**Environmental Protection for the 21st Century:
Putting Equity at the Top of the Agenda**

The Environmental Workforce
of the Future Working Papers

September 2021

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THE AMERICAN UNIVERSITY CENTER FOR ENVIRONMENTAL POLICY

Located within American University's highly ranked School of Public Affairs in Washington, D.C., the Center for Environmental Policy draws upon the resources of both American University and the policy and political institutions in Washington, D.C., to bring varied perspectives, evidence, and solutions to bear on the most pressing environmental problems. The Center's mission is to improve environmental governance in the United States—that is, the institutions and means by which decisions are made that protect the environment and natural resources and enhance their relationships to the nation's economic health and social well-being. This report was prepared under a project supported by the New York Community Trust to provide a focus on building the environmental workforce of the future. The project, Environmental Protection for the 21st Century, Putting Equity at the Top of the Agenda, is an extension of CEP's "futures" initiative, which launched in April 2019 with a two-day conference that culminated with the report: ***Moving Forward: Future Directions for EPA and Environmental Protection*** (December 2019).

Introduction

Societal change on an unprecedented level is needed to meet the environmental protection challenges of the future, including climate change. Such change will require the cooperative efforts of many entities that reach well beyond our current legal and regulatory schemes and involve efforts outside of government, including industry, non-governmental organizations, and the public. It will also create new jobs and opportunities.[1] Government's role in guiding and leading this transformation will depend on its ability to recruit, train, and retain a diverse and capable workforce.

What can government do to attract and retain such a workforce? To answer this question, we formed a workgroup comprised of former and current federal officials, NGO representatives, academic experts, and others to guide our research and the development of recommendations. The workgroup adopted this charge statement to guide the inquiry:

> *Recommend strategies for building a more diverse and effective workforce to address a new generation of environmental problems, meet the technical and leadership challenges of the future, and move toward fairer and more equitable environmental protection.*

Following the guidance of the workgroup, the project team conducted over 15 interviews with experts and reviewed numerous reports and studies to identify opportunities for developing pathways for skilled workers and best practices for improving diversity in the ranks of federal institutions. Throughout the project, diversity was a special emphasis to ensure that the future workforce reflects the nation's diversity and a competitive public sector attracts the most highly skilled employees.

Following this initial research, the project team identified four areas that held promise for recommendations and developed working papers for each:

1. Pathways for Underrepresented Groups
2. Diversity and Inclusion in Hiring
3. Retention and Belonging in Government
4. Environmental Education

The working papers compiled in this report are an interim product and will be used by the workgroup and project team to develop a complete set of recommendations and guide future work under the project.

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[1] Moving Forward, Future Directions for EPA and Environmental Protection, American University Center for Environmental Policy, December 2019

Working Paper 1: Pathways for Underrepresented Groups

Pathways for underrepresented groups are sporadic, under-utilized, and insufficiently resourced. While programs exist that build interest in environmental careers and communicate about the opportunities, there remain lost opportunities, largely at the agency level, to bring diverse young people into environmental careers in government. This paper offers recommendations based on expert interviews and models of successful hiring programs implemented in federal and state agencies that should be considered for replication more widely.

Solutions Are Not Always Top Down

Some of the most successful approaches for partnering have been small-scale and localized. For example, EPA Regions 4 and 9 have been leaders in engaging underrepresented communities in programs for environmental education and career pathways. Region 4 implemented a program in partnership with minority-serving colleges and universities that has shown results. Going forward, EPA branches may be more empowered to pursue localized programs and partnerships. The lesson is that solutions do not always have to come from the top down.

Build Trust and Work with Existing Institutions

When working to build connections between the various levels of government and underserved populations, there is often a level of mistrust to overcome. By working with existing institutions, civic organizations, Historically Black Colleges and Universities (HBCU), and other Minority-Serving Institutions (MSIs), agencies may create trusted community contacts. Agencies may use staff with connections to schools to help with outreach by sharing their story to add credibility and a human face to organizations that often feel impersonal. The interviewees supported genuine connection and partnership but warned against half-hearted cooperation that did not come with the resources needed to create real opportunities. Interviewees also warned against merely "helicoptering in" without establishing relationships or committing to results.

Focus on Skills Development

Many people interviewed stressed the need for pathways not just to engage individuals in environmental careers but also to develop an interdisciplinary skillset focused on soft skills. These skills include empathetic, effective communication and working at the community level, which is vital to environmental work. Program participants will need support to develop skills that allow them to be successful team members in non-hierarchical organizations that empower the individual employee. The future success of agencies will depend on their ability to address environmental issues holistically in a de-siloed manner. Pathways programs should aim to

develop an understanding of environmental, social, and equity concepts as well as an ability to communicate this information clearly.

Give Attention to Working Outside of Traditional, Four-Year Pathways

Multiple interview participants identified a gap in pathways programs for individuals not attending four-year degree programs. Currently, the federal Pathways Program is geared toward recent graduates or current students, and it does little to target the technical/vocational skill sets that will be essential in the environmental workforce of the future. Serious examination of how best to create avenues for diverse groups— such as fossil-fuel workers in rural communities— to enter the green workforce in technical and trade capacities.

Create a Pathway to Long-Term Careers

Currently, it seems that agency hiring strategies are more budget-oriented than need-responsive. Instead, agencies need to commit to pathways programs and partnerships; they should identify a staff point-of-contact with time to devote to the program and provide resources to ensure success.

Resources are a part of this commitment. Unpaid internships and opportunities outside of strictly academic settings undermine diversity goals because people from low-income groups cannot participate. Any program that hopes to attract diverse participants should have resources to support the participants, either through a stipend covering living expenses or reasonable wages.

Moreover, the most effective pathways/partnerships programs also provide a direct path to work as an agency employee upon completion. Direct hiring paths seems to be the exception rather than the rule, but they entail obvious advantages. As young people are shepherded through a program where they gain the skills necessary to be an entry-level employee, the natural progression would be to offer a full-time position at the culmination of the experience or a preferential hiring status. Agencies would then be able to staff entry-level positions with vetted individuals who come to the role with an understanding of the work and appreciation for agency operations. Establishing an identifiable career path from there will help tremendously with retention.

The Partnership for Public Service has identified several programs that have gone above and beyond in recruitment tactics, including the Veterans Administration (VA), Department of Interior (DOI), Immigration and Customs Enforcement (ICE), and the General Services Agency (GSA). Data mining on social media is a tactic that digs into existing networks to find diverse candidates, a practice used by the Central Intelligence Agency (CIA).

Pre-college planning recruitment is an additional strategy that needs to be implemented. While many young people change career goals and ambitions in college, many still decide their careers prior to college and stick with them. It is harder to recruit after someone has made up their mind. The U.S. Military does this successfully, so other governmental entities could consider this model to hire diverse employees.

