on average, were smaller and younger than other businesses, but "the average high-impact business is not a startup and has been in operation for about 25 years."[45]

The study's authors argued that the presence of high-impact businesses in "virtually all" industrial classifications throughout the 1994-2006 time period "suggests that economies that are more diversified will grow more rapidly than ones that are more specialized" and "therefore, encouraging diversity as a policy seems to make much more sense than targeting select industries" for assistance.[46]

A follow-up study of high-impact businesses and their effect on net job creation in the United States found that there were 368,262 high-impact businesses during the 2004-2008, four-year

[41] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml. The term *gazelles* was used to describe rapidly growing firms in David L. Birch and James Medoff, "Gazelles," in Lewis C. Solmon and Alec R. Levenson, eds., *Labor Markets, Employment Policy and Job Creation* (Boulder: Westview Press, 1994), pp. 159-168.

[42] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, pp. 1, 16, 17, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml.

[43] Ibid., p. 3. This study includes a review of the economic literature on high-impact businesses. See ibid., pp. 4-12.

[44] Ibid., p. 1.

[45] Ibid., pp. 1-3, 36, 44.

[46] Ibid., pp. 30-32.

time period, representing about 6.3% of all firms with employees.[47] The study found that high-impact businesses accounted for nearly all net employment growth during the 2004-2008 time period, came in all sizes (95.3% had fewer than 20 employees, 4.5% had 20-499 employees, and 0.2% had 500 or more employees), existed in all regions and states, were relatively evenly distributed across all industries, regardless of whether the industries were stagnant, growing, or declining, and tended to be located in an urban area (85%).[48]

The study also found that high-impact businesses were, on average, younger than other businesses across all three business size categories. Specifically, high-impact businesses with fewer than 20 employees were, on average, in business for 17 years compared with 22 years for other businesses with fewer than 20 employees. High-impact businesses with 20-499 employees were, on average, in business for 25 years compared with 33 years for other businesses with 20-499 employees. Also, high-impact businesses with 500 or more employees were, on average, in business for 33 years compared with 51 years for other businesses with 500 or more employees.[49]

The study also found that high-impact businesses were more productive (as measured by revenue per employee) than other businesses during the 2004-2008 time period, and the number of women-owned high-impact businesses was proportionate to the number of women-owned non-high-impact businesses.[50]

The Role of High-Technology Firms in Net Job Creation

Using Census Bureau employment data from 1980 to 2011, a 2013 Kauffman Foundation study found that new businesses (aged one to five years) in 14 industries "with very high shares of employees in the STEM fields of science, technology, engineering, and math … played an outsized role in job creation" and while these industries were once relatively geographically concentrated in just a few states they "are becoming increasingly geographically dispersed."[51] Hathaway, the study's author, argued that most nascent entrepreneurs report that they are not interested in building "a high-growth business."[52] Instead, most nascent entrepreneurs report that they plan to remain small and focus on providing an existing service to an existing customer base

[47] Spencer L. Tracy, Jr., "Accelerating Job Creation in America: The Promise of High-Impact Companies," SBA, Office of Advocacy, July 2011, p. 26, at http://www.sba.gov/sites/default/files/rs381tot.pdf.

[48] Ibid., pp. 24-29, 43-46, 54. The study's author noted that the finding that nearly 85% of all high-impact companies are located in an urban area "is less compelling when considering that nearly 80% of all people in the U.S. reside in urban areas." See ibid., p. 29.

[49] Ibid., pp. 38, 39.

[50] Ibid., pp. 46-50.

[51] Ian Hathaway, "Tech Starts: High-Technology Business Formation and Job Creation in the United States," Kaufman Foundation Research Series: Firm Formation and Economic Growth, August 2013, p. 2, at http://www.kauffman.org/~/media/kauffman_org/research%20reports%20and%20covers/2013/08/bdstechstartsreport.pdf. The 14 industries identified as having a high concentration of STEM employees, including their NAICS code, are: NAICS 3341, computer and peripheral equipment manufacturing; NAICS 3342, communications equipment manufacturing; NAICS 3344, semiconductor and other electronic component manufacturing; NAICS 3345, navigational, measuring, electromedical, and control instruments manufacturing; NAICS 5112, software publishers; NAICS 5161, internet publishing and broadcasting; NAISC 5179, other telecommunications; NAICS 5181, internet service providers and web search portals; NAICS 5182, data processing, hosting, and related services; NAICS 5415, computer systems design and related services; NAICS 3254, pharmaceutical and medicine manufacturing; NAICS 3364, aerospace product and parts manufacturing; NAICS 5413, architectural, engineering, and related services; and NAICS 5417, scientific research-and-development services.

