



December 2021

# ARMY CORPS OF ENGINEERS

## Workforce Planning Follows Most Leading Practices but Could Be Enhanced with Additional Actions

Accessible Version

# GAO Highlight

Highlights of [GAO-22-104054](#), a report to congressional requesters

## Why GAO Did This Study

The Corps' civilian workforce accounts for about 98 percent of its 35,000 civilian and military employees. According to Corps documentation, workforce challenges affect the agency's ability to maintain the capacity to meet mission requirements and preparedness to meet current and future challenges. GAO has identified strategic human capital management as a government-wide high-risk area, including the need to improve talent management activities.

GAO was asked to review the Corps' civilian workforce. For fiscal year 2010 through 2019, this report (1) describes the Corps' activities and tools for addressing civilian workforce challenges, (2) describes changes in the Corps' civilian workforce, and (3) examines the extent to which the Corps has followed leading practices for strategic workforce planning.

GAO reviewed the Corps' civilian workforce planning documents and interviewed officials in headquarters and field offices about their activities; analyzed Corps workforce data from the Defense Civilian Personnel Data System; and compared Corps workforce planning activities to leading practices identified by GAO.

## What GAO Recommends

GAO recommends that the Department of Defense ensure that the Corps finalizes and distributes agency-wide a strategic human capital plan. The Department concurred with the recommendation.

View [GAO-22-104054](#). For more information, contact Cardell Johnson at (202) 512-3841 or [johnsonCD1@gao.gov](mailto:johnsonCD1@gao.gov).

DECEMBER 2021

## ARMY CORPS OF ENGINEERS

### Workforce Planning Follows Most Leading Practices but Could Be Enhanced with Additional Actions

## What GAO Found

The U.S. Army Corps of Engineers (Corps) has a large civilian workforce that is highly specialized. The Corps faces workforce challenges, such as recruiting and retaining employees, due to competition from the private sector and other agencies. To address its civilian workforce challenges, the Corps implemented three successive strategic human capital plans during fiscal years 2010 through 2018. The most recent plan—developed in fiscal year 2017—addressed challenges in four stages: (1) planning, (2) recruiting, (3) developing, and (4) sustaining the workforce. For example, to address planning challenges, the Corps established an annual agency-wide assessment of workload-to-workforce capacity, competency, and balance. For fiscal year 2019, instead of developing a formal human capital plan, in late 2018, the Corps conducted an in-depth analysis of its workforce challenges that identified priority workforce initiatives and associated metrics for addressing these challenges.

From fiscal year 2010 to fiscal year 2019, the Corps experienced changes to its workforce diversity, professional development, recruitment, and retention. For example, the percentage of employees identifying as Hispanic or Latino and White decreased from fiscal year 2010 to fiscal year 2019, while the percentage of employees identifying as Multiracial increased during the same period. Gender demographics remained the same each year, at 68 percent male employees and 32 percent female employees.

#### Extent to Which the U.S. Army Corps of Engineers (Corps) Has Implemented Leading Practices for Strategic Workforce Planning

Strategic workforce planning leading practice	Implementation status
Determine critical skills and competencies needed to achieve current and future programmatic results	Generally implemented
Develop workforce planning strategies designed to address gaps in critical skills and competencies	Generally implemented
Build administrative and other capabilities to support workforce planning strategies	Generally implemented
Monitor and evaluate progress toward human capital goals and programmatic results	Generally implemented
Involve top management, employees, and other stakeholders in strategic workforce planning	Partially implemented

Source: [GAO-04-39](#); GAO analysis of Corps documents and interviews. | [GAO-22-104054](#)

The Corps has generally implemented four of five leading practices of strategic workforce planning (see table). For example, the Corps generally implemented the leading practice of determining critical skills and competencies in part by conducting its annual agency-wide workforce assessment. However, the Corps only partially implemented the leading practice of involving top management in strategic workforce planning. Specifically, the Corps has not ensured that its top management set the overall direction and goals of workforce planning; top management has not updated the Corps' strategic human capital plan since fiscal year 2017. In May 2020, Corps officials told GAO that a draft updated plan was under review. However, as of October 2021, the plan had not yet been approved. By finalizing and distributing agency-wide an updated human capital

plan, the Corps would be better positioned to address its capacity and preparedness challenges and manage its current and future workforce.

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**Abbreviation**

Corps            U.S. Army Corps of Engineers

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December 9, 2021

The Honorable Thomas R. Carper  
Chairman  
The Honorable Shelley Moore Capito  
Ranking Member  
Committee on Environment and Public Works  
United States Senate

The Honorable Peter A. DeFazio  
Chairman  
The Honorable Sam Graves  
Ranking Member  
Committee on Transportation and Infrastructure  
House of Representatives

The Honorable John Barrasso  
United States Senate

The U.S. Army Corps of Engineers (Corps) is one of the world's largest public engineering, design, and construction management agencies.<sup>1</sup> The agency's civilian and military workforce—totaling about 35,000 permanent and temporary employees in fiscal year 2019—is highly specialized. It includes civil, mechanical, and electrical engineers as well as other occupations requiring science and technical education, training, and experience, according to Corps officials. The Corps officials also told us that the agency competes with other federal government agencies and private industry for employees with these specializations.

We identified strategic human capital management as a government-wide high-risk area, which needs to continue efforts to improve talent management activities where shortfalls often occur such as planning or

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<sup>1</sup>Located within the Department of Defense, the Corps has both a Military and a Civil Works Program. The Military Program provides, among other things, engineering and construction services to other U.S. government agencies and foreign governments, while the Civil Works Program is responsible for investigating, developing, and maintaining water resource projects. This report discusses the civilian workforce within the Military and Civil Works Programs. In fiscal year 2019, civilians accounted for 98 percent of the Corps workforce.

training.<sup>2</sup> As part of its human capital management efforts, the Corps has engaged in workforce planning efforts through the implementation of strategic human capital plans and other actions over the past decade, in response to our recommendations from reports published in 2008 and 2010.<sup>3</sup> However, according to the Corps' human resources managers, the agency faces ongoing challenges with recruitment and turnover.

You asked us to review the Corps' civilian workforce, including the activities and tools implemented to manage the Corps' workforce. This report

(1) describes the activities and tools the Corps has implemented to address civilian workforce challenges,

(2) describes the changes in the Corps' civilian workforce, and

(3) examines the extent to which the Corps has followed leading practices for strategic workforce planning.

To address all of our objectives, we reviewed Corps civilian workforce planning documents, such as strategic human capital plans, to identify the activities and tools implemented to address workforce challenges from fiscal year 2010—the year of our most recent prior report—through 2019—the most recent year for which complete workforce information was available at the time of our review. We conducted interviews with human resources managers in the Corps' headquarters and human resources strategic advisors in division offices and other locations. The interviews focused on how the activities and tools have been implemented and whether they were effective. For the second objective, we analyzed data for fiscal years 2010 through 2019 from the Defense Civilian Personnel Data System and the Corps of Engineers Financial Management System on the Corps' workforce diversity, professional

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<sup>2</sup>GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, [GAO-21-119SP](#) (Washington, D.C.: Mar. 2, 2021).

<sup>3</sup>GAO, *Human Capital: Corps of Engineers Needs to Update Its Workforce Planning Process to More Effectively Address Its Current and Future Workforce Needs*, [GAO-08-596](#) (Washington, D.C.: May 7, 2008); and *Army Corps of Engineers: Organizational Realignment Could Enhance Effectiveness, But Several Challenges Would Have to Be Overcome*, [GAO-10-819](#) (Washington, D.C.: Sept. 1, 2010). We made a total of seven recommendations in the two reports; the Corps implemented six of the seven recommendations and decided to take an alternative action to address the remaining recommendation.

development, and recruitment and retention. We interviewed headquarters human resources managers about changes in the workforce identified by our data analysis. For the third objective, we reviewed Corps civilian workforce planning documents and evaluations and interviewed human resources managers and advisors about their planning efforts. We compared this information to leading practices for strategic workforce planning we previously identified.<sup>4</sup> For additional information on our methodology, see appendix I.

We conducted this performance audit from May 2020 to December 2021 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 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.

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## Background

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### Corps Civilian Workforce Organization

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The Corps is an agency in the Department of Defense that has military and civilian responsibilities as a branch of the Army.<sup>5</sup> Under its civil works program, as authorized by statute, the Corps plans, constructs, operates, and maintains a wide range of water resources development projects. A military chief of engineers oversees the Corps' civil and military operations and reports on civil works matters to an assistant secretary of the Army for civil works. While the Corps operates as a military organization, civilians account for 98 percent of the workforce, with 34,598 civilian and 811 military personnel in fiscal year 2019.<sup>6</sup>

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<sup>4</sup>GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, [GAO-04-39](#) (Washington, D.C.: Dec. 11, 2003).

<sup>5</sup>The military program provides engineering, construction, and environmental management services to Department of Defense agencies.

<sup>6</sup>According to Corps data, the total size of the Corps' civilian workforce declined by about 3 percent from fiscal years 2010 to 2019, from 35,794 in fiscal year 2010 to 34,598 in fiscal year 2019.

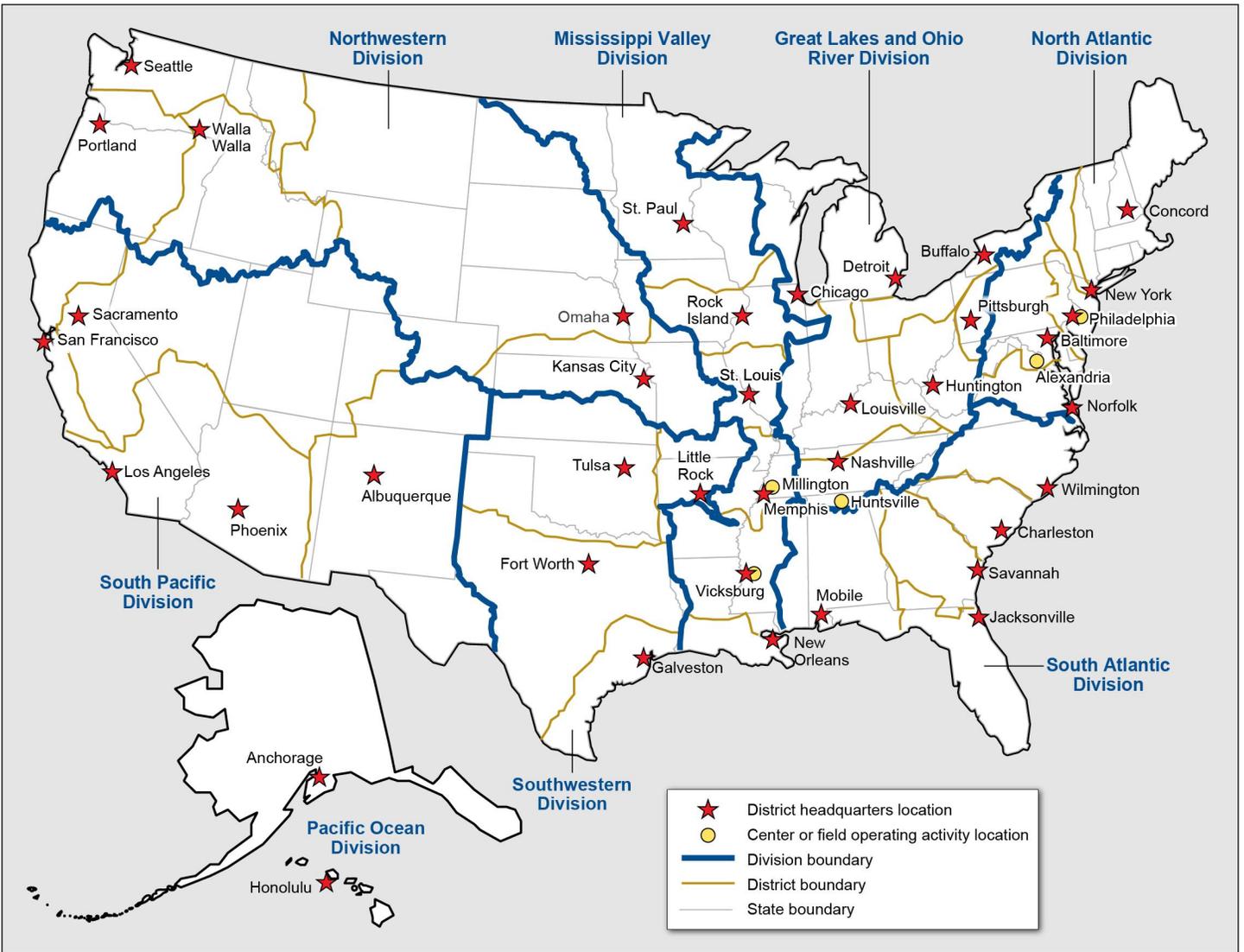
The Corps' civilian workforce is organized geographically into its headquarters, located in the District of Columbia, and eight divisions with 39 subordinate districts throughout the U.S. (see figure 1).<sup>7</sup> Civilian personnel are also located in four Corps support centers and four field operating activities.<sup>8</sup> Corps headquarters personnel establish policy and plan the future direction for the organization. Division personnel coordinate the work carried out in the districts, and individual projects are largely planned and implemented at the district level after they have been approved at the division and headquarters level. According to Corps officials, the centers and field operating activities provide support across the organization to the districts, divisions, and headquarters.

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<sup>7</sup>The Corps' South Pacific Border District, headquartered in Phoenix, AZ, was established in December 2019 to manage infrastructure construction operations along the U.S. southern border. Outside of the U.S., the Pacific Ocean Division oversees the Japan and Far East districts, and the North Atlantic Division oversees the Europe district. A ninth division—the Transatlantic Division—was activated in January 2004 to oversee operations in the Middle East and Afghanistan districts.

<sup>8</sup>The four support centers include the Engineering and Support Center (Huntsville, AL); Engineer Research and Development Center (Vicksburg, MS); Army Geospatial Center (Alexandria, VA); and the Humphreys Engineer Center (Alexandria, VA). The four field operating activities include the USACE Finance Center (Millington, TN); Institute for Water Resources (Alexandria, VA); USACE Logistics Agency (Millington, TN); and Marine Design Center (Philadelphia, PA).

Figure 1: Location of U.S. Army Corps of Engineers Divisions, Districts, Centers, and Field Operating Activities in the U.S.



Sources: GAO analysis of U.S. Army Corps of Engineers data; Map Resources (map). | GAO-22-104054

The Corps has categorized its nationwide civilian workforce into 17 communities of practice, with each community composed of personnel in occupations that regularly interact to collectively accomplish the agency's

missions.<sup>9</sup> According to Corps fiscal year 2019 data, the five communities with the largest membership account for about 75 percent of the civilian workforce: Operations and Maintenance (10,297); Engineering (5,748); Administration (4,000); Construction (3,250); and Programs and Project Management (2,703).<sup>10</sup> In addition, Corps officials told us that the agency has identified nine mission-critical occupations based on their direct relationship to the Corps' primary mission. According to Corps fiscal year 2019 data, the five mission-critical occupations with the largest membership account for about 36 percent of the civilian workforce: Civil Engineering (5,644); General Natural Resources Management and Biological Sciences (2,862); Contracting (1,375); Engineering Technician (1,297); and Lock and Dam Operating (1,121).<sup>11</sup>

The agency's Human Resources organization is responsible for human capital planning and policy guidance, as well as developing activities and tools to help managers maintain workforce capacity to meet mission requirements and preparedness to meet current and future challenges. The Human Resources director and deputy director oversee three civilian Human Resources divisions: (1) Human Capital, responsible for managing strategic human capital planning and creating human resources tools; (2) Employment and Compensation, responsible for national talent acquisition, pay, and compensation; and (3) Development, responsible for leader development, educational resources, and labor relations.<sup>12</sup> The Human Resources organization also has 12 senior human resources strategic advisors located primarily in division offices, to provide guidance and assist the division and district offices, support

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<sup>9</sup>According to the Corps' 2011 Engineering Regulation for Communities of Practice, the communities cut across formal organizational structures and enhance individual and organizational agility and responsiveness. This is done by enabling faster learning, problem solving, and competence building; and increasing access to expertise and best practices.

