



**THE STATE SMALL
BUSINESS CREDIT
INITIATIVE AND
REBUILDING THE
U.S. MANUFACTURING
BASE**

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**THE WHITE HOUSE
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Executive Summary

The American Rescue Plan, passed in 2021, reauthorized and expanded the State Small Business Credit Initiative (SSBCI) and will provide nearly \$10 billion in funds to help small businesses access the capital they need to invest in job-creating opportunities as the country emerges from the pandemic. These funds will be allocated to states, the District of Columbia, territories, and Tribal governments to promote American entrepreneurship and democratize access to startup capital across the country, including in underserved communities. This report studies program activity in manufacturing created by U.S. states and discusses the potential benefits that SSBCI will have for U.S. small manufacturers.

The U.S. Department of Treasury is implementing SSBCI as the nation is experiencing a revival in domestic manufacturing under the Biden-Harris Administration. Since President Biden took office, 800,000 manufacturing jobs have been created—more than any other president. The manufacturing sector has recovered faster than any period since the 1950s. As the Biden-Harris Administration has passed historic legislation including the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act, industry has pledged more than \$400 billion of new investments in domestic manufacturing in critical industries, such as semiconductors and clean energy. This boom follows decades of decline in the U.S. manufacturing sector, with the loss of 4.5 million domestic manufacturing jobs the two decades prior to the pandemic.

As manufacturing declined in the United States over the previous decades, other nations stepped up public investment to support their domestic manufacturing. Nations with advanced economies including Germany, Japan, and Israel have made targeted investments focused on manufacturing, including subsidizing research and development, offering affordable loans to manufacturers, and providing technical and business development assistance.

The Biden-Harris Administration is meeting the current moment by implementing an industrial strategy¹ that is focused on making critical investments in infrastructure, advanced manufacturing, semiconductors, and clean energy and energy efficiency that will support millions of quality jobs and strengthen the small manufacturers that support these industries.

Given the track record of the first iteration of SSBCI, which supported small manufacturers through more than 2,500 loans and investments representing a quarter of the \$10 billion in financing spurred by the program, the Biden-Harris Administration has made SSBCI an important part of its industrial strategy. Treasury is working with states, territories, and Tribal Governments across the country to stand up SSBCI-supported programs. As of May 2023, the Treasury Department has approved 52 out of 56 state and territory applications for SSBCI totaling over \$8 billion in allocations from \$10 billion made possible through the American Rescue Plan. Dozens of states have begun SSBCI-supported lending and investments. The Treasury Department is currently reviewing 51 applications from states and territories for \$200

¹ Brian Deese, “Remarks on Executing a Modern American Industrial Strategy by NEC Director Brian Deese” (Speech, City Club of Cleveland, October 13, 2022).



million in funding to provide technical assistance to small businesses. As Treasury has worked with jurisdictions to launch their programs, it has also convened a manufacturing-focused collaborative where nearly twenty states have participated so far to share best practices and discuss common challenges.

The states participating in this collaborative are standing up initiatives to address a host of common challenges faced by small manufacturers. These SSBCI-supported efforts include programs to reduce lender risk when financing advanced technologies, expanding access to working capital, improving flexibility in use of loan proceeds by small manufacturers, expanding opportunity for small business owners from disadvantaged backgrounds, and investing in innovative start-ups. Overall, the initiatives highlighted in this report will support tens of billions of dollars in public and private lending and investment.

The American Rescue Plan Act of 2021 reauthorizes and expands the State Small Business Credit Initiative (SSBCI) Program, which was originally established in 2010. SSBCI will provide nearly \$10 billion to states, the District of Columbia, territories, and Tribal governments to expand access to capital for small businesses emerging from the pandemic, build ecosystems of opportunity and entrepreneurship, and create high-quality jobs.

SSBCI provides recipient jurisdictions funding for: (1) credit and investment programs for existing small businesses and start-ups, and (2) technical assistance to eligible small businesses applying for SSBCI funding and other government small business programs.

The program has a new allocation of \$1.5 billion for underserved businesses, along with \$1 billion of incentive funds for jurisdictions that demonstrate robust support for those businesses. These allocations combine to be more than the entire funding for the 2010 SSBCI program.



The Biden-Harris Administration's Focus on Rebuilding Domestic Manufacturing

When President Biden took office, the nation was experiencing a decline in domestic manufacturing that had led to the loss of good paying jobs and a lack of resiliency and security in supply chains. The decline in manufacturing has had a widespread impact on the equitable growth of different U.S. regions as the manufacturing sector has historically exhibited high levels of geographic diversity.² Research has shown that the more competitive the sector is, the more it will contribute to jobs and economic opportunity across a diverse geographic area than other sectors.³ But as many American companies moved production overseas in search of lower labor costs or looser environmental regulations, the communities they left behind often struggled to replace the jobs these industries provided.⁴ This loss in jobs also meant a loss of a steady middle-class lifestyle for residents of these communities,⁵ as average wages of manufacturing jobs in the U.S. are above the minimum wage, with an average hourly wage of \$17.42.⁶ And small businesses, particularly those in manufacturing that acted as suppliers for those same companies, experienced a corresponding loss of sales and opportunities to grow.⁷

The United States lost a net 4.5 million domestic manufacturing jobs in the two decades before the pandemic.⁸ And while manufacturing as a share of GDP has remained roughly between 11%

² “Building Sustainability into Operations,” McKinsey & Company, October 19, 2022, <https://www.mckinsey.com/capabilities/operations/our-insights/building-sustainability-into-operations>.

³ “Building a More Competitive US Manufacturing Sector,” McKinsey & Company, April 15, 2021, <https://www.mckinsey.com/featured-insights/americas/building-a-more-competitive-us-manufacturing-sector>.

⁴ David H. Autor, David Dorn, and Gordon H. Hanson, “The China Syndrome: Local Labor Market Effects of Import Competition in the United States,” *The American Economic Review* 103, no. 6 (October 1, 2013): 2121–68, <https://doi.org/10.1257/aer.103.6.2121>.

⁵ Ibid.

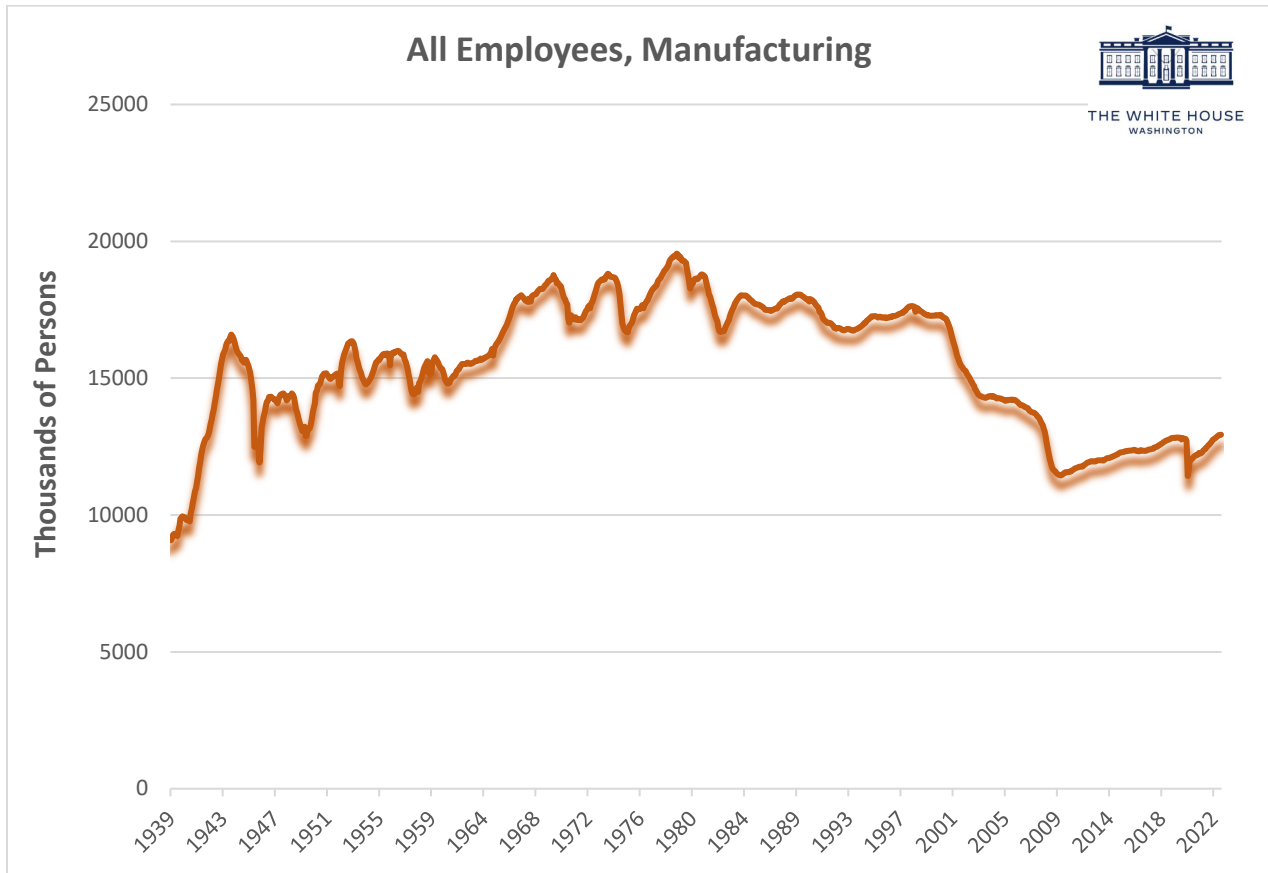
⁶ U.S. Bureau of Labor Statistics, *Occupational Employment and Wage Statistics*, May 2021, <https://www.bls.gov/oes/current/oes519199.htm>.