[52] Ibid., p. 3.

rather than creating new services or building a new customer base.[53] In contrast, he argued that entrepreneurs in information and communications high-technology industries (such as manufacturers of computer and peripheral equipment, communications equipment, and semiconductor and other electronic equipment; software publishers; and internet service providers) and in other high-technology industries (such as pharmaceutical and medicine manufacturing; aerospace product and parts manufacturing; architectural, engineering, and related services; and scientific research-and-development services) are more growth oriented and behave differently than other entrepreneurs. He found that over the last three decades these 14 industries had experienced rapid employment grown, even though they had experienced significant employment losses during "the dot-com bust" in the early 2000s and "Great Recession of 2008 and 2009."[54] He noted that despite these downturns, surviving young firms in the 14 high-technology industries provided net job creation rates "more than twice that of businesses across the economy."[55] The author concluded his analysis by arguing that job creation and business formation dynamics vary across industries and that "the next few years of data releases will provide critical insights into the state of economic dynamism and entrepreneurship in the United States."[56]

Summary Discussion

Economic research on net job creation suggests that startups play a very important role in job creation, but have a more limited effect on net job creation over time because about one-third of all startups close by their second year of existence and fewer than half of all startups are still in business after five years. However, that research also suggests that the influence of small startups on net job creation varies by firm size. Startups with fewer than 20 employees tend to have a negligible effect on net job creation over time while startups with 20-499 employees tend to have a positive employment effect "that continued to increase for five years after their formation before decreasing."[57] This finding would suggest that, if providing assistance to startups was used as a factor in SBA program performance or in the distribution of SBA assistance, the startup's size should also be taken into consideration.

Economic research on net job creation also suggests that net job creation is concentrated among a relatively small group of surviving "high-impact" businesses that are younger and smaller than the typical business, but also have, on average, been in operation for 25 years. This finding suggests that all three groups of businesses—startups, younger small businesses (in operation for one year to five years), and high-impact businesses—are important contributors to net job creation.

In addition, recent economic research suggests that employment dynamics vary across U.S. industries, with entrepreneurs in some industries providing a greater emphasis on employment expansion than in other industries.

In sum, current economic research on the dynamics of net job creation does not provide a definitive answer concerning how to identify those businesses that are most likely to contribute to net job creation. However, that research does suggest that small business startups, especially

[53] Ibid.

[54] Ibid., p. 6.

[55] Ibid., p. 16.

[56] Ibid., p. 17.

[57] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, p. 14, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml.

those with at least 20 employees, play a large role in net job creation, as do surviving younger businesses (in operation for one year to five years). It does not, as of yet, provide criteria to predict, with any degree of certainty, which of the surviving younger businesses will emerge as high-impact businesses.

Implications for Congress and the SBA

The Small Business Act of 1953 (P.L. 83-163, as amended) authorized the SBA and justified the agency's existence on the grounds that small businesses were essential to the maintenance of the free enterprise system:

> The essence of the American economic system of private enterprise is free competition. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed. It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect insofar as is possible the interests of small-business concerns in order to preserve free competitive enterprise, to insure that a fair proportion of the total purchases and contracts for supplies and services for the Government be placed with small-business enterprises, and to maintain and strengthen the overall economy of the Nation.[58]

In economic terms, the congressional intent was to use the SBA to deter the formation of monopolies and the market failures they cause by eliminating competition in the marketplace. The congressional emphasis on deterring monopoly formation could help to explain the SBA's historical reliance on factors related to promoting business competition within the various industrial classifications, as opposed to using other factors, such as job creation, when formulating its industry size standards.

The Small Business Act did not mention the SBA's role in job creation. However, in 1954, Wendell Barnes, the SBA's second Administrator, was asked at a congressional hearing to discuss the SBA's role in supporting small businesses. He testified that part of the SBA's mission was to provide credit to small businesses to enable them to "provide additional employment."[59]

For many years, economists and others have argued that providing federal assistance to small businesses is justified because small businesses are perceived to be at a disadvantage, compared with other businesses, in accessing capital and credit.[60] In their view, lenders are less likely to lend to small businesses than to larger businesses because small businesses tend to be younger and have less credit history than larger businesses.[61] Also, lenders may be reluctant to lend to

[58] P.L. 83-163, the Small Business Act of 1953, Section 202.