<sup>10</sup>The other communities of practice and their fiscal year 2019 membership include Research and Development (1,738); Contracting (1,314); Regulatory (1,200); Planning (1,095); Real Estate (871); Support (752); Interns (549); Program Management Directorate (404); Business Management Directorate (225); Civil Works Directorate (165); Commander's Office (162); and Military Programs Directorate (125).

<sup>11</sup>The other mission-critical occupations and their fiscal year 2019 membership include Mechanical Engineering (909); Construction Control Technical (839); Electrical Engineering (725); and Realty (633). Information Technology was added as a mission critical occupation in fiscal year 2021.

<sup>12</sup>The Corps' Human Resources organization also includes a Military Personnel Division for the military workforce.

centers, and field operating activities with implementing human resources policies, activities, and tools in the field.<sup>13</sup> The Army's Civilian Human Resources Agency processes the Corps' human resources transactions, such as personnel actions, and provides other services on a reimbursable basis.<sup>14</sup>

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### Prior Reports on the Corps' Workforce Planning and Our Leading Practices

We last reported on the Corps' workforce planning over a decade ago in two related reports.<sup>15</sup> In 2008, we reported that the Corps' human capital plan was outdated, not aligned with its most recent strategic plan, and inconsistently used across the agency. We recommended that the Corps develop a human capital plan directly linked to its strategic plan and distribute the updated plan to the divisions and districts. In response, the Corps published and distributed an updated Human Capital Strategic Plan in 2012. We also recommended that the Corps implement a process for evaluating the effectiveness of its human capital tools; in response, the Corps surveyed employees on the effectiveness of its human capital tools.

Subsequently, in 2010, we reported that (1) the Corps' fundamental organizational structure had not changed over prior decades; (2) the Corps faced challenges to any realignment effort; and (3) the Corps' 38-district office structure may not have been justified based on the existing workload. We recommended that, among other things, the Corps review and revise as necessary the roles and responsibilities of component levels of the organization. The Corps implemented three of the recommendations by, for example, reviewing and revising roles and responsibilities as appropriate and developing a plan to update technical

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<sup>13</sup>According to Corps officials, eight secondary human resources strategic advisors support the senior advisors.

<sup>14</sup>The Army's Civilian Human Resources Agency performs the Corps' transactional human resources functions, such as personnel action processing, personnel record maintenance, and benefits and retirement processing and assistance, among other things. According to Corps officials, these functions are implemented at the agency's Civilian Personnel Advisory Centers primarily located in division and district offices.

<sup>15</sup>[GAO-08-596](#) and [GAO-10-819](#).

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guidance; it also stated that it would take an alternative action to address the fourth recommendation.<sup>16</sup>

As we reported in *Key Principles for Effective Strategic Workforce Planning*, an agency's human capital management approach should incorporate five leading practices regardless of that agency's mission.<sup>17</sup> These practices include, among other things, involving top management, employees, and other stakeholders in developing, communicating, and implementing a human capital plan. Our previous work also describes the importance of strategic human capital planning—the method by which an agency designs a coherent framework of human capital policies, programs, and practices to achieve the vision outlined in its strategic plan. This is an important component of an agency's overall planning effort because it helps ensure that an agency's workforce is adequate to meet its current and future needs. The development and implementation of a human capital plan is a key step in an agency's progress toward building a highly effective, performance-based organization that can recruit, hire, motivate, and reward a high-performing, top-quality workforce.

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## The Corps Implemented a Variety of Plans, Activities, and Tools to Address Civilian Workforce Challenges

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### The Corps Implemented Three Strategic Human Capital Plans and Initiated Additional Planning Efforts

The Corps implemented three strategic human capital plans during fiscal years 2010 through 2018 to guide its efforts to address workforce capacity and preparedness challenges. The plans covered fiscal years

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<sup>16</sup>For our recommendation that the Corps work with Congress to develop a more stable project funding approach, the Corps stated it would work with the Office of Management and Budget to ensure an efficient budget process.

<sup>17</sup>[GAO-04-39](#). For purposes of this report we refer to the key principles as "leading practices."

2009 to 2012; 2012 to 2017; and 2017 to 2018.<sup>18</sup> The strategic human capital plan is the Corps' primary organization-wide civilian workforce planning document, developed in close collaboration with the various communities of practice within the workforce. The human capital plan identifies the challenges facing the Corps, such as planning, recruiting, developing, and sustaining the workforce—and the agency's activities and tools for addressing those challenges. According to Corps human resources managers, the human capital plan is aligned with the Army's overarching human capital strategy and with the Corps' Campaign Plan, the agency's broad strategy to achieve its missions; it links them together into a workforce strategy for the Corps.<sup>19</sup>

The Corps did not publish an updated human capital plan to replace the fiscal years 2017-2018 plan. Instead, the Corps conducted an in-depth analysis of its workforce challenges at the end of fiscal year 2018. Referred to as a "line drill," this analysis identified priority initiatives and associated metrics to guide the Corps' efforts to address the challenges.<sup>20</sup> Concurrently, the Corps began developing a new human capital plan, as discussed later in this report.

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### The Corps Implemented a Variety of Activities and Tools to Address Challenges in Planning, Recruiting, Developing, and Sustaining Its Civilian Workforce

The Corps' human capital plan for fiscal years 2017-2018—the most recent plan and the one under which the Corps is operating—describes the activities and tools the agency has implemented to address human capital challenges. The Corps' plan categorizes the challenges and the relevant activities and tools within the four stages of its human capital lifecycle: (1) planning, (2) recruiting, (3) developing, and (4) sustaining the

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<sup>18</sup>U.S. Army Corps of Engineers, *Civilian Human Capital Strategic Plan, 2009–2012* (April 2009); U.S. Army Corps of Engineers, *Human Capital Strategic Plan, 2012–2017* (April 2012); and U.S. Army Corps of Engineers, *Strategic Human Capital Plan, Update FY17–18* (March 2017).

<sup>19</sup>U.S. Army Corps of Engineers, *FY18–22 Campaign Plan* (June 2017).

<sup>20</sup>The Corps' "line drill" identified human resources initiatives categorized either as "above the line" or "below the line." "Above the line" initiatives relied on external factors for implementation, such as obtaining authority to provide special salary rates. "Below the line" initiatives could be implemented internally by the Corps, such as expanding work/life flexibilities. The Corps human resources organization established 10 metrics to monitor its delivery of the program.

workforce. Corps human resources managers in headquarters and strategic advisors in field offices identified the primary activities and tools from its strategic human capital plans that have been implemented for each stage.

### Planning Stage of Human Capital Lifecycle

The planning stage of the Corps' human capital lifecycle entails continuous human capital planning to meet evolving requirements and shape the workforce to meet future mission needs. According to Corps documentation, the agency has implemented activities and tools to address planning challenges, such as aligning human capital with changing workloads and missions and increasing the use of real-time workforce data for decision-making.

For example, the Corps initiated its Workload to Workforce Assessment activity in fiscal year 2014. This annual planning activity is conducted by workforce managers agency-wide to assess the capacity, competency, and balance of the workforce to meet the projected workload in the next 1 to 3 years.<sup>21</sup> Based on the results, managers prepare action plans to address any potential workforce capacity, competency, or balance gaps, which are reported by districts up through the division offices back to headquarters human resources for evaluation by top Corps leadership. The assessment for fiscal years 2021 to 2023 indicated that the Corps' workforce (1) capacity can meet its workload but its continually growing mission risks staff burnout, (2) competency in certain positions was negatively affected by the effect of the Coronavirus Disease 2019 pandemic on training opportunities, and (3) balance concerns include turnover and experience levels. Corps human resources strategic advisors in the field generally told us that the assessment is valuable for identifying potential workload to workforce gaps or imbalances, but one advisor noted that the difficulty of accurately predicting future budgets or evolving missions may limit its usefulness. According to human resources managers in headquarters, they are testing an automated process that

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<sup>21</sup>Capacity criteria assess whether the number of positions available to accomplish the projected workload is appropriate and affordable. Competency criteria assess whether the education or certification levels, skills sets, experience, and overall proficiency of the workforce is appropriate to accomplish the projected workload. Balance criteria assess whether the appropriate number of entry, journey, or senior level positions are available to accomplish the projected workload.

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will allow workforce managers to perform the assessment online rather than in the more cumbersome manual spreadsheets currently used.

In addition, Corps human resources managers provided the Civilian Workforce Dashboards tool to workforce managers throughout the agency in fiscal year 2014. These dashboards are interactive online displays that provide workforce managers at all levels of the organization with direct access to the most current human capital information for planning purposes, such as data and trends for demographics, hiring, retirements, turnover, and workforce survey results. According to Corps human resources strategic advisors, the dashboards provide useful information on the current status of their workforce for planning purposes, although some workforce managers have not yet adopted routine usage of the tool due to competing demands for their time. According to human resources managers, they most recently implemented a diversity and inclusion dashboard for the Corps' current workforce and job applicants in fiscal year 2021. They also plan to continue adding new dashboards as additional information needs are identified.

### Recruiting Stage of Human Capital Lifecycle

The recruiting stage of the Corps' human capital lifecycle involves sourcing and acquiring top talent to accomplish current and future missions, shaping the workforce to meet mission needs, and marketing its missions to attract the workforce of the future. According to Corps documentation, the agency has implemented activities and tools to address recruiting challenges such as enhancing outreach efforts to build a diverse workforce.

The Corps' National Recruitment Program and outreach activity coordinates recruitment and outreach efforts with division and district offices primarily through a career fair calendar.<sup>22</sup> In fiscal year 2018, the Corps' human resources organization established a single position to lead the program with the (1) purpose of providing greater continuity and coordination for national recruitment, and (2) responsibility for ensuring

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<sup>22</sup>The calendar includes attendance at annual events sponsored by diverse professional engineer and veteran's organizations, such as Hispanic Engineer National Achievement Awards Conference, Black Engineer of the Year Award, Women of Color, and Wounded Warriors. The Corps also attracts new hires through internships, including the federal government-wide Pathways program, the Army Career Development Program, and intern hires at the district or division level.

that diversity and inclusion are emphasized in the effort.<sup>23</sup> Corps human resources strategic advisors in the field told us that to date, the program has not had the staff, resources, and technology to take a leading role in Corps recruiting efforts. As a result, the recruitment program has provided limited support to workforce managers in the field offices who conduct recruiting and outreach primarily through relationships they have developed over time—for example, with historically Black colleges and universities. Corps human resources managers in headquarters told us that they are in the process of establishing a talent acquisition team to support the recruitment program starting in fiscal year 2022; four positions have been approved, and position descriptions and guidance for team members are being developed.<sup>24</sup> To further support the effort, the Corps plans to implement a new talent acquisition software platform that will automate processes such as collecting and organizing resumes, tracking interested individuals, and sharing resumes agency-wide, according to these officials.

The Corps has also utilized tools to attract and hire new talent, such as direct-hire authorities. The agency has used 13 different direct-hire authorities since 2015, which applied to most of its positions, according to Corps human resources managers.<sup>25</sup> These authorities allow workforce managers to make immediate offers to recruits for certain positions, bypassing many of the standard federal hiring processes.<sup>26</sup> Corps human

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<sup>23</sup>In October 2020, the Corps established a Diversity, Equity, and Inclusion Council with responsibility for reviewing current Corps recruitment program initiatives and their effect on increasing the diversity in the organization. The council also explored ways to improve career development across the Corps for all employees and other means to improve individual opportunities for promotion and competitiveness for positions.

<sup>24</sup>According to Corps human resources officials, these talent acquisition positions will be funded through the elimination of certain positions in Civilian Personnel Advisory Centers, but they will not affect the functionality of those centers.

<sup>25</sup>These authorities are either government-wide or specific to the Department of Defense. According to Corps officials, most of these Department of Defense specific authorities were consolidated into a single statute by section 1109 of the National Defense Authorization Act for Fiscal Year 2020. See 5 U.S.C. § 9905.

<sup>26</sup>Direct-hire authority allows agencies to hire personnel without regard to certain sections of title 5 of the United States Code. For example, the authority may modify the hiring process by eliminating 1) the need to post job announcements on the USAJOBS website, 2) the application of veterans' preference, and 3) the rating and ranking process of the candidates. The standard hiring process via USAJOBS is primarily administered by the Civilian Personnel Advisory Centers located in district and division offices and other field locations.

resources managers told us that workforce managers across the agency have been encouraged by Corps leadership to use the authorities. They also said that usage has increased each year and vacancy fill times have gone down. According to Corps human resources strategic advisors, direct-hire authority has been very effective in allowing workforce managers to quickly hire top talent, although some had concerns about modifying hiring preferences, such as for veterans, in the process.<sup>27</sup> Corps human resources managers told us that they monitor the use of the authorities to ensure balance; they said they will seek to retain all of the current authorities and eventually obtain direct-hire authority for all of its workforce positions.<sup>28</sup>

In addition, in fiscal year 2017, the Corps established policy guidance for managers to offer certain monetary and non-monetary incentives as tools to attract and retain personnel at their discretion.<sup>29</sup> Incentives include student loan repayment; recruitment, relocation, retention, and enhanced retention incentives; credit for prior non-federal work experience and certain military service for determining annual leave accrual rate; and superior qualifications appointment and special needs pay-setting authority.<sup>30</sup> According to Corps human resources strategic advisors in the field, the incentives are useful, although some considered them inadequate to attract top talent when competing against entities offering significantly higher salaries and benefits. Corps human resources managers told us that as a result of the agency's experience with workplace flexibilities during the Coronavirus Disease 2019 pandemic, it established a workplace transformation strategy in July 2021 to provide

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<sup>27</sup>According to Corps human resources managers, the Corps supports veteran hiring and the veteran population within the civilian workforce has remained stable in recent years.

<sup>28</sup>In addition to expediting hiring with direct hire authorities, the Corps is working closely with the Civilian Human Resources Agency to streamline the hiring process and monitor vacant positions and vacancy fill times to ensure that Corps activities have an adequate number of people with the right skills for their missions.

<sup>29</sup>U.S. Army Corps of Engineers, *Civilian Personnel Hiring and Retention Incentives*, Engineering Regulation 690-1-1217 (July 10, 2017). According to Corps officials, prior to establishing this regulation, the agency followed the Department of Defense guidance for incentives.

<sup>30</sup>In addition, the Corps has been approved for inclusion under a consolidated special salary rate request initiated by the Department of Energy and approved by the Office of Personnel Management for certain hard to fill engineering and non-engineering positions directly involved in the generation or transmission of electric power.

guidance for optimizing work time and location flexibilities to attract a more diverse applicant pool and retain top talent.

### Developing Stage of Human Capital Lifecycle

The developing stage of the Corps' human capital lifecycle focuses on ensuring a culture of continuous skill improvement throughout the organization and fostering technical and leader development. According to Corps documentation, the agency has implemented activities and tools to address workforce development challenges such as providing training and career development opportunities, developing technical and leadership competencies organization-wide, and building agile leaders for a dynamic and complex technical environment.