⁷ Michael Collins, “The Abandonment of Small Cities in the Rust Belt,” *Industry Week*, October 10, 2019, <https://www.industryweek.com/talent/article/22028380/the-abandonment-of-small-cities-in-the-rust-belt>. ; John Russo and Sherry Lee Linkon, “The Social Costs Of Deindustrialization,” *Center for Working Class Studies*, n.d., <https://ysu.edu/center-working-class-studies/social-costs-deindustrialization>.

⁸ Joint Economic Committee Democrats, *The U.S. Has Added Manufacturing Jobs Across the Country During the Biden Administration*, January 19, 2017, <https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=B4CBB163-3B49-4A0B-AAF4-60C97A3DA5B6>.



to 14%, manufacturing employment has been steadily decreasing since 1950⁹ and overall employment in the sector has decreased since 1980.



Thanks to the Biden-Harris industrial strategy, the U.S. economy has added more than 800,000 manufacturing jobs, the most of any president on record, and we now have 100,000 more manufacturing jobs than prior to the pandemic.

⁹ Kimberly Amadeo, "Trends in America's Manufacturing Sector," *The Balance*, May 6, 2021, <https://www.thebalancemoney.com/u-s-manufacturing-what-it-is-statistics-and-outlook-3305575>.



The Biden-Harris Manufacturing Revival by the Numbers

- **800,000+** —manufacturing jobs created since President Biden took office
- **Strongest manufacturing recovery since the 1950s**
- **Over \$400 billion** in announced investments in U.S. manufacturing by industry since President Biden took office
- **Over 95,000** jobs produced in motor vehicles and parts manufacturing¹⁰

The Biden-Harris Administration is committed to rebuilding a manufacturing sector that offers high-paying jobs for all Americans. The Administration worked with Congress to pass legislation that will make historic investments in rebuilding domestic manufacturing, including the Bipartisan Infrastructure Law, the CHIPS and Science Act, and the Inflation Reduction Act. As a result of this work, companies are choosing to make more in America, and we are seeing the industries of the future expand with over \$400 billion of new investments in EVs, semiconductors, batteries, and other critical industries. Large manufacturers such as GE Aviation and Siemens Energy are making new commitments to help their small and medium-size manufacturers (SMM) upgrade.¹¹ These SMMs make up the bulk of manufacturing employment in the U.S. and are key to implementing this strategy.

Furthermore, initiatives taken by the Administration to further promote manufacturing include providing support to the 16 Manufacturing USA (MUSA) institutes to promote the scaling up of innovative technologies, help facilitate more regional workforce initiatives, and help SMMs. MUSA facilitates public-private partnerships between industry, academia, and federal government agencies to combat obstacles in these efforts and works to strengthen the supply chain industrial base. Additionally, the Manufacturing Extension Partnership, a public-private partnership housed at the National Institutes of Standards and Technology, provides technical assistance to SMMs. For example, the CHIPS Act will provide funding for three new MUSA institutes¹² and USDA's \$10 million bioproduct program will support scale up efforts being

¹⁰ “U.S. Bureau of Labor Statistics, *Employment, Hours, and Earnings from the Current Employment Statistics Survey*, accessed May 2, 2023, https://data.bls.gov/timeseries/CES3133600101?amp%253bdata_tool=XGtable&output_view=ata&include_graphs=true.

¹¹ The White House, *Fact Sheet: Biden Administration Celebrates Launch of AM Forward and Calls on Congress to Pass Bipartisan Innovation Act*, May 6, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/06/fact-sheet-biden-administration-celebrates-launch-of-am-forward-and-calls-on-congress-to-pass-bipartisan-innovation-act/>.

¹² U.S. Department of Commerce, *Biden Administration Releases Implementation Strategy for \$50 Billion CHIPS for America Program*, September 6, 2022, <https://www.commerce.gov/news/press-releases/2022/09/biden-administration-releases-implementation-strategy-50-billion-chips>.



undertaken at MUSA.¹³ The Administration has and continues to hold roundtables with MUSA institutes for the purposes of promoting innovation in SMMs.¹⁴

¹³ The White House, *Fact Sheet: The United States Announces New Investments and Resources to Advance President Biden’s National Biotechnology and Biomanufacturing Initiative*, September 14, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/14/fact-sheet-the-united-states-announces-new-investments-and-resources-to-advance-president-bidens-national-biotechnology-and-biomanufacturing-initiative/>.

¹⁴ The White House, *The Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022*, February 24, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022/>.



Recent Trends in U.S. Manufacturing

Between 1980 and 2000, the U.S. lost 2 million manufacturing jobs and this trend accelerated after 2000. Close to six million jobs were lost between 2000 and 2010,¹⁵ with this trend beginning to slowly reverse in the following years. However, the previous administration experienced a loss of 154,000 manufacturing jobs,¹⁶ with the decline beginning in earnest after an initial period of growth in 2019.¹⁷ In Midwestern and Mid-Atlantic states such as Pennsylvania, Michigan, Ohio, and Wisconsin, 16,000 factory jobs were lost in 2019 alone.¹⁸ While the U.S. manufacturing sector has experienced considerable decline, the policies being put into place by the Biden-Harris Administration are resulting in a strong resurgence in the sector, with more than 800,000 manufacturing jobs created since President Biden took office and over \$400 billion in announced investments.¹⁹ Achievements such as updating the Buy American Act, the passage of the Bipartisan Infrastructure Bill, the Inflation Reduction Act, the CHIPS Act, and the American Rescue Plan have contributed greatly to this resurgence of U.S. manufacturing and the U.S. once again taking back its place as the “World’s Factory.”

“The previous Administration experienced a loss of 154,000 manufacturing jobs... Pennsylvania, Michigan, Ohio, and Wisconsin... lost 16,000 factory jobs in 2019 alone.”

For this resurgence to continue, strategic investments must continue to be made in sectors such as manufacturing that form the backbone of the U.S. economy. Public investment in these areas will crowd in more private investment, particularly for small manufacturers that make up the majority of the manufacturing sector and act as suppliers of key inputs and components to larger manufacturers, particularly in industries critical to securing our supply chains.

¹⁵ Richard Hernandez, “The Fall of Employment in the Manufacturing Sector,” *U.S. Bureau of Labor Statistics*, August 22, 2018, <https://www.bls.gov/opub/mlr/2018/beyond-bls/the-fall-of-employment-in-the-manufacturing-sector.htm>.

¹⁶ Eugene Kiely et al. “Trump's Final Numbers.” FactCheck.org, March 29, 2022. <https://www.factcheck.org/2021/10/trumps-final-numbers/>.