[59] U.S. Congress, Senate Select Committee on Small Business, *Small Business Administration Loan Policy*, 83rd Cong., 2nd sess., May 13, 1954 (Washington: GPO, 1954), p. 10.

[60] For a discussion of the economic reasons for and against providing small businesses tax preferences see CRS Report RL32254, *Small Business Tax Benefits: Current Law and Arguments For and Against Them*, by Gary Guenther.

[61] U.S. Government Accountability Office, *Small Business Administration: 7(a) Loan Program Needs Additional Performance Measures*, GAO-08-226T, November 1, 2007, pp. 3, 9-11, at http://www.gao.gov/new.items/d08226t.pdf; and Veronique de Rugy, *Why the Small Business Administration's Loan Programs Should Be Abolished*, Washington, DC: American Enterprise Institute for Public Policy Research, AEI Working Paper #126, April 13, 2006, http://www.aei.org/wp-content/uploads/2011/10/20060414_wp126.pdf.

small businesses with innovative products because it might be difficult to collect enough reliable information to correctly estimate the risk for such products.[62] As GAO has reported:

> Limited evidence from economic studies suggests that some small businesses may face constraints in accessing credit because of imperfections such as credit rationing in the conventional lending market. Some studies showed, for example, that lenders might lack the information needed to distinguish between creditworthy and non-creditworthy borrowers and thus could "ration" credit by not providing loans to all creditworthy borrowers. Several studies we reviewed generally concluded that credit rationing was more likely to affect small businesses, because lenders could face challenges obtaining enough information on these businesses to assess their risk.[63]

Others have supported federal assistance to small businesses because they believe that small business ownership provides an opportunity for minorities, women, and immigrants to increase their income and independence and to move into the economic mainstream of the American economy.[64] In their view, businesses owned by these demographic groups face even greater barriers in obtaining access to capital and credit than other small business owners due to discrimination and their higher likelihood of locating their business in a low or moderate income community. Operating a business in a low or moderate income community is often viewed by lenders as increasing the risk that the business owner will be unable to repay the loan.[65]

In recent years, advocates of providing federal assistance to small businesses have focused increased attention on the SBA's role in job creation.[66] For example, the SBA has argued that "improving access to credit by small businesses is a crucial step in supporting economic recovery and job creation."[67]

Economists generally do not view job creation as a justification for providing federal assistance to small businesses. They argue that in the long term such assistance will likely reallocate jobs within the economy, not increase them. In their view, jobs arise primarily from the size of the labor force, which depends largely on population, demographics, and factors that affect the choice

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[62] Veronique de Rugy, *Why the Small Business Administration's Loan Programs Should Be Abolished*, Washington, DC: American Enterprise Institute for Public Policy Research, AEI Working Paper #126, April 13, 2006, at http://www.aei.org/wp-content/uploads/2011/10/20060414_wp126.pdf.

[63] U.S. Government Accountability Office, *Small Business Administration: 7(a) Loan Program Needs Additional Performance Measures*, GAO-08-226T, November 1, 2007, pp. 3, 9-11, at http://www.gao.gov/new.items/d08226t.pdf.

[64] Advocates of federal assistance for small businesses also argue that women-, minority-, and immigrant-owned small businesses benefit their immediate communities and society at large in ways that go beyond direct economic effects. For example, there is evidence that women small business owners are more likely than their male counterparts to encourage openness in workplace communication and decision-making, hire a diverse workforce, put into place desirable child-care programs, and pay full benefits to employees. See Candida Brush and Robert D. Hisrich, "Women-Owned Businesses: Why Do They Matter?" in *Are Small Firms Important? Their Role and Impact* (Boston: Kluwer Academic Publishers, 1999), pp. 111-127; and John Sibley Butler and Patricia Gene Greene, "Don't Call Me Small: The Contribution of Ethnic Enterprises to the Economic and Social Well-Being of America," in *Are Small Firms Important? Their Role and Impact* (Boston: Kluwer Academic Publishers, 1999), pp. 129-145.

[65] Robert W. Fairlie and Alicia M. Robb, "Disparities in Capital Access between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs," U.S. Department of Commerce, Minority Business Development Agency, January 2010, pp. 3-5, 8, 17-23, at http://www.mbda.gov/sites/default/files/DisparitiesinCapitalAccessReport.pdf.

