

# GAO Highlights

Highlights of [GAO-17-8](#), a report to congressional requesters

## Why GAO Did This Study

In fiscal year 2017, the federal government is expected to spend more than \$89 billion on IT. In many instances, agencies have not consistently applied best practices that are critical to successfully acquiring IT investments, such as ensuring program staff have the necessary knowledge and skills. In an effort to aid agencies in successfully delivering projects, the Office of Management and Budget has called for the development and use of IPTs for federal IT acquisitions to ensure that projects consist of the appropriate mix of individuals. GAO was asked to review IPTs for federal IT acquisitions and the federal government’s IT workforce planning.

GAO’s objectives were to (1) identify key characteristics of comprehensive IPTs responsible for managing major federal IT acquisitions, and (2) evaluate whether selected federal agencies are adequately assessing and addressing gaps in knowledge and skills that are critical to the success of major IT acquisitions. To do so, GAO reviewed relevant literature; interviewed IPT experts; and evaluated IT workforce efforts at five departments: Commerce, Defense, Health and Human Services, Transportation, and the Treasury.

## What GAO Recommends

GAO recommends that selected departments implement IT workforce planning practices to facilitate more rigorous analyses of gaps between current skills and future needs, and the development of strategies for filling the gaps. Four departments agreed and one, Defense, partially agreed with our recommendations.

View [GAO-17-8](#). For more information, contact David Powner, 202-512-9286, [pownerd@gao.gov](mailto:pownerd@gao.gov).

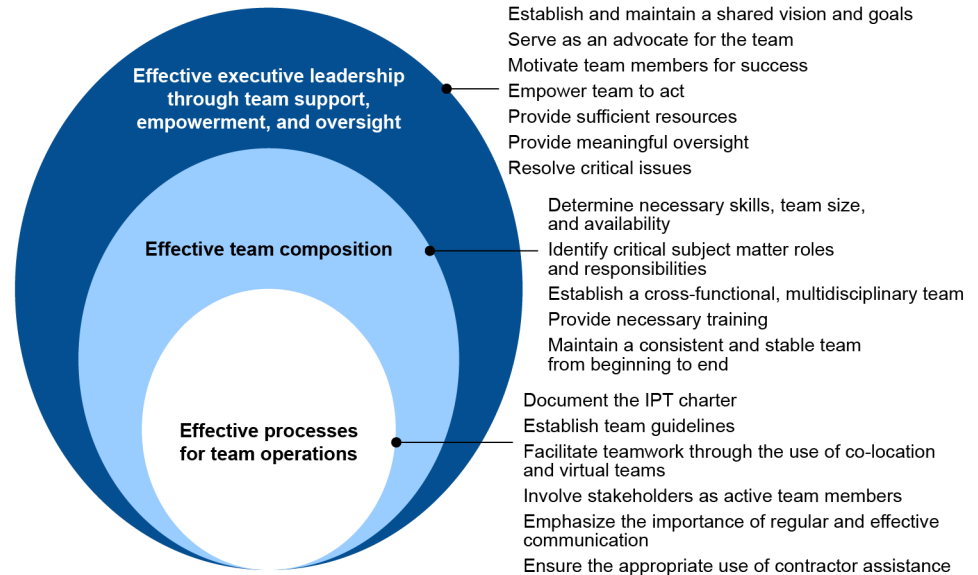
## IT WORKFORCE

# Key Practices Help Ensure Strong Integrated Program Teams; Selected Departments Need to Assess Skill Gaps

## What GAO Found

Integrated program teams (IPT) are cross-functional or multidisciplinary groups of individuals that are organized and collectively responsible for delivering a product to an external or internal customer. GAO identified three characteristics that contribute to the creation and operation of a comprehensive IPT: (1) executive leadership through team support, empowerment, and oversight; (2) team composition; and (3) processes for team operations. GAO also identified 18 practices supporting these three characteristics (see figure). For example, executive leadership is effective when sufficient resources are provided and teams are empowered to act, team composition is more robust when the IPT has cross-functional and multidisciplinary skill sets, and team operations are streamlined when team guidelines are established and stakeholders are involved as active members. When implemented, these practices can increase the IPT’s likelihood of success by having the right mix of expertise to recognize problems early and by having the requisite authority to do something about them.