¹⁷ Dion Rabouin, “The End of Trump’s Manufacturing Renaissance,” *Axios*, December 5, 2019, <https://www.axios.com/2019/12/05/trump-tariffs-manufacturing-job-losses>.; Kiely, “Trump’s Final Numbers.”

¹⁸ Bureau of Labor Statistics, *State Employment and Unemployment—December 2019*, Press Release, January 24, 2020, https://www.bls.gov/news.release/archives/laus_01242020.pdf.

¹⁹ “Steady Job Growth and Low Unemployment Continue Under President Biden’s Leadership,” *Building Back Together*, October 7, 2022, <https://buildingbacktogether.org/news/steady-job-growth-and-low-unemployment-continue-under-president-bidens-leadership/>.



SMMs (those with fewer than 500 employees) account for half of industrial output,²⁰ make up 98% of the U.S. manufacturing sector,²¹ and employ close to 9% of the U.S. workforce.²² Those with fewer than 20 employees make up 74.3% of the sector.²³ Yet many of these businesses lack access to capital that allows them to test production of or adopt new technology at their business.²⁴ This challenge is unique to manufacturing, given the high cost of technological upgrades in terms of plants, equipment, or changes to industrial processes. The American Rescue Plan passed in March 2021 provides \$10 billion in funding for SSBCI. This funding is critical and will help address the many challenges small manufacturers face scaling up, training workers, and adopting new technology.

²⁰ *Department of Defense Appropriations for 2022, Testimony before the House Defense Appropriations Subcommittee*, 117th United States Congress (2021) (Statement of William B. Bonvillian, Lecturer, MIT).

²¹ “Facts About Manufacturing,” National Association of Manufacturers, n.d., <https://www.nam.org/facts-about-manufacturing/>.

²² “98.6% of American Manufacturing Companies Are Small Businesses, Struggling to Hire,” PR Newswire, May 23, 2019, <https://www.prnewswire.com/news-releases/98-6-of-american-manufacturing-companies-are-small-businesses-struggling-to-hire-300856052.html>.

²³ “Facts About Manufacturing.”

²⁴ National Institute of Standards and Technology, *Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report*, November 2011, https://www.nist.gov/system/files/documents/ineap/MEP_Capital_Needs_Assessment_Final.pdf; Michelle Burris, Andrew Stettner, and Lee Wellington, “SSBCI 2.0: A New Capital Tool for Revitalizing and Diversifying Manufacturing,” *The Century Foundation*, April 27, 2022, <https://tcf.org/content/report/ssbci-2-0-new-capital-tool-revitalizing-diversifying-manufacturing/>.



Credit Gaps for Manufacturers

States have long recognized the importance of manufacturing to their economies and have developed programs to support and incentivize private investment in the sector from traditional financial institutions and equity investors.²⁵

For example, in California, the state offers industrial development bonds (IDB) that provide financing for land purchases, facilities renovation and construction, and equipment. The state's small business program speeds up IDB financing by reducing processing times for applicants needing private investment.²⁶ In Michigan, the state, working with the Small Business Administration, created the Invest Michigan! Growth Fund, which provides capital to small businesses and is managed by private equity firms. The state also offers industrial revenue bond programs to aid manufacturers with financing needs.²⁷ Other states such as Texas also offer industrial revenue bonds, whose program provides up to \$10 million in financing for land and property on industrial projects that cost a minimum of \$20 million.²⁸

These private investments in manufacturing tend to benefit local communities, local businesses, and local suppliers to manufacturers in the surrounding area. When manufacturing enterprises expand in local communities, more jobs are created in various different sectors.²⁹ Additionally, when manufacturers choose to locate in one county, the surrounding counties experience similar benefits in earnings as the chosen county.³⁰ For every dollar of manufacturing value added in an economic area, an additional \$3.60 is generated somewhere else.³¹

²⁵ Charles W Wessner, "Best Practices in State and Regional Innovation Initiatives," *National Academies Press*, (2013), <https://doi.org/10.17226/18364>.

²⁶ "Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report."

²⁷ Ibid.

²⁸ Jonathan Dyble, "Our Annual Governor's Cup Provides a State-By-State Review of the Best Site Incentives For Manufacturers," *Global Trade Magazine*, January 22, 2022, <https://www.globaltrademag.com/our-annual-governors-cup-provides-a-state-by-state-review-of-the-best-site-incentives-for-manufacturers/>.

²⁹ Enrico Moretti, "Local Multipliers," *American Economic Review* 100, no. 2 (May 1, 2010): 373–77, <https://doi.org/10.1257/aer.100.2.373>.

³⁰ Michael Greenstone and Enrico Moretti, "Bidding for Industrial Plants: Does Winning a 'Million Dollar Plant' Increase Welfare?," *National Bureau of Economic Research*, July 2003, <https://doi.org/10.3386/w9844>.

³¹ Stephen Gold, "First Person: The Importance of Manufacturing to the U.S. Economy—Area Development," *Area Development*, September 8, 2016, <https://www.areadevelopment.com/advanced-manufacturing/q3-2016/importance-manufacturing-to-us-economy-909033.shtml#:~:text=For%20every%20dollar%20of%20domestic,president%20and%20CEO%20of%20MAPI>.



Manufacturers, especially small manufacturers, typically need capital to fund investments in factories, equipment, inventory, and revenue growth. Private investment is often difficult to find since small manufacturers tend to have limited balance sheet liquidity,³² generate relatively lower rates of return on capital,³³ and experience slower turns on their accounts receivable. These challenges make small and rapidly growing manufacturing firms too burdensome for traditional financial institutions and equity investors to support, and often leave them without the capital they need. Economic shocks and uncertainty further tighten capital markets and exacerbate the problem.

One of the core challenges that new small manufacturers face is a lack of collateral that can help secure credit. Banks are disincentivized from increasing lending to these small manufacturers and will otherwise give priority to larger manufacturers, that can take out greater lines of credit based on their collateral. These larger firms will also generate more administrative revenue for banks. Traditional financial institutions are keen to provide financing to manufacturing firms but collateral gaps can limit the amount of credit they can provide. A lack of collateral is one of the major reasons that new small firms without any machinery or equipment are being denied access to funding. This issue is the reason for 35% of loan denials to small firms.³⁴ This can lead some manufacturers to turn to more costly forms of financing. These alternatives include credit cards or factoring,³⁵ which involves a business selling its future profits at a discount to a lender that provides early payment, as well as commercial or residential real estate.³⁶ In particular, residential and commercial real estate open up borrowers to greater credit risks as exemplified by the collapse of the housing market in 2008.³⁷

While many federal policies focused on financing have been put into place to support manufacturing enterprises, small manufacturers still struggle to access the capital that they need, in part due to larger issues that affect all small businesses.³⁸ These issues arise from the

³² “Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report.”

³³ Mark Foggin, *The State of Urban Manufacturing*, (Urban Manufacturing Alliance, n.d.), <https://www.urbanmfg.org/wp-content/uploads/2017/11/SUM-National-Report-Final.pdf>.

³⁴ Gregory Brown, Sarah Kenyon, and David Robinson, *Filling the U.S. Small Business Funding Gap*, Small Business Investor Alliance (Frank Hawkins Kenan Institute of Private Enterprise, February 2020), https://www.sbia.org/wp-content/uploads/2021/04/Kenan-FundingGap_02042020.pdf.

³⁵ Karen Mills and Brayden McCarthy, “The State of Small Business Lending: Innovation and Technology and the Implications for Regulation,” *Harvard Business School Entrepreneurial Management Working Paper No. 17-042* (November 28, 2016), <https://doi.org/10.2139/ssrn.2877201>.

³⁶ *Ibid.*

³⁷ Jordan Eizenga and James Hairston, “Manufacturing Bonds,” *Center for American Progress*, February 16, 2012, <https://www.americanprogress.org/article/manufacturing-bonds/>.

