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January 28, 2020

The Honorable Roger F. Wicker
Chairman
The Honorable Maria Cantwell
Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Eddie Bernice Johnson
Chairwoman
The Honorable Frank Lucas
Ranking Member
Committee on Science, Space, and Technology
House of Representatives

Innovative Technologies in Manufacturing: Commerce Has Stopped Efforts to Implement Loan Guarantee Program

Manufacturing plays a key role in the U.S. economy as a source of economic growth, high-paying jobs, and innovation. According to a 2018 report by the National Science and Technology Council, small- and medium-sized manufacturers can be key sources of innovation in the form of new products, new processes, and new business models.¹ To invest in innovation, improve U.S. competitiveness, and help address the capital needs of small- and medium-sized manufacturers, the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010 (America COMPETES Reauthorization Act of 2010) directed the Secretary of Commerce to establish the Federal Loan Guarantees for Innovative Technologies in Manufacturing (ITM) program.² The ITM program is to support loan guarantees for small- and medium-sized manufacturers for the use or production of innovative technologies. The Economic Development Administration (EDA) within the Department of Commerce (Commerce) is responsible for implementing the ITM program.

The America COMPETES Reauthorization Act of 2010 also included a provision for us to conduct a biennial review of the Secretary of Commerce’s execution of the program. We previously issued three reports pursuant to this provision, which included the following findings:

¹Executive Office of the President, Subcommittee on Advanced Manufacturing, Committee on Technology, National Science & Technology Council, *Strategy for American Leadership in Advanced Manufacturing* (Washington, D.C.: October 2018).

²Pub. L. No. 111-358, § 602, 124 Stat. 3982, 4026 (Jan. 4, 2011) (*codified at* 15 U.S.C. § 3721). This law reauthorized and amended the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (America COMPETES Act). Pub. L. No. 110-69, 121 Stat. 572 (Aug. 9, 2007), and enacted section 26 of the Stevenson-Wydler Technology Innovation Act of 1980. (15 U.S.C. 3701 et seq.).

- In July 2013, we found that EDA had taken preliminary steps to implement the program but had not yet issued any loan guarantees.³
- In February 2016, we found that EDA had taken additional steps to implement the program, but several key tasks—such as issuing program regulations, hiring additional staff, developing marketing materials, and conducting outreach—remained before EDA could begin issuing loan guarantees.⁴ We also found that EDA had coordinated with other federal agencies, such as the Small Business Administration (SBA) and the National Institute of Standards and Technology (NIST),⁵ but had not clearly differentiated ITM from other programs, which could result in duplication.⁶
- In February 2018, we found that EDA had taken additional steps to implement the ITM program, but future steps were uncertain because of a perceived lack of demand for the program among small- and medium-sized businesses, competing regulatory priorities within Commerce, and reductions in available funding for the program.⁷

This fourth report examines any steps EDA has taken to implement the ITM program since we issued our February 2018 report, and how much annual funding has been provided for the ITM program from fiscal years 2012 to 2019.

To examine any implementation steps by EDA, we analyzed applicable laws, such as the America COMPETES Reauthorization Act of 2010, as well as program documents. We also interviewed EDA officials to learn about the extent of EDA's efforts to implement the ITM program. Additionally, we collected information from NIST officials on the extent of demand for loan guarantee programs and capital by small- and medium-sized manufacturers. To examine annual funding provided for the ITM program from fiscal years 2012 to 2019, we analyzed laws providing appropriations for the program, verified this information with EDA officials, and collected additional funding information from EDA officials, as applicable.

We conducted this performance audit from October 2019 to January 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our

³GAO, *COMPETES Reauthorization Act: Federal Loan Guarantees for Innovative Technologies in Manufacturing*, [GAO-13-717R](#) (Washington, D.C.: July 2013).

⁴GAO, *Innovative Manufacturing: Commerce Should Target Program Outreach to Address Capital Access Gaps*, [GAO-16-271](#) (Washington, D.C.: February 2016).

⁵In 2011, NIST identified several capital access gaps for small- and medium-sized manufacturers resulting in potentially underserved populations for federal loan guarantees. See NIST Hollings Manufacturing Extension Partnership, *Connecting Small Manufacturers with the Capital Needed to Grow, Compete, and Succeed: Small Manufacturers Capital Access Inventory and Needs Assessment Report* (Gaithersburg, MD: November 2011).

⁶As we reported in February 2016, a key issue debated during consideration of the America COMPETES Reauthorization Act of 2010 was whether the ITM program would duplicate existing loan guarantee programs at other federal agencies. See [GAO-16-271](#). America COMPETES Reauthorization Act of 2010 provides that, to the maximum extent practicable, the Secretary of Commerce shall ensure that the activities carried out under the ITM program are coordinated with, and do not duplicate the efforts of, other loan guarantee programs within the federal government. 15 U.S.C. § 3721(o).

