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Implementation of Justice40: Challenges, Opportunities, and a Status Update

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Report 24-01
January 2024

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Acknowledgements

We are grateful to federal agency staff at the US Department of Energy, Department of Agriculture, Department of the Interior, Environmental Protection Agency, Department of Housing and Urban Development, and National Oceanic and Atmospheric Administration who took the time to talk with us about their programs and Justice40. We appreciate helpful comments from Emma DeAngeli, Brandon Holmes, Emily Joiner, and Suzanne Russo. Funding was provided by RFF institutional support; Logan Ruggles was sponsored by the MacArthur Foundation through the Yale Environmental Fellows Program.

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Executive Summary

President Biden issued Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, during his first week in office in January 2021. The EO includes a directive that 40 percent of the benefits of certain federal climate and energy investments flow to communities that are disadvantaged, marginalized, and overburdened by pollution. Nearly three years after its launch, the Justice40 initiative now covers 518 programs across 16 federal agencies.

In this study, we take stock of Justice40 implementation. The report is divided into two parts. In the first part, we describe the basics of how Justice40 works and the timeline of program design and implementation since the EO, followed by a discussion of specific challenges the initiative faces and opportunities it provides. In the second part of the report, we assess the pace of Justice40 progress across 445 programs based on program-level analysis, including reviews of federal funding opportunities and conversations with agency staff.

Justice40 Timeline

The White House released interim guidance for Justice40 in July 2021. That guidance delegated many decisions to agencies, including which programs are covered by Justice40 and how to measure and define benefits. Agencies were directed to submit benefits methodologies to the Office of Management and Budget (OMB) by December 2021. In February 2022, the White House released a beta version of a new screening tool for identifying disadvantaged communities for the purposes of Justice40. The Climate and Economic Justice Screening Tool (CEJST) was finalized in November 2022 after a public comment period. In January 2023, the White House issued an addendum to the interim guidance, which stated that agencies must fully transition to using the CEJST by October 1, 2023, for the purposes of implementing Justice40. A list of 463 Justice40-covered programs was released in April 2023. A new list of 518 programs was released at the end of November 2023; this list removed a handful of programs that had been on the April list and added programs from the Inflation Reduction Act.

Justice40 Implementation Challenges

The first challenge in Justice40 implementation is related to how federal funding programs work. The federal government sends money to state and local governments and directly to individuals, households, farmers, and other entities. Some funding goes to states in the form of block grants or formula categorical grants, in which money goes to states based on particular rules and formulas and states are given latitude in how and where to spend the money. In these programs, it may be difficult for federal agency staff to ensure that 40 percent of funds (and benefits) ultimately go to disadvantaged communities. With project categorical grants, state and local governments apply for federal funding, usually in a competitive process, to pay for specific projects and activities. In these cases, federal agencies have more control over where the money

goes, but the ability to direct it to underserved communities depends on how many of those communities apply for funding. Many underserved communities lack the capacity and resources to undertake what can be an arduous application process. As a result, federal agencies may have a limited pool of applicants that makes it difficult to reach the 40 percent goal. A similar problem can arise in programs that provide financial assistance directly to individuals and households.

The second Justice40 challenge is associated with the definition of disadvantaged communities. Agencies are required to use the CEJST to identify which communities are disadvantaged for the purposes of Justice40. Although CEJST has some strengths, it also has some limitations. The first is that it does not include race among its criteria, even though many studies have shown race to be a determining factor—possibly the most important factor—in who bears the burden of environmental injustices. A second is the reliance on national census tract level data to populate the tool. Census tracts are a geography that can be problematic in some areas, especially rural areas, because of the wide heterogeneity in socioeconomic characteristics of the population within the tract. Moreover, some well-recognized environmental problems are not captured in the tool because national data are not available.

Defining the benefits of federal investments is the third challenge in Justice40 implementation. The language in the EO explicitly states that the “benefits of certain federal investments”, not the dollar amounts of the investments themselves, should flow to disadvantaged communities. For many federal programs, this aspect of Justice40 is proving the most difficult. In most cases, thus far, the best that is being done is measurement of the investments; in a few programs, other outcomes—contaminated site cleanups, for example—are being measured. The Department of Energy (DOE) has developed a list of eight benefits criteria that must be individually addressed in funding applications.