³⁸ “Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report.”; Eizenga and Hairston, “Manufacturing Bonds.”; *Written Testimony before the Senate Committee on Banking*,



complexity regarding the requirements of these programs for commercial banks, who act as a third-party intermediary facilitating debt equity for the government. Strict lending standards, paperwork, and due diligence for loan evaluation by commercial banks can act as a deterrent to distributing enough loans through these programs.³⁹

Consolidation in the financial sector has dried up the amount of funding that originates from regional and community banks.⁴⁰ These community banks have historically been an important source of funding for small manufacturers.⁴¹ From 1997 to 2015, the share of funding below \$100,000 for small businesses coming from community banks declined from 82% to 29%.⁴² The decline of community banks and credit unions has been accompanied by a drop in the number of small manufacturers between 1997 and 2012, with the number of small manufacturers falling by more than 70,000 and banks and credit unions dropping from 26,000 to 13,000.⁴³ This lack of community and regional banking options have been major impediments to the growth and stable operation of small manufacturing firms.⁴⁴

Housing, and Urban Affairs Subcommittee on Economic Policy, 111th United States Congress, (2009) (Robert Kiener, Precision Machined Products Association).

³⁹ Ibid.

⁴⁰ Steven G. Craig and Pauline Hardee, “The Impact of Bank Consolidation on Small Business Credit Availability,” *Journal of Banking & Finance*; Finance 31, no. 4 (April 2007): 1237–63, <https://doi.org/10.1016/j.jbankfin.2006.10.009>.; Marshall Lux and Robert Greene, “The State and Fate of Community Banking,” Harvard University, John F. Kennedy School of Government, *M-RCBG Associate Working Paper No. 37* (2015), <https://doi.org/10.2139/ssrn.2913096>.; Jeremy Kress, “Modernizing Bank Merger Review,” *Yale Journal of Regulation* 37, no. 2 (2020): 435–98, <https://www.proquest.com/docview/2433415016?parentSessionId=G38xO%2B0iK43Eaq%2FSAGQGFva8tu%2FX3Rlw9N4NZ%2BHrqDs%3D>.; Andrew C. Chang, “Banking Consolidation and Small Firm Financing for Research and Development,” *Applied Economics* 49, no. 1 (October 13, 2016): 51–65, <https://doi.org/10.1080/00036846.2016.1192271>.; Burris, Stettner, and Wellington, “SSBCI 2.0: A New Capital Tool for Revitalizing and Diversifying Manufacturing.”

⁴¹ Federal Deposit Insurance Corporation, *Community Bank Performance in Manufacturing-Concentrated States*, Quarterly 16, no. 3 (2022), <https://www.fdic.gov/analysis/quarterly-banking-profile/fdic-quarterly/2022-vol16-3/article1.pdf>.

⁴² *Breaking Through the Regulatory Barrier: What Red Tape Means for the Innovation Economy*, Hearing before the Joint Economic Committee Congress of the United States, 115th United States Congress (2018) (Statement of Jessica A. Milano, Former Deputy Assistant Secretary for Small Business, Community Development, and Housing Policy).

⁴³ Stacy Mitchell, Report: Monopoly Power and the Decline of Small Business (ILSR, August 10, 2016), <https://ilsr.org/monopoly-power-and-the-decline-of-small-business/>.

⁴⁴ *Rebuilding American Manufacturing*, Hearing before the Subcommittee on Economic Policy of the Committee on Banking, Housing, and Urban Affairs, 113th United States Congress, (2013).; *Restoring Credit to Main Street: Proposals to Fix Small Business Borrowing and*



Additionally, SMMs have found difficulties in obtaining access to venture funding. Venture Capital (VC) firms tend to focus on scaling at zero marginal cost with a limited time frame. However, many manufacturing firms require time to scale up and VCs are unwilling to partake in a long-term investment.⁴⁵ Only 0.4% of private venture capital funds are invested in manufacturing and a majority of these funds are concentrated in coastal regions,⁴⁶ such as California, New York, and Massachusetts,⁴⁷ compared to the more manufacturing dependent regions like the Midwest and Southeast. By comparison, public venture funds set up by states or local nonprofits average 20% of their portfolio on production-oriented companies specializing in hardware and other similar products.⁴⁸

Lending Problems, Testimony before the Senate Committee on Banking, Housing, and Urban Affairs Subcommittee on Economic Policy, 111th United States Congress, (2010).; Burris, Stettner, and Wellington, “SSBCI 2.0: A New Capital Tool for Revitalizing and Diversifying Manufacturing.”

⁴⁵ Strengthening the Innovation Ecosystem for Advanced Manufacturing (MIT Industrial Performance Center, May 2015), https://ipc.mit.edu/sites/default/files/2020-11/IPC_report_0.pdf.

⁴⁶ SSBCI 2.0: A New Capital Tool for Revitalizing and Diversifying Manufacturing (Urban Manufacturing Alliance and The Century Foundation, July 2019), <https://www.urbanmfg.org/wp-content/uploads/2019/07/UMA-TCF-SSBCI-Policy-Brief-Final.pdf>.

⁴⁷ *Breaking Through the Regulatory Barrier: What Red Tape Means for the Innovation Economy*, 115th Congress, *Hearing before the Joint Economic Committee Congress of the United States*, (2018) (Statement of Jessica A. Milano, Former Deputy Assistant Secretary for Small Business, Community Development, and Housing Policy).

⁴⁸ Sridhar Kota and Thomas C. Mahoney, *Manufacturing Prosperity: A Bold Strategy for National Wealth and Security*, (MForesight: Alliance for Manufacturing Foresight, June 2018), <https://deepblue.lib.umich.edu/handle/2027.42/145156?show=full>.



Competitor Nations are Investing in Manufacturing

Other advanced economies are also taking steps to shore up funding for their SMMs. As in the U.S., small foreign firms also suffer from a lack of physical collateral and revenue to finance loans. These countries have implemented policies to support small manufacturers:

- **Israel.** Through the Office of the Chief Scientist, the Israeli government invests \$400 million annually to award grants of up to 50% of private R&D costs to manufacturers who successfully produce an end product manufactured in the country. Every \$1 of Israeli government investment through this program resulted in \$1.41 of additional private R&D spending. Through the Israeli Technological Incubation Program, a grant of up to 85% of the budget of a start-up is provided, with a maximum award set at \$1.11 million.
- **Japan.** The publicly-owned Japanese Finance Corporation has \$150 billion in outstanding loans to micro and individually-owned businesses and SMMs. Of these loans, 42% went to microbusinesses and individual units and 39% went to SMMs. The initiative offers low-rate loans to small businesses, businesses in areas of public interest, businesses that contribute to regional innovation and job creation, and businesses affected by disasters/crises.
- **Germany.** The Fraunhofer Society, a network of 75 research agencies, provides tech and services through intellectual property licensing to start-ups and small businesses. The network produces 500 patents and enters into 8000 research contracts per year. Additionally, Germany distributes low-interest loans through its state-owned investment and development bank known as KfW. The bank has a yearly loan volume of \$80-90 billion, guaranteed by the German government, and makes 40% of its loans to green industries.
- **Canada.** Colleges and universities work with SMMs to apply publicly funded research and technology testbeds through a program known as “technology access centers.”⁴⁹ Additionally, Canada’s Advanced Manufacturing Cluster, based in Ontario, provides \$250 million in funding to SMMs for building up next-generation manufacturing capabilities,⁵⁰ with funding being allocated to over 1,700 businesses.⁵¹
- **China.** In 2021, the Chinese Finance Ministry announced a 10 billion yuan (\$1.4 billion USD) “Little Giants” fund for small and mid-sized enterprises that will be available through 2025. The funds are intended to support innovative start-ups with a goal of

⁴⁹ Ibid.

⁵⁰ Government of Canada, *Canada’s Advanced Manufacturing Cluster*, n.d., <https://ised-isde.canada.ca/site/global-innovation-clusters/en/canadas-advanced-manufacturing-cluster>.

⁵¹ “NGen Connects Canada’s Advanced Manufacturing Ecosystem through Cluster Building Investments,” Global Newswire, July 29, 2021, <https://www.globenewswire.com/news-release/2021/07/29/2271438/0/en/NGen-Connects-Canada-s-Advanced-Manufacturing-Ecosystem-through-Cluster-Building-Investments.html>.



helping 10,000 “little giants” get off of the ground by 2025. Firms designated as “little giants” are those involved in advanced manufacturing and scientific research, participating in various industries such as deep-space exploration, high-speed rail, and workforce automation.

