SUPPORTING STATEMENT
U.S. Department of Commerce
Bureau of Industry and Security

Defense Industrial Base Assessment:
The U.S. Microelectronics Industry
OMB Control No. 0694-0119

A. Justification

1. Explain the circumstances that make the collection of information necessary.

The Secretary of Commerce is requesting an assessment regarding the use and source of mature-node semiconductor devices and the impacts of potential Chinese overcapacity. The assessment must be completed by December 31, 2024. In support of this assessment, the Bureau of Industry and Security (BIS), Office of Technology Evaluation (OTE) is conducting a survey intended to be completed by organizations in five critical sectors (Aerospace/Defense, Automotive, Information & Communication Technology, Industrial, and Medical) along with other semiconductor device designers likely using China-based foundries for semiconductor production. Via the survey, OTE will collect information on the products containing mature-node semiconductor devices, and the direct and indirect purchases of mature-node semiconductor devices.

The resulting data will be used to generate an assessment of U.S. mature-node semiconductor supply chains. The principal goal of this survey is to evaluate and provide information on the mature-node semiconductor sourcing practices of industries that are critical to U.S. national security and critical infrastructure. The survey will also gather information on semiconductor device suppliers' products and end uses of those products that are fabricated in China, as well as their experiences in contracting with manufacturers located in China. The data collected will be used to support a report to the Secretary of Commerce (which may be classified) detailing the results of the assessment.

As a result of this collection, U.S. Government stakeholders will be better informed to develop targeted strategies to ensure the availability and security of the supply chain network that supports industries critical to U.S. national security and critical infrastructure.

The OTE survey is designed to provide detailed information on several categories related to microelectronics sourcing practices and competitiveness, including capabilities; supply chain transparency; key inputs; and challenges. The resulting aggregate data will provide BIS detailed information that is otherwise not available and is needed to effectively conduct its analysis.

During the design and development of the proposed survey, OTE gathered input from the interdepartmental and interagency matter experts. These engagements included contacts with the U.S. Department of Defense's Office of the Under Secretary of Defense, Acquisition and Sustainment (AUSD/A&S), the U.S. Department of Defense's Defense Microelectronics Activity (DMEA) Advanced Microelectronics Technologies Division, the Office of the United States Trade Representative, the U.S. Department of Homeland Security, the U.S. Department of Commerce's

CHIPS Program Office, International Trade Administration, and National Institute of Standards and Technology.

OTE has authority under Section 705 of the Defense Production Act of 1950, as amended to conduct assessments and collect information in support of the U.S. industrial base. These industrial base assessments are normally undertaken in partnership with the U.S. Department of Defense and other agencies and typically focus on manufacturing, workforce, resiliency, and financial and economic issues affecting key industrial sectors or critical technologies.

The attached survey questionnaire is the primary source of supplier information needed for a defense industrial base assessment of this type.

Pursuant to the abovementioned statute and relevant delegations thereunder, OTE remains the focal point for national security industry assessments among civilian federal agencies. This includes mandatory data collection authority to carry out these responsibilities.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

OTE intends to survey approximately 250 companies representing multiple facets of the microelectronics industrial base.

The survey is a one-time only request. Both quantitative and qualitative information obtained from the instrument will be held in a database for analysis by OTE analysts. The qualitative questions, specifically, are used to complement the statistical data. By anonymizing the data and sharing insights to the broader distribution, manufacturing, research and development, and sustainment community, OTE intends to improve the monitoring of industry's overall performance, while raising awareness of shared risks to mission implementation, any of which could adversely affect the U.S. microelectronics industrial base and, more broadly, U.S. national security. Any public releases will consist only of aggregate, nonproprietary results with no business confidential information.

BIS utilizes the Defense Production Act of 1950 (DPA), as amended, to both collect and protect the business proprietary information submitted by the survey respondents. Additionally, Executive Orders 12656 and 13603 delegate to the Department of Commerce the authority to assess the capabilities of the U.S. industrial base to support the national security and critical program needs and develop policy recommendations to improve the international competitiveness of specific domestic industries.

By virtue of the above-mentioned statute and executive orders, OTE is the focal point for industrial base and critical technology analyses among civilian federal agencies, which includes mandatory data collection authority to carry out these assessment responsibilities. OTE has conducted approximately 60 surveys and assessments of this kind in the past 30 years. These studies review in detail those industries with challenges relating to employment/STEM, international competition and trade, financial performance, production, supply chain, investment, foreign sourcing and

dependencies, and other factors influencing industry's ability to support end-users across commercial, defense, and other national security programs. This survey is designed to collect information that facilitates such in-depth analysis.