To address career development challenges, the Corps provides career-specific training, development, and mentoring activities to its workforce. More specifically, all Corps employees are assigned to one of 31 Army civilian Career Programs, which provide employees with training, education, and professional development opportunities to ensure they are ready for current and future mission requirements.<sup>31</sup> The Corps' Learning Center provides job-related training through technical and professional courses, including the Proponent Sponsored Engineer Corps Training Program, which has been providing courses led by Corps community of practice subject matter experts for over 20 years. Corps human resources strategic advisors told us that career development is also supported through mentoring relationships as well as temporary developmental assignments, which allow employees to voluntarily fill vacant positions outside of their area of expertise and learn new skills until a permanent replacement is hired.

The Corps has implemented several activities to address leadership development challenges across the workforce. For example, the Corps has a Leadership Development Program at the district office level that progresses employees through levels of leadership, from individual to

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<sup>31</sup>The agency places special emphasis on Career Program-18 (Engineers and Scientists, Resources, and Construction) as Corps employees comprise the majority of such careerists in the Army. Through the program, the Army annually funds individual training, such as academic degree training, and group training, such as technical short-term training courses, to close specific competency gaps identified by the community of practice and district leadership.

organizational, according to headquarters human resources managers.<sup>32</sup> In addition, the Corps' headquarters' Emerging Leaders Program is a competitive, agency-wide developmental leadership program targeting GS-11 and GS-12 personnel, which includes attending leadership governance meetings and shadowing senior leaders.<sup>33</sup> Corps employees may also participate in the Army-sponsored Civilian Education System leader development program for additional training and education opportunities.<sup>34</sup> Corps human resources strategic advisors in the field told us that leadership training in the agency is generally highly regarded and sought after by employees. Corps human resources managers in headquarters told us that the agency is currently pilot testing a Senior Leader Academy for GS-14 and GS-15 personnel in headquarters, based on senior leadership's determination that more training is needed at this level.

### Sustaining Stage of Human Capital Lifecycle

The sustaining stage of the Corps' human capital lifecycle entails preventing critical talent loss and improving organizational performance by valuing and engaging employees at all levels. According to Corps documentation, the agency has implemented tools to address workforce sustainability challenges, such as improving organizational performance through employee engagement and providing a collaborative and inclusive work environment.

In fiscal year 2010, Corps human resources managers implemented an online exit survey tool for departing employees to capture the underlying causes of talent loss. The Corps managers told us that the exit survey results indicate that personnel most commonly resign their federal employment positions to take jobs in the private sector. Corps human

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<sup>32</sup>According to Corps officials, first phase is administered for new personnel; phase 2 for GS-10 to GS-12 personnel; phase 3 for GS-13 personnel; and phase 4 for GS-14 and GS-15 personnel.

<sup>33</sup>U.S. Army Corps of Engineers, *Human Resources, Corporate Recruitment and Selection*, Engineering Regulation 690-1-1203 (Nov. 30, 2019). This regulation provides guidance for the selection of GS-14 and GS-15 supervisors who reflect the results of the Corps leadership development efforts.

<sup>34</sup>External competitive leadership development opportunities are also provided, such as The Office of Personnel Management's Federal Executive Institute, Leadership in a Democratic Society, the Harvard University Federal Executive Fellows Program, and the Senior Leaders Seminar Course. Applications are reviewed and endorsed at Corps headquarters and submitted to the Army for possible selection.

resources strategic advisors generally told us that the exit survey is included in the off-boarding checklist for departing employees, but because the survey is voluntary, it may or may not be completed. One Corps strategic advisor we interviewed told us that their office had implemented a “stay survey” to measure employee engagement during their tenure, as a proactive alternative to surveying staff who have already decided to leave the organization. Corps human resources managers told us that these and other best practices are encouraged by leadership, such as ongoing efforts to improve the onboarding experience for new hires joining the Corps.

In addition, Corps human resources managers consider the annual Federal Employee Viewpoint Survey to be the agency’s primary measure of employee engagement and, as such, its main tool to identify opportunities for making improvements in engagement.<sup>35</sup> Beginning in fiscal year 2015, Corps leadership directed managers at all levels of the organization to analyze the annual survey results for their workforce and develop action plans to address areas of concern. According to Corps human resources managers, survey response rates and scores have steadily risen. For example, employees satisfied with the organization rose from 55 percent in 2013 to 71 percent in 2019. Corps human resources strategic advisors in the field told us that Corps leadership strongly emphasizes employee participation in the survey and managerial action to address concerns.

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<sup>35</sup>The Federal Employee Viewpoint Survey is administered annually since 2010 by the Office of Personnel Management to employees in federal agencies that accept the invitation to participate. The survey measures employees’ perceptions of whether, and to what extent, conditions characteristic of successful organizations are present in their agencies; and their perceptions of their work experiences, their agency, and leadership.

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## The Corps Experienced Some Changes to Its Workforce Diversity, Professional Development, Recruitment, and Retention

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### The Corps' Experienced Small Changes in Its Workforce Race and Ethnicity, Gender, Age, and Disability Status

#### Race and Ethnicity

There were small changes in the diversity of the Corps workforce related to race and ethnicity from fiscal years 2010 to 2019 (see figure 2).<sup>36</sup> Specifically, the percentage of employees identifying as Hispanic or Latino and White decreased from fiscal years 2010 to 2019, while the percentage of employees identifying as Multiracial increased during the same period. The percentage of employees in other race and ethnicity categories mostly remained unchanged.<sup>37</sup> Corps human resources managers in headquarters told us that the increase in the Multiracial category was likely attributable in part to an increase in members of the workforce self-identifying as Multiracial. Corps human resources managers also told us that the Corps' efforts in the last 10 years to hire more military veterans—a demographic category that is primarily White male—may have been another factor that accounted for the small changes in the Corps' workforce racial and ethnic diversity.

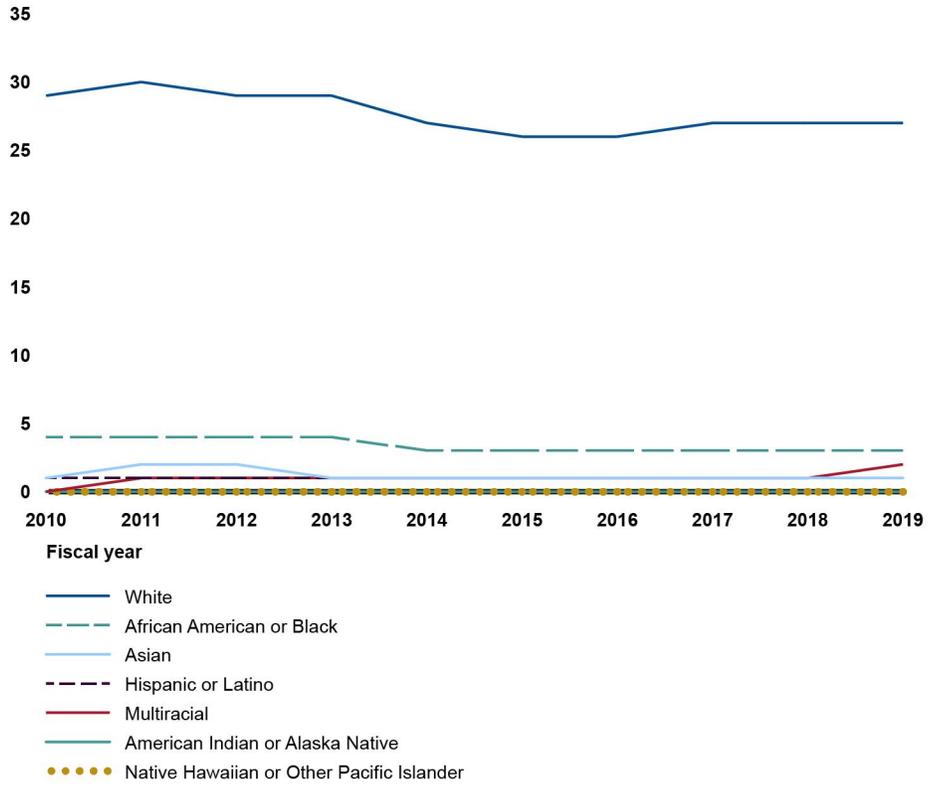
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<sup>36</sup>The Census Bureau defines race as a person's self-identification with one or more social groups such as White. Ethnicity, on the other hand, determines whether a person is of Hispanic or Latino origin.

<sup>37</sup>The percentage of African American or Black, Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander remained mostly unchanged in fiscal years 2010 and 2019. We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. We consider a category unchanged if there was no percent change from 2010 to 2019. See appendix I for more information on our methodology.

**Figure 2: U.S. Army Corps of Engineers (Corps) Employees, by Race and Ethnicity, Fiscal Years 2010–2019**

Number of Corps civilian employees (in thousands)



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 2**

Year	White	African American or Black	Asian	Hispanic or Latino	Multiracial	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
2010	29	4	1	1	0	0	0
2011	30	4	2	1	1	0	0
2012	29	4	2	1	1	0	0
2013	29	4	1	1	1	0	0
2014	27	3	1	1	1	0	0
2015	26	3	1	1	1	0	0
2016	26	3	1	1	1	0	0
2017	27	3	1	1	1	0	0
2018	27	3	1	1	1	0	0
2019	27	3	1	1	2	0	0

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Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce, compared to the White category, from fiscal years 2010 through 2019.

Corps human resources managers told us that the talent pool of potential hires presents challenges to diversifying the race and ethnicity of its workforce. For example, Corps human resources managers stated that the majority of the Corps' workforce needs are in the areas of science, technology, engineering, and mathematics. They suggested that the talent pool of potential hires in those areas is less diverse than the overall labor pool. Moreover, the Corps has to compete with the private sector and other federal government agencies for the best talent and among limited diverse applicants. In addition, Corps human resources managers noted that although the Corps has offices and projects in every state of the nation and has conducted outreach, it has been a challenge for the agency to hire staff that are representative of the diversity in the relevant civilian labor force at each location.

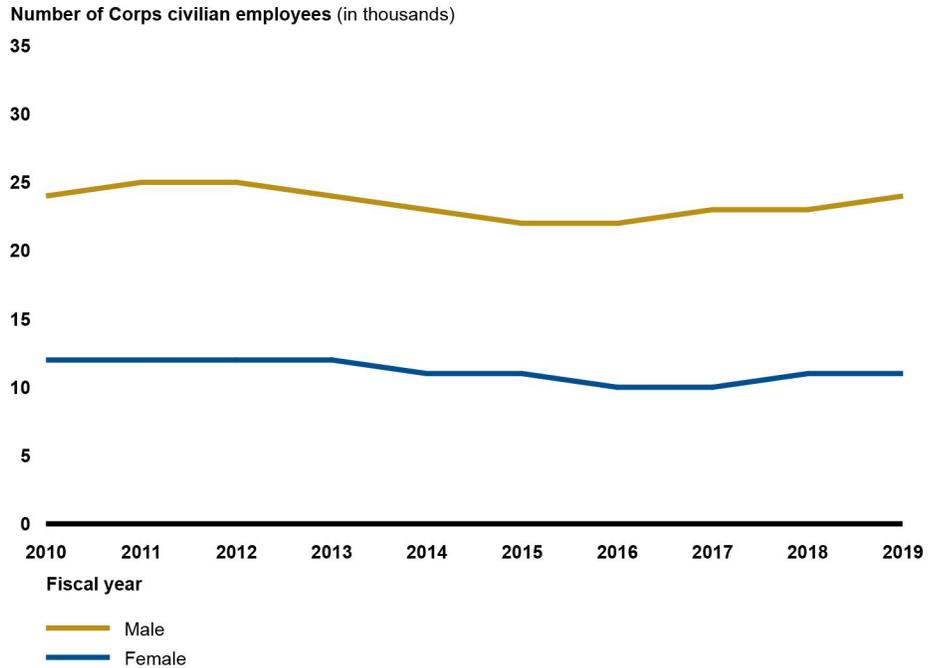
### Gender

As shown in figure 3, the total number of males and females in the workforce was largely unchanged from fiscal years 2010 to 2019, and the percentage of males and females was the same each year—68 percent male and 32 percent female.<sup>38</sup> In addition, there was a small percentage change related to the gender category sorted by race and ethnicity from fiscal years 2010 to 2019. Corps human resources managers suggested that the gender percentage was largely unchanged because of increased competition among employers—both the private sector and at other federal government agencies—for top diverse talent, which limited the effect of the Corps' gender outreach efforts. (See appendix II for information on race and ethnicity within gender categories.)

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<sup>38</sup>Although the terms "male" and "female" are not inclusive of all gender identities, we here use these terms to encompass all employees. Due to the definitions used in the agency's employee data, we were unable to analyze gender beyond the binary categories of male and female.

**Figure 3: U.S. Army Corps of Engineers (Corps) Employees, by Gender, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 3**

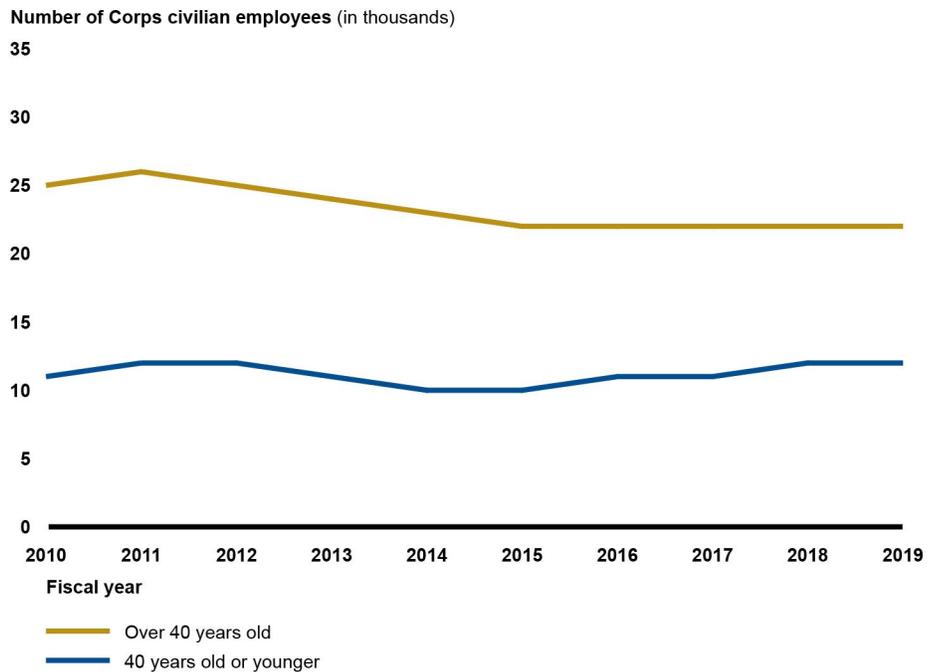
Year	FEMALE	MALE
2010	12	24
2011	12	25
2012	12	25
2013	12	24
2014	11	23
2015	11	22
2016	10	22
2017	10	23
2018	11	23
2019	11	24

Age

As shown in figure 4, although the majority of the Corps’ workforce is over 40 years of age, there were several small changes in the Corps’ workforce age composition from fiscal years 2010 to 2019. For example,

the percentage of workforce members over age 40 decreased from fiscal years 2010 to 2019, and those 40 years of age and under increased from fiscal years 2010 to 2019. According to Corps human resources managers in headquarters, there was an increase in the number of Corps workforce members 40 years of age and under because of increased retirements in the early 2010s. In addition, there was increased usage of the direct hire authority and increased staffing levels through fiscal year 2019, which was the result of new talent entering the organization, such as through intern recruitment.