Justice40 Opportunities

Despite the implementation challenges, Justice40 is also providing some opportunities. We identified five.

The first is the improvement in data measurement and collection that the initiative seems to be bringing about. To figure out whether the 40 percent goal is being met, agencies need to be able to track exactly where spending occurs and benefits are delivered. Ultimately, this should allow better program evaluation, even beyond Justice40.

The second opportunity is the development of new technical assistance programs in federal agencies. As we stated above, unless agencies receive a pool of funding applicants that includes disadvantaged communities, they may not be able to meet the Justice40 goal, and the technical hurdles in many grant applications are often overwhelming for disadvantaged and underresourced communities. The new programs should help.

The third opportunity Justice40 presents is the ability of the federal government to lead by example on justice and equity. Many decisions on environmental policy and infrastructure investments fall to state and local governments, but the federal government has enormous policy influence. It generally brings larger amounts of money to problems than individual states, sets national standards and regulations, provides information and technical assistance, and defines priorities in ways that states often follow. Thus, Justice40 could have a ripple effect at lower levels of government.

A fourth opportunity is provided by the setting of a specific numerical target. Compared to procedural requirements, agency strategic plans, equity scorecards, and the like, Justice40 sets a goal based on program outcomes. One may question whether 40 percent is the “right” number, but it provides a quantitative focal point.

Finally, the Justice40 initiative is improving community engagement in federal programs. Engagement with disadvantaged communities is a requirement laid out in EO 14008 and in the initial Justice40 guidance released by the White House in July 2021. While stakeholder engagement has long been a part of many federal government programs, the specific focus on engagement with disadvantaged communities is new.

A Status Update

We began our review of implementation progress with the programs listed on the April 2023 Justice40 covered programs list. We reviewed 445 of the 463 programs on that list. The Department of Energy has the most covered programs at 165. The agencies with the second- through fourth-most programs are, respectively, the Environmental Protection Agency with 73, and the Departments of Agriculture and the Interior with 65 each.

We devised a 1-5 scale for measuring the status of implementation. A rating of 1 indicates that we were unable to find any information about Justice40 for the program, including in funding announcements and on program webpages. Programs received a 2 if we found acknowledgement that the program was covered by Justice40 but no additional information. A rating of 3 was assigned to programs that provided preliminary Justice40 implementation guidance but no clear information on funding prioritization methods. A rating of 4 indicates that we found thorough program-specific Justice40 guidance, including clear definitions of prioritization metrics, but no statement (yet) that 40 percent or more of investments (or benefits) currently go to, or definitely will go to, disadvantaged communities. Category 5 indicates full implementation and achievement of the 40 percent goal. We divided 5 into two subcategories: 5A are programs that state that 40 percent or more of investments/benefits are currently going to Justice40 disadvantaged communities or will go to disadvantaged communities through set-asides and specific requirements; 5B are tribal and low-income programs that “automatically” achieve the Justice40 goal. All tribal communities are defined as disadvantaged for purposes of Justice40, and we made a decision to assign programs that are limited to low-income populations also to the 5B category. We could not track down reliable information for 42 programs on the April 2023 covered program list and thus left them uncategorized (U).

The following table summarizes our findings.

Status number	Number of programs	Percentage of programs evaluated
U	42	9
1	133	30
2	40	9
3	52	12
4	80	18
5A	10	2
5B	88	20
Total programs evaluated	445	100

The greatest number of programs falls into category 1. We were unable to find mention of Justice40 for 30 percent of the 445 programs we reviewed. If these programs are implementing Justice40, they are not making information about their activities available to the public. The second-largest category is 5, full implementation. However, most of these programs fall into 5B, the tribal and low-income programs. Category 4, which includes programs that show substantial progress in acknowledging Justice40 and clearly listing prioritization methods for allocating funds, includes 18 percent of the programs we reviewed. As financial awards are made over the next year or two, it is possible that many of these programs will move to the 5A category.

Each of the agencies has programs spanning the 1–5 categories. (The Department of Housing and Urban Development is an exception; because its programs are almost all tribal and low-income, most fall into 5B.) In other words, no single agency seems to be further along in implementation. Rather, progress is program-specific.