⁷GAO, *Innovative Manufacturing: Commerce Has Continued Efforts to Create a Loan Guarantee Program, but Future Steps Are Uncertain*, [GAO-18-276R](#) (Washington, D.C.: February 2018).

findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Commerce's EDA Has Not Implemented the ITM Program, for Various Reasons

Since our February 2018 report, EDA has not taken steps to implement the ITM program, citing the following reasons:

- **Appropriated funds intended to implement the ITM program were rescinded.** Officials noted that Congress rescinded about \$18.5 million of the \$19 million appropriated to EDA since 2012.⁸ EDA officials told us that the agency chose to apply the rescission to funds available for implementing the ITM program in fiscal years 2017, 2018, and 2019 to meet congressional requirements for rescissions to the Economic Development Assistance Program account.⁹ As a result, EDA officials said, there are no funds available to implement the ITM program. EDA officials also noted that if EDA were to receive future appropriations to implement the ITM program, it would likely consider applying any additional rescissions to the program. These officials provided the following reasons for applying rescissions to the ITM program:
 - **Perceived lack of demand.** EDA officials told us that demand by small- and medium-sized manufacturers for loans under the ITM program would be limited.¹⁰ Officials said this is because businesses would largely be able to access loans through SBA's 7(a) program, which has less restrictive eligibility requirements.¹¹ According to these officials, while the ITM program would have some of the same eligibility requirements as SBA's 7(a) program, it would have an additional requirement for businesses to be engaged in innovative technology or manufacturing processes. Furthermore, they said, restrictions on use of ITM program loan proceeds (e.g., proceeds from the loans would not have been available for working capital needs), could have resulted in fewer businesses making use of the envisioned ITM

⁸Consolidated Appropriations Act, 2017, Pub. L. No. 115-31, § 524(a)(1), 131 Stat. 135, 225 (May 5, 2017), Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, § 523(a), 132 Stat. 348, 441, (Mar. 23, 2018), and Consolidated Appropriations Act, 2019, Pub. L. No. 116-6, § 523(a), 133 Stat. 13, 134 (Feb. 15, 2019). A rescission is legislation enacted by Congress that cancels the availability of budget authority previously enacted before the authority would otherwise expire. GAO, *A Glossary of Terms Used in the Federal Budget Process*, [GAO-05-734SP](#) (Washington, D.C.: September 2005).

⁹In fiscal years 2017, 2018, and 2019 Congress required a \$10 million rescission of unobligated balances from EDA's Economic Development Assistance Programs account. EDA chose to apply the rescission to the unobligated balances for the ITM program.

¹⁰We also spoke with officials from NIST about the perceived lack of demand for the ITM program. These officials also noted that the need for a program like ITM may no longer exist because of SBA's 7(a) program, which can provide funding for working capital, purchasing inventory and raw materials. There have been no studies published by NIST since 2011 on this issue, according to NIST officials.

¹¹SBA's 7(a) program provides loan guarantees to small businesses for a variety of purposes, such as acquiring land and buildings; purchasing inventory, supplies, and raw materials; and providing working capital. SBA's 7(a) program is authorized by Section 7(a) of the Small Business Act, codified as amended at 15 U.S.C. § 636(a). See [GAO-18-276R](#).

program. Moreover, according to EDA officials, EDA likely would have been required to charge higher fees than those under SBA's 7(a) program.¹²

- **Lender participation uncertainty for the ITM program.** EDA officials said that lender participation with the ITM program was also uncertain because—based in part on discussions with other agencies—EDA officials perceived that prospective lenders saw little or no demand for loans from small- and medium-sized businesses in the innovative manufacturing sector. In addition, EDA officials told us that lenders faced greater risks with ITM program loans in comparison to SBA program loans, particularly in cases where businesses did not establish creditworthiness and a business plan. Furthermore, EDA officials said that potential lenders generally were more likely to continue their participation in the SBA loan programs due to their familiarity with program requirements and with the SBA officials administering the loan programs. This familiarity did not extend to EDA and the ITM program.