**Figure 4: U.S. Army Corps of Engineers (Corps) Employees, by Age, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

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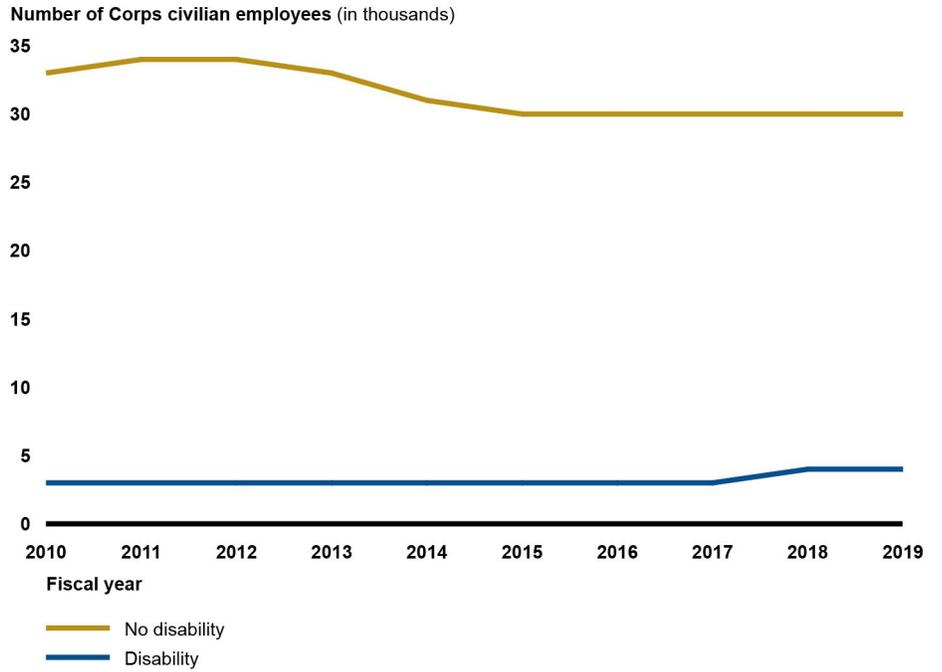
**Accessible Data Table for Figure 4**

Year	<= 40	> 40
2010	11	25
2011	12	26
2012	12	25
2013	11	24
2014	10	23
2015	10	22
2016	11	22
2017	11	22
2018	12	22
2019	12	22

Disability Status

As shown in figure 5, there was a small change in the number of workforce members with self-identified disabilities over the 10-year period, with the percentage of workforce members with self-identified disabilities generally increasing from fiscal years 2010 to 2019. Corps human resources managers noted that several factors accounted for the increase in number of workforce members with disabilities, such as an increase in self-identification as disabled, the expansion of the Americans with Disabilities Act to include additional disability types, and the Corps' push to hire more military veterans, a demographic with a large disabled population.

**Figure 5: U.S. Army Corps of Engineers (Corps) Employees with Self-Identified Disabilities, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 5**

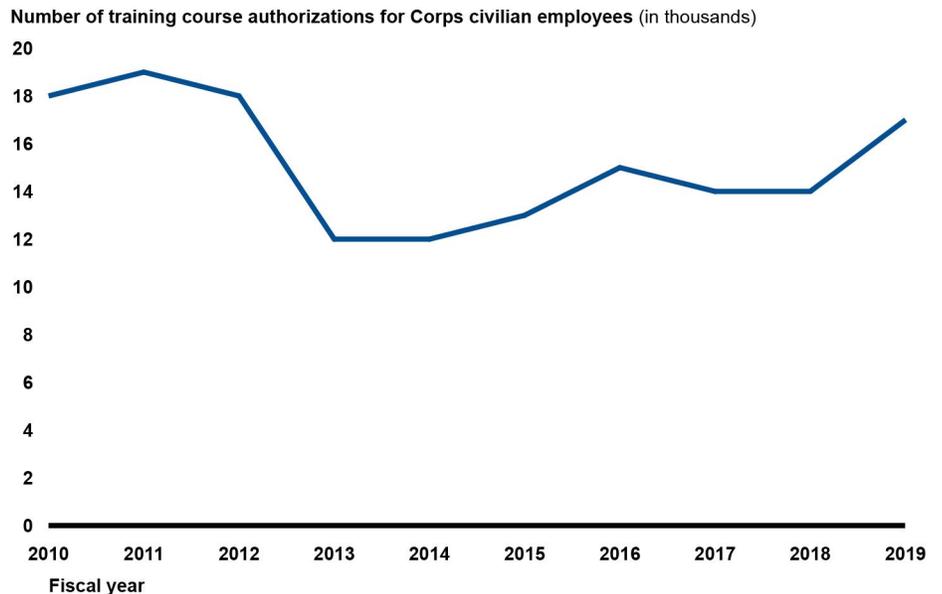
Year	Disability	No disability
2010	3	33
2011	3	34
2012	3	34
2013	3	33
2014	3	31
2015	3	30
2016	3	30
2017	3	30
2018	4	30
2019	4	30

## The Corps Generally Increased Professional Development Activities from Fiscal Years 2010 to 2019

### Training

As shown in figure 6, there were several changes in the number of professional development training activities for the Corps workforce from fiscal years 2010 to 2019. Corps headquarters human resources managers suggested that the changes in the number of training course authorizations might be related to the shifts in the Corps workforce; that is, as the size of the Corps workforce increased, training authorizations also increased. Corps human resources managers stated that challenges related to professional development training are ensuring the Corps workforce has adequate time for training in light of an increased workload due to the agency’s significant mission growth, along with optimizing virtual training.

**Figure 6: Authorizations for Training for the U.S. Army Corps of Engineers (Corps) Workforce, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

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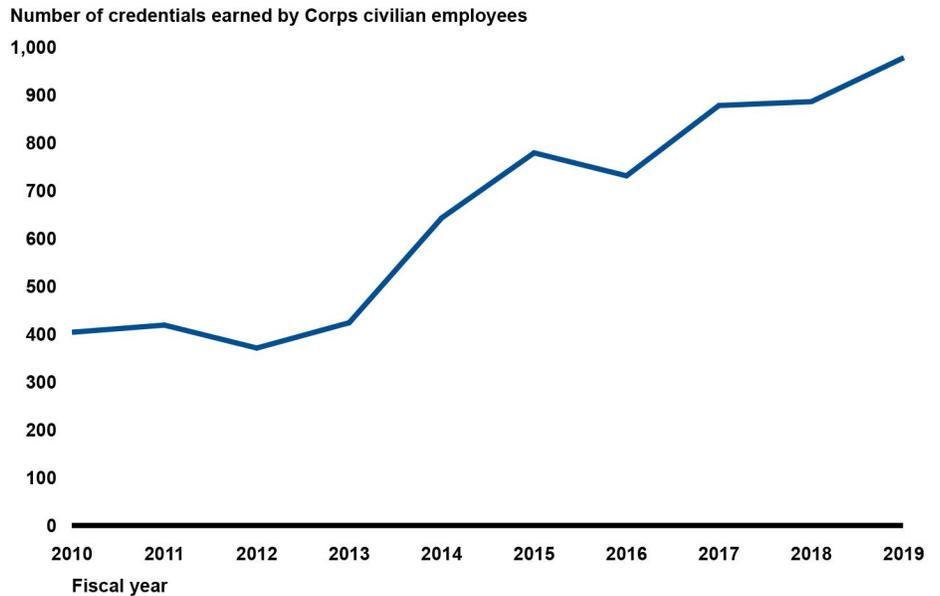
**Accessible Data Table for Figure 6**

<b>Fiscal Year</b>	<b>Number of Training Course Authorizations</b>
2010	18
2011	19
2012	18
2013	12
2014	12
2015	13
2016	15
2017	14
2018	14
2019	17

Credentialing

The number of workforce members earning credentials more than doubled from fiscal years 2010 to 2019 (see figure 7). According to Corps headquarters human resources managers, the number of workforce members earning credentials, such as engineering certifications and project management certifications, increased because of the agency's greater emphasis on earning credentials and more self-reporting by workforce members. The human resources managers explained that the number of workforce members earning credentials likely dropped in fiscal years 2012 and 2016 due to funding and mission effects from budget cuts.

**Figure 7: U.S. Army Corps of Engineers (Corps) Workforce Staff Earning Credentials, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 7**

Fiscal Year	Number of credentials earned by Corps civilian employees
FY 2010	404
FY 2011	419
FY 2012	371
FY 2013	424
FY 2014	643
FY 2015	779
FY 2016	731
FY 2017	878
FY 2018	886
FY 2019	978

**The Corps Experienced Changes Related to Recruitment and Retention**

From fiscal years 2010 to 2019, the Corps experienced changes related to recruitment and retention. Specifically, the number of new hires decreased and then increased moderately with small fluctuations from fiscal years 2010 to 2019. According to Corps headquarters human

resources managers, the increase is likely attributable to growth in the scope of the Corps' mission and increased use of direct hire authorities to offer jobs to qualified individuals. Other changes related to recruitment and retention can be attributed to workforce turnover, according to Corps human resources managers.

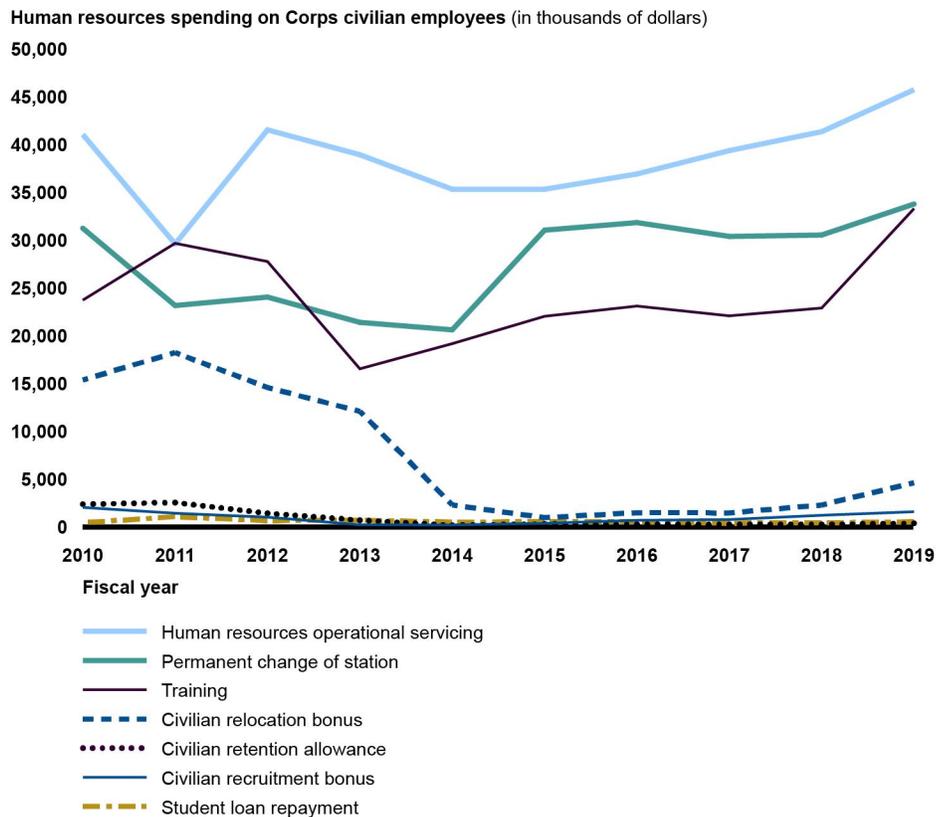
Overall, the Corps faces several challenges related to recruitment and retention. As previously mentioned, Corps human resources managers told us that the agency competes with the private sector and other federal government agencies for diverse professionals in the science, technology, engineering, and mathematics fields. The managers noted that recruiting is a challenge for the Corps; the private sector tends to pay more than federal agencies, and the Corps has limitations on the amount of salary it can pay. According to the Corps human resources managers, in addition to exploring compensation flexibilities beyond its rigid salary structure, such as the amount of money the Corps can pay employees, the Corps is tailoring its recruitment approach by offering benefits to workforce members, such as enhanced work-life balance, to attract diverse talents. Corps human resources managers noted that funding is another challenge related to recruitment and retention. For example, Corps human resources managers said that the Corps' appropriations for projects fluctuate, which affects the Corps' ability to calculate how many positions it needs to fill and how many new hires the Corps has to bring onboard annually.

There are several factors that accounted for changes and related challenges to the Corps' spending on incentives and the number of allocated internship positions, new hires, resignations, and retirements. Changes and challenges related to these factors are described in the following sections.

**Incentives.** The Corps' human resources spending on incentives—including workforce recruitment, retention, and relocation incentives—changed from fiscal year 2010 through 2019 in a variety of ways (see figure 8). Corps human resources managers suggested that most of the spending, especially in the late 2010s, was for the operational human resources services provided by the Army's Civilian Human Resources Agency to assist the Corps in recruiting and quickly onboarding new

hires.<sup>39</sup> The Corps' human resources spending indicated several changes in priorities. For example, in fiscal year 2010, the Corps spent \$2.1 million on civilian recruitment bonuses, decreasing to \$222 thousand in fiscal year 2014, and then increasing to \$1.6 million in fiscal year 2019.

**Figure 8: Human Resources Spending on the U.S. Army Corps of Engineers (Corps) Workforce, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

<sup>39</sup>The Corps' human resources spending was as follows: 35 percent for operational human resources services in fiscal year 2010 and 38 percent in 2019; 27 percent for permanent change of station in fiscal year 2010 and 28 percent in 2019; 21 percent for training in fiscal year 2010 and 28 percent in 2019; 13 percent for civilian relocation bonuses in fiscal year 2010 and 4 percent in 2019; 2 percent for civilian recruitment bonuses in fiscal year 2010 and 1 percent in 2019; 2 percent for civilian retention allowance in fiscal year 2010 and less than 1 percent in 2019; and less than 1 percent for student loan repayment in fiscal year 2010 and 1 percent in 2019.

Accessible Data Table for Figure 8

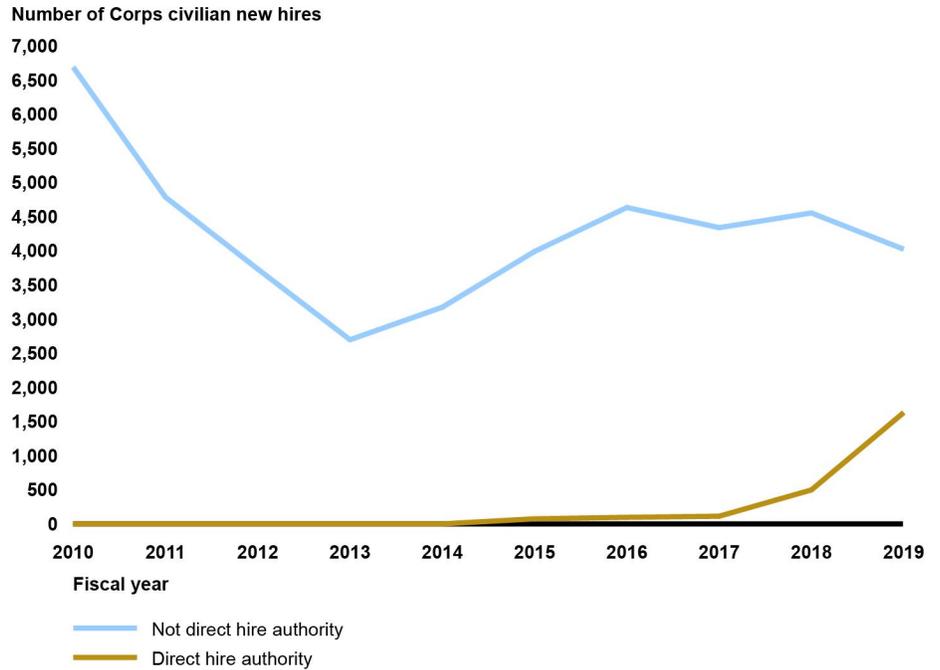
Fiscal Year	CIVILIAN RECRUITMENT BONUS	CIVILIAN RELOCATION BONUS	CIVILIAN RETENTION ALLOWANCE	STUDENT LOAN REPAYMENT	TRAINING	PERMANENT CHANGE OF STATION	HUMAN RESOURCES OPERATIONAL SERVICING
2010	2055	15382	2394	446	23742	31259	41060
2011	1446	18255	2561	1078	29684	23174	29625
2012	1036	14595	1438	674	27779	24059	41550
2013	237	12107	710	724	16555	21413	38951
2014	222	2313	182	508	19188	20635	35339
2015	395	990	331	578	22051	31060	35341
2016	711	1492	282	553	23120	31852	36936
2017	786	1475	271	403	22098	30404	39381
2018	1234	2297	268	442	22913	30551	41361
2019	1605	4636	399	556	33315	33794	45749

Note: Most of the Corps' human resources spending in fiscal years 2010 through 2019 was for human resources operation servicing, permanent change of station, training, and civilian relocation bonuses. Spending in the categories grouped at the bottom of the graph—civilian retention allowance, civilian recruitment bonus, and student loan repayment—was small compared to the other categories.