Analyzing the budgetary resources for 445 programs was outside our scope. However, our preliminary calculations show that DOE accounts for the bulk of the Justice40 spending.

Justice40 is a work-in-progress. Our review is an interim look at where implementation stands approximately two and a half years after announcement of Justice40. As the initiative moves forward, things will change. The release of a new list of covered programs in late November 2023 is evidence of this. Although there is a large degree of overlap with the April 2023 list, new programs from the Inflation Reduction Act were added and a few programs removed. As the Justice40 initiative proceeds, continuing to track progress will be important. Ultimately, as federal funding makes its way to people and communities, evaluating outcomes in disadvantaged communities will be critical.

Contents

1. Introduction	1
2. Justice40 Background, Challenges, and Opportunities	2
2.1. Justice40 Timeline and the Basics of Implementation	2
2.2. Challenges	6
2.2.1. How Federal Funding Programs Work	6
2.2.2. Defining Disadvantaged Communities	11
2.2.3. Measuring Benefits	17
2.3. Opportunities from Justice40	20
3. Status of Justice40 Implementation	22
3.1. Methods	22
3.2. Measuring Implementation Status	23
4. Conclusion	31
References	32

1. Introduction

During his first week in office, President Biden signed Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, which formally acknowledged the climate crisis, centered climate change in domestic and foreign policy, and laid out a government-wide approach to addressing the climate challenge (White House 2021). Justice and equity figure prominently in the EO; the word *justice* appears 31 times in the 15-page document. One of the key provisions is Section 223, establishing the Justice40 Initiative. Justice40 aims to ensure that 40 percent of the overall benefits of certain federal investments flow to communities that are disadvantaged, marginalized, and overburdened by pollution. Led by the chair of the White House Council on Environmental Quality (CEQ), the Office of Management and Budget (OMB), and the White House Office of Domestic Climate Policy, Justice40 now covers 518 programs across 16 federal agencies.

Nearly three years after the launch of Justice40, where does implementation stand? In this report, we take stock of progress across programs in 10 agencies. The report is divided into two main sections. In Section 2, we begin by describing the timeline of Justice40 program design and the basics of its implementation since the EO. This is followed by a discussion of three main challenges with implementation. These challenges are related to how federal funding programs, how disadvantaged communities are identified, and how the benefits of federal investments are measured. Next, we examine various challenges that arise because of these differences, how disadvantaged communities are identified, and the difficulty in measuring benefits of federal investments. Finally, we offer our view of opportunities that Justice40 may be generating, including advances in data collection and evaluation, a broadening and deepening of community engagement, federal guidance to states, the setting of a specific target, and engagement with disadvantaged communities.

In Section 3, we share our findings for the pace of Justice40 implementation across 445 programs based on program-level analysis, including reviews of federal funding opportunities and conversations with agency staff. At the time of our analysis, there were 468 programs on the Justice40 list, and thus our review encompassed 95 percent of all covered programs. At the end of November 2023, after this report was finalized but before publication, the White House added some programs in the Inflation Reduction Act (IRA) to the covered program list and removed a few others from the list. This led to a net increase in the number of covered programs, bringing the total to 518. This change highlights the moving-target nature of evaluating Justice40. Since the initiative is still in an early implementation phase and programs continue to be added, our findings in Section 3 should be considered as interim. As new funding announcements are released and implementation strategies evolve, so will the impact of Justice40. Our report represents the first step in tracking this ongoing transformation.

2. Justice40 Background, Challenges, and Opportunities

2.1. Justice40 Timeline and the Basics of Implementation

Table 1 summarizes the timeline of Justice40 from January 2021 through November 2023.

Table 1. Justice40 (J40) Timeline

January 2021	EO 14008: 40% of overall benefits of certain federal investments (in 7 broad areas: climate change, clean energy, clean transportation, affordable housing, workforce, legacy pollution, water) flow to disadvantaged communities.
July 2021	Interim guidance issued: Many decisions delegated to agencies (e.g., which programs are covered, how to measure and define benefits). Agencies directed to submit benefits methodologies to OMB and required to conduct stakeholder consultation, including engagement with disadvantaged communities, and 21 pilot programs named.
December 2021	Federal agencies submit methodologies to CEQ and OMB for calculating and tracking J40 benefits (not publicly available).
February 2022	Beta version of Climate and Economic Justice Screening Tool (CEJST), to be used to identify disadvantaged communities, released for public comment.
November 2022	Final version of CEJST released.
January 2023	Addendum to interim guidance: By October 1, 2023 (beginning of FY2024), agencies must fully transition to using CEJST for J40 purposes.
April 2023	List of 468 covered programs released.
November 2023	New programs from the IRA added to the covered programs list; some programs removed, leaving total at 518.