Create Outreach Based in Community Institutions

Through partnerships with existing institutions (like HBCUs and other MSIs, civic organizations, and clubs), agencies can lower barriers to the recruitment of underrepresented populations. A major impediment to diversifying the workforce of the future can be addressed by meeting people where they are, not just in terms of location but also in terms of communication styles and trusted information channels.

Empower Programs and Participants with Tangible Resources

For too long, recruitment, diversity hiring, and strategic workforce planning have been neglected and under-resourced in many organizations. To be effective, substantial resources, including dedicated staff, strategy, and budget, must be committed. Many early engagement programs lack staff who have the time to nurture participants, resolve workplace issues, or provide adequate direction to participants while on assignment.

Provide Real Opportunities, Clearly

A mistake often made in pathways programs is that participants simply are let go when they finish their assignment, without a clear path to longer-term employment. Instead, programs should include an effort to place proven candidates in full-time jobs within the agency. Doing this requires an examination of hiring authorities and processes.

Build in Opportunities for Consistent Care and Mentorship

A final finding is the importance of providing care and guidance for participants both during and after completion of their program. An effective program will have the resources to pair participants with staff members who have time available to be a resource as the participant progresses through the agency. These relationships should continue to be fostered after entering full-time employment to create a sense of belonging and add a human face to the experience. Empathy and understanding will go a long way in enabling career growth and retention and should begin early in the employee experience, even during pre-employment pathway programming.

Existing Programs and Partnerships

College Underserved/Community Partnership Program (CUPP), EPA Region 4: EPA Region 4 created the College/Underserved Community Partnership Program (CUPP) in 2011 to provide a creative approach to partnering and delivering technical assistance to underserved communities. The program seeks to build capacity, offer technical support based on community-identified needs, and provide practical, problem-solving experiences for college and university students in their areas of study. This CUPP is a partnership between EPA Region 4 offices in Atlanta and local HBCUs and other MSIs. This partnership provides the EPA an opportunity for community outreach/engagement and partnerships with local colleges/schools. Students gain practical experience and generally receive academic credit for their efforts. CUPP has facilitated over 120 partnership projects with more than 70 communities and academic institutions. As of January 2021, the value of services provided to underserved communities is over $45,000,000. There is no direct hiring path from CUPP, but community members gain exposure to environmental career paths, and students gain valuable experience in the science behind EPA's work, as well as outreach, planning, stakeholder engagement, and communication skills essential to working in the communities affected by pollution.

Sea Grant University Partnerships (NOAA): Established by an act of Congress in 1966, the National Sea Grant program works through a network of 34 university-based programs across the United States to make scientific research and resources available to citizens of coastal communities to manage their resources better. The Sea Grant Program supports fellowships, university-based research, extension, education, and communication. The Sea Grant Program works through partnerships between the National Oceanic and Atmospheric Administration and universities in every coastal and Great Lakes state, Puerto Rico, and Guam. Beyond university students and through a wide variety of experiential learning programs, Sea Grant reached over 800,000 K-12 students in 2019. These students are engaged either directly in Sea Grant education programs or benefit from Sea Grant-trained educators across the United States.

For college-aged adults, the program supports research and educators who train the next generation of coastal professionals in a range of topics, from conservation and coastal resource management to marine biology. Grants, the network of Sea Grant colleges and universities, regional programs, and federal initiatives support these programs monetarily. Sea Grant Universities offer fellowship opportunities that engage undergraduate, graduate, and doctoral students. Many state-specific fellowships exist, but notably, the Knauss Marine Policy Fellowship offers paid one-year positions in the legislative and executive branches of the federal government.

Sea Grant is supported by a strategic plan with the goal of ensuring that a "diverse and skilled workforce is engaged and enabled to address critical local, regional, and national needs." This

strategic goal also adds special emphasis to increasing the engagement of underrepresented groups in Sea Grant programs, specifically through fellowship recruitment and research opportunities.

Minnesota and Iowa Conservation Corps: Increasing Diversity in Environmental Careers (IDEC). The Minnesota and Iowa Conservation Corps was created in 1981, long after federal support for the Civilian Conservation Corps ended in the 1930s. The Minnesota state legislature established this iteration of the Civilian Conservation Corps with a mission to "engage youth and young adults in meaningful service, leadership development, and environmental stewardship."

The Minnesota and Iowa Conservation Corps is a member of a network of Civilian Conservation Corps organizations still in operation. It has two primary areas of focus: (1) Work with AmeriCorps Volunteers ages 18-25 through field crews and individual placements with nonprofits, and (2) Work with youth ages 15-18 through Summer Youth Corps fieldwork in environmentalism and conservation and through the Youth Outdoors program, which works with teens on environmental education in St. Paul, Minnesota.

Of particular interest to this project is the Corps' Increasing Diversity in Environmental Careers (IDEC) Program, which provides educational and professional opportunities and resources to young adults interested in environmental careers. This program primarily targets individuals who are underrepresented STEM college students — specifically, women, racial and ethnic minorities, or individuals with disabilities — and want to pursue a career in environmental and natural resources fields. The program engages participants in three ways:

1. A fellowship that offers academic scholarships, professional resources, advising, and cohort connections with other IDEC students.

2. A mentorship where fellows connect with professionals at partnering agencies in Minnesota. These mentors share their experiences and offer support.

3. Summer internships, where fellows gain job experience. In the first summer, fellows work on a rotation; in the second and third summers, they are placed as interns with one of several state agencies: Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, or Board of Water and Soil Resources.

Preliminary Findings:

1. EPA Regions 4 and 9 have shown success with local programs that have worked with minority-serving colleges and universities through career pathways. Top-down leadership is not always necessary to make more immediate changes.

2. Many people interviewed stressed the need for pathways to not just engage individuals in environmental careers but also develop an interdisciplinary skillset with a focus on soft skills. These skills include empathetic, effective communication and working at the community level, which is becoming vital to environmental work.

3. Currently, the federal Pathways Program is geared toward recent graduates or current students, and it does little to target the technical/vocational skill sets that will be essential in the environmental workforce of the future.

4. Upon completion, the most effective pathways/partnerships programs also provide a direct path to work as an agency employee. However, pathways programs often mistakenly let participants go when they finish their assignment, without a clear path to longer-term employment.

Recommendations for Pathways:

1. Data mining on social media is a tactic that digs deeper into existing networks to find a more diverse group of candidates. The CIA, in particular, has used this strategy in its work with HBCUs, and it could be useful to other organizations.

2. Implementing pre-college planning recruitment. The United States Military already does this successfully, so pre-college recruitment is an easy model to replicate to ensure the rest of the government hires a diverse group of employees.