**New hires.** As shown in figure 9, there was a large change in the mechanisms the Corps used to hire new employees from fiscal years 2010 through 2019.<sup>40</sup> Specifically, the Corps increased the number of new hires made through the direct-hire authority from fiscal year 2010, when no employees were hired via the direct-hire authority, to fiscal year 2019, when direct-hire authority accounted for 29 percent of all Corps hires. According to Corps human resources managers, these increases were due to agency leadership's emphasis on utilizing the direct-hire authority to recruit new employees. However, the human resources managers noted that a challenge that the increased direct-hire authority highlighted was the need for an automated talent acquisition platform. As noted previously, the Corps plans to implement the recently acquired platform in fiscal year 2022, according to Corps human resources managers. According to Corps human resources managers, this platform will automate processes such as collecting and organizing resumes, tracking interested individuals, and sharing resumes agency-wide.

<sup>40</sup>We consider a large change to be an increase, decrease, or fluctuation of more than 20 percent difference between fiscal years 2010 and 2019. See appendix I for more information on our methodology.

**Figure 9: U.S. Army Corps of Engineers (Corps) Workforce New Hires, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

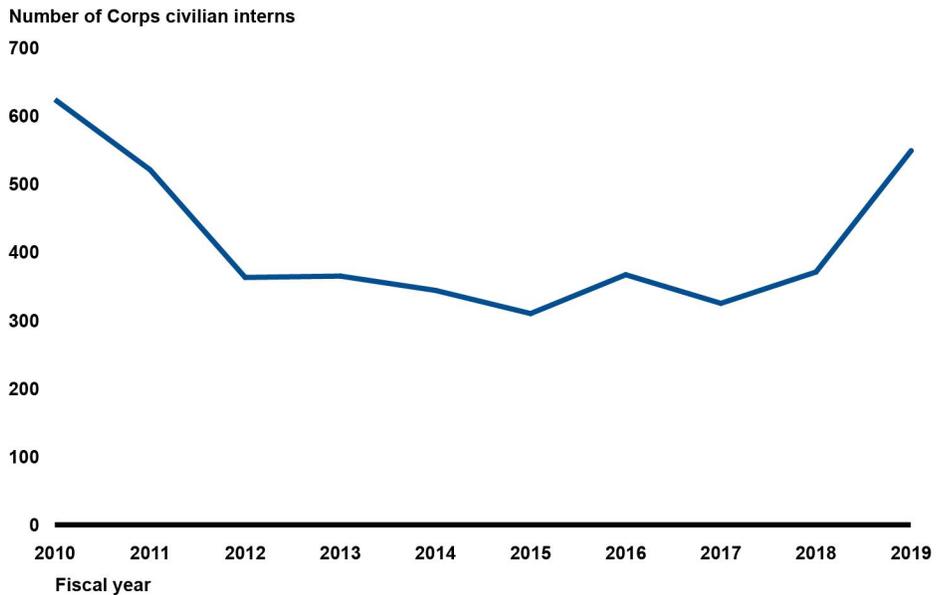
**Accessible Data Table for Figure 9**

Fiscal Year	Direct Hire Authority	NOT Direct Hire Authority
FY 2010		6689
FY 2011	1	4785
FY 2012		3732
FY 2013		2697
FY 2014	1	3173
FY 2015	75	3990
FY 2016	97	4633
FY 2017	113	4338
FY 2018	498	4553
FY 2019	1631	4022

In addition, there was a small percentage increase related to the diversity of new hires from fiscal years 2010 to 2019. The human resources managers suggested that the changes are likely attributable to national demographic trends in the U.S.—a growing minority population and declining White population. (See appendix III for information on new hires by race and ethnicity.)

**Interns.** As shown in figure 10, there was a moderate change and some fluctuations in the number of internship positions allocated to the Corps through the Army’s intern program from fiscal years 2010 to 2019.<sup>41</sup> Corps headquarters human resources managers suggested these changes were driven by funding and mission changes, often at the Army level. In addition, there were several changes related to the diversity of interns during those years. According to Corps human resources managers, the changes related to Army internship positions reflect the Corps’ and the Army’s efforts to increase diversity in intern recruitment. The human resources managers suggested that the changes also mirror national demographic trends in the U.S. (See appendix IV for information on interns by race and ethnicity.)

**Figure 10: U.S. Army Corps of Engineers (Corps) Workforce Civilian Interns, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-21-104054

<sup>41</sup>We consider a moderate change to be an increase, decrease, or fluctuation of 5 percent to 20 percent difference between fiscal years 2010 and 2019. See appendix I for more information on our methodology.

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**Accessible Data Table for Figure 10**

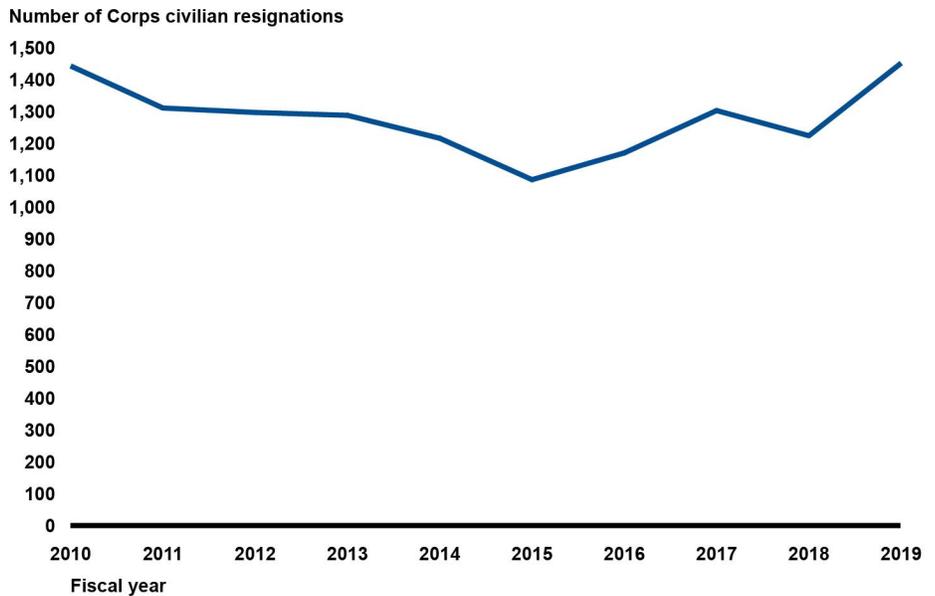
<b>Fiscal Year</b>	<b>Number of Corps civilian interns</b>
FY 2010	624
FY 2011	521
FY 2012	363
FY 2013	365
FY 2014	344
FY 2015	310
FY 2016	367
FY 2017	325
FY 2018	371
FY 2019	549

**Resignations.** There were some changes in the number of resignations in the Corps workforce from fiscal years 2010 to 2019 (see figure 11). According to Corps headquarters human resources managers, the changes in the number of resignations from fiscal years 2010 to 2019 were partly due to a higher number of temporary workforce members resigning, with those with less than 1 year of service making up a large percentage of the resignations, specifically in fiscal year 2010.<sup>42</sup> In general, there were some percentage changes in the number of resignations for all race and ethnicity categories. According to Corps human resources managers, while the number of resignations for all race and ethnicity categories changed in some ways, the increase in Multiracial employee resignations is likely attributable to the increase in Multiracial reporting resulting from the Corps workforce members' ability to self-report their identification. (See appendix V for information on resignations by race and ethnicity.)

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<sup>42</sup>Corps human resources managers noted that the Corps hires temporary workforce members to work on temporary projects or programs.

**Figure 11: U.S. Army Corps of Engineers (Corps) Workforce Resignations, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

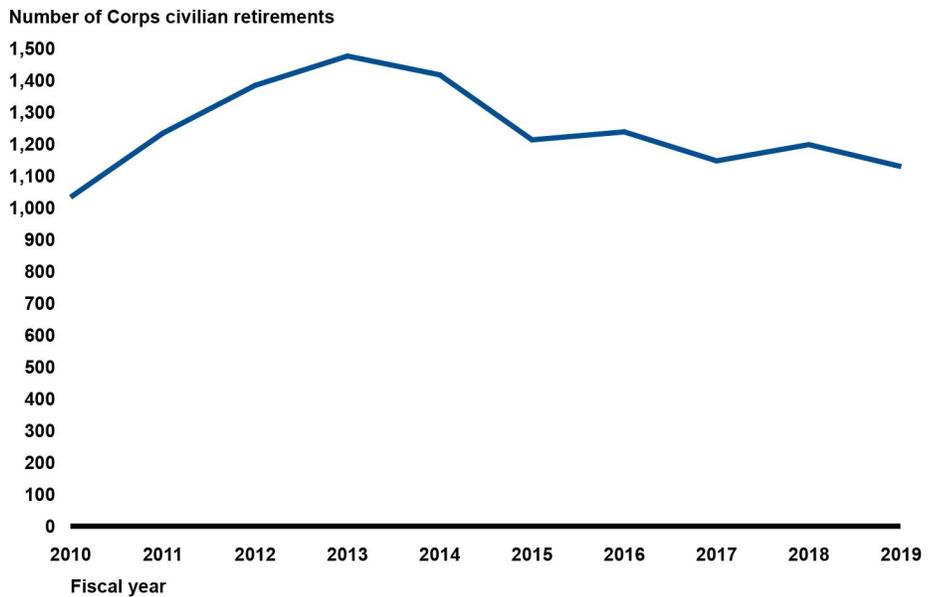
**Accessible Data Table for Figure 11**

Fiscal Year	Total Number of resignations
FY 2010	1443
FY 2011	1311
FY 2012	1297
FY 2013	1288
FY 2014	1216
FY 2015	1086
FY 2016	1170
FY 2017	1303
FY 2018	1224
FY 2019	1452

**Retirements.** As shown in figure 12, there were some changes in the number of retirements experienced from fiscal years 2010 to 2019. Corps human resources managers suggested that the increase in retirements from 2010 to 2013 likely reflects the high number of senior personnel in the workforce choosing to retire. In general, there were percentage changes in the number of retirements for all races and ethnicity. Corps human resources managers told us that the number of retirements for all race and ethnicity categories changed from fiscal years 2010 to 2019

because the Corps workforce members who retired tended to be somewhat more diverse than the current workforce. According to Corps human resources managers, the Corps needs to increase its hiring of diverse talent to keep up with the loss of diverse personnel through retirement. (See appendix VI for information on retirements by race and ethnicity.)

**Figure 12: U.S. Army Corps of Engineers (Corps) Workforce Retirements, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 12**

Fiscal Year	Retirements
2010	1033
2011	1234
2012	1384
2013	1476
2014	1417
2015	1213
2016	1238
2017	1147
2018	1198
2019	1129

## The Corps Has Generally Implemented Most Leading Practices for Strategic Workforce Planning

The Corps has generally implemented four of five leading practices for strategic workforce planning for its civilian workforce, and it has partially implemented the leading practice of involving top management, employees, and other stakeholders in strategic planning (see table 1).<sup>43</sup> Our previous work suggests that regardless of an agency’s mission its human capital management approach should incorporate five leading practices.<sup>44</sup> These practices can enhance the effectiveness of an agency’s strategic workforce planning by helping the agency focus on the issues it needs to address and the information it needs to consider.

**Table 1: Extent to Which the U.S. Army Corps of Engineers (Corps) Has Implemented Leading Practices for Strategic Workforce Planning**

Strategic workforce planning leading practice	Implementation status
Determine critical skills and competencies needed to achieve current and future programmatic results	Generally implemented
Develop workforce planning strategies designed to address gaps in critical skills and competencies	Generally implemented
Build administrative and other capabilities to support workforce planning strategies	Generally implemented
Monitor and evaluate progress toward human capital goals and programmatic results	Generally implemented
Involve top management, employees, and other stakeholders in strategic workforce planning	Partially implemented

Source: GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, [GAO-04-39](#) (Washington, D.C.: Dec. 11, 2003); GAO analysis of Corps documents and interviews. | GAO-22-104054

Note: We use “generally implemented” to indicate that Corps’ actions generally addressed all of the supporting actions for implementation of a leading practice, and “partially implemented” to indicate that Corps actions partially addressed the supporting actions for implementation of a leading practice.

<sup>43</sup>We examined key supporting actions within each leading practice and present illustrative examples of Corps actions for the purposes of this report. Other stakeholders may include agency managers, supervisors, and employee unions.

<sup>44</sup>[GAO-04-39](#). The report refers to the leading practices as “key principles” of strategic workforce planning. For purposes of this report, we refer to the principles as leading practices.

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## The Corps Has Generally Implemented Four Leading Practices for Strategic Workforce Planning

### Leading Practice: Determine Critical Skills and Competencies Needed

Based on our analysis of Corps workforce planning information, we determined the Corps generally implemented the leading practice of determining critical skills and competencies that will be needed to achieve current and future programmatic results. The key supporting action that assists in the implementation of this leading practice is to ensure the critical skills and competencies identified are clearly linked to the agency's mission and long-term goals.

To implement this leading practice, according to a human resources strategic advisor in the field, the missions of the Army and the Corps are incorporated into each employee's performance plan and evaluation. Employee progress reviews link back to the mission and goals of the organization; managers provide feedback and recommend training to assist the employee's in reaching their individual goals.

Additional actions the Corps has taken to implement this practice include the agency-wide Workload to Workforce Assessment. According to human resources strategic advisors, workforce managers use this assessment of the status of the workforce—such as vacancy fill rates—to forecast their ability to meet the future workload and the type and experience level of employees that will be needed. Workforce managers rate the Corps' ability to meet workforce needs through the planning activity and based on the result, identify areas that need to be addressed. District level results are consolidated at the division level and provided to headquarters, which uses the results to identify any potential areas of improvement for the workforce agency-wide.

### Leading Practice: Develop Workforce Planning Strategies

Based on our analysis of Corps workforce planning information, we determined the Corps generally implemented the leading practice of developing strategies that are tailored to address gaps in the human capital approaches for enabling and sustaining critical skills and competencies. Key supporting actions that assist in the implementation of this leading practice are (1) developing hiring, training, performance management, use of flexibilities, and other human capital strategies and

tools; and (2) considering how these strategies can be aligned to eliminate gaps and improve the contribution of critical skills and competencies needed for mission success.

To implement this leading practice, the Corps has used the flexibilities provided by direct hiring authorities as a strategy to address gaps in critical skills and competencies in its workforce. For example, the Corps has increased its use of direct-hiring authorities from fiscal years 2015 through 2019. According to Corps officials the agency is seeking to expand the use of these authorities to cover 100 percent of its positions. Corps human resource officials told us that the direct hire authorities have been useful in helping them compete with the private sector and attract top diverse talent.