OMB issued formal Interim Implementation Guidance for Justice40 in July 2021, six months after EO 14008 was issued. The guidance provided an interim definition of disadvantaged communities and laid out plans for a new mapping and screening tool that would ultimately be used to identify these communities. It gave agencies the responsibility for deciding what constituted a covered program under Justice40, along with deadlines for naming those covered programs, within the seven broad categories that were laid out in EO 14008: (1) climate change, (2) clean energy and energy efficiency, (3) clean transportation, (4) affordable and sustainable housing, (5) training and workforce development, (6) remediation and reduction of legacy pollution, and (7) clean water and waste infrastructure.

The guidance gave agencies the responsibility for deciding what constitutes a benefit under Justice40 and how to measure benefits, though it required agencies to consult with stakeholders and representatives from disadvantaged communities in doing this. In addition to a deadline for selection of covered programs, the guidance gave agencies deadlines for developing their benefits methodologies and reporting to OMB the percentage of benefits flowing to disadvantaged communities. Finally, the guidance document named 21 pilot programs to undertake an initial implementation of Justice40 to “maximize the benefits that are directed to disadvantaged communities” (OMB 2021, 9). Nine agencies had programs on the list. The US Environmental Protection Agency (EPA) had the most, with six, and the Department of Energy (DOE) had the second most, with five.

On January 27, 2023, exactly two years after the Justice40 Initiative was announced, OMB issued an addendum to the implementation guidance directing agencies to use a new screening tool to identify disadvantaged communities (DACs), called the Climate and Economic Justice Screening Tool (CEJST).¹ Agencies were directed to use the new tool in lieu of any other tools or methods they may have been using (OMB 2023). The addendum set October 1, 2023—the start of fiscal year (FY) 2024—as the deadline for agencies to fully transition to CEJST (although agencies were allowed to ask for an exception).

In April 2023, the White House released the comprehensive list of Justice40 initiative covered programs (White House 2023a). The list included a total of 468 programs spanning 12 cabinet-level agencies and 7 smaller agencies. DOE stood out with the highest number of programs, at 146, double the number of the agency that is second on the list, EPA. We begin our review of progress with a list of the number of programs in each agency and how many we reviewed for this report.

1 The screening tool is available at <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>.

Table 2. Number of Justice40 Covered Programs, by Agency

	Number of covered programs as of April 2023	Number reviewed in this report
Department of Energy (DOE)	146	146
Environmental Protection Agency (EPA)	73	73
US Department of Agriculture (USDA)	65	65
Department of the Interior (DOI)	65	58
Department of Transportation (DOT)	39	39
Department of Housing and Urban Development (HUD)	24	24
Department of Health and Human Services (HHS)	13	13
Army Corps of Engineers (ACE)	11	11
Department of Commerce (DOC)*	9	7
Department of Homeland Security (DHS): Federal Emergency Management Agency (FEMA)	4	4
National Science Foundation (NSF)	3	3
National Aeronautics and Space Administration (NASA)	2	2
Other	14	0
Total	468	445

*The 7 DOC programs we review are all in the National Oceanic and Atmospheric Administration (NOAA).

Other than developing the CEJST and mandating that agencies begin using it by FY2024, the White House has taken a relatively hands-off approach to Justice40, leaving individual agencies with the somewhat daunting task of interpreting and implementing the initiative on their own. Agencies were given the responsibility for selecting which of their programs to include on the covered programs list and then how to measure benefits and change the administration of programs to meet Justice40 goals. Agencies typically assigned a person and office to be responsible for implementation and reporting, including coordinating (to varying degrees) Justice40

guidelines across multiple covered programs. Agencies also have staff who participate in the interagency environmental justice (EJ) task force that was established as part of EO 14008. However, many decisions about implementation are usually made at the bureau, office, or even individual program level. This delegation to the program level can have some benefits. For instance, stakeholder consultation, decisionmaking, and benefits metrics can be tailored to each program, leaving room for maximizing Justice40's impact. Furthermore, individual program administrators tend to know best the ins and outs of their programs, including any statutory requirements. But this approach has potential downsides, such as inconsistency across programs, offices, and agencies; possible confusion; and delayed progress at the agency level in meeting Justice40 goals.