3. Pathway programs should include an effort to place proven candidates in full-time jobs within the agency.

4. Replicating programs like CUPP, Sea Grant University Partnerships, and IDEC to other federal agencies.

Working Paper 2: Diversity and Inclusion in Hiring

To meet the environmental challenges of tomorrow, federal agencies need to attract, hire and retain a skilled workforce that looks like America. The lack of workforce planning and complications of the hiring process place barriers to diversifying the federal workforce. Federal hiring is typically non-strategic, complicated, slow, and often discouraging for people hoping to pursue a government career. Originally designed to remove political considerations from hiring decisions and assure fairness, the process has evolved in ways that create barriers to hiring underrepresented groups with the needed cross-disciplinary skills and training.

Barriers to Diversity and Inclusion in Federal Hiring

Lack of Strategic Foresight and Planning: Federal agencies lack strategic foresight in developing and operationalizing workforce plans. One interviewee described the current state of federal workforce planning as "non-existent." To the extent agencies invest in workforce planning, efforts are not well connected to recruitment and hiring and developing a skilled, diverse workforce capable of meeting future challenges. With the involvement of line program experts, effective planning can help prioritize hiring, guide recruitment, and influence job descriptions to better reflect anticipated mission challenges and justify the expanded use of hiring flexibilities under existing OPM regulations.

Strategic Workforce Planning is Given Low Priority: The Government Accountability Office (GAO) reported to Congress in March 2020 that Strategic Workforce Management is one of five "high risk" areas in which the federal government has regressed since 2019. According to the GAO:

> *"Mission-critical skills gaps both within federal agencies and across the federal workforce impede from effectively serving the public and achieving results. Skills gaps caused by insufficient government number of staff, inadequate workforce planning, and a lack of training in critical skills are contributing to our designating 22 of the 35 other areas as high risk."*

To the extent that agencies conduct workforce planning, the resulting strategies are rarely a major consideration in hiring. In many cases, the process is more of a paperwork exercise that compiles numbers of requested hires by agency components. These plans have limited connections to the budget process, which typically allocates positions based on non-strategic considerations such as prior year baseline FTE ceilings, immediate deadlines, external pressures, and the priorities of political leadership, with little consideration of anticipated long-term changes in the agency's work.

These planning exercises are usually conducted by administrative units of the agency and do not adequately engage line program managers who, with appropriate guidance, are well positioned to identify skills needed for future challenges. Even when strategic plans are developed, they may not drive hiring. Hiring typically proceeds in agency components with available funding that have vacancies without considering the agency's strategic needs.

Hiring Priorities Lack Strategic Direction: When the annual budget process allocates funding, managers seeking to fill positions typically drive the bulk of agency hiring. With available funds, hiring managers look to address their immediate hiring needs. This "backfill" approach allows managers to maintain continuity on existing projects and meet annual targets, and it is the least administratively complex option for hiring. Backfilling avoids the delay and workload associated with classifying a new position, which can be a months-long process. Consequently, position descriptions are rarely overhauled, often archaic and dated, and more likely to reflect past work than future needs and challenges.

The Hiring Process is Broken: Many aspects of hiring are grounded in good intentions for fulfilling Merit System principles that trace back to the Pendleton Civil Service Act of 1883. Yet, despite many changes and updates in recent decades, the system still presents obstacles for hiring officials and barriers to strategic and diverse hiring. Merit System principles are found at 5 U.S.C. § 2301 and include:

- Recruitment to "achieve a workforce from all segments of society."
- Fair and equitable treatment without regard to political affiliation, race, color, religion, national origin, sex, marital status, age, or handicapping condition.
- Equal pay for work of equal value.
- Standards of integrity, conduct, and concern for the public interest.
- Efficient use of the federal workforce.
- Retention based on performance.
- Prohibitions on using public office to interfere in elections.
- Employee protections from arbitrary actions, political influence, or reprisals for lawful disclosure of violations of law, waste of funds, or abuse of authority.

The system has served many of these principles reasonably well by some accounts, notably in insulating hiring decisions from political influence and protecting civil servants from reprisal for official actions. On the other hand, it has not encouraged active recruitment from all segments of society, and the hiring process itself has created unintended barriers. For example, the laudable goal of objectivity in hiring has evolved into a data-intensive process that tends to favor those already in government or with experience that resembles government work. Combined with generally poor and non-targeted recruitment, the professional ranks in government are less diverse than society as a whole. According to the Partnership for Public Service, people of color

make up 31% of the professional federal workforce and only 22% of senior executive jobs, while representing 40% of the US population.

The Screening for "Best Qualified" Candidates is Too Complex: Candidates must provide considerable documentation to compete for placement on a narrow list of "best qualified" candidates for a particular job. Most private-sector jobs require only a resume, providing flexibility in how candidates present themselves. The formulaic process used by USAJobs fails to facilitate consideration of transferable skills, perspectives, and experiences that are not anticipated or easily characterized. Furthermore, the "Best Qualified (BQ) list" is determined by staff not making the hiring decision. Managers look for different types of people, placing more or less emphasis on different employee skills.

The flexibility to consider a broad range of applicants is diluted through competition with candidates who can "check the box" for qualifications written under a static model of the "best qualified." Capable candidates who bring diverse perspectives may not fare as well as those following a more traditional path to government employment. A common complaint among hiring managers who wish to pursue diversity is the limited nature of the BQ list and the inability to look across a broad range of resumes. The rules governing the development of the BQ list are designed to promote objectivity and eliminate bias but inadvertently create a bias of their own.

HR Specialists are Often Inadequately Trained: Several interviewees commented on the level of proficiency of HR specialists. The concern extends to most facets of hiring, from recruitment (discussed above) to position classification, communication, customer service, and technical competency. Formal training often is inadequate. In our interviews, we learned of many examples of poor and inconsistent advice among different HR staff (or teams) or adherence to past practices that may be unnecessary or counter-productive (because "that's the way it's always been done"). The concerns and interests of hiring managers may be secondary to process requirements, and hiring managers have little opportunity to provide feedback or suggest improvements. Candidates for federal jobs that we interviewed were frustrated by an application process that seems to require proof of ability to do the job, thus favoring current employees. Despite the complexity of the hiring process, well-trained HR specialists can help minimize barriers, ease navigation through the process, and help managers find solutions.

Dated and Cumbersome Technology Tools Hinder Efficiency: Tools for automating hiring often extend the life of unneeded processes. Automation may ease the workload for HR organizations but not for hiring managers. One example is the use of generic questions that are copied from one job to the next. Sometimes hiring managers are allowed to provide input on questions but they typically are taken from pre-approved lists. Automation has made it more

difficult for hiring managers to stay involved, and the process creates a barrier between the hiring manager and HR staff.