Some of the incentives established in other nations to fund manufacturing start-ups have attracted small firms from other nations, such as the U.S., that have difficulties in scaling up and commercializing technology. Examples of these programs include:

- **China** has increased tax deductions on manufacturing and R&D⁵² for firms and created preferential tax policies for innovation firms and business start-ups. The government also provides direct monetary subsidies to small and medium-sized technology firms for the scale-up of new technologies as well as offering incentives such as free land, subsidized electricity, and low-cost government bank loans.⁵³
- **Singapore** provides these firms with access to a tax credit program that incentivizes firms to demonstrate efficiency gains.⁵⁴ The government also offers a program called the Productivity and Innovation Credit Scheme which gives small manufacturers 400% tax allowances for automation, workforce development, and intellectual property investments.⁵⁵ Singapore also implements the EnterpriseSG program which supports small manufacturers with grants for product development⁵⁶ and provides a scale up program aimed at helping local companies scale rapidly.⁵⁷ Singapore’s Economic Development Board has actively encouraged foreign biotech firms to move their laboratories to their biotech hubs, which has attracted U.S. companies because of greater

⁵² Organization for Economic Cooperation and Development, *R&D Tax Incentives: China 2021*, 2021, <https://www.oecd.org/sti/rd-tax-stats-china.pdf>.

⁵³ Robert C. Atkinson and Caleb Foote, “To Understand Chinese Innovation Success, Look No Further Than Government R&D Subsidies,” *Information Technology & Innovation Foundation*, October 23, 2019, <https://itif.org/publications/2019/10/23/understand-chinese-innovation-success-look-no-further-government-rd/>.

⁵⁴ Sree Ramaswamy et al., *Making It in America: Revitalizing US Manufacturing* (McKinsey & Company, November 2017), <https://www.mckinsey.com/~media/mckinsey/featured%20insights/americas/making%20it%20in%20america%20revitalizing%20us%20manufacturing/making-it-in-america-revitalizing-us-manufacturing-full-report.ashx>.

⁵⁵ Ibid.

⁵⁶ “Gov’t to Increase Partnerships between SMEs, International Aerospace Firms,” *Singapore Business Review*, October 18, 2022, [https://sbr.com.sg/manufacturing/news/govt-increase-partnerships-between-smes-international-aerospace-firms.](https://sbr.com.sg/manufacturing/news/govt-increase-partnerships-between-smes-international-aerospace-firms.;); “Enterprise Development Grant - Innovation and Productivity | Automation | Enterprise Singapore,” n.d., <https://www.enterprisesg.gov.sg/financial-assistance/grants/for-local-companies/enterprise-development-grant/innovation-and-productivity/automation>.

⁵⁷ “SMEs Tap Scale-up SG Programme to Establish New Ventures, Expand Globally,” *Enterprise Singapore*, n.d., <https://www.enterprisesg.gov.sg/media-centre/news/2022/may/smes-tap-scale-up-sg-programme-to-establish-new-ventures-expand-globally>.



funding opportunities.⁵⁸ Particularly, in the biomedical sector, the Economic Development Board has provided tax and grant programs aimed at attracting foreign investments.⁵⁹

These policies contribute to startup firms moving their production overseas, further hollowing out the industrial base in the U.S. This has long-term consequences for the network of suppliers and workers that would benefit if the start-up kept and scaled up production in the U.S. The offshoring of production by potential new manufacturers contributes to both declining innovation and declining adoption of new technologies.⁶⁰ Additionally, communities lose out on opportunities for greater employment and apprenticeships.⁶¹

This also has a long-term consequence on U.S. economic competitiveness and national economic security.⁶² This hinders potential for the development of new technologies and the domestic production of critical goods that can reduce economic dependency on other nations as well as remove potential bottlenecks in the supply chain, in industries such as energy, biomanufacturing, semiconductors, and metals.

Examples of this problem are biotech firms from the U.S. offshoring production to China to take advantage of incentives being offered. China has invested over \$100 billion in life-science parks that lure companies with subsidies and tax breaks. State, provincial, and local governments distribute money to start-ups in this sector which attract foreign talent.⁶³ Also prevalent is the use of outsourcing by U.S. biotech firms and contract development and manufacturing organizations (CDMO) to manufacturing plants in China.⁶⁴ The outsourcing of manufacturing to Chinese

⁵⁸ “Singapore Strives to Become Biotech Hub,” *VOA*, October 31, 2009, <https://www.voanews.com/a/a-13-2004-11-25-voa24/308259.html>.

⁵⁹ Hank Lim and Lim Tai Wei, *Sustainable Development Impacts of Investment Incentives: A Case Study of the Pharmaceutical Industry in Singapore*, (International Institute for Sustainable Development, 2010), https://www.iisd.org/system/files/publications/sd_impacts_singapore_0.pdf.

⁶⁰ *Rebuilding American Manufacturing, Hearing before the Subcommittee on Economic Policy of the Committee on Banking, Housing, and Urban Affairs*, 113th United States Congress, (2013) (statement of Julie Skirvin, General Counsel, Oregon Iron Works), <https://www.govinfo.gov/content/pkg/CHRG-113shrg87798/html/CHRG-113shrg87798.htm>.

⁶¹ Suzanne Berger, “How Finance Guttled Manufacturing,” *Boston Review*, March 1, 2014, <https://www.bostonreview.net/forum/suzanne-berger-finance-guttled-manufacturing/>.

⁶² *A Manufacturing Renaissance: Bolstering U.S. Production for National Security and Economic Prosperity* (Ronald Reagan Institute, November 2021), <https://www.reaganfoundation.org/media/358031/a-manufacturing-renaissance.pdf>.

⁶³ Shannon Ellis, “Biotech Booms in China,” *Nature*, January 17, 2018, https://www.nature.com/articles/d41586-018-00542-3?error=cookies_not_supported&code=abc0afd7-d453-49b9-8d8d-11532f6e171c.

⁶⁴ “Concerns with Chinese Expansion into U.S. Biotech Market,” CDMO, August 13, 2019, <https://cdmo.seqens.com/api-manufacturing/the-march-of-chinese-biotech-to-the-u-s-can-become-the-spark-of-global-innovation-for-u-s-firms/>.



CDMOs allows manufacturing start-ups to reduce time spent on commercialization and save money on capital expenditures.⁶⁵

Start-ups have moved production abroad as a result of difficulties in getting past the first pilot scale-up phase.⁶⁶ Chinese firms have taken advantage of these issues in the U.S. by creating partnerships for U.S. firms that have trouble with access to financing.⁶⁷ A prominent example is the start-up, Boston Power,⁶⁸ which was based in Westborough, Massachusetts. Boston Power was an early provider to HP and Mercedes-Benz for high-capacity lithium-ion batteries, that moved operations to China after their government offered the company \$125 million in grants, low-interest loans, and venture capital. This strategy has been beneficial for China, as they typically tend to take advantage of foreign intellectual property and difficulties in commercialization for foreign start-ups by offering credits to produce in their local markets.⁶⁹

⁶⁵ “US Biomanufacturing Plan Poses Minor Risks to Chinese Pharma CDMOs,” Fitch Ratings, September 27, 2022, <https://www.fitchratings.com/research/corporate-finance/us-biomanufacturing-plan-poses-minor-risks-to-chinese-pharma-cdmos-27-09-2022>.

⁶⁶ Alexander Lorestani, “To Lead Us into the Future, U.S. Biomanufacturing Needs to Expand,” *GEN—Genetic Engineering and Biotechnology News*, January 5, 2023, <https://www.genengnews.com/topics/bioprocessing/to-lead-us-into-the-future-u-s-biomanufacturing-needs-to-expand/>.

⁶⁷ Maria Gallucci, “U.S. Cleantech Startups to Transform China ‘Threat’ Into Opportunity,” *Reuters*, July 12, 2011, <https://www.reuters.com/article/idIN61255065020110712>.

⁶⁸ Kevin Bullis, “Why Boston Power Went to China,” *MIT Technology Review*, April 2, 2020, <https://www.technologyreview.com/2011/12/06/189320/why-boston-power-went-to-china/>.; Zoran Basich, “The Daily Startup: Moving to China Pays Off for Clean-Tech Companies,” *Wall Street Journal*, June 13, 2014, <https://www.wsj.com/articles/BL-VCDB-14783>.