The White House Environmental Justice Advisory Council (WHEJAC), a community advisory group established by EO 14008 to advise the government on EJ efforts, has made extensive recommendations for Justice40 implementation (WHEJAC 2022). We briefly summarize these recommendations in Box 1.

Box 1. White House Environmental Justice Advisory Council (WHEJAC) Recommendations on Justice40 Implementation

The WHEJAC released a report in August 2022 with Justice40 implementation recommendations. The report is divided into three main sections: (1) cross-cutting agency recommendations, (2) public outreach best practices, and (3) specific agency recommendations. We highlight here some of the main recommendations in the first two sections. (The third section contains numerous agency recommendations; see the full report for details.)

1. Cross-cutting agency recommendations. These fall into two categories: transformative practices and public engagement. In the first category, the WHEJAC recommends that agencies assess progress toward the 40 percent goal by calculating the flow of dollars to disadvantaged communities; create a Justice40 Advisory Board; optimize agency staffing for Justice40, including training; devote agency resources to engagement with community organizations; and ensure that no federal agency funds support fossil fuel infrastructure or generation. For public engagement, Justice40 should be integral to all of an agency's processes. A community engagement plan should be developed and reviewed by a Justice40 Advisory Board. Funding should be provided for local organizations to increase their capacity to participate in policy and for state agencies to add a Justice40 Community Program manager position.
2. Public outreach best practices. Because public engagement is so central to achieving Justice40 goals, the WHEJAC lays out several best practices for outreach, which are grouped into three categories. First, funding should be made available for a variety of activities, including the establishment of regional technical assistance hubs, grants for capacity building and planning, post-award assistance with managing grants, and eliminating matching fund requirements. The second category revolves around infrastructure and includes support for social infrastructure investments (such as schools), prioritizing projects with union jobs, and more. The third involves ways to make federal agencies more accountable through changes in incentive structures, such as making sure Justice40 is in agency strategic plans and counts toward staff performance reviews; doing an annual report on Justice40 implementation that includes details of community engagement, budgets, and so on; staggering awards so that performance can be better monitored; and developing penalties for states that do not follow Justice40 practices.

2.2. Challenges

2.2.1. How Federal Funding Programs Work

The federal government operates programs that invest in people and communities in a variety of ways. One important way is through grants-in-aid to state and local governments. A second is through direct financial and technical assistance to individuals, households, businesses, farmers, and others. Ensuring that at least 40 percent of the benefits of programs go to disadvantaged communities may be easier for some kinds of programs than others. In this section, we explain how the different types of programs work, provide examples from the Justice40 covered programs list, and offer some observations about program features that might make Justice40 goals more achievable or less so.

2.2.1.1. Grants-in-aid Programs

In FY2019, grants-in-aid programs amounted to approximately \$750 billion, or 16.5 percent of all federal spending (Lawhorn 2019). According to Lawhorn, tallying the number of individual grants-in-aid programs is difficult, but he estimates that in FY2018, there were 1,274 separate programs. These grant programs are typically divided into two categories: block grants and categorical grants.² Broadly speaking, block grants are fixed sums of money that states receive from the federal government for a general set of activities, while categorical grants are restricted to specific activities and programs. By Lawhorn's count, in FY2018, 1,253 programs were categorical grants and 21 were block grants.³

Table 3 provides examples of Justice40 covered programs in each of the grants-in-aid categories. Categorical grants can be classified as formula, project, or (less commonly) open-reimbursement grants, and these differ in the degree of control the federal agency has over how the money is spent by lower levels of government. Formula categorical grants are similar to block grants in that states have more flexibility in using the funds, though the scope is narrower than in block grants.