In considering how strategies can be aligned, headquarters human resources managers told us that human resources strategic advisors in the field serve as key conduits in aligning division and district mission needs with headquarters human capital policy support. Strategic advisors receive human capital policy guidance from headquarters and are to work with division commanders to align and implement the guidance down to the districts.

Additionally, the Corps seeks to improve the contribution of critical skills and competencies in the workforce by taking action on the results of the annual Federal Employee Viewpoint Survey. The survey results provide insight into key areas for improvement in employee engagement, and working groups focus on ways to use this information to make the Corps a better place to work. Corps leadership encourages all employees to complete the survey, and officials we spoke with generally found the tool to be effective.

#### Leading Practice: Build Administrative and Other Capabilities

Based on our analysis of Corps workforce planning information, we determined the Corps generally implemented the leading practice of building the capability needed to address administrative, educational, and other requirements important to support workforce planning strategies. Key supporting actions that assist in the implementation of this leading practice are (1) educating managers and employees on the availability and use of flexibilities, (2) streamlining and improving administrative processes, and (3) building transparency and accountability into the system.

The Corps has developed several activities and tools to support this leading practice. For example, to educate managers and employees, the Corps' Human Resource Knowledge Management Portal houses human resource policies, best practices, and other shared content to advance workforce planning.<sup>45</sup> Additionally, human resources strategic advisors conduct site visits to divisions and districts where they meet with both managers and employees to discuss workforce flexibilities. Further, a human resources strategic advisor told us that when the Army and the Office of Personnel Management provide information on workforce flexibilities, headquarters shares this information with Corps employees.

To help streamline and improve administrative processes, the Corps added more automation to its workforce tasks, including developing interactive civilian workforce dashboards that allow managers to view and analyze workforce data, automating their onboarding and out-processing procedures, and transitioning to the Defense Performance Management and Appraisal System. Additionally, the Corps has adopted a policy routing system that has streamlined administrative processes and built transparency and accountability into the organization. The routing system allows for tracking of input on policies as they go through the chain of review, while capturing the associated comments throughout the review process. According to a human resources strategic advisor, the transparency provided by the system promotes communication among stakeholders.

### Leading Practice: Monitor and Evaluate Progress

Based on our analysis of Corps workforce planning information, we determined the Corps has generally implemented the leading practice of monitoring and evaluating the agency's progress toward its human capital goals and the contribution that human capital results have made toward achieving programmatic results. Key supporting actions that assist in the implementation of this leading practice are (1) measuring progress toward reaching human capital goals, and (2) measuring the contribution of human capital activities toward achieving programmatic goals.

To implement this leading practice, Corps officials use tools such as the Workload to Workforce Assessment scorecards, interactive workforce information dashboards, and the line drill analysis to measure the

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<sup>45</sup>The Human Resource Knowledge Management Portal is a searchable site for sharing knowledge across human resources and the Corps organization.

organization's progress toward human capital goals and track key metrics such as vacancy fill rates and fill times. According to Corps documents and a human resources strategic advisor, data on key performance indicators are measured and tracked on a monthly basis. Corps headquarters human resources managers told us they measured the contribution of human capital activities toward achieving programmatic goals through their recurring management reviews of the Corps' initiatives, goals and metrics. These reviews occur quarterly and allow senior leaders throughout the agency to discuss and evaluate the effectiveness of current Corps' initiatives and metrics, such as vacancy fill percentage, turnover, and intern placement. Metric targets are adjusted each year based on areas of priority, emerging issues, and the results shown by the prior year metrics.

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## The Corps Has Partially Implemented the Leading Practice to Involve Top Management in Workforce Planning

### Leading Practice: Involve Top Management in Workforce Planning

Based on our analysis of Corps workforce planning information, we determined the Corps has partially implemented the leading practice of involving top management, employees, and other stakeholders in strategic workforce planning by implementing two of the three supporting actions.<sup>46</sup> Key supporting actions that assist in the implementation of this leading practice are (1) involving employees and stakeholders in developing and implementing future workforce strategies, (2) establishing a communication strategy to create shared expectations, promote transparency, and report progress, and (3) ensuring top management sets the overall direction and goals of workforce planning.

According to Corps human resource managers, the agency has involved employees and stakeholders in developing future workforce strategies. For example, the agency placed human resources strategic advisors in the field as a resource to the district offices in implementing and vetting guidance. It also developed action plans based on employee feedback received from the Federal Employee Viewpoint Survey. Additionally, communities of practice across the agency provide input to the headquarters human capital division in the development of overarching

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<sup>46</sup>Top management refers to the executive leadership of the Corps, including the Chief of Engineers and other commanders.

guidance, tools, and support for the divisions and districts. The Corps has also established a communication strategy through a strategic communications working group that works with the Corps Public Affairs Office to enhance strategic partnerships and boost Corps' branding, according to a human resources strategic advisor. The Corps' quarterly management reviews also facilitate the Corps' ability to report progress on tracked metrics, such as vacancy fill time and workforce turnover rates.

However, the Corps has not ensured that its top management set the overall direction and goals of workforce planning. According to Corps planning documents and officials, the agency's strategic human capital plan is the primary mechanism through which top management sets the overall direction and goals of workforce planning. As previously noted, the development and implementation of a human capital plan is a key step in an agency's progress toward building a highly effective, performance-based organization that can recruit, hire, motivate, and reward a high-performing, top-quality workforce. Such a plan can provide a coherent framework of an agency's human capital policies, programs, and practices. Yet, the Corps' most recent plan was issued in 2017. As previously described, the Corps did not publish a strategic human capital plan to replace or update the 2017-2018 plan, and instead it conducted an in-depth analysis—referred to as a line drill—of its workforce challenges at the end of calendar year 2018. This analysis identifies priority initiatives and associated metrics to guide the Corps' efforts to address workforce challenges. Given that the latest strategic human capital plan was issued in 2017, it does not include these priority initiatives and metrics.

A Corps human resources manager told us the goals, initiatives, and associated metrics that inform that strategic human capital plan and the current Campaign Plan are no longer used by human resources personnel. For example, although the fiscal year 2017-2018 human capital plan lists the Managerial Situational Judgement Test as a key initiative for recruitment, a Corps human resource manager informed us that this initiative was no longer active. However, our interviews with human resources strategic advisors in field locations indicated that some division offices are still using the fiscal year 2017-18 plan as the primary document to guide their human resource efforts, while others are using the line drill or supplementary, division level human capital plans.

In addition, we found that the Corps' strategic human capital plan does not contain performance targets or metrics for its listed goals. The Office

of Personnel Management's Strategic Human Capital Management regulations stipulate that an agency's human capital plans contain measurable and observable performance targets. Corps human resources managers told us the relevant metrics associated with the plan's goals are presented in other documents such as its Campaign Plan and Directorate Management Reviews.<sup>47</sup>

Corps human resources officials indicated that they recognized the need to update the human capital plan. A human resources manager also told us that development of an updated strategic human capital plan has been delayed, primarily because of the need to coordinate the plan with a transition in Corps leadership and to align the plan with the overarching Army People Strategy, which was completed in late 2019.<sup>48</sup> In May 2020, human resources managers told us that a draft, updated human capital plan was under review and would be finalized in the next 2 to 3 months. However, as of October 2021, the plan had not yet been approved. By finalizing and distributing agency-wide an updated human capital plan with performance targets, the Corps could enhance its ability to address its civilian workforce challenges and manage its current and future workforce.

Further, our prior work suggests that in implementing the key supporting action of ensuring top management sets the overall direction and goals, management should ensure that succession planning and management programs receive sufficient financial and staff resources and are maintained over time.<sup>49</sup> However, human resources strategic advisors we interviewed across the organization expressed concerns about the level of resources dedicated to the Corps' national recruitment program. A human resources manager and an advisor told us that there is currently only one staff person for the agency-wide national recruitment program;

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<sup>47</sup>According to Corps headquarters human resource managers, the Corps holds quarterly directorate management reviews of human capital initiatives and progress on their accompanying metrics. Human resource managers brief senior USACE leadership at these reviews and the results are presented and evaluated at the Corps annual executive governance meeting.

<sup>48</sup>U.S. Army, *The Army People Strategy* (October 2019). The strategy establishes the mission for the Army to acquire, develop, employ, and retain the diversity of soldier and civilian talent needed to achieve readiness; and the vision to build cohesive teams by maximizing the talents of its personnel. The strategy also provides the guidance, framework, and conceptual basis for follow-on military and civilian strategy implementation plans.

<sup>49</sup>[GAO-04-39](#).

that position is located in headquarters. Some divisions do not have any recruiters on staff, and one strategic advisor told us that the Corps' specific recruitment efforts, such as its Science Technology Engineering and Math Outreach program, is largely a voluntary activity conducted by staff at the division and district levels in addition to their required duties. Because the Corps receives appropriations for projects, divisions and districts cannot use those appropriations for recruitment or outreach efforts. Instead, they have to rely on other appropriations to support these activities. Another strategic advisor said that they already function as a full-time human resources advisor and do not have capacity to put any additional effort into recruitment activities in their division.

In addressing this staffing challenge, a human resources manager told us the Corps had recently gained approval for the addition of four new positions to work with the national recruitment leader on talent acquisition. The positions were created by eliminating positions in the Civilian Personnel Advisory Centers that had been supporting the Corps' recruitment process primarily through posting job opportunities. The Corps expects to have the talent acquisition team in place in 2022.

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## Conclusions

The Corps faces workforce challenges—such as attracting top talent, hiring them quickly at competitive rates, and retaining them after they are trained—and has reported their effects on the agency's ability to maintain the capacity to meet mission requirements and preparedness to meet current and future challenges. The Corps has made significant efforts to address these challenges by implementing numerous activities and tools to enhance its human capital planning, recruitment, career development, and employee engagement. However, the Corps' strategic human capital plan—the agency's primary organization-wide civilian workforce planning document and its key mechanism for setting the overall direction and goals of this planning—is outdated and being inconsistently used across the agency. By finalizing and distributing agency-wide an updated human capital plan with performance targets, the Corps would be better positioned to address its capacity and preparedness challenges and manage its current and future workforce.

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## Recommendations for Executive Action

We are making the following recommendation to the Department of Defense:

The Assistant Secretary of the Army for Manpower & Reserve Affairs should ensure the Chief of Engineers and the Commanding General of the U.S. Army Corps of Engineers finalize and distribute agency-wide a strategic human capital plan that reflects the Corps' current human capital goals, initiatives, and associated performance targets. (Recommendation 1)

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## Agency Comments

We provided a draft of this report to the Department of Defense for its review and comment. In its written comments, reproduced in appendix VII, the Department concurred with our recommendation. The Department further stated that it would ensure that the Corps finalizes and distributes its human capital plan by December 31, 2021. The Department also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Assistant Secretary of the Army for Manpower & Reserve Affairs, the Assistant Secretary of the Army for Civil Works, the Chief of Engineers and Commanding General of the U.S. Army Corps of Engineers, 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 us at (202) 512-3841 or [johnsoncd1@gao.gov](mailto:johnsoncd1@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VIII.



Cardell D. Johnson

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**Letter**

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Acting Director, Natural Resources and Environment

## Appendix I: Objectives, Scope, and Methodology

For fiscal years 2010—the year of our most recent prior report—through 2019—the most recent years for which complete workforce information was available at the time of our review—this report (1) describes the activities and tools the Corps has implemented to address civilian workforce challenges, (2) describes the changes in the Corps’ civilian workforce, and (3) examines the extent to which the Corps has followed leading practices for strategic workforce planning.

To describe the activities and tools the Corps has implemented to address civilian workforce challenges, we reviewed Corps civilian workforce planning documents for fiscal years 2010 through 2019. Specifically, we reviewed the Corps’ strategic human capital plans identifying challenges, activities, and tools, as well as the agency’s strategic Campaign Plan document and the overarching Army People Strategy. In addition, we reviewed Corps human resources policies, such as its policy for providing incentives to its workforce, and other documentation describing how the activities and tools were implemented and their results. We interviewed human resources managers and mission program officials located in headquarters to identify the workforce challenges facing the Corps, how the various activities and tools have been implemented to address the challenges, and the results. We also conducted interviews with 11 human resources strategic advisors located in the Corps division offices and centers. Specifically, we asked the advisors about the challenges that each activity or tool addressed, how the activity or tool was used, and whether it was effective.

To describe the changes in the Corps’ civilian workforce, we interviewed Corps headquarters human resources managers about the Corps’ workforce capacity and preparedness and challenges related to the changes in the Corps’ civilian workforce—which includes all permanent and temporary Corps workforce members—from fiscal years 2010 through 2019. We also analyzed data for fiscal years 2010 through 2019 from the Defense Civilian Personnel Data System and the Corps of Engineers Financial Management System on the Corps’ workforce

diversity, professional development, and recruitment and retention.<sup>1</sup> For example, under diversity, we analyzed the Corps' workforce data related to race, gender, disabilities, and age from fiscal years 2010 to 2019.<sup>2</sup> Under professional development, we analyzed the total number of training course authorizations and the number of Corps employees earning credentials from fiscal years 2010 to 2019. Under recruitment and retention, we analyzed Corps' workforce data related to incentives, new hires, interns, resignations and retirements from fiscal years 2010 through 2019. We relied on percentages to conduct our analyses of these data. We categorized the results of our analyses as follows:

- Small change (increase, decrease, or fluctuate): less than 5 percent difference between fiscal years 2010 to 2019.
- Moderate change (increase, decrease, or fluctuate): 5 percent to 20 difference between fiscal years 2010 and 2019.
- Large change (increase, decrease, or fluctuate): more than 20 percent difference between fiscal years 2010 and 2019.
- We consider a category unchanged if there was no percent change from fiscal years 2010 to 2019.

In another instance, such as the training course authorizations, where we could not analyze the data using percentages of Corps workforce members, we analyzed the data by indicating whether there were decreases, increases, or fluctuations in the Corps data from fiscal years 2010 to 2019. Unlike the demographic data analyses stated above where we decided to calculate the percentage share of the Corps workforce for each demographic group from fiscal years 2010 to 2019, this analysis had only one category.

To assess the reliability of the Corps workforce data related to diversity, professional development and recruitment and retention, we interviewed knowledgeable Corps officials to understand how the Defense Civilian Personnel Data System is used and steps taken to ensure the reliability of the data. To corroborate our discussions with officials, we reviewed several documents including, but not limited to, the data element

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<sup>1</sup>The human resources cost and training course authorizations data came from the Corps of Engineers Financial Management System. The remainder of the data came from the Defense Civilian Personnel Data System.

<sup>2</sup>The Census Bureau defines race as a person's self-identification with one or more social groups such as White. Ethnicity, on the other hand, determines whether a person is of Hispanic origin.

dictionary and a user's guide document describing how data is extracted from the Defense Civilian Personnel Data System. We also reviewed documentation related to the Corps of Engineers Financial Management System. Based on our interviews with relevant Corps officials and our review of documentation, we determined that the data we analyzed for fiscal years 2010 through 2019 were sufficiently reliable for the purpose of this report. However, we observed that some of the changes in the Corps' workforce data may be affected by the changes in the number of Corps workforce members self-identifying in particular groups, such as employees with disabilities, which we noted in this report, where appropriate.

To examine the extent to which the Corps has followed leading practices for civilian workforce planning, we reviewed the Corps' primary civilian workforce planning document (the 2017-2018 strategic human capital plan), the 2018 line drill analysis, and interview responses from two human resources managers located in headquarters and 11 human resources strategic advisors in the field. We compared this information to five leading practices for strategic workforce planning that we previously identified.<sup>3</sup> The five leading practices are (1) determine critical skills and competencies needed, (2) develop workforce planning strategies, (3) build administrative and other capabilities, (4) monitor and evaluate progress, and (5) involve management in workforce planning. Each leading practice consists of key supporting actions to implement the leading practice.