OPM's "Category" Ratings System May Exclude Qualified Candidates: OPM's relatively new "category" rating process can produce a list of "Best Qualified" candidates that fails to include the most highly qualified. According to Jeffrey Neal, publisher of *ChiefHRO*, the "category" system replaced the "rule of 3" that limited managers to considering the three highest-rated applicants. Unfortunately, the category rating often produces lists of lower qualified applicants because HR specialists may not necessarily review the data provided by applicants at the start of the process. While the later steps of the process may weed out candidates with unverified data, strong candidates might be bumped by others at the very start. The category system can also produce referral lists that make it nearly impossible to select non-veterans for positions, even if such candidates have extraordinarily strong scores.

Another problem is the application form itself. For example, if twenty questions are asked, but only five are critically important, a candidate could receive a low overall score even with perfect scores on the critical questions.

USAJobs Announcements Use Exclusionary Language: Many federal job postings are written in the language of bureaucracy and in a manner that discourages qualified candidates with non-traditional experience. For example, an EPA announcement listed the following qualifications for a position in financial administration:

> *"Qualifications: You do not need a degree to qualify for this position. We are looking for at least one year of specialized experience related to this position as described below: To qualify for the GS-09 level, you need to have at least one year of full-time experience equivalent to the GS-07 level defined as providing assistance and support in analyzing financial transactions for financial issues using accounting principles, concepts, and/or theories; communicating with various internal/external customers regarding budget or financial items; and preparing financial reports.*
>
> *- OR master's or equivalent graduate degree; or 2 full years of progressively higher level graduate education leading to such a degree; or LL.B. or J.D., if related; degree in an academic discipline related to this position*
>
> *- OR an equivalent combination of education and experience."*

This is an entry-level position for which a college degree is expressly *not* required, yet the qualifications are biased toward candidates with considerable government experience or an advanced degree. The term "experience equivalent to the GS-07 level defined as …" is difficult

to decipher. Even though a college degree is not required, the alternative to the requisite experience, a master's degree, may discourage applicants. Candidates working outside of government, such as in the nonprofit sector, may have transferable skills or could quickly learn the job but may be discouraged from applying. In this case, the announcement states that non-government experience will be credited. However, it is not clear whether or how non-government experience would satisfy the explicit qualifications. Requirements that undervalue non-traditional experience can hinder efforts to improve workforce diversity.

Delays in Hiring and Geographic Limitations Discourage Diversity: Through our interviews, we learned that hiring delays create a barrier to attracting diverse candidates. Candidates lacking financial security need income, often to repay college loans or to relocate. Applicants with college loans cannot wait months before receiving a paycheck. Because the government is competing with other employers, hiring delays make it difficult to attract candidates who cannot afford to wait months to receive a job offer. Organizations that can move quickly from application to interview and onboarding enjoy a significant advantage in hiring diverse candidates over agencies that do not move quickly.

Geographical limitations also limit diversity. In the example above, the posting states that "If selected, you must report to the location stated in this announcement." This has two implications for diversity. First, the applicant pool already living nearby may not be as diverse as the nation as a whole. Second, distance and relocation costs have a pre-screening effect for lower-income people that do not live nearby and for whom travel and relocation are cost-prohibitive. Although such requirements apply to all candidates, they disproportionately affect those from low-income backgrounds.

Opportunities for Improving Federal Hiring to Promote Diversity

Building a diverse and talented workforce to meet future challenges will require a sustained effort. A durable approach requires investments in workforce planning that actively engage line program managers and perhaps Congressional action. Still, steps can be taken now under current authorities.

Increase the Use of Existing Alternative Hiring Authorities: Direct hiring authority (DHA) can expand opportunities for diversity. It already exists but has been used primarily for filling positions meeting a test of "critical hiring need" as defined by OPM or for which a severe shortage of candidates exists. OPM defines critical hiring needs as:

> *"Critical hiring need for a particular position or group of positions means that an agency has a need to fill the position(s) to meet mission requirements brought about by circumstances such as, but not limited to, a national emergency, threat, potential threat,*

environmental disaster, or unanticipated or unusual event or mission requirement, or to conform to the requirements of law, a Presidential directive or Administration initiative."

OPM states that DHA enables an agency to hire, after public notice, any qualified applicant without regard to 5 U.S.C. 3309-3318, 5 CFR part 211, or 5 CFR part 337, subpart A. Specifically, that means that agencies do not have to conduct formal rating and ranking of applicants or apply veterans' preference. Nonetheless, agencies must still define the qualifications for positions, post openings on the OPM USAJobs platform (which fulfills the "public notice" requirement), and comply with requirements to consider current and former federal employees.

Direct hiring can be granted under an OPM determination that a critical need exists or in response to an agency request. Agency requests must (1) identify the position(s) to be filled; (2) describe the event or circumstance that created the need to fill the position(s); (3) specify the duration for which the critical need is expected to exist; and (4) include supporting evidence that demonstrates why the use of other hiring authorities is impracticable or ineffective.

One advantage of expanded DHA is that it accelerates a trend already underway. According to a February 2021 report by the Merit Systems Protection Board (MSPB), Direct Hire Authority was used for almost 30% of competitive service hires (30,000 positions) in FY 2018, an increase of 460% from a decade prior. While diversity is not an explicit objective of Direct Hire Authority, recent DHS experience suggests it has potential. MSPB's found that DHA resulted in a substantial increase in hiring women (which may be a function of the types of jobs for which DHA was used). In some occupations, nonwhite applicants fared significantly better. Customs agents of Hispanic origin were selected at nearly twice the rate when using DHA compared to standard competitive procedures, suggesting that fluency in Spanish was an important job element for some positions and would not have been as easily included as a qualification through regular hiring procedures.

Interviewees for this project suggested that the authority provides hiring managers with a broader array of candidates and considerably shortens and simplifies hiring, all of which can help remove barriers for diverse candidates. Used with other efforts, it can create opportunities. It allows agencies to identify specific jobs with anticipated hiring dates while conducting recruitment and community outreach activities. A shortened timeline from application to onboarding helps attract applicants who cannot afford a long waiting period.

While DHA is currently available, it will take flexibility in interpreting OPM's current "critical hiring" need definition or a separate rule to relax these standards. However, the definition includes potential threats, environmental disasters, unanticipated or unusual events, mission requirements, or conforming to the legal requirements, a presidential directive, or an

administration initiative. Insofar as EPA and other environmental agencies take on new roles related to climate change, they could develop a twofold rationale for DHA. First, climate change is an environmental emergency. Second, by Presidential directive, EPA and potentially other agencies may acquire new mission requirements (compliance with the Paris Agreement, for example), which alone meets OPM's "critical hiring" definition.