Through its analysis of the survey results, OTE will better inform policymaking on the mature-node semiconductor device supply chain.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

To lessen the burden on respondents, OTE is encouraging firms to provide electronic responses in Excel format. Each respondent will receive a personalized distribution letter signed by BIS management and a project overview fact sheet which outlines the scope of information required. The letter will contain directions to the BIS survey landing page where both Excel and PDF version of the survey are housed. This approach was used successfully for the 2020 U.S. Air Force Sustainment Center (Supply Chain), 2022 U.S. Microelectronics Industrial Base Assessment, 2023 Civil Space Industrial Base Assessment, and 2023 Influenza Vaccine Industrial Base Assessment. All four surveys were approved by OMB.

The statistical data requested in the survey adheres closely to categories of questions and survey nomenclature common to the civil space sector. The relevance of these fields also has been verified through remote field-testing with stakeholders from academia, the U.S. government, and U.S. industry. Nearly all respondents will have the requested data stored on computer systems or within internal resources, allowing retrieval of the information to populate the survey response.

BIS has conducted numerous industry and technology surveys in the past 30 years and actively pursues the refinement and updates of its survey techniques and information technology to minimize the burden on the respondents.

4. Describe efforts to identify duplication.

The information sought in the survey is unique and not available from any other source, neither public nor private. Some of the basic corporate data, such as address location, stock symbol and leadership profiles, is submitted by companies to the U.S. Census Bureau. However, the Census Bureau is precluded by law from releasing information on specific companies.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

Participants in this collection are primarily members of industries that support U.S. national security and critical infrastructure, including suppliers of semiconductor devices. The survey is design to minimize burden on all respondents. Based on previous survey data collections, OTE expects the vast majority of companies to respond electronically. For small firms, BIS has developed and implemented estimate thresholds to relieve these entities from the obligation of responding to portions of the survey instrument. For example, small businesses may only have

to provide financial data in aggregated figures, while the remaining survey respondents provide full balance sheet and income statement results.

Moreover, prior to submission to OMB, BIS makes every effort to minimize the information collection burden that a survey imposes on the public. For example, BIS generally circulates a draft survey to industry and government experts, as well as representatives of companies within the target industry or sector as a "field test." Comments received are factored into the survey form. Additional inputs obtained from facility site visits and outside research are also added to the survey. The survey form, typically in Excel format, is constructed for clarity and ease of completion. Drop down and check-the-box answers are used throughout the survey form, thus reducing the overall burden on industry, especially small businesses.

Additionally, to minimize the time needed to complete the survey form, questions are clearly labeled and grouped by subject. Most of the data requested is common organization management information, requiring a minimal amount of time to gather and insert. There are a minimal number of open-ended questions (typically the most time-consuming and low-yield format) that allow respondents to better explain their views on topics of concern. If, for any reason, the respondent cannot complete the survey in Excel format, OTE will work closely with the respondent to facilitate an alternate form of submission. Based on previous survey data collections, OTE expects most companies to respond electronically.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

For the evaluation of mature-node semiconductor device supply chains, a survey is the method that has been requested by the Secretary of Commerce to assess the products containing mature-node semiconductor devices, and the purchasing and procuring of those products. Furthermore, this assessment is similar to other mandatory industry surveys delegated to BIS under Section 705 of the Defense Production Act and E.O. 13603. Without the survey-based information OTE could not obtain company specific information necessary to perform a robust, accurate evaluation of mature-node semiconductor device production. Examples of such information include end uses, buyers, both direct and indirect purchases, and costs of mature-node semiconductor devices and the products that contain them.

The resulting dataset will allow OTE to inform the U.S. government on policymaking related to the potential Chinese overcapacity in mature-node semiconductor devices.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

There are no special circumstances that will result in the collection of information in a manner inconsistent with the guidelines of 5 CFR 1320.6. Survey response information will contain business confidential information which will be protected by BIS consistent with OMB guidelines and 15 CFR Part 702.

8. Provide information of the PRA Federal Register notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

The Federal Register notice is not applicable to this collection because it falls within the scope of the BIS generic authority entitled, "National Security and Critical Technology Assessments of the U.S. Industrial Base," approved under OMB Control No. 0694-0119. This authority is renewed every three years (last renewal was Aug 31, 2022) to support BIS industrial base assessment needs.