[66] For example, see The White House, "Remarks by the President on Job Creation and Economic Growth," December 8, 2009, at https://obamawhitehouse.archives.gov/photos-and-video/video/job-creation-and-economic-growth#transcript.

[67] SBA, "President Obama Announces New Efforts to Improve Access to Credit for Small Businesses," 2009, at http://www.sba.gov/idc/groups/public/documents/sba_homepage/sba_rcvry_new_effort_credit_sb.pdf.

of home versus market production (e.g., the entry of women in the workforce). However, economic theory does suggest that increased federal spending may result in additional jobs in the short term. For example, the SBA reported in September 2010 that small business funding provided by P.L. 111-5, the American Recovery and Reinvestment Act of 2009, created or retained 785,955 jobs.[68]

The following sections examine the potential consequences of using net job creation as a SBA program performance measure and for targeting SBA assistance. That assistance is currently available to businesses that are located in the United States, are a for-profit operating business, qualify as small under the SBA's size requirements, and, for loan guarantees, demonstrate a need for the desired credit and are certified by a lender that the desired credit is unavailable on reasonable terms and conditions from nonfederal sources without the SBA's assistance.[69] About 97% of all business concerns currently meet the SBA's eligibility criteria.[70]

Using Net Job Creation to Measure SBA Program Performance

GAO has argued that the SBA's program performance measures provide limited information about the impact of its programs on participating small businesses because those measures focus primarily on output, such as the number of loans approved and funded, rather than outcomes, such as how well the small businesses do after receiving SBA assistance.[71] GAO has recommended that the SBA devise program performance measures based on outcomes to enable Congress to determine "how well the agency is meeting its strategic goal of helping small businesses succeed."[72]

At least one economist has argued that Congress should consider "including performance benchmarks in government loan programs" as "useful assessment tools for distinguishing companies with exceptional capacities and promise" for economic growth and job creation.[73] Under this proposal, the government's guarantee would increase "to a ceiling in accordance with the number of benchmarks an applicant satisfies, though meeting some base-level benchmarks would be required of all applicants."[74]

Congress has required the SBA to use outcome-based performance measures for some of its programs. For example, borrowers in the SBA's 504/CDC (Certified Development Company) loan guaranty program, except small manufacturers, are required to create or retain at least one

[68] SBA, "FY2009/2010 Final – Recovery Program Performance Report, September 2010," September, 2010, at https://www.sba.gov/sites/default/files/recovery_act_reports/perform_report_9_2010.pdf.

[69] 13 C.F.R. §120.100; 13 C.F.R. §120.101; and 13 C.F.R. §120.102. A list of ineligible businesses, such as non-profit businesses, insurance companies, and businesses deriving more than one-third of gross annual revenue from legal gambling activities, are contained in 13 C.F.R. §120.110. Also, borrowers can use Microloan proceeds for working capital and acquisition of materials, supplies, furniture, fixtures, and equipment to establish nonprofit child care centers, see 13 C.F.R. §120.707.

[70] SBA, "SBA's Size Standards Analysis: An Overview on Methodology and Comprehensive Size Standards Review," power point presentation, Khem R. Sharma, SBA Office of Size Standards, July 13, 2011, p. 4, at http://www.wcoeusa.org/sites/default/files/Size%20Standards%20Methodology%20from%20SBA.pdf.

[71] U.S. Government Accountability Office, *Small Business Administration: 7(a) Loan Program Needs Additional Performance Measures*, GAO-08-226T, November 1, 2007, pp. 2, 7-9, at http://www.gao.gov/new.items/d08226t.pdf.

[72] Ibid., p. 2.

[73] Spencer L. Tracy, Jr., "Accelerating Job Creation in America: The Promise of High-Impact Companies," SBA, Office of Advocacy, July 2011, p. 55, at http://www.sba.gov/sites/default/files/rs381tot.pdf.

[74] Ibid.

job for every $75,000 of project debenture.[75] Small manufacturers (defined as a small business with its primary North American Industry Classification System Code in Sectors 31, 32, and 33, and having all of its production facilities in the United States) must create or retain one job per $120,000 of project debenture.[76]

The SBA also requires its management and technical assistance training program counselors to report information concerning job creation and retention.[77] In addition, as mentioned previously, the SBA released estimates of the number of jobs created and retained by its loan guaranty programs as part of its implementation of P.L. 111-5, the American Recovery and Reinvestment Act of 2009.[78] The SBA's Office of Advocacy also periodically commissions independent studies of job creation and net job creation by small businesses to draw attention to "the contributions and challenges of small businesses in the U.S. economy."[79]

Given increased congressional interest in job creation, it could be argued that using net job creation as an outcome-based performance measure for the SBA's programs might enhance congressional oversight by providing Congress additional information concerning the nature of the jobs created by the SBA's programs, such as whether the jobs (and recipient small businesses) last or disappear relatively soon.[80] Congress could use this information to compare programs and as a factor in its deliberations concerning SBA funding and priorities.