Dedicated Resources to In-Person Recruiting: To properly invest in a community, resources must be dedicated over several years to build trust and see results. On-the-ground recruiters should be dedicated to local HBCUs, other universities with large minority populations, and areas of study relevant to the agency's work. Efforts could look similar to military recruitment, which has traditionally been highly effective at reaching young people, but while retooling it to increase diversity for the cause of environmental work. Job opportunities should be readily available to discuss with everyone the recruiter interacts with, and recruiters should serve as a point of contact readily available to help them through any part of the hiring process.

Expand Use of the Federal Pathways Program: Another authority to expand is the federal Pathways Program. This allows agencies to hire students and recent graduates for noncompetitive positions and paid internships under three avenues: the Internship Program, the Recent Graduates Program, and the Presidential Management Fellows Program.

- **Recent Graduates Program:** This provides developmental opportunities for individuals who have graduated not more than two years before applying to the program.

- **Internship Program:** The federal internship program replaces the Student Temporary Employment and Student Career Experience Programs. Students must be enrolled in an accredited high school, college, community college, or other qualifying educational institution and pursuing a qualifying degree or certification. Students can be hired for up to one year, and positions must be posted at USAJobs.

- **Presidential Management Fellows Program:** This is a two-year, entry-level developmental program for high-potential candidates with advanced degrees. OPM selects finalists through a rigorous assessment process.

Upon completion of Pathways, participants are eligible for permanent career positions. A challenge for agencies interested in Pathways hiring is designing **a comprehensive strategic workforce development plan** to justify expanded use of Pathways and benchmark progress. OPM's guidance states that Pathways hires should be limited; they supplement, not substitute, competitive hiring, but guidance is vague on what this means. While OPM currently places no caps on Pathway hires, OPM may impose caps on agency programs after periodic reviews. Every two years, agencies must renew their Pathways "Memorandum of Understanding" with OPM.

Two issues guide whether OPM imposes hiring caps: agency "engagement in sound workforce planning" and compliance with the MOU.

Another way to optimize Pathways hiring is training. Managers naturally see Pathways as a quick way to hire high-quality and low-cost employees to meet heavy workloads. However, that view limits the utility of Pathways for strategically developing a skilled, diverse workforce capable of meeting future challenges. Agencies need to place greater emphasis on the program's commitment to training and development. Participants enter into a written agreement that defines duties, work schedule, mentorship opportunities, and criteria for successful completion. The program is structured to provide training and development experience spelled out in Individual Development Plans.

Expansion of Pathways can be done by creating a training fund, as well. Costs for participants compete with regular training needs. This can discourage managers from using Pathways. Having an agency-level dedicated fund creates an incentive for hiring managers to pursue Pathway hires.

Use Remote Work Authority During the First Months of Employment: Most agencies have authority for remote work, but policies often limit eligibility to those with a certain level of experience. One option is to create flexibility for new hires to work remotely before reporting on site. There are advantages to bringing employees physically into the workplace. However, a short period of remote work while an employee begins to earn a salary would help underrepresented groups compete for jobs by delaying moving and upfront rental expenses.

Adopt Inclusive Job Qualifications and Inclusive Language for Job Postings: Agencies have the flexibility to develop job qualifications, and they can work with OPM for more inclusive language, particularly for entry-level positions. Adopting inclusive language and qualifications is not a high hurdle and can be achieved by working with HR specialists to improve qualifications language and make postings more inclusive.

Administratively Determined Positions: Expanded use of existing authorities gives agencies near-term opportunities to diversify and meet future challenges. However, long-term solutions may require changes in hiring authorities. Changes in law are relatively minor or build upon existing authorities, but legal changes are limited or specific to agencies.

An example of agency-specific hiring authority is EPA's "Administratively Determined" positions under the Safe Drinking Water Act, which allow the Administrator to fill no more than thirty scientific, engineering, professional, legal, and administrative positions without regard to civil service laws. The agency refers to these as "AD positions." Generally, agencies use these

positions for senior-level work directly related to each administration's political priorities, with AD positions centrally managed by the Administrator's Office.

Because of the limited number of AD positions authorized under the law, ADs have not been a major consideration in strategic workforce management. However, an expansion of ADs could be justified if Congress tasks the EPA with new or expanded mission requirements. While the open-ended nature of the authority may give Congress pause, relatively small changes in the authority (mirroring DHA) could increase capacity under the authority and assure transparency and accountability, thereby giving the agency another hiring tool to meet extraordinary challenges such as the implementation of climate change policies.

Extend Public Land Corps Authority for Environmental Agencies: Land management agencies within the Agriculture, Interior, and Commerce departments have used DHA to convert "resource assistants" into permanent positions in government. Under this authority, agencies provide the opportunity for people between the ages of 16 and 30 to work on conservation projects on public lands. After 640 hours of work, participants are eligible for noncompetitive hiring status. The program is administered with third-party organizations that specialize in recruiting qualified, diverse candidates.

Expansion of the program to the EPA and other environmental agencies would require Congress to amend the Public Land Corps Act of 1993 (16 U.S.C. Chapter 37, Subchapter II: Public Lands Corps). This program is well established with demonstrable benefits — including the advancement of diversity goals — and any expansion to additional agencies would likely be relatively straightforward to administer and implement.

Key Takeaways for Diversity and Inclusion in Hiring:

1. Workforce planning is critically important. It can guide hiring and recruitment and unlock government-wide pathways such as the Federal Career Pathways Program and Direct Hire Authority.

2. The use of standard competitive hiring can be improved, even without formal workforce planning. HR staff is usually unequipped to meet the hiring needs of departments.

3. Remote onboarding and short-term remote working arrangements have allowed new employees to begin earning a paycheck before incurring relocation costs.

4. Expanding the lands corps authority to other agencies would increase opportunities for hiring a more diverse workforce.

Recommendations for Diversity and Inclusion in Hiring:

1. Create vacancy announcements to encourage non-traditional pathways to public service instead of placing a premium on government experience. In addition, questions used to develop the "Best Qualified" list should be limited to a smaller set of critical, carefully written questions.

2. Timelines from interview to hire should be compressed. One promising reform is expedited security reviews for entry-level employees or conditional hiring during the review process, with conversion to permanent employment upon completion of the security review.

3. Dedicate on the ground recruiters to HBCUs and other universities. Efforts would look similar to military recruitment, which has traditionally been highly effective at reaching young people, but with a focus on increasing diversity among environmental workers.

4. Agencies should set aside funding to cover travel costs for entry-level interviewees. As part of a strategy to improve diversity hiring, this would remove a barrier for candidates who cannot afford to travel and create an incentive for managers to consider non-local candidates.

Working Paper 3: Retention and Belonging in Government

Diversity, equity, and inclusion (DEI) are words used to describe an ideal type of workforce: one that is welcoming of diversity and designed to be equitable and inclusive. While other issue papers in this series delve into the problems faced by the federal government when recruiting and hiring new talent, this paper focuses on what happens after the hiring process. Efforts to retain a diverse workforce should match programs to attract a more diverse group of employees.