Based on our analysis and review, we determined whether the Corps took sufficient actions toward implementing each of the strategic workforce planning leading practices. If actions were taken to implement a leading practice and its supporting actions and we did not identify significant deficiencies through our review of documents and interviews with officials, the actions were deemed sufficient. An action was deemed insufficient if our review of documents and interviews with officials indicated that the Corps had taken no action or deficient actions in implementing a leading practice. We use "generally implemented" to indicate that Corps actions generally addressed all of the supporting actions for implementation of a leading practice, "partially implemented" to indicate that Corps actions only partially addressed implementation of a leading practice, and "not

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<sup>3</sup>[GAO-04-39](#).

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implemented” to indicate that Corps actions did not address implementation a leading practice.

We conducted this performance audit from May 2020 to December 2021 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 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.

## Appendix II: Gender of the U.S. Army Corps of Engineers Workforce, by Race and Ethnicity

From fiscal years 2010 to 2019, the Corps workforce remained mostly unchanged, comprising majority White employees, and the percentage of female and male employees by race and ethnicity changed in several ways (see figure 13).<sup>1</sup> Specifically, during this period, within the female category, there were small percentage decreases related to the number of employees identifying as African American or Black, Hispanic or Latino, and White, while there was a small percentage increase in the number employees identifying as Multiracial.<sup>2</sup> The percentage of employees identifying as American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander largely remained unchanged from fiscal years 2010 to 2019.

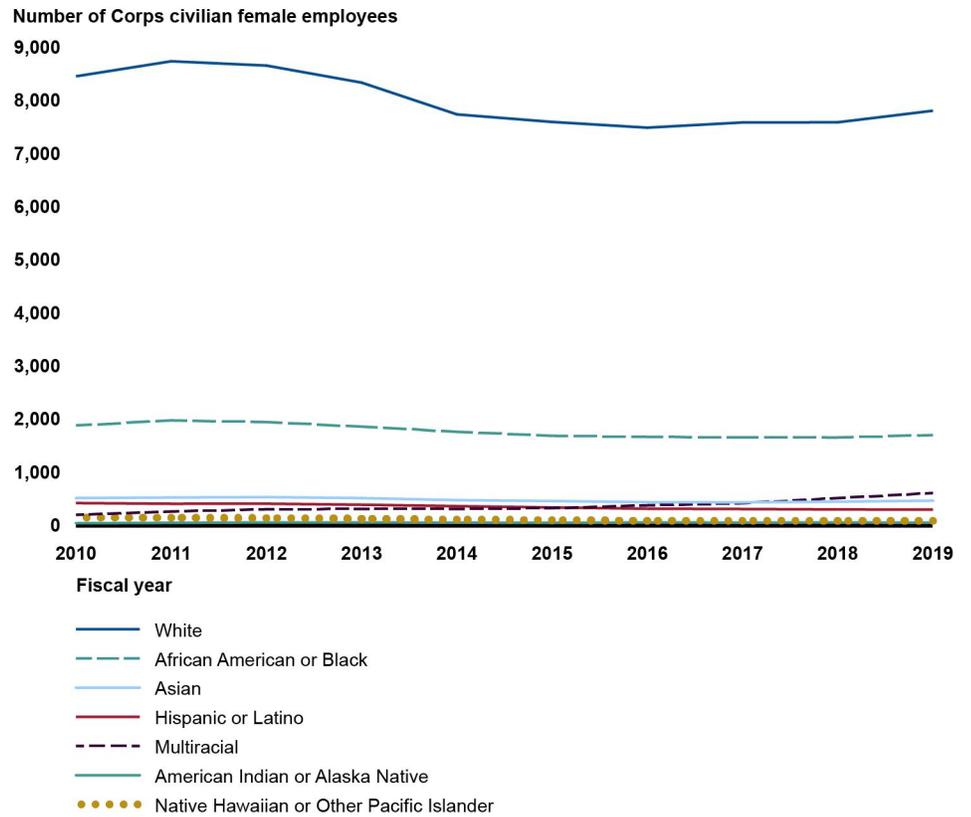
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<sup>1</sup>Although the terms “male” and “female” are not inclusive of all gender identities, we here use these terms to encompass all employees. Due to the definitions used in the agency’s employee data, we were unable to analyze gender beyond the binary categories of male and female.

<sup>2</sup>We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. We consider a category unchanged if there was no percent change from fiscal years 2010 to 2019. See appendix I for more information on our methodology.

Appendix II: Gender of the U.S. Army Corps of Engineers Workforce, by Race and Ethnicity

**Figure 13: U.S. Army Corps of Engineers (Corps) Female Employees, by Race and Ethnicity, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Accessible Data Table for Figure 13**

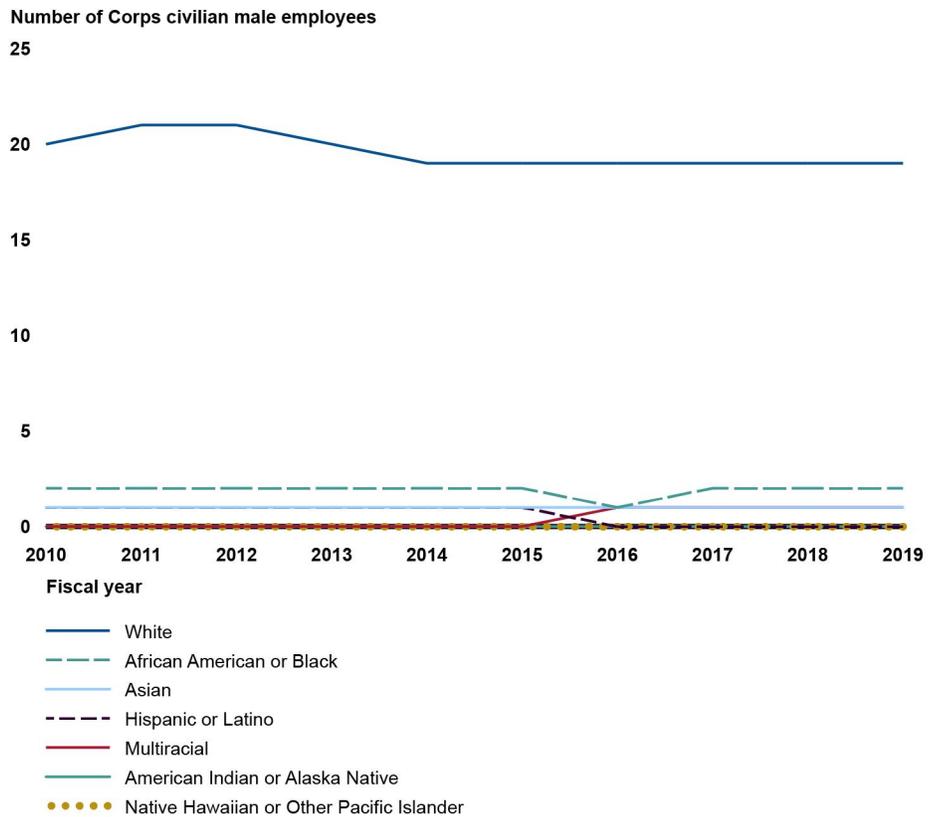
Fiscal Year	White	African American or Black	Asian	Multiracial	Hispanic or Latino	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
FY 2010	8450	1877	509	193	414	142	35
FY 2011	8733	1971	519	255	401	137	42
FY 2012	8652	1939	526	297	402	132	49
FY 2013	8331	1854	508	305	383	119	48
FY 2014	7733	1756	469	303	356	103	46
FY 2015	7591	1680	452	319	331	93	41
FY 2016	7483	1661	431	371	308	79	49
FY 2017	7581	1650	427	411	302	81	46
FY 2018	7584	1649	441	508	294	78	49
FY 2019	7802	1693	459	603	291	76	45

**Appendix II: Gender of the U.S. Army Corps of Engineers Workforce, by Race and Ethnicity**

Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce compared to the White category from fiscal years 2010 through 2019.

From fiscal years 2010 to 2019, within the male category, there were small percentage decreases in the number of employees identifying as Hispanic or Latino and White employees, while there was a small percentage increase in the number of employees identifying as Multiracial (see figure 14). The percentage of employees identifying as African American or Black, Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander largely remained unchanged.

**Figure 14: U.S. Army Corps of Engineers (Corps) Male Employees, by Race and Ethnicity, Fiscal Years 2010–2019**



Source: GAO analysis of Corps data. | GAO-22-104054

**Appendix II: Gender of the U.S. Army Corps of Engineers Workforce, by Race and Ethnicity**

**Accessible Data Table for Figure 14**

<b>Fiscal Year</b>	<b>White</b>	<b>African American or Black</b>	<b>Asian</b>	<b>Hispanic or Latino</b>	<b>Multiracial</b>	<b>American Indian or Alaska Native</b>	<b>Native Hawaiian or Other Pacific Islander</b>
FY 2010	20	2	1	1	0	0	0
FY 2011	21	2	1	1	0	0	0
FY 2012	21	2	1	1	0	0	0
FY 2013	20	2	1	1	0	0	0
FY 2014	19	2	1	1	0	0	0
FY 2015	19	2	1	1	0	0	0
FY 2016	19	1	1	0	1	0	0
FY 2017	19	2	1	0	1	0	0
FY 2018	19	2	1	0	1	0	0
FY 2019	19	2	1	0	1	0	0

Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce compared to the White category from fiscal years 2010 through 2019.

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## Appendix III: U.S. Army Corps of Engineers New Hires, by Race and Ethnicity

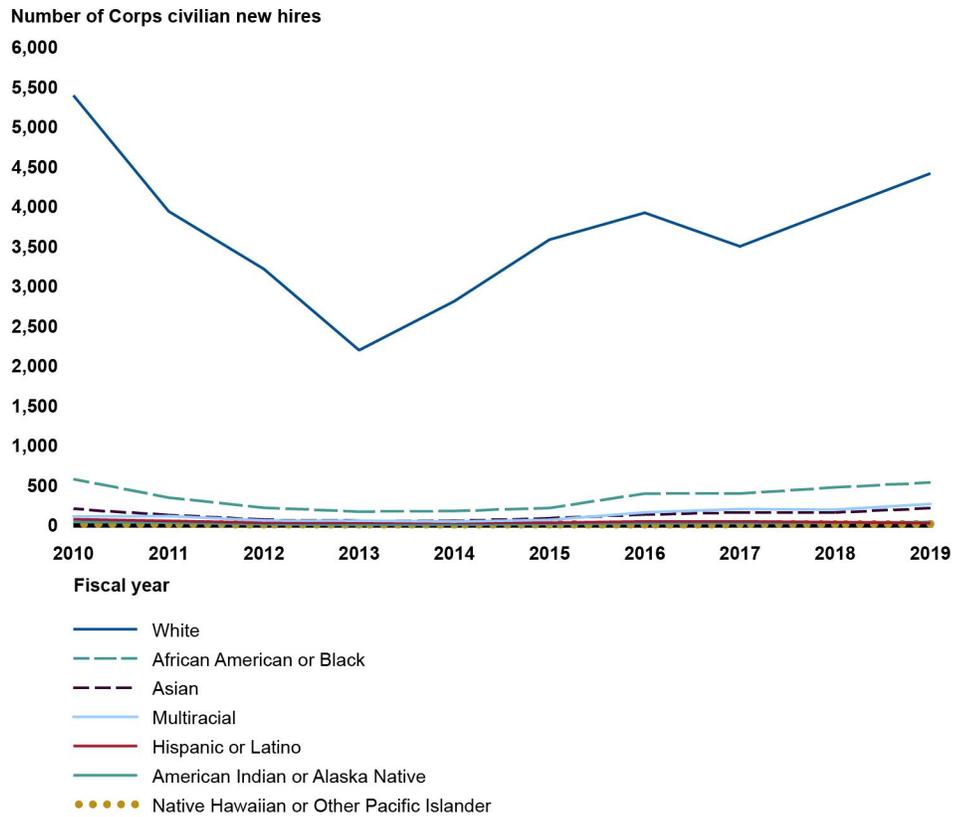
There were small changes related to the number of Corps new hires from fiscal years 2010 to 2019 (see figure 15). The percentage of employees identifying as Hispanic or Latino and White decreased from fiscal years 2010 to 2019, while the percentage of employees identifying as African American or Black, Asian, and Multiracial increased—experiencing some fluctuations in the intervening years.<sup>1</sup> The percentage of employees identifying as American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander largely remained unchanged during the same period.

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<sup>1</sup>We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. We consider a category unchanged if there was no percent change from fiscal years 2010 to 2019. See appendix I for more information on our methodology.

Appendix III: U.S. Army Corps of Engineers  
New Hires, by Race and Ethnicity

**Figure 15: U.S. Army Corps of Engineers (Corps) New Hires, by Race and Ethnicity, Fiscal Years 2010–2019**



**Accessible Data Table for Figure 15**

Fiscal Year	White	African American or Black	Multiracial	Asian	Hispanic or Latino	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
FY 2010	5392	576	108	202	73	38	15
FY 2011	3938	344	113	127	52	31	18
FY 2012	3214	217	58	67	29	10	6
FY 2013	2195	168	55	56	29	3	6
FY 2014	2810	177	45	53	29	6	4
FY 2015	3583	214	65	86	30	12	9
FY 2016	3920	395	159	131	45	23	7
FY 2017	3498	396	201	158	45	24	11
FY 2018	3958	474	194	161	37	30	11
FY 2019	4414	535	265	210	25	38	16

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**Appendix III: U.S. Army Corps of Engineers  
New Hires, by Race and Ethnicity**

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Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce, compared to the White category, from fiscal years 2010 through 2019.

## Appendix IV: U.S. Army Corps of Engineers Interns, by Race and Ethnicity

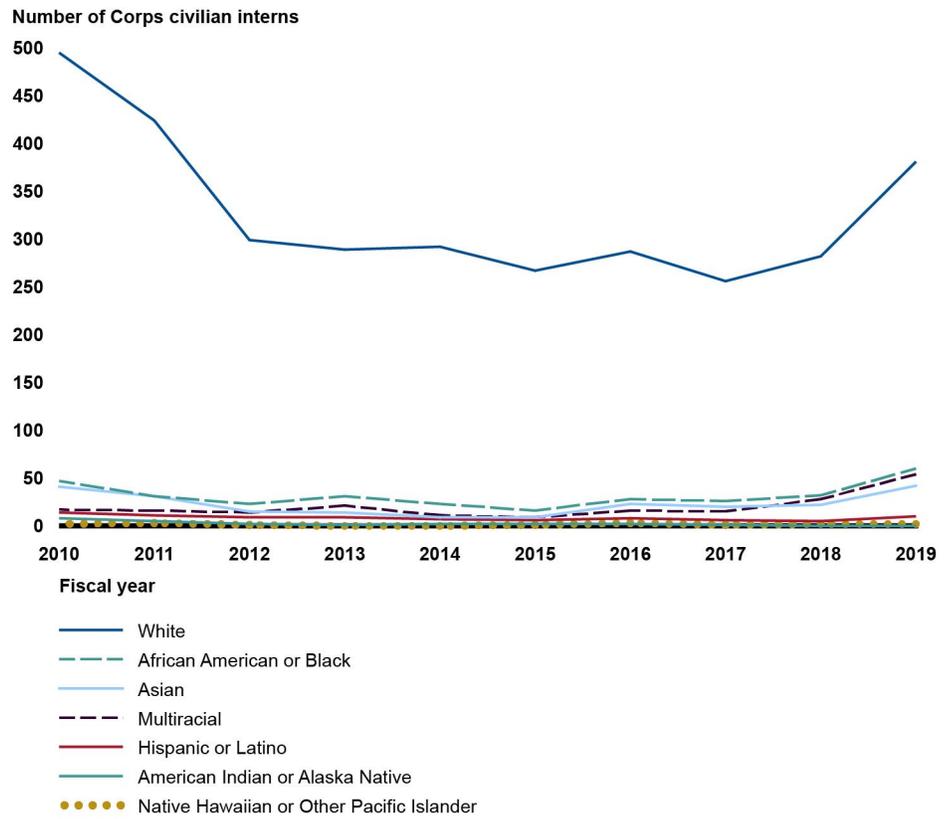
There were moderate changes related to the number of interns identifying as White, decreasing from fiscal years 2010 to 2019, while experiencing some fluctuations in the intervening years between fiscal years 2010 and 2019 (see figure 16).<sup>1</sup> The percentage of employees identifying as Multiracial increased moderately, increasing from fiscal years 2010 to 2019. There were small percentage changes in the number of employees identifying as African American or Black and Asian, increasing from fiscal years 2010 to 2019, while experiencing small fluctuations in the intervening years between fiscal years 2010 and 2019. There were small percentage changes in the number of employees identifying as American Indian or Alaska Native, while the percentage of employees identifying as Hispanic or Latino and Native Hawaiian or Other Pacific Islander remained unchanged during the same period.