The counterargument is that implementing net job creation as a SBA program performance measure is not necessarily easy. For example, decisions would have to be made concerning how to count part-time workers and seasonal workers, whether to take into account salaries and benefits, how long to track the small business's employment levels, how to keep reporting requirements manageable for small business owners, and whether to rely on self-reporting, independent consultants, or SBA staff to gather and verify the data. Economists might also argue that using net job creation as a SBA program performance criteria is inappropriate because economic theory suggests that in the long run such assistance does not create additional jobs, it reallocates them within the economy. Some small businesses might also object, worried that the use of net job creation as a SBA program performance measure might result in them receiving less SBA assistance than they would otherwise receive.

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[75] For further analysis of the 504/CDC program, see CRS Report R41184, *Small Business Administration 504/CDC Loan Guaranty Program*, by Robert Jay Dilger.

[76] SBA, "SOP 50 10 5(K): Lender and Development Company Loan Programs," effective April 1, 2019, p. 309, at https://www.sba.gov/document/sop-50-10-5-lender-development-company-loan-programs. The jobs created do not have to be at the project facility, but 75% of the jobs must be created in the community where the project is located. Using job retention to satisfy this requirement is allowed only if the Certified Development Company (CDC) can reasonably show "that jobs would be lost to the community if the project was not done." The borrower can also retain eligibility by meeting any one of five specified community development goals or 10 specified public policy goals, provided the CDC meets its required job opportunity average of at least one job opportunity created or retained for every $75,000 in project debenture, or for every $85,000 in project debenture for projects located in special geographic areas (Alaska, Hawaii, state-designated enterprise zones, empowerment zones, enterprise communities, and labor surplus areas). Loans to small manufacturers are excluded from the calculation of this average. See SBA, "Development Company Loan Program - Job Creation and Retention Requirements; Additional Areas for Higher Portfolio Average," 83 *Federal Register* 55225-55226, November 2, 2018.

[77] For further analysis of SBA management and technical assistance programs, see CRS Report R41352, *Small Business Management and Technical Assistance Training Programs*, by Robert Jay Dilger.

[78] SBA, "FY2009/2010 Final - Recovery Program Performance Report, September 2010," September 2010, pp. 2, 3, at https://www.sba.gov/sites/default/files/recovery_act_reports/perform_report_9_2010.pdf.

[79] SBA, Office of Advocacy, "About US," at https://www.sba.gov/category/advocacy-navigation-structure/about-us-0.

[80] Using net job creation as a performance measure for the SBA's disaster assistance loan program for individuals and households (renters and property owners) to repair and replace homes and personal property following a disaster may have limited utility because that program is not specifically designed to assist businesses.

Using Net Job Creation to Target SBA Assistance

Given increased congressional interest in job creation, it could be argued that using net job creation as a factor in the targeting of the SBA's assistance might enhance congressional efforts to promote job growth. Job growth has been one of the top domestic priorities of recent Congresses.

The counterargument is that there is little evidence to prove that providing a subsidy to small businesses that currently create the most jobs will be the most effective means of promoting job growth. For example, it could be argued that successful small businesses may not need SBA assistance because their success enables them to attract capital and credit from private sources. Also, given the constantly evolving nature of the economy, the businesses that create the most jobs in the economy change over time. The SBA would need to update its criteria periodically to account for these changes.

It could also be argued that using net job creation as a factor in allocating SBA assistance is premature because, given the evolving nature of the economic literature, there is no consensus concerning the criteria that should be used to identify businesses that are the most likely to have a positive effect on net job creation.

In addition, economists might oppose the use of net job creation to target SBA assistance for the same reason they might oppose using net job creation as a SBA program performance measure—because economic theory suggests that in the long run such assistance does not create additional jobs, it reallocates them within the economy. Some small businesses might also object, worried that using net job creation as a factor in allocating SBA assistance might eliminate or reduce the SBA assistance that they would otherwise receive.