Some candidates, particularly minority candidates, face barriers to entering civil service. The current system misses an opportunity to increase the diversity of experiences that shape the way government works, reducing its ability to solve problems creatively and therefore hindering environmental protection.

Inability to provide opportunities for career growth paired with little effort to make employees feel they belong to an organization drives talent away from government work. New and potential hires need to perceive opportunities to move up within an organization, learn or expand their skills, feel they have a place in the organization, and be represented by leadership.

Barriers to Retaining Staff

The barriers to retaining people from different backgrounds are extensive. Onboarding issues, unwelcoming work cultures, unclear career advancement paths, and little diversity in leadership positions contribute to systemic barriers to retaining talented individuals in government work.

Onboarding Experience for New Hires Lacks Intentionality: Successful job applicants face long wait times before starting their jobs. From navigating USAJobs.com to interviewing, accepting an offer, receiving any necessary security clearances, and onboarding, the application process can take anywhere from 3-9 months. By then, candidates may have secured a position elsewhere. If an agency does not design its onboarding process with employee longevity and wellbeing in mind, it risks leaving new talent unprepared. Lack of guidance from coworkers leads to new hires feeling unable to reach out for help and access all available resources.

Work Cultures are Uninviting of Diversity: A premise of this push for diversity is that government agencies should reflect the communities they serve and create a working environment that reflects the experiences of individuals within those communities.

Inclusion within agencies is very important for employee satisfaction and retention. Young people want to feel welcome; this should be approached holistically to include onboarding and retention in concert with social justice, diversity, and inclusion.

Many organizations and private companies cultivate belonging by creating space and time to talk about culture in the workplace; Peace Corps' employee resource groups regularly meet and are tailored for all identities and backgrounds. For example, after a shooting in Atlanta that killed six Asian women, an Asian Pacific American employee resource group met to discuss their experiences and share their fears for themselves and their family members. This took place over Zoom and helped build a community of support and understanding at Peace Corps, which other agencies can replicate with proper diversity training and few resources.

The Peace Corps established Employee Resource Groups (ERG) in 2014 to support employees from underrepresented communities, provide a direct line of communication between underrepresented employees and agency leadership, and assist the agency in advancing intercultural competence, diversity, and inclusion (ICD&I) goals. The Peace Corps currently sponsors eight ERGs:

- AVID Corps — Awareness of Visible and Invisible Disabilities
- HALO — Hispanic Association for Leadership and Opportunity
- Lotus Corps — Asian Pacific American
- Peace of Mindfulness
- Sankofa — Black and African American
- Spectrum — Sexual Orientation and Gender Identity: SOGI
- Minority Veterans Corps
- WE@PC — Women's Empowerment at the Peace Corps

Lack of Investment in Career Development: Public bashing of government work combined with a cumbersome hiring process has led to a labor market mismatch. These factors increase the importance of identifying career paths that are key for retention but missing in most government agencies. Young people want the ability to move up in the organization, but they will leave if they cannot envision a future for themselves.

Some agencies go out of their way to help employees visualize career paths. These include Immigration and Customs Enforcement and the Department of Interior. For example, the "My DOI Career" career path website provides a user-friendly tool for interested applicants to view 1380 career profiles, which include photographs, overviews, candidate descriptions, requirements and responsibilities, and strengths for various career levels. Each career page lets potential candidates know the entry-level roles they could fill to enter the career and links to relevant applications on the USAJobs website.

Generational differences in communication styles contribute to agencies' failure to retain a diverse workforce. This can only be improved by having senior- and entry-level staff interact, connect, and learn to speak one another's languages. These relationships would be beneficial for

several reasons, including improving soft skills and changing traditional top-down hierarchical communication. A voluntary mentoring program is another option for senior, mid, and entry-level staff to interact and has been successful in the past at bridging communication gaps.

Too Little Leader Commitment to Diversity, Equity, and Inclusion: Agency leaders are the most effective changemakers in government. Management seeks to create a welcoming environment for new hires, not only at the mid- and entry-levels but also among senior executives. This can be a challenging task, particularly for executives with limited time. However, programs that accommodate schedules and agency needs already exist. For example, American University's Key Executive Master of Public Administration and certificate programs work with government officials to tackle program issues. Funding young executives' participation in such programs provides opportunities for an agency to improve itself by bringing updated leadership methods via a certified senior employee.

Examples of Best Practices

Resource Assistant Program (RAP), Forest Service: The Resource Assistants Program (RAP) is a paid internship for individuals interested in conservation, natural and cultural resources, environmental management, research and development, and other career opportunities with land management agencies. The program emphasizes the engagement of current students, recent graduates, and underrepresented populations. Resource assistants (RAs) work on U.S. Forest Service units at their request. After completing 960 hours of service, RAs receive noncompetitive hiring eligibility with the Forest Service. However, out of the 733 participants since the program's inception in 2016, only 93, or 18%, have been direct hires. Additionally, the racial makeup of RAP cohorts and direct hires is primarily white. This is likely due to more white candidates in applicant pools and program managers' preference for interns with "experience," which disadvantages applicants of color who may have the right degree but cannot gain experience through unpaid or low-paid internships.

Hispanic and African American individuals make up the second and third largest groups in cohorts and are equally matched in direct hires. RAP's 5-month outreach program consists of three months of outreach and recruitment by outside partners (such as MobilizeGreen), two weeks of selection by partners, six to eight weeks of onboarding by consistent patterns in the training and Forest Service, and one week of orientation by the Forest Service. RAP falls under the authority of 16 U.S.C. Chapter 37, Public Lands Corps Act of 1993, Subchapter II - Resource Assistants Code § 1725a(1).

MobilizeGreen (Career Development): MobilizeGreen works with Federal land management and environment-related agencies such as the U.S. Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service, and the USDA Forest Service, among others, to recruit diverse young

adults for Resource Assistant internship positions, particularly in "green" STEM (science, technology, engineering, mathematics)-related positions. This partnership can serve as a model for other agencies in diversifying their workforce. Not only do they recruit, but they work to remove barriers for participants to help agency partners build a pipeline for their future workforce.

In one example, MobilizeGreen had standout success with the career development, retention, and professional advancement of a diverse cohort of Resource Assistants who participated in the 2014 MobilizeGreen-BLM Direct Hire Authority (DHA) Resource Assistant Cohort Internship Program. In the cohort, 90% of placed participants still work in the Federal government; 60% still work with the BLM; 30% work with other environment-related federal agencies; and 10% work outside the federal government and the environmental field. The agency partners pay all MobilizeGreen interns.