2 Between 1972 and 1986, the federal government also provided general revenue-sharing grants, which were grants to states that had no specific designated use. Total grant amounts were fixed annually and allocated by formula. This type of funding no longer exists.

3 A 2022 Congressional Research Service study reports that the federal government spent \$60.4 billion in 23 block grant programs in FY2022; it does not provide categorical grant funding figures (Jaroscak 2022).

Table 3. Types of Federal Grants-in-Aid Programs

	Degree of control federal agency has over recipient spending	Justice40 (J40) covered program examples
Block grant	Low	HUD Community Development Block Grant, HHS Community Services Block Grant, DOT Federal Highway Administration (FHWA) Transportation Alternatives Set-Aside in Surface Transportation Block Grant Program
Project categorical	High	FEMA Building Resilient Infrastructure and Communities Program, FEMA Flood Mitigation Assistance Grants, DOT FHWA Charging and Fueling Infrastructure Discretionary Grants
Formula categorical	Low, within program guidelines	EPA Drinking Water and Clean Water State Revolving Loan Funds, National Park Service Land and Water Conservation Fund Stateside Grants, DOT FHWA National Electric Vehicle Infrastructure Formula Program
Open reimbursement	Low	No J40 programs (example: DOT Federal-Aid Highway Program)

Block grants

Block grants have broad purposes, and recipients are generally allowed substantial flexibility in using the funds. Among Justice40 covered programs, the Community Development Block Grant (CDBG) Program from the Department of Housing and Urban Development (HUD) is one example. HUD provides CDBG funding directly to state and local governments. Allocations are based on a formula that incorporates population, poverty rates, and housing conditions. Once states and localities receive the grants, they can use the funding on a wide range of activities, including public infrastructure, government services, economic development, and housing, as long as they show that the activities benefit people with low and moderate incomes, aid in the prevention of slums or blight, or address an urgent need related to health and safety.

DOT’s Surface Transportation Block Grant (STBG) Program was the largest block grant program in FY2022, accounting for more than 23 percent of total block grant spending by the federal government (Jaroscak 2022). Within the STBG, DOT operates the Transportation Alternatives (TA) Set-Aside, which is a Justice40 covered program. The TA Set-Aside provides money for smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, and safe routes to school projects. Apportionment of STBG money to states, including the TA Set-Aside, is based on population and a set of criteria defined in the legislation creating the program.

Some programs are labeled as block grants but have comparatively narrower scope. One example on the Justice40 list is DOE's Energy Efficiency and Conservation Block Grant (EECBG) Program, which allocates money by formula to state and local governments (as well as tribes and territories), but strict rules govern spending.⁴ Entities must submit applications with details about how the money will be used to advance energy efficiency and conservation.

Few block grant programs are on the Justice40 covered programs list. In addition to CDBG, the TA Set-Aside, and EECBG, others are the HOME Investment Partnerships Program, operated by HUD, which provides formula grants to states and localities for affordable housing, and HUD block grant programs for Native American and Native Hawaiian households. All the programs except the TA Set-Aside and EECBG target low-income communities and households and thus are already well positioned to achieve Justice40 goals. In the case of EECBG, Justice40 objectives have been clearly stated as requirements in the application.⁵

Categorical grants

Categorical grants are usually more narrowly defined than block grants and come with more restrictions on their use. Within categorical grant programs, money is generally allocated either by formula or by project.

Formula categorical grant programs share some similarities with block grants: funds flow to states, and the states have flexibility in how the money is spent. How states allocate money to localities or other entities, once they receive it from the federal government, varies. In some instances, states use a competitive grant process, often with required local matching funds; these are often referred to as formula-project grants. The Land and Water Conservation Fund's Stateside Program, which is run by the National Park Service (NPS), is one example. The NPS apportions money to states based mainly on population, and states then issue grants to local governments for creation of parks and recreation areas (and spend some of the funds on state parks). In other formula programs, the state may provide low-interest loans instead of grants. The Drinking Water and Clean Water State Revolving Fund (SRF) programs are two examples. EPA issues grants to states based on population and an assessment of water infrastructure needs; the states then provide loans for local governments and water utilities to invest in drinking water and wastewater infrastructure.⁶

4 EECBG also includes a very small competitive grant program.

5 Slides from an introductory webinar hosted by DOE provide additional information. See https://www.energy.gov/sites/default/files/2023-02/EECBG%20Program_ALRD%20Intro%20Webinars_States.pdf.