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<sup>1</sup>We consider a moderate change to be an increase, decrease, or fluctuation of 5 percent to 20 percent difference between fiscal years 2010 and 2019. We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. We consider a category unchanged if there was no percent change from fiscal years 2010 to 2019. See appendix I for more information on our methodology.

Appendix IV: U.S. Army Corps of Engineers Interns, by Race and Ethnicity

**Figure 16: U.S. Army Corps of Engineers (Corps) Civilian Interns, by Race and Ethnicity, Fiscal Years 2010–2019**



**Accessible Data Table for Figure 16**

Fiscal Year	White	African American or Black	Asian	Multiracial	Hispanic or Latino	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
FY 2010	495	47	41	17	14	8	2
FY 2011	424	31	31	16	11	5	3
FY 2012	299	23	15	14	9	2	1
FY 2013	289	31	14	21	9	1	0
FY 2014	292	23	9	11	7	2	0
FY 2015	267	16	9	9	6	2	1
FY 2016	287	28	23	16	8	2	3
FY 2017	256	26	20	15	6	1	1
FY 2018	282	32	22	28	5	0	2
FY 2019	381	60	42	54	10	0	2

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**Appendix IV: U.S. Army Corps of Engineers  
Interns, by Race and Ethnicity**

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Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce, compared to the White category, from fiscal years 2010 through 2019.

## Appendix V: U.S. Army Corps of Engineers Resignations, by Race and Ethnicity

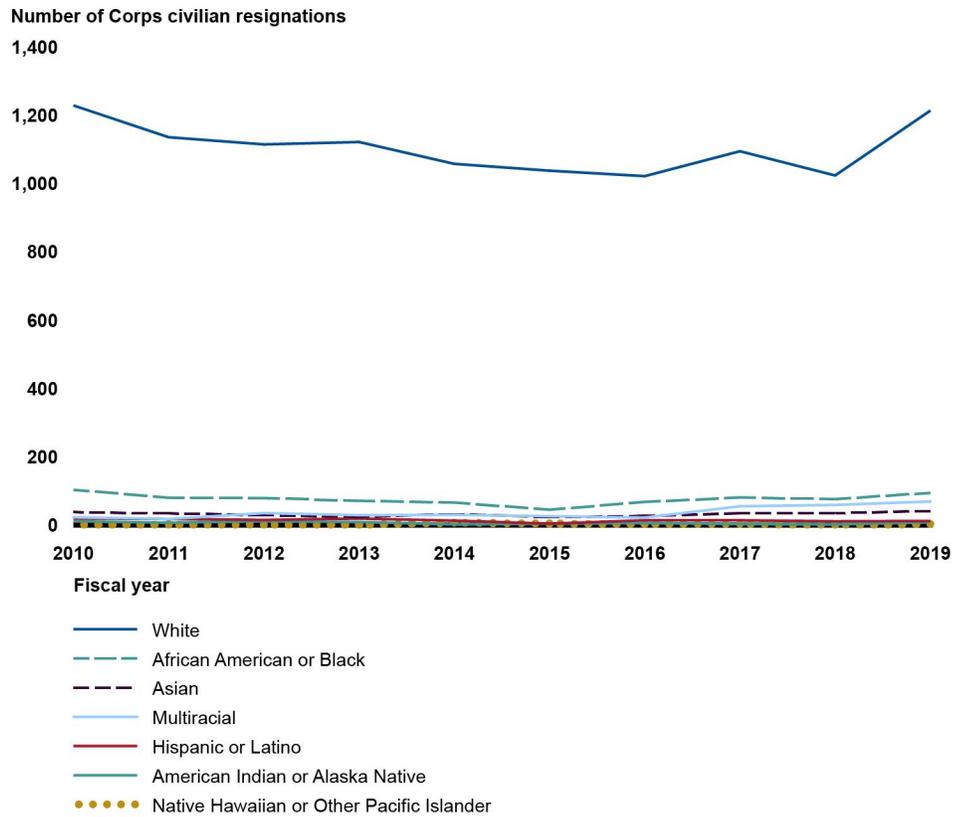
There were several changes in the number of resignations for all race and ethnicity categories from fiscal years 2010 to 2019 (see figure 17). For example, there was a small percentage decrease in the number of resignations by employees identifying as White from fiscal years 2010 to 2019—experiencing some fluctuations in the intervening years between fiscal years 2010 and 2019.<sup>1</sup> There was a small percentage increase in the number of resignations by employees identifying as Multiracial from fiscal years 2010 to 2019. There were small percentage decreases in the number of resignations by employees identifying as African American or Black and American Indian or Alaska Native from fiscal years 2010 to 2019. The percentage of employees resigning identifying as Asian, Hispanic or Latino, and Native Hawaiian or Other Pacific Islander remained largely unchanged in fiscal years 2010 to 2019.

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<sup>1</sup>We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. We consider a category unchanged if there was no percent change from fiscal years 2010 to 2019. See appendix I for more information on our methodology.

Appendix V: U.S. Army Corps of Engineers  
Resignations, by Race and Ethnicity

**Figure 17: U.S. Army Corps of Engineers (Corps) Civilian Resignations, by Race and Ethnicity, Fiscal Years 2010–2019**



**Accessible Data Table for Figure 17**

Fiscal Year	White	African American or Black	Multiracial	Asian	Hispanic or Latino	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
FY 2010	1229	103	23	38	19	11	1
FY 2011	1136	80	18	34	18	7	2
FY 2012	1115	79	35	29	15	11	1
FY 2013	1122	71	29	24	19	9	1
FY 2014	1058	66	30	32	13	2	7
FY 2015	1038	45	26	23	4	4	4
FY 2016	1022	68	22	27	14	6	3
FY 2017	1095	81	55	35	14	3	3
FY 2018	1024	76	59	35	11	2	1
FY 2019	1214	94	69	41	12	8	3

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**Appendix V: U.S. Army Corps of Engineers  
Resignations, by Race and Ethnicity**

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Note: The race and ethnicity categories of Hispanic or Latino, Multiracial, American Indian or Latino, and Native Hawaiian or Other Pacific Islander are grouped at the bottom of the figure because of their small numbers in the Corps workforce, compared to the White category, from fiscal years 2010 through 2019.

## Appendix VI: U.S. Army Corps of Engineers Retirements, by Race and Ethnicity

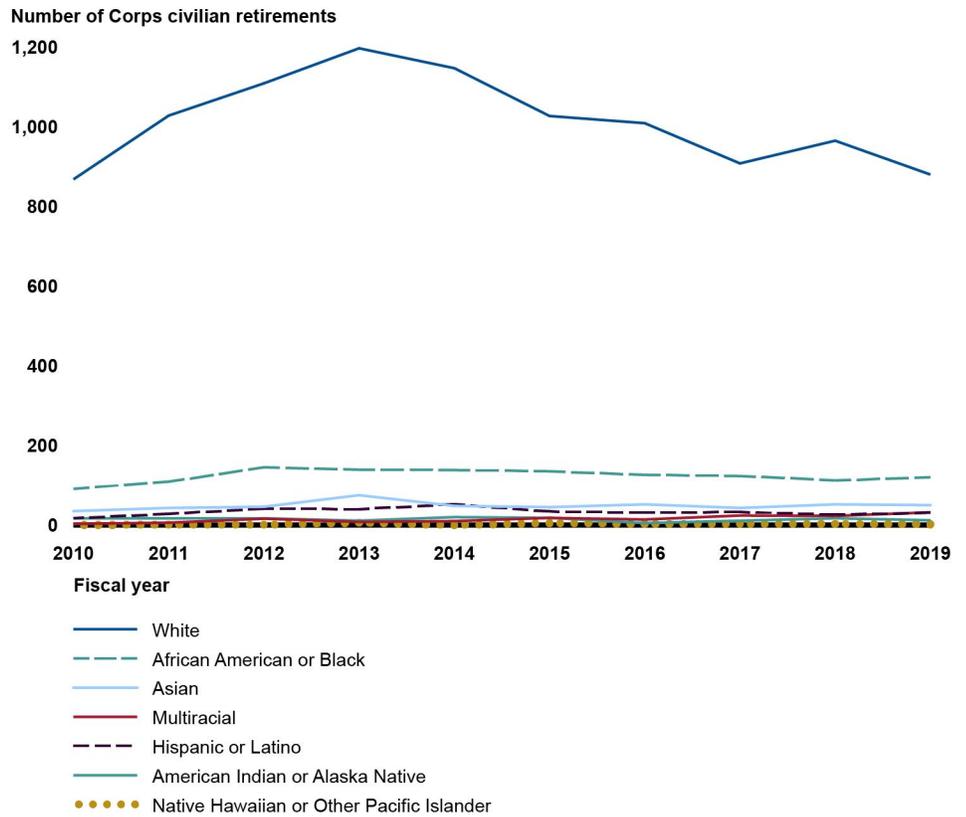
There were several changes to the number of retirements for all race and ethnicity categories from fiscal years 2010 to 2019 (see figure 18). For example, there was a small percentage increase in the number of retirements by employees identifying as American Indian or Alaska Native, while the percentage of retirements by employees identifying as White decreased moderately from fiscal years 2010 to 2019. There were small percentage increases in the number of retirements by employees identifying as African American or Black, Asian, Hispanic or Latino, and Multiracial, while the percentage of retirements by employees identifying as Hawaiian Native or Other Pacific Islander largely remained unchanged.<sup>1</sup>

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<sup>1</sup>We consider a moderate change to be an increase, decrease, or fluctuation of 5 percent to 20 percent difference between fiscal years 2010 and 2019. We consider a small change to be an increase, decrease, or fluctuation of less than 5 percent difference between fiscal years 2010 and 2019. See appendix I for more information on our methodology.

Appendix VI: U.S. Army Corps of Engineers  
Retirements, by Race and Ethnicity

**Figure 18: U.S. Army Corps of Engineers (Corps) Civilian Retirements, by Race and Ethnicity, Fiscal Years 2010–2019**



**Accessible Data Table for Figure 18**

Fiscal Year	White	African American or Black	Asian	Hispanic or Latino	Multiracial	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
FY 2010	868	91	35	17	3	17	0
FY 2011	1028	109	43	28	6	17	1
FY 2012	1109	145	46	41	16	17	1
FY 2013	1197	139	75	40	8	11	6
FY 2014	1147	138	48	52	10	20	0
FY 2015	1027	135	45	34	18	18	5
FY 2016	1009	126	52	31	14	5	3
FY 2017	908	123	43	33	24	11	3
FY 2018	965	112	52	26	23	17	3
FY 2019	880	120	50	31	32	12	2

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**Appendix VI: U.S. Army Corps of Engineers  
Retirements, by Race and Ethnicity**

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## Appendix VII: Comments from the Department of Defense



DEPARTMENT OF THE ARMY  
ASSISTANT SECRETARY OF THE ARMY  
MANPOWER AND RESERVE AFFAIRS  
111 ARMY PENTAGON  
WASHINGTON, DC 20310-0111

December 2, 2021

Mr. Cardell D. Johnson  
Acting Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, D.C. 20548

Dear Mr. Johnson:

This is the Department of the Army (Army) response to the GAO Draft Report: (GAO-22-104054), "U.S. ARMY CORPS OF ENGINEERS: Workforce Planning Follows Most Leading Practices, But Could Be Enhanced with Additional Actions."

Army appreciates the opportunity to review and comment on the subject draft report. Army concurs with the one recommendation made by GAO. The enclosed technical comments are submitted for your use in writing the final report.

The Secretariat point of contact is Ms. Maria Ciepiela, Assistant Deputy, Civilian Workforce Transformation, (703) 695-5155 or maria.l.ciepiela.civ@army.mil.

Sincerely,

FORE.TODD.AL Digitally signed by  
FORE.TODD.AL#1.1230985207  
AN.1230985207 Date: 2021.12.02 14:36:24 -0500

DR. TODD A. FORE  
Deputy Assistant Secretary of the Army  
(Civilian Personnel)

Enclosures

ENCLOSURE 1

GAO Draft Report Dated October 14, 2021  
GAO-21-104054 (GAO CODE 104054)

**“U.S. ARMY CORPS OF ENGINEERS: WORKFORCE PLANNING FOLLOWS MOST  
LEADING PRACTICES, BUT COULD BE ENHANCED WITH ADDITIONAL  
ACTIONS”**

**ARMY COMMENTS  
TO THE GAO RECOMMENDATION**

**RECOMMENDATION 1:** The GAO recommends that the Assistant Secretary of Army for Manpower & Reserve Affairs should ensure the Chief of Engineers and the Commanding General of the U.S. Army Corps of Engineers to finalize and distribute agency-wide, a strategic human capital plan that reflects the Corps' current human capital goals, initiatives, and associated performance targets.

**ARMY RESPONSE:** Concur.

The Assistant Secretary of the Army for Manpower & Reserve Affairs will ensure the U.S. Army Corps of Engineers (USACE) finalizes and distributes its USACE Human Capital Plan by 31 December 2021. The Assistant Secretary of the Army for Manpower & Reserve Affairs published an agency-wide, strategic human capital plan referred to as the “Civilian Implementation Plan to the Army People Strategy” in May 2020, and will ensure USACE has a copy of this plan prior to the publishing of this GAO report.

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## Agency Comment Letter

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### Text of Appendix VII: Comments from the Department of Defense

#### Page 1

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Sincerely,

DR. TODD A. FORE

Deputy Assistant Secretary of the Army (Civilian Personnel)

Enclosures

Page 2

**ENCLOSURE 1**

**GAO Draft Report Dated October 14, 2021 GAO-21-104054 (GAO CODE 104054)**

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## Appendix VIII: GAO Contact and Staff Acknowledgments

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### GAO Contact:

Cardell D. Johnson, (202) 512-3841 or [johnsoncd1@gao.gov](mailto:johnsoncd1@gao.gov)

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### Staff Acknowledgments:

In addition to the contact named above, Vondalee R. Hunt (Assistant Director), Brad C. Dobbins (Analyst in Charge), Luqman M. Abdullah, Mark A. Braza, Brenda S. Farrell, Gwendolyn A. Kirby, Steven G. Lozano, Sulayman Njie, Edward J. Rice, Dan C. Royer, and Jeanette M. Soares made key contributions to this report.

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