Architect of the Capitol: The Architect of the Capitol (AOC) has one of the most comprehensive federal onboarding programs. From the first day, the atmosphere is incredibly welcoming, with clear and concise presentations that explain the goals and mission of the organization. New employees are celebrated at "all hands" meetings to welcome them to the full team, creating a sense of inclusion and welcomeness. Supervisors are present on onboarding day, at which time a new employee can get to know their supervisor and coworkers and receive a tour of AOC buildings.

The AOC offers two relevant programs: the Supervisory Academy and the Leads Pilot Program. Both operate similarly, providing leadership training that strengthens relationships between supervisors and employees and creates a more equitable organization. In particular, the Leads Pilot Program is a newer initiative that develops leaders within teams to serve as liaisons between supervisors and employees; this initiative holds promise as long as agencies use it in moderation and not as a replacement for direct supervisory management or employee relations. Building up future leadership early on creates higher retention and more engaged employees.

Political campaigns frequently use one technique that could enhance the AOC's onboarding process: making supervisors available every day of the onboarding process. The relationship between a supervisor and an employee is perhaps the most important factor in employee retention and creating a sense of belonging. The best way for supervisors to lead is to provide ongoing support and build relationships with their employees.

Working Paper 4: Environmental Education

According to the North American Association for Environmental Education, environmental education is a broad umbrella that is focused on creating a more sustainable future using the power of education.[2] Environmental education (EE) equips people with the knowledge, skills, and motivation to be stewards of the environment. EE provides opportunities for people to: 1) learn about the environment, including a focus on systems thinking and the role that humans play in affecting the environment; 2) examine and clarify their values about and attitudes toward the environment, including the natural world and the human-built environment; 3) build skills to address environmental and social issues; and 4) undertake behaviors that help protect the environment and work toward a more sustainable future.[3]

Environmental awareness sets the stage for lifestyles, learning and careers. Environmental education imparts the ability to make informed decisions concerning the environment, the desire to act on those decisions to improve the well-being of others, and participation in civil life. The U.S. Environmental Protection Agency's (EPA) definition stresses awareness and sensitivity, knowledge and understanding, development of specific skills, and participation in solving environmental challenges.[4]

The National Environmental Education Act of 1990 (NEEA) requires the EPA to provide national leadership to increase environmental literacy and creates an Office of Environmental Education to provide funding and shape national policy. NEEA allocates funds for grants, internships and fellowships, and education awards. The Act also chartered the National Environmental Education Foundation (NEEF), which works closely with the EPA and other agencies toward the goal of lifelong environmental learning.

In its opening paragraphs, the NEEA describes the inadequacy in the federal government's coordination with state and local agencies to inform the public about environmental problems and how to solve them. The law provides that "the United States establish and support a program of education on the environment for students and personnel working with students, through activities in schools, institutions of higher education, and related educational activities, and to encourage postsecondary students to pursue careers related to the environment."

Environmental education is a concern beyond US borders. On the international level, the Tbilisi Declaration, established during the world's first Intergovernmental Conference on Environmental Education organized by UNESCO and UNEP, laid out the roles, objectives, and characteristics of what was believed to be successful, life-long environmental education.[5] This was the first attempt to define environmental education as a lifelong endeavor needed to translate

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[2] North American Association for Environmental Education. (2020, December 14). About EE and Why It Matters. NAAEE. https://naaee.org/about-us/about-ee-and-why-it-matters
[3] Environmental Education: A Brief Guide for U.S. Grantmakers. North American Association for Environmental Education. 2013. Retrieved 9/12/2021.
https://cdn.naaee.org/sites/default/files/eepro/resource/files/ee_brief_blue_sky_0.pdf
[4] U.S. Environmental Protection Agency. (2020, September 3). What is Environmental Education? US EPA. https://www.epa.gov/education/what-environmental-education
[5] NAAEE. (1977). Tblisi Declaration. https://cdn.naaee.org/sites/default/files/tblisi_declaration.pdf

Working paper by the Center for Environmental Policy, American University School of Public Affairs. October 2021.

knowledge and understanding into action. In addition, NEEA emphasizes teacher and professional exchanges between the US, Mexico, and Canada.

Research on Effective Teaching & Learning for Environmental Education
While knowledge is important for environmental careers, research shows that it typically does not lead to behavior change.[6] Instead, field investigations and student engagement with local communities were shown to lead to changes in behavior.

Personal and collective competence are attributes that can lead to engagement around issues, as described below.
- Role models allow young people to observe the success of others and visualize paths towards goals. By following this process from start to finish and experiencing successes, learners can "assess their own competence in comparison (Bandura, 1982; Schunk et al., 1987)."[7]
  - Effective coping strategies result from observing role models.
    - Learning how to deal with the difficulties of a task and understanding potential outcomes of actions also come from the observation of role models.
  - Similar age is necessary for convincing a child of their own probable success.
- Collective competence can be built by having a strong group of student or youth organizations with successful role models.
  - Educators have a central role in facilitating these groups and allowing political socialization both in and outside of the classroom setting.

Trends in Environmental Education Practices
A diverse range of practices have arisen in environmental education since NEEA was first passed in 1990. Below is a brief summary of some of the approaches taken over time and their relative successes and failures.

A broad overview of studies shows that experiential education was the most commonly hypothesized explanation for a program's success. Issue-based education, directly interacting with nature, dosage, investigation, and empowerment were seen after that as contributing to the success of a program.[6]

Applying these experiential practices into nature-based settings achieved desired results, creating successful programs that had lasting impacts on those involved in it. "…. students investigate real-world environmental issues through a multidisciplinary approach that leads them to identify and deliberate appropriate courses of action (Hungerford and Volk 1990; Hungerford, Volk, and Ramsey 2000; Hungerford, Volk, et al. 2003)."[6]

Social engagement has shown to be a contributor of success that overlaps with all other practices

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[6] Stern, M. J., Powell, R. B., & Hill, D. (2013). Environmental education program evaluation in the new millennium: what do we measure and what have we learned? Environmental Education Research, 20(5), 581–611. https://doi.org/10.1080/13504622.2013.838749
[7] Chawla, L., & Cushing, D. F. (2007). Education for strategic environmental behavior. Environmental Education Research, 13(4), 437–452. https://doi.org/10.1080/13504620701581539

Working paper by the Center for Environmental Policy, American University School of Public Affairs. October 2021.

in environmental education. Cooperative group work, inter-generational communications, and teacher engagement are all forms of social engagement that have successfully contributed to the retention of ideas and formation of positive behaviors. In addition, students who attended field trips "…. actively participated in the onsite instruction alongside EE instructors, students' outcomes were generally more positive (Stern, Powell, and Ardoin 2008)."

Environmental education has been shown to positively impact environmental attitudes, particularly among younger children. In studies that differentiate between selfless environmental attitudes and self-interested ones, selfless behavior was shown to be more likely among children between the ages of 7 and 11.[8] This age range is more directly associated with being receptive to role models, versus the 12 and up group. Therefore, there is an incentive to focus environmental education programs on younger children to facilitate the development of positive attitudes early on that will be more likely to endure throughout life.