⁶⁹ Valentina Romei, “Chinese appetite for foreign technology companies could be good news for everyone,” *Financial Times*, November 2, 2015, <https://www.ft.com/content/5650c45e-0235-33d5-a04a-e3ed422158ca>.



The State Small Business Credit Initiative

The American Rescue Plan reauthorized and expanded the SSBCI, originally established in 2010, which was highly successful in increasing access to capital for small businesses and entrepreneurs. The new SSBCI builds on this successful model by providing nearly \$10 billion to states, the District of Columbia, territories, and Tribal governments to increase access to capital and promote entrepreneurship, especially in traditionally underserved communities as they emerge from the pandemic. SSBCI funding is expected to catalyze up to \$10 of private investment for every \$1 of SSBCI capital funding, amplifying the effects of this funding and providing small business owners with the resources they need to sustainably grow and thrive.

Past Outcomes for SSBCI-Funded Programs

The first SSBCI, authorized by The Small Business Jobs Act of 2010 and funded with \$1.5 billion, proved to be an effective tool for states to expand funding for existing business development programs or quickly develop and implement unique new programs to unlock private capital for manufacturers during a period of sharp credit tightening.

The data highlights the success of these efforts. Through 2016, state SSBCI programs supported more than 2,500 loan or investment transactions for manufacturers with private financing valued at more than \$2.5 billion—an investment total which was 42% higher than any other sector. At the time of these 2,500 transactions, states estimated that they would create or retain 41,000 jobs, well in excess of the job creation measures of other industry sectors supported by SSBCI.

Top 10 Industries (based on total financing) to receive SSBCI loans and investments, cumulative through December 31, 2016.

Industries Assisted	# of Loans and Investments	\$ of Loans and Investments (millions)
Manufacturing	2,520	\$2,548
Professional, Scientific, and Technical Services	1,771	\$1,794
Information	681	\$1,080
Accommodation and Food Services	2,602	\$936
Retail Trade	3,646	\$864
Wholesale Trade	1,172	\$604
Health Care and Social Assistance	1,230	\$585
Construction	1,586	\$391
Real Estate and Rental and Leasing	494	\$327
Other Services (except Public Administration)	1,789	\$269
Transportation and Warehousing	1,943	\$263
Administrative and Support and Waste Management and Remediation Services	1,014	\$174



The initial SSBCI funded 154 programs in the U.S., allocated over \$400 million to venture capital programs focused on early-stage start-ups, and invested \$1 billion in lending programs.⁷⁰

By 2017, the program had supported more than 21,000 loans and investments totaling over \$10.7 billion. States estimated that over 240,000 jobs were created or retained as a result of SSBCI programs.

How States Will Use SSBCI to Expand Access to Capital for Manufacturers

Manufacturers need capital for a variety of purposes including funds to support operations and carrying slow-turning accounts receivable, for purchasing machinery and equipment, for acquiring or expanding manufacturing plants, and for refinancing/restructuring their balance sheets. Recognizing these diverse needs, individual states have designed SSBCI lending and equity programs to support some or all of these uses, depending on the specific needs of manufacturers in their states.

These programs include:

- **Capital Access Programs (CAP)** are portfolio insurance programs that establish loan loss reserves for each participating lender's SSBCI loans. Lenders and borrowers contribute 2 to 7 percent of a loan's value to reserve funds and the state matches with SSBCI funds. Lenders may offset losses on SSBCI loans until the reserve is exhausted. These programs reduce the high risks that tend to be characteristic of new and small businesses.
- **Collateral Support Programs (CSP)** supplement a borrower's available collateral with SSBCI funds. CSPs are particularly useful for manufacturers with adequate cash flow but a collateral shortfall.
- **Loan Participation Programs (LPP)** use SSBCI funds to participate in a loan led by a private lender by either purchasing a portion of the loan or co-lending. LPPs may address shortfalls in collateral and/or enable a lower overall interest rate for the borrower. In North Carolina, for example, CEA manufacturing used the NC Rural Center's loan participation program to get a loan for advanced manufacturing equipment that was originally unable to satisfy the bank's required loan-to-value ratio.
- **Loan Guarantee Programs (LGP)** Ensures a lender of a partial repayment in the event of loan defaults. After the lender makes efforts to collect the debt, the state will generally provide the lender with partial repayment.
- **Equity/Venture Capital Investment Programs (VCP)** provide high-growth potential companies with equity investments. States may invest in venture capital funds or directly in small businesses. Often, states partner with venture development organizations which have public benefit missions to invest on the state's behalf.

⁷⁰ *Breaking Through the Regulatory Barrier: What Red Tape Means for the Innovation Economy, Hearing before the Joint Economic Committee Congress of the United States, 115th Congress (2018) (Statement of Jessica A. Milano, Former Deputy Assistant Secretary for Small Business, Community Development, and Housing Policy).*



Sharing Best Practices Among State Program Managers

During the first iteration of SSBCI, Treasury established working groups for states to learn from one another and share best practices. Similarly, Treasury has begun to establish working groups based on current programs. Among the first established working groups was one focused on manufacturing. The opportunity to participate in these convenings was communicated to all participating jurisdictions. Nearly twenty states have participated in convenings thus far; the agenda for these convenings has included presentations on states' plans to utilize SSBCI to impact manufacturing at the state level and opportunities for states to hear from other federal agencies that may be able to offer additional support (e.g., NIST Manufacturing Extension Partnership).

Participating states include:

Iowa	Kentucky	Pennsylvania
Vermont	Minnesota	Nevada
Michigan	New Jersey	New Mexico
New York	Illinois	Alaska
Hawaii	Washington	Utah
California	Maine	Florida

Below are examples of lending and equity SSBCI programs that states have designed for or may be especially suited for manufacturers:

Reducing Lender Risk for Smart Technology—Fixed Asset Lending

Small manufacturers often struggle obtaining loans for productivity-enhancing investments in technology and operational improvements because lenders are reluctant to risk being left with highly specialized equipment to liquidate following a default. Iowa, Minnesota, and West Virginia are among the states that have created innovative programs that focus on helping manufacturers modernize their operations with cutting edge technology.

Iowa.⁷¹ In Iowa, the Manufacturing 4.0 program is designed to help manufacturers integrate smart technology into their operations to remain globally competitive in the current fourth industrial revolution. With labor force issues and indications that the manufacturing sector's productivity rates were waning, the state realized that manufacturers needed to embrace smart technology, data-driven operations, and process automation to succeed. Further, Iowa found that lenders (including those using the Small Business Administration (SBA) 7(a) and 504 programs) found it difficult to underwrite the latest equipment because the uniqueness of the technology made these assets especially difficult to value as collateral. Consequently, the state created the Iowa

⁷¹ "Manufacturing 4.0 Loan Participation Program," Iowa Manufacturing 4.0, n.d., <https://www.iowamfg.com/loan-participation-program/>.



Manufacturing 4.0 Loan Participation Program to offset lender risk and boost investment in smart machinery and equipment. This SSBCI program will purchase up to 20% (minimum of \$200,000; maximum of \$2 million) of loans for acquiring equipment, software required for the equipment, and construction or renovations of owner-occupied factories.

Minnesota.⁷² Minnesota has seen a marked increase in requests from manufacturers, local economic developers, and financial institutions to support the financing of cutting edge equipment for manufacturers, particularly equipment that improves processes, implements automation, and increases efficiencies and productivity. As with Iowa, traditional financial institutions reported that underwriting cutting edge equipment using prudential lending standards is difficult, resulting in a financing gap. Another hurdle is that while investments in high tech machinery and equipment may lead to higher productivity and improved competitiveness, they seldom lead to increased job creation required to meet requirements of existing state-funded loan programs.

The current SSBCI program has allowed Minnesota to implement the Automation Loan Participation Program (ALPP), which offers a companion loan to private financing provided by a bank, credit union, community development financial institution (CDFI), other nonprofit lender, or vendor. Loan participations can total up to \$500,000 to purchase machinery, equipment, and software designed to increase manufacturing efficiencies. The program complements an existing state program that funds training for workers to operate new automation equipment. A final anticipated benefit is that ALPP is expected to increase the number of re-shored manufacturing operations and allow companies to move some outsourced activities in-house. The program targets established manufacturers.

