



Report in Brief

MAY 20, 2024

Background

Over the past several decades, the United States has lost ground as a leader in semiconductor chip manufacturing and research. Congress passed the CHIPS Act of 2022 to help rebuild the domestic semiconductor industry and strengthen semiconductor research and development.

The CHIPS Act provides \$50 billion to the Department of Commerce to support research and development, innovation, and manufacturing related to semiconductors. In addition, the CHIPS Act authorizes the Secretary of Commerce to issue up to \$75 billion in direct loans and loan guarantees. The National Institute of Standards and Technology (NIST) is overseeing the Department's CHIPS program.

NIST established two offices to implement the CHIPS program: the CHIPS Program Office (CPO), responsible for implementing the semiconductor incentives program, and the CHIPS Research and Development Office (CRDO), responsible for programs undertaking research and development activities. The initial CHIPS leadership team was announced in September 2022 and undertook hiring for the two offices.

Why We Did This Evaluation

The objective of our evaluation was to assess NIST's progress in meeting workforce hiring milestones for CPO and CRDO.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

NIST Surpassed Hiring Goals for CHIPS But Did Not Develop a Comprehensive Workforce Plan

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WHAT WE FOUND

Given the complex nature of the semiconductor industry, recruiting individuals with the necessary technical expertise, particularly those with experience in large federal programs and the financial sector, poses a significant hurdle. Therefore, developing and implementing a comprehensive workforce plan is critical to these efforts.

We found that NIST surpassed its hiring goals for CPO and CRDO but did not develop a comprehensive workforce plan to meet its human capital needs.

Without a comprehensive workforce plan, CPO and CRDO lack assurance that they have adequately aligned their resources to fulfill their mission or identified current and future staffing opportunities and constraints. Workforce planning ensures that agencies have the right people with the right skills to accomplish the mission and enables agencies to meet current and future organizational goals and objectives. It is also the foundation for managing human capital, enabling agencies to strategically meet current and future workforce needs and preventing unnecessary disruptions in maintaining a steady-state and agile workforce.

CHIPS officials cited urgency in executing CHIPS Act requirements as the reason for not completing a comprehensive workforce plan for CPO and CRDO.

WHAT WE RECOMMEND

1. We recommend that the Director of the CHIPS Program Office and the Acting Director of the CHIPS Research and Development Office collaborate with the Director of the NIST Office of Human Resources Management to develop a comprehensive workforce plan that includes a skills assessment, vacancy analysis, and risk assessment.
2. We recommend that the Director of the NIST Office of Human Resources Management implement lessons learned from CPO and CRDO for future NIST hiring efforts.