Creating a series of goals over time have shown to be the best route to get K-12 students invested and feeling successful. Projects with series of goals have been shown to inflate an individual's sense of accomplishment. Examples of such goals over time include activities such as environmental clean-ups and participation in school councils.[7]

The majority of environmental education studies have involved the 11- to 14 age group, with those under the age of 8 being the least researched. A study reviewing 119 publications in 36 journals about the outcomes of environmental education finds that only 29% included post-programmatic follow-up most of which were conducted within six months of the experience. The conclusion of these studies is that private actions, such as reducing one's energy consumption or recycling at home, have been the primary focus of environmental education, rather than collective action, such as grassroot action for community-wide renewable energy installations.

Relationship Between Federal & State Agencies
According to NAAEE, twenty states are in the process of implementing statewide environmental literacy plans (ELPs). Below are examples from two very different states in terms of populace and politics: California and Kentucky.

In 2015, California's Environmental Literacy Task Force created its ELP, *A Blueprint for Environmental Literacy*.[9] In the following years, the task force worked with state agencies, educational institutions, science and environmental educators, county offices of education, community-based organizations, and others to ensure that both equity and cultural relevance were the focus of ELPs.[10] Funding through the state and nonprofits supported this effort. In 2018, the governor signed SB 720 into law which, among other things, called for statewide implementation of the environmental literacy work that had proven effective in prior years.

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[8] Liefländer, A. K., & Bogner, F. X. (2014). The Effects of Children's Age and Sex on Acquiring Pro-Environmental Attitudes Through Environmental Education. The Journal of Environmental Education, 45(2), 105–117. https://doi.org/10.1080/00958964.2013.875511

[9] A blueprint for environmental literacy. A Blueprint for Environmental Literacy - Science (CA Dept of Education). (n.d.). Retrieved October 22, 2021, from https://www.cde.ca.gov/pd/ca/sc/environliteracyblueprint.asp.

[10] North American Association for Environmental Education. (2019). State Environmental Literacy Plans. NAAEE. https://cdn.naaee.org/sites/default/files/eepro/resource/files/naaee_selp_2019_status_report_0.pdf

In Kentucky, environmental literacy work was done early on, with legislation in 1990 that created the Kentucky Environmental Education Council (KEEC). The KEEC led to a system of grants that are administered to regional centers via a competitive system from a statewide fund and the adoption of an environmental literacy plan in 2011. Because Kentucky is a local control state in which the governing and management of public schools is largely conducted by elected or appointed representatives located in the communities served by the schools, KEEC created a program and plan that was built from the ground up with support from teachers and educators.

One of the biggest barriers to expanding ELPs is the lack of federal funding. Legislation such as the No Child Left Inside (NCLI) Act, would have given funds to states to incentivize environmental education plan implementation. However, despite the fact that the bill passed the U.S House of Representatives with bipartisan support, it never passed the U.S. Senate and momentum faded away. Further, the staffing requirements in the NEEA of 1990 that caps the size of the team also prevents the agency from delivering the resources needed to each state to successfully build develop and implement ELPs.

Future Work and Strategies
At the time of its enactment in 1990, NEEA was a bipartisan success that helped change the environmental education landscape. However, an update is required to reflect current policy and political considerations. As such, a new NEEA draft update proposal was created and sent to the Senate Environment and Public Works Committee in July 2021 that represents input from organizations such as the National Wildlife Federation and the North American Association for Environmental Education, developed by an informal coalition convened by American University's Center for Environmental Policy (AU-CEP).

Some of the updates proposed by the AU-CEP group include increasing public-private partnerships, reinvigorating federal-state partnerships with plans that focus on equity and social justice, and removing outdated language to ensure that NEEA addresses the urgency of climate and other environmental issues in 2021. (See Appendix A).

Conclusions
- Knowledge gain is not typically a direct cause of behavior change and should not be the main goal of environmental education. Field investigations and student engagement with local community members are proven indicators of a successful program. A sense of personal collective competence can lead to more political engagement, with both peer and teacher role models being important contributors.
- Experiential education was commonly associated with program's degree of success. Issue-based education, directly interacting with nature, investigation, and empowerment also were associated with successful programs. Cooperative group work such as field trips, inter-generational communications, and teacher engagement are all forms of social engagement that have been successful.

Opportunities for Further Research
- Examine the impacts of building relationships with community groups to facilitate hands-on experiences for youth.
- Explore opportunities for hands-on student research and its impacts on environmental literacy and engagement.
- Evaluate the efficacy of environmental education in workforce development and training programs.

Preliminary Recommendations

- Incorporate environmental education as a priority under the Administration's climate investments.
- Expand the budget for EPA's Environmental Education Local Grants Program in each of the 10 EPA Regions.
- Establish linkages between environmental education and literacy and workforce development goals.

July 6, 2021

Mr. Christophe Tulou
Democratic Senior Counsel and Policy Director
Laura Gillam
Senior Policy Advisor
Environment and Public Works Committee
U.S. Senate

RE: Draft Legislation to Reauthorize the National Environmental Education Act (NEEA)

Dear Christophe and Laura:

We are pleased to transmit to you a draft proposal to update and modernize the National Environmental Education Act (see proposed text and redline document comparing proposal to current law attached). We support these important changes and hope that Senator Carper will consider becoming the lead sponsor of this legislation.

The Act is critically important for preparing young people and learners of all ages to participate in a dynamic, sustainable economy as the nation addresses the complex environmental challenges we face today and will face in the future. Our draft legislation builds on the solid foundation of the current NEEA by:

- increasing authorizations and strategic targeting for environmental education grants and supporting activities;

- expanding authorized investment in public-private partnerships;

- elevating and expanding the federal/state partnership and the role of states;

- putting greater emphasis on equity and social justice;

- strengthening public involvement;

- providing improved federal coordination; and

- streamlining the current law to remove outdated language and improve operational efficiency.

This draft represents ideas of our organizations developed through discussions moderated by John Reeder at American University's Center for Environmental Policy. We have also consulted closely with a number of organizations and individuals, including the National Environmental

Education Foundation, for their expertise and views. Throughout this process we drew on our years of experience working with the NEEA and implementing environmental education programs.

We welcome your comments and thoughts about the draft and your assessment of the Committee's interest in taking it up and broadening sponsorship.

We anticipate broad support for this proposal, and we would be pleased to assist you in outreach to organizations working on environmental education at the state and local level should you find that helpful.

Please let us know if you have any questions. Thank you for your consideration. We look forward to working with you on the next steps toward reauthorization of NEEA.

Sincerely,

Judy Braus, Executive Director, NAAEE

Kim Martinez, Vice President, Education and Engagement, NWF