West Virginia.⁷³ West Virginia will administer three approved SSBCI programs—a subordinated debt fund within an LPP, a CSP, and an equity capital program. Although none of the programs focus exclusively on manufacturing, the sector remains a vital component of the state’s economy, and all three programs can be utilized by financial institutions to support loans to manufacturers. The state views the CSP as a particularly good fit for manufacturers as firms seek to modernize their facilities with new smart technology machinery that is difficult for lenders to finance without credit enhancement. The program can fund up to 20% of the loan amount with a maximum collateral support of \$500,000. The CSP can also be used to support working capital loans secured by accounts receivable and inventory that are similarly difficult for banks to provide without credit enhancement.

Expanding Access to Working Capital

Working capital has become a critical focus of several states’ SSBCI programs. Working capital however is particularly difficult for smaller manufacturers who often must use assets that are

⁷² “Automation Loan Participation Program,” Minnesota Employment and Economic Development, n.d., <https://mn.gov/deed/business/financing-business/deed-programs/ssbci/automation-loan/>.

⁷³ “WVCAP—West Virginia Jobs Investment Trust,” n.d., <https://wvjit.wv.gov/wvcap/>.



depreciating in value as collateral.⁷⁴ While it is rare for SSBCI programs to focus exclusively on working capital, some programs appear particularly well-positioned to meet this need.

Traditional financial institutions have an even harder time providing revolving working capital lines of credit secured by inventory and accounts receivable than loans to acquire cutting edge machinery and equipment. Prudent banking standards may value the typical forms of collateral available to manufacturers at reduced value. For example, it is common for banks to value raw inventory at 50% of cost and accounts receivable at 80%, and to assign no value to delinquent accounts or work-in-process. Work-in-process is a financing strategy designed to meet the short-term cash flow needs of small manufacturers by providing capital to pay the costs of fulfilling a large order or dealing with slow-paying customers. Consequently, even manufacturers with revolving working capital lines of credit often cannot find the liquidity they need to support, much less grow, their operations without credit enhancement.

Difficulties in accessing capital to finance inventories and receivables also result in manufacturers prioritizing just-in-time production methods to reduce the costs of stocking up on inventory. This approach shifts a large financial burden and increasing production risk onto their suppliers which tend to be smaller businesses.

To support expanding access to working capital, states are leveraging SSBCI funds in a number of ways. Some establish CAPs that utilize loan loss reserves where lenders and borrowers contribute 2 – 7% of a loan’s value with a matching contribution by federal funds. Others rely upon CSPs that extend credit to borrowers in need of collateral for a loan by providing them with cash collateral. This helps small manufacturers as some equipment may not be considered acceptable collateral for a loan. LPPs provide borrowers a lower interest rate loan by using SSBCI funds to buy a portion of the loan at closing. State efforts include:

North Carolina.⁷⁵ The North Carolina LPP typically purchases up to 20 percent of an eligible term loan on a subordinated basis. This helps small manufacturers that lack the cash equity required to meet loan-to-value minimum requirements which creates a risk gap for lenders. In North Carolina, CEA Manufacturing used the NC Rural Center’s LPP to get a loan for advanced manufacturing equipment that was originally unable to satisfy the manufacturer bank’s required loan-to-value ratio.

Michigan.⁷⁶ In Michigan, lenders can tap into several SSBCI lending programs to help manufacturers with their working capital needs. The state is expanding three lending programs—a loan guarantee program, LPP, and a CSP—deployed initially in the first SSBCI. The loan guarantee program is focused on loans of less than \$250,000, while the two other programs are limited to loans that exceed \$500,000. The latter two programs target industries with high potential economic impact, including manufacturing.

⁷⁴ “Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report,” https://www.nist.gov/system/files/documents/ineap/MEP_Capital_Needs_Assessment_Final.pdf.

⁷⁵ “Loan Participation Program | NC Rural Center,” NC Rural Center, n.d., <https://www.ncruralcenter.org/lending/ssbci/loan-participation-program/>.

⁷⁶ “Access to Capital for Small Businesses | Michigan Business,” Michigan Economic Development Corporation (MEDC), n.d., <https://www.michiganbusiness.org/services/access-capital/small-business/>.



During the first SSBCI, Michigan designed its programs to offset the devaluation of company assets to support new financing for capital expenditures. As the economy improved, the state added working capital as a permitted use under its CSP to help lenders overcome the collateral gap for revolving working capital lines of credit. Due to its positive experience with this CSP, Michigan is allowing all three lending programs in the second SSBCI to support working capital lines of credit. This approach is particularly important for manufacturers supplying parts or tools to the automotive industry where the development of new tooling can take months before those investments generate cash flow from sales to upstream manufacturers.

Oregon.⁷⁷ The Oregon Business Development Department (known as Business Oregon) has supported manufacturers for years. With a diverse manufacturing industry base—from value-add agriculture, wood products, and food/beverages to high technology goods—the state has sought to develop SSBCI programs that benefit not only these industries directly, but also reduce supply chain risk and fund services that support manufacturing.

All of Oregon SSBCI programs—an LGP, an LPP, two equity capital program, and a venture debt program—can fund manufacturing projects. Oregon cited the state’s LGP—the Oregon Credit Enhancement Fund (CEF)—as best positioned to support manufacturers given the size of eligible transactions. The program will provide up to an 80% guarantee with state exposure capped at \$6 million on eligible loans offered by regulated depository institutions. The CEF supports two primary credit products: operating lines of credit for working capital and term loans for working capital, equipment, and real estate acquisition. The Oregon Bankers Association and the Northwest Credit Union Association played leading roles in refining the design of this program to meet the needs of small businesses, especially manufacturers.

Washington. Washington has proposed several SSBCI programs with terms that facilitate working capital loans and investments. Through the Commercial Real Estate Loan Program, Washington will purchase up to 50 percent of a loan for real estate purchases, equipment purchases, and working capital, and offer technical assistance to investees to help ensure their success. Financed projects will have flexible and patient terms, specifically designed to balance business cash flow, loan payments, and appreciation potential.

Other Washington programs support working capital loans and other types of credit for manufacturers. The state expects its CSP to be utilized by small manufacturers with good credit but insufficient collateral, and its venture capital program can benefit early-stage manufacturers that typically are unable to qualify for bank debt. Of special interest to banks and manufacturers is Washington’s LPP that offers deferred payments for borrowers that have long product cycles.

⁷⁷ “Credit Enhancement Fund,” Business Oregon, n.d., <https://www.oregon.gov/biz/programs/CEF/Pages/default.aspx>.



Expanding Opportunity for Underserved Groups

CDFIs work closely with entrepreneurs of color shut out from conventional funding. CDFIs typically increase the amount of loan capital available in low- and moderate-income areas.

Entrepreneurs of color engaged in manufacturing have a harder time accessing traditional lines of credit such as those coming from banking institutions. These entrepreneurs also do not typically have access to venture capital funding as manufacturing is not an attractive business model for VC firms. Equity investments for entrepreneurs of color are also 43% less than their white counterparts. Black entrepreneurs are three times more likely to attribute a lack of capital to business success compared to white entrepreneurs and have a 4% business survival rate in the startup stage⁷⁸ compared to 20% for white entrepreneurs.⁷⁹

Washington. Washington’s Revenue-Based Loan Program provides a ‘bridge to growth’ for firms that need payment flexibility and higher risk tolerance with repayment obligations structured as a percent of revenues realized. The program expands access to capital for underserved communities by working with a contractor that has a proven track record in providing loans to small businesses within underserved communities. The program will focus on underserved firms and will conduct outreach to business support organizations led by underserved communities to ensure underserved businesses are aware of the product.

New York.⁸⁰ New York’s unique Bonding Assistance Program (BAP) will provide credit guarantees to surety bond companies, to allow small businesses and underserved businesses to bid on construction contracts by state and local governments. The program is an extension of an existing program that has had great success in supporting minority- and/or women-owned enterprises. The BAP program expands access to capital by allowing small businesses and underserved businesses to bid on construction contracts by state and local governments and nonprofit organizations that have state funding. The state will utilize its extensive networks in these communities to market the program.