Because of these reasons, Commerce in October 2017 withdrew a rule it proposed in September 2016 necessary to implement the ITM program from the Unified Agenda, according to EDA officials.¹³ EDA officials explained to us that by mid-2017, they were reluctant to move forward with the rule due to the pending rescissions,¹⁴ uncertainties around the demand for the program, and requirements of Executive Order 13771. That Executive Order provides that, unless prohibited by law, whenever an agency proposes or otherwise promulgates a regulation, it must identify at least two existing regulations to be repealed.¹⁵ Without a final rule, EDA cannot issue any loan guarantees, according to agency officials.¹⁶

- **Alternatives to the ITM program.** EDA and NIST officials noted a number of alternatives to the ITM program available to help businesses, including those in the innovative manufacturing sector. These alternatives include:
 - **New funding models.** NIST officials said that there are new models—such as peer-to-peer lending and investing—that can provide funding for small- and medium-sized businesses that typically cannot qualify for a loan with a traditional lender. The

¹²SBA's subsidy rate—the lifetime cost to the government—is lower than what EDA would have required. EDA officials added that SBA's 7(a) program was run at a large scale, with massive demand and relatively low rate of defaults, and the smaller scale of a competing ITM program would likely have required higher fees, according to agency officials.

¹³Department of Commerce, Economic Development Administration, *Innovative Technologies in Manufacturing Loan Guarantee Program*, 81 Fed. Reg. 64787 (Sept. 9, 2016). EDA had previously published a request for comments in the *Federal Register*. Department of Commerce, Economic Development Administration, *Request for Comments on Developing a Program To Provide Loan Guarantees to Small- or Medium-Sized Manufacturers*, 78 Fed. Reg. 22801 (Apr. 17, 2013). The Unified Agenda provides reporting data on regulatory and deregulatory activities under development throughout the federal government. The U.S. General Services Administration compiles the Unified Agenda semiannually, with the Office of Management and Budget and the executive and independent agencies.

¹⁴EDA officials noted that it had become clear that further work to implement the ITM program would soon cease because concurrent with the transmission to Congress of the first rescission of ITM program funds in September 2017, EDA informed Congress that the remainder of the funds would also be subject to further rescission should another rescission be enacted by Congress the following year.

¹⁵Exec. Order No. 13771, *Reducing Regulation and Controlling Regulatory Costs*, 82 Fed. Reg. 9339 (Feb. 3, 2017).

¹⁶See [GAO-18-276R](#) for further information on EDA's efforts to promulgate a rule to implement the ITM program.

officials added that these alternative lenders—which typically work with customers online—use data in a smarter way, making it easier for borrowers seeking capital. NIST officials also noted that demand for a program like ITM may no longer exist due to such new models.

- **Venture capital.** EDA officials said that this funding source may be a more appropriate way for a manufacturer to access and use newer and innovative technology to develop their business. NIST officials, however, stated that neither traditional venture capital nor conventional lending models address small- and medium-sized manufacturer needs.¹⁷
- **Technical assistance.** EDA officials told us EDA can provide technical assistance grants to manufacturing entities related to innovative technology or manufacturing processes. EDA officials said that technical assistance may be needed by businesses as a first step before additional development and expansion can take place, and may be a suitable alternative for businesses who would otherwise seek financial support through a loan program.

ITM Program Funding from Fiscal Years 2012 to 2019

The following is a brief timeline and summary of the ITM program appropriations, spending, and rescissions from fiscal year 2012 to 2019, according to EDA officials:

- From fiscal year 2012 through fiscal year 2015, Congress appropriated \$19 million for the ITM program.
- For fiscal years 2016 through 2019, Congress did not appropriate new funds for the ITM program.
- During fiscal years 2014, 2015, and 2016, approximately \$500,000 was spent on a contractor for activities associated with ITM program implementation, according to EDA officials.
- The Consolidated Appropriations Act, 2017, and the Consolidated Appropriations Act, 2018, each required a \$10 million rescission of unobligated balances from prior-year appropriations from EDA's Economic Development Assistance Programs account. EDA chose to apply the 2017 rescission entirely to the unobligated balances for the ITM program, and about \$8.5 million of the 2018 rescission came from the unobligated balances for the ITM program.
- The Consolidated Appropriations Act, 2019, required a \$10 million rescission of unobligated balances from prior-year appropriations from EDA's Economic Development Assistance Programs account, of which EDA applied \$50,000 to the remaining unobligated balances for the ITM program, resulting in almost all of the approximately \$18.5 million to implement the ITM program being rescinded.

¹⁷For example, NIST officials said that the venture capital model relies on high-growth industry segments that can generate very high returns (e.g., 20 percent) on capital in 5 years or less.

Agency Comments

We provided a draft of this report to the Secretary of Commerce. Commerce provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Commerce, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-6888 or neumannj@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report include Farahnaaz Khakoo-Mausel (Assistant Director), Aaron Shiffrin (Analyst-in-Charge), Marcia Carlsen, Jenny Chanley, Jehan Chase, Bill Shear, and Ben Shouse.



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