**Figure: Key Characteristics and Practices of Comprehensive Integrated Program Teams (IPT) for Major Information Technology Acquisitions**



Source: GAO analysis of relevant guidance from recognized sources including MITRE, the Project Management Institute, Inc., and the Software Engineering Institute; and data from selected agency chief information officers and program offices from the Departments of Commerce, Defense, Veterans Affairs, and the General Services Administration. | GAO-17-8

While multiple factors contribute to a robust IPT, one aspect involves having a strong information technology (IT) workforce. To evaluate agencies’ IT workforce planning efforts, GAO identified eight key workforce planning steps and activities based on relevant laws and guidance (see table).

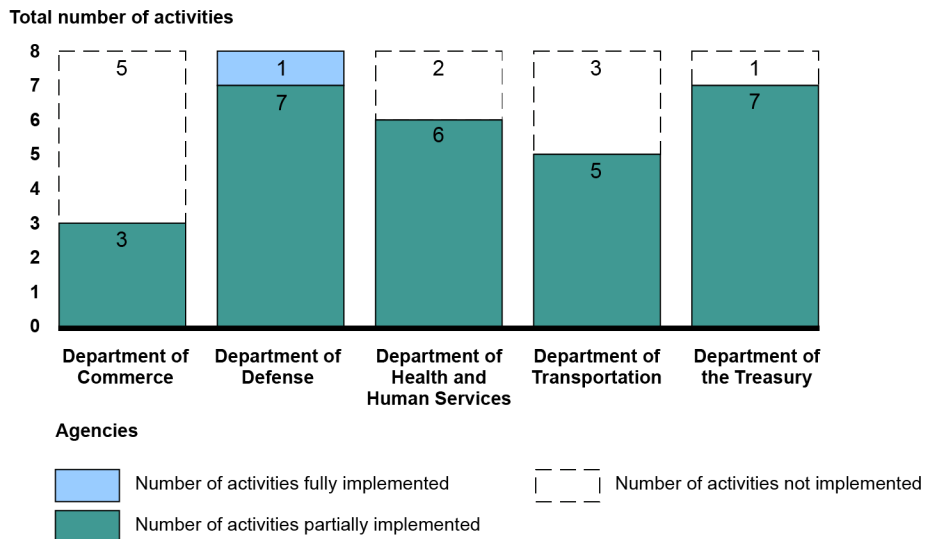
**Table: Summary of Key Information Technology (IT) Workforce Planning Steps and Activities**

<i>Set the strategic direction for IT workforce planning</i>
Activity 1: Establish and maintain a workforce planning process
Activity 2: Develop competency and staffing requirements
<i>Analyze the IT workforce to identify skill gaps</i>
Activity 3: Assess competency and staffing needs regularly
Activity 4: Assess gaps in competencies and staffing
<i>Develop strategies and implement activities to address IT skill gaps</i>
Activity 5: Develop strategies and plans to address gaps in competencies and staffing
Activity 6: Implement activities that address gaps (including IT acquisition cadres, cross-functional training of acquisition and program personnel, career paths for program managers, plans to strengthen program management, and use of special hiring authorities)
<i>Monitor and report progress in addressing IT skill gaps</i>
Activity 7: Monitor the agency's progress in addressing competency and staffing gaps
Activity 8: Report to agency leadership on progress in addressing competency and staffing gaps

Source: GAO analysis of relevant laws and guidance. | GAO-17-8

Five federal departments had mixed progress in assessing their IT skill gaps. While all five departments had demonstrated important progress in either partially or fully implementing key IT workforce planning activities, each had shortfalls. For example, four departments had not demonstrated an established IT workforce planning process.

**Figure: Selected Departments' Implementation of Eight Key Information Technology Workforce Planning Activities**



Source: GAO analysis of departments' data. | GAO-17-8

As shown in the figure, of the five departments, the Department of Defense had the most robust IT workforce planning process by fully or partially implementing all eight activities. However, the departments have not yet fully implemented all of the practices for various reasons. For example, policies were not comprehensive in requiring such activities or were not being applied to IT workforce planning at four departments, one department placed a greater emphasis on assessing its cybersecurity workforce, and two departments identified the need to perform more granular assessments of the workforce in order to identify skill gaps. Until the departments fully implement key workforce planning steps and activities, they risk not adequately assessing and addressing gaps in knowledge and skills that are critical to the success of major acquisitions.