Pennsylvania.⁸¹ The Pennsylvania Diverse Venture Loan Program is focused on supporting venture capital investments in new funds under the management of underserved venture capital firms and on reaching underserved entrepreneurs. It provides non-recourse loans to managers that include participating interest provisions that mirror the pari passu returns of LP investors in the funds.

⁷⁸ Burris, Stettner, and Wellington, “SSBCI 2.0: A New Capital Tool for Revitalizing and Diversifying Manufacturing.”

⁷⁹ Ibid.

⁸⁰ “New York State Surety Bond Assistance Program,” Empire State Development, October 5, 2022, <https://esd.ny.gov/new-york-state-surety-bond-assistance-program#:~:text=The%20program%20provides%20technical%20and,funded%20or%20government%20led%20projects>.

⁸¹ “PA State Small Business Credit Initiative (PA-SSBCI): Diverse Leaders Venture Program—PA Department of Community & Economic Development,” PA Department of Community & Economic Development, October 6, 2022, <https://dced.pa.gov/programs/pa-state-small-business-credit-initiative-pa-ssbc-diverse-leaders-venture-program/>.



Vermont.⁸² Vermont’s loan participation program will purchase participations in a senior loan and will expand access to capital for underserved—including rural—communities by developing strategies to reach Vermont’s underserved populations. The state will partner with organizations to reach underserved businesses and to seek new relationships with the state’s seven CDFIs. The state’s plan to reach underserved communities includes individual meetings with identified organizations, an SSBCI kick-off event for members of underserved organizations, and ongoing outreach.

Hawaii.⁸³ Hawaii’s HI-CAP Loan Participation and Companion program expands access to capital for underserved and rural communities by lending to catalytic projects that will diversify Hawaii’s economy and lessen its reliance on tourism, which incurred high rates of business failures and unemployment during the Covid-19 pandemic. The state’s equity/funds initiative has an emphasis on providing patient capital to businesses in technology, innovation, manufacturing and exporters with an emphasis on accelerating the growth of participating businesses in such areas as shared manufacturing infrastructure.

Improving Flexibility Regarding Allowable Uses of Loan Proceeds

For many states, program flexibility has been found to be essential for program design. The SSBCI programs described below purposefully incorporate flexibility to better meet borrower and lender/investor needs and are especially suited to manufacturers.

Arizona.⁸⁴ Arizona developed highly flexible SSBCI programs after recognizing that manufacturers would benefit from programs having fewer rigid guidelines. State officials noted that different lending models within a broad program continuum can provide options that businesses need, especially Arizona manufacturers facing ever-changing financing challenges responding to changes in supply chain demand.

Illinois.⁸⁵ For Illinois, simplicity and flexibility help mitigate the uncertainties in certain types of higher risk transactions. For example, the state employed a successful LPP under the first SSBCI that had been purposely designed to be easy for bank and CDFI lenders to deploy.

Pennsylvania.⁸⁶ Pennsylvania’s Equity Capital Program supports seed- and early-stage technology companies, while the Commonwealth’s Revolving Loan Fund Program will primarily support lending to a wide range of existing Pennsylvania small businesses. Neither program established a minimum investment size, and the state sanctioned a broad

⁸² “State Small Business Credit Initiative (SSBCI),” <https://www.veda.org/ssbci>.

⁸³ “Hi-CAP - HTDC,” n.d., <https://www.htdc.org/hicap/>.

⁸⁴ “Arizona SSBCI Program,” Arizona Commerce Authority, n.d., <https://www.azcommerce.com/programs/arizona-ssbci-program/>.

⁸⁵ “Advantage Illinois,” Advantage Illinois, n.d., <https://dceo.illinois.gov/smallbizassistance/advantageillinois.html>.

⁸⁶ “Pennsylvania State Small Business Credit Initiative (PA-SSBCI)—PA Department of Community & Economic Development,” PA Department of Community & Economic Development, October 6, 2022, <https://dced.pa.gov/programs/pennsylvania-state-small-business-credit-initiative-pa-ssbci/>.



range of allowable uses from short-term working capital loans, to medium-term equipment loans, to long-term loans for construction and renovation. The lack of a loan size minimum and the wide range of allowable uses highlight the program’s flexibility.

California.⁸⁷ The California Infrastructure and Economic Development Bank (IBank) and the California Pollution Control Financing Authority (CPCFA) manage the state’s six SSBCI programs. CPCFA manages two lending programs, a CAP and a CSP, that are designed to facilitate lending to manufacturers and other targeted industries. Additionally, CPCFA has a history in supporting sustainable businesses aimed at decarbonization and pollution control. This will help support implementation of the Administration’s landmark bill to address climate change, the Inflation Reduction Act. Under the CSP, loan proceeds can be used for a variety of business purposes including working capital, bridge loans, and fixed asset financing with a minimum loan amount of \$50,000. During the first SSBCI, California found that its CSP was particularly impactful in facilitating bridge loans for SBA 504 loans, as the SBA 504 program is limited to permanent, amortizing term loans. By providing cash collateral for construction and acquisition loans, California’s CSP also filled a major collateral gap for lenders dealing with certain limitations on financing commercial real estate.

Investing in Innovation/Start-Up Funding—Equity/Venture Capital Programs

A number of states recognized that equity/venture capital programs can play an important role in funding early-stage manufacturers. Pre-seed funding, which is the earliest and riskiest round of funding for a start-up that helps validate a business idea, is perhaps the most challenging business financing stage, especially for first-time and underserved entrepreneurs. States have developed a number of noteworthy initiatives to support early-stage funding, including:

Michigan.⁸⁸ The Michigan Small Business Venture Capital Program is a new early-stage equity program that permits the state to invest in equity funds as a limited partner. Michigan limits exposure to a maximum of \$5 million and 49% of the investible assets or total loan/investment, respectively. The program will focus on firms working in the medical device, aerospace, advanced manufacturing, and other high-tech sectors.

New York.⁸⁹ New York’s Pre-Seed and Seed Investment Matching Program will provide funding on a 1:1 match basis, starting as low as \$50,000 and up to a maximum of \$250,000. In exchange for an early investment, the start-up promises to convert the funds into equity or shares of the company when the start-up begins raising money in later funding rounds.

Although manufacturing firms are eligible, the program is designed to focus primarily on promising technology companies and start-ups in sectors that already have a strong

⁸⁷ “CPCFA California Capital Access Program,” n.d., <https://www.treasurer.ca.gov/cpcf/calcap/>.

⁸⁸ “Small Business Venture Capital Program | Michigan Business,” Michigan Economic Development Corporation (MEDC), n.d., <https://www.michiganbusiness.org/services/access-capital/sbvcp/>.

⁸⁹ “Pre-Seed and Seed Matching Fund Program | Empire State Development,” February 15, 2023, <https://esd.ny.gov/pre-seed-and-seed-matching-fund-program>.



presence in New York. New York expects to work with accelerators that support start-up companies in microelectronics, photonics, optics, manufacturing, autonomous vehicles, food and agriculture, materials, and life science/biotechnology. New York views this program as critical to providing access to capital for underserved entrepreneurs with minimal household wealth to kickstart a business idea.

Hawaii.⁹⁰ Hawaii’s program builds on the venture capital program it offered during the first SSBCI with an emphasis on diversifying the state’s economy through investments in non-tourism sectors including manufacturing. The equity program aims to establish a sector-diverse portfolio of 5-8 early-stage investment funds and will invest no more than \$5 million in any transaction. Most of the funds will be invested as seed funding into startup and very early-stage, high-growth companies where debt-financing is typically not available. Priority sectors for investment include technology, innovation, small business innovation research, manufacturing, and exports.

⁹⁰ GEMS Financing Program, “HI-CAP Program—Hawai‘i Green Infrastructure Authority,” Hawai‘i Green Infrastructure Authority—Ka ‘Oihana ‘Ōnaepuni ‘Ōma‘oma‘o O Hawai‘i, November 22, 2022, <https://gems.hawaii.gov/hawaii-small-business-capital-program-hi-cap/>.