OTE staff developed the mature-node semiconductor device survey in consultation with government experts as part of extensive analysis of semiconductor industry supply chains. The following is a list of individuals who participated in the process:

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9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

This survey will not involve any payment or gifts to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

The survey instrument, cover letter and fact sheet all provide assurance to the respondents that the information collected through the survey will be deemed business confidential and will be treated in accordance with Section 705 of the DPA (50 U.S.C.A. app. Section 2061 et. seq.). This section prohibits the publication or disclosure of such information unless the President of the United States determines that its withholding is contrary to the national defense.

Information submitted will not be shared with any non-government entity, other than in aggregate form, and the Department will protect the confidentiality of such information pursuant to the appropriate exemptions from disclosure under the Freedom of Information Act (FOIA) if it is the subject of a FOIA request. BIS, Office of Technology Evaluation has a long and successful track record in protecting confidential business information collected pursuant to the Defense Production Act.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

This survey will not collect information that could be construed as being of a sensitive nature, such as information concerning sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered sensitive or private.

12. Provide an estimate in hours of the burden of the collection of information.

OTE estimates that the total burden placed on respondents participating in the mandatory survey will be 3,000 hours. This estimate is based on a sample of 250 respondents with an average completion time of 12 hours per survey.

This burden estimate is subject to variations among respondents because of differences in product/service participation, record keeping, company size and type, and other variables.

The estimate is based on past OTE data collections, as well as feedback from organizations that have completed OTE surveys. OTE has conducted surveys of various industries and sectors, including NASA's rocket propulsion sector, underwater acoustic transducers, strategic materials, microelectronics, healthcare products, and others.

The estimated total cost to respondents of this particular information collection is $144,000. This estimate was calculated by assuming a respondent average work rate of $48 (average hourly rate of semiconductor equipment engineers via ZipRecruiter) per hour multiplied by the total burden hours of 3,000.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

Not applicable.

14. Provide estimates of annualized cost to the Federal government.

The estimated annual cost to the Federal government for the survey is $629,941. A significant portion of the cost relates to the survey questionnaire which includes preparing, collecting, verifying, tabulating, and analyzing the data. Other costs are incurred in field testing the survey, developing findings and recommendations, preparing reports, and report printing and distribution.

The direct employee costs are estimated by assuming one GS-13, Step 10 ($69.77/hour per the January 2023 OPM schedule) and one GS-14 Step 10 ($82.45/hour per the January 2023 OPM schedule) federal employees were assigned full-time to the assessment. The annual costs are calculated as follows: (69.77/hour x 40 hours/week x 52 weeks) + (82.45/hour x 40 hours/week x 52 weeks) = $316,617.

Indirect or overhead costs associated with the project are calculated as 20 percent of the direct employee costs, or $63,324. A review of OTE budgets from previous years indicates costs for building maintenance, telephone, computers, and space rental charges generally run about 20 percent of total employee costs.

Additionally, it is estimated that contractor support will be needed for the assessment to assist with compliance, data analysis and report preparation. The estimated annual cost of contractor support will be $250,000.

The total estimated annual costs to the federal government is as follows:

Federal Employee Salaries (2 full-time employees)	$316,617
Federal Government Overhead @ 20%	$ 63,324
Contractor Support	$250,000
Total:	**$629,941**

15. Explain the reasons for any program changes or adjustments.

Because the scope of this collection of information falls within BIS's generic authority "DOC/BIS National Security and Critical Technology Assessments of the U.S. Industrial Base," (Control Number 0694-0119), there is no increase in burden hours being requested.

This is the first time OTE has used this authority since its renewal in August 2022 (a total of 34,000 burden hours were authorized for the Civil Space Industrial Base Study and Influenza Vaccine Industrial Base Study). Therefore, an unused balance of 274,000 annual burden hours will remain if the survey is approved under this authority.

16. For collections whose results will be published, outline the plans for tabulation and publication.

The data collected by OTE will be aggregated to protect the confidentiality of the respondent information. There is neither a final report nor publication planned for the project.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

Not applicable. OTE will display the expiration date of this information collection authority Control Number 0694-0119 on all surveys and instructional information the public receives.

18. Explain each exception to the certification statement.

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.