It could also be argued that the SBA already takes net job creation into account, at least to a limited degree, in its loan guaranty programs. By guaranteeing less than 100% of the SBA loan amount issued by private lenders, the SBA subjects lenders to losses on defaulted loans (ranging from 10% to 50% of the loan amount depending on the SBA program). It could be argued that lenders take into account the borrower's likelihood of repayment (survival) and, therefore, the borrower's potential for having a positive effect on net job creation, before issuing a SBA guaranteed loan to protect their financial investment. As a result, the lending process, arguably, helps to weed out those firms that are most likely to have a negative effect on net job creation. However, it could also be argued that because lenders are required to certify that the desired credit is unavailable to the applicant on reasonable terms and conditions from nonfederal sources without the SBA's assistance, SBA borrowers are, by definition, at greater risk of failing than others and, therefore, are also less likely than others to have a positive effect on net job creation.

It could also be argued that the SBA's Small Business Investment Company (SBIC) program already takes net job creation into account, at least indirectly.[81] Under the SBIC program, the SBA guarantees debentures (loan obligations) that are sold to investors. The revenue generated by the sale of the debenture is then invested by certified small business investment companies in small businesses. When making those investments, small business investment companies take into account many factors, including the business's potential for economic growth. As a result, it could be argued that the SBIC program takes into account the borrower's likelihood of having a positive effect on net job creation and, unlike the SBA's loan guaranty programs, does not have to certify that the desired credit is unavailable to the applicant on reasonable terms and conditions from nonfederal sources without the SBA's assistance. The counterargument is that the SBIC

[81] For further analysis of the Small Business Investment Company Program, see CRS Report R41456, *SBA Small Business Investment Company Program*, by Robert Jay Dilger.

program is much smaller than the SBA's business loan guaranty programs (e.g., the SBA guarantees between $3 billion and $4 billion in SBIC debentures annually compared with nearly $30 billion in business loan guarantees) and the SBA does not use net job creation as a primary factor in allocating those resources.

Finally, it could be argued that using net job creation as a factor in the allocation of SBA assistance will not have much effect on net job creation because the SBA's loan programs represent a relatively small share of the capital accessed by small businesses in any given year. Following this line of argument, it could be argued that a more effective strategy for promoting job creation would be to focus on policies affecting the broader economy rather than the SBA.

Concluding Observations

Economic research on net job creation suggests that startups play a very important role in job creation, but have a more limited effect on net job creation over time because about one-third of all startups close by their second year of existence and fewer than half of all startups are still in business after five years. However, economic research also suggests that the influence of small startups on net job creation varies by firm size. Startups with fewer than 20 employees tend to have a negligible effect on net job creation over time whereas startups with 20-499 employees tend to have a positive employment effect "that continued to increase for five years after their formation before decreasing."[82] This finding would suggest that, if providing assistance to startups was used as a factor in SBA program performance or in the distribution of SBA assistance, the startup's size should also be taken into consideration.

The economic research on net job creation also suggests that net job creation is concentrated among a relatively small group of surviving "high-impact" businesses that are younger and smaller than the typical business, but also have, on average, been in operation for 25 years. This finding suggests that all three groups of businesses—startups, young small businesses (in operation for one year to five years), and surviving high-impact businesses—are important contributors to net job creation.

As mentioned previously, recent economic research suggests that employment dynamics vary across U.S. industries, with entrepreneurs in some industries providing a greater emphasis on employment expansion than entrepreneurs in other industries.

In sum, economic research on the dynamics of net job creation does not provide a definitive answer concerning how to identify those businesses that are most likely to contribute to net job creation. However, that research does suggest that small business startups, especially those with at least 20 employees, play a large role in net job creation, as do surviving younger businesses (in operation for one year to five years). The economic literature does not, as of yet, provide criteria to predict, with any degree of certainty, which of the surviving younger businesses will emerge as high-impact firms. Nonetheless, given the heightened congressional interest in net job creation, increased attention to the fact that the SBA is not specifically designed to promote net job creation and does not use net job creation as a program performance measure may lead to additional analysis that can better inform the debate over whether the SBA should use net job creation as an outcome-based program performance measure or as a factor in the allocation of its assistance.

[82] Zoltan Acs, William Parsons, and Spencer Tracy, "High-Impact Firms: Gazelles Revisited," SBA, Office of Advocacy, June 2008, p. 14, at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/PB2008109311.xhtml.

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