6 FEMA administers a new resilience revolving loan fund in a similar way, although it is not yet on the Justice40 list. See <https://www.resources.org/common-resources/financing-investments-in-climate-resilience-a-new-approach/>.

Sometimes states spend the formula categorical grant money they receive directly on programs and activities instead of regranting (or loaning) to local governments. These programs are less common, but two examples on the Justice40 list are DOE's Weatherization Assistance Program (WAP) and the Department of Health and Human Services' (HHS's) Low Income Home Energy Assistance Program (LIHEAP). The amount of money a state receives from DOE for WAP is determined by a formula based on the number of housing units and climate in the state. The state then uses the WAP money to provide funding for low-income households to invest in insulation and energy equipment upgrades. The formula for state LIHEAP funding is based on low-income household energy expenditures. States use LIHEAP funds to provide financial assistance to low-income renters and homeowners to help pay home energy bills.

As with block grants, it may be difficult for the federal government to require that 40 percent of funding go to disadvantaged communities in formula categorical grant programs without changes to the underlying legislation. In the programs that already target low-income communities, such as WAP and LIHEAP, this may be less of a concern. For programs that are not low-income based, however, such as the Land and Water Conservation Fund and the two SRF programs, this may be more difficult.

In **project categorical grant programs**, applicants directly apply to the federal agency that operates the programs, and funds are awarded on a competitive basis. FEMA's Building Resilient Infrastructure and Communities program, a Justice40 covered program that provides funding to localities for improving resilience to future disasters, is one example. Many of the programs in DOE's Office of Clean Energy Demonstrations that are on the Justice40 list, such as two carbon capture and storage programs, the Hydrogen Hubs Program, and advanced nuclear reactor demonstration programs, operate this way. Funding is being awarded via competitive application processes run by DOE. The Fish and Wildlife Service's National Fish Passage Program, also on the Justice40 list, is another example. It provides grants for barrier removals to improve fish passage in streams and rivers. DOT's Charging and Fueling Infrastructure Grant Program provides funding to state and local governments, transportation providers, planning organizations, and others for demonstrations and deployment of electric vehicle charging infrastructure. Ensuring that 40 percent of federal funds flow to disadvantaged communities is seemingly easier for project categorical grant programs where applications are submitted directly to the federal agency administering the program. Agencies can establish the 40 percent goal in proposal guidelines and prioritize spending based on disadvantaged community status.

Of course, achieving the Justice40 goal depends on who applies for grants. To make awards in disadvantaged or underserved communities, agencies need to receive applications from those communities. Because a great deal of technical knowledge and experience is typically needed to fill out government applications, and they have multiple financial and administrative requirements, small, poorly resourced, and underserved communities often find the application process daunting. Furthermore, matching funds are often required, and this can also be a hurdle for many communities.

Most federal agencies are well aware of these problems. Some are working toward providing technical assistance in a variety of ways to increase the number of proposals they receive from underserved communities.⁷

A third, less common kind of categorical grant is an **open-reimbursement categorical grant**, in which states receive money after the fact and are reimbursed for the costs of operating a program. The Federal-Aid Highway Program, which is focused on highway construction, operates this way. State departments of transportation select projects for funding, award contracts to private firms, and oversee project construction. They then submit vouchers to the DOT Federal Highway Administration (FHWA) for reimbursement. There are no open-reimbursement programs on the Justice40 list.

2.2.1.2. Direct Financial and Technical Assistance

In addition to grants-in-aid programs, where the federal government sends money to lower levels of government, some federal agencies also issue financial and technical assistance grants directly to individuals, farmers, businesses, and other entities. Many USDA programs fall into this category.⁸

The Conservation Reserve Program (CRP), which is the largest federal conservation program, with an annual budget of approximately \$2 billion and more than 22 million acres of enrolled land (Stubbs 2022), is one example. Agricultural landowners apply to USDA's Farm Service Agency (FSA), which administers the program, offering land to be removed from production and set aside for conservation in exchange for payment over a 10- to 15-year contract period. The FSA has 13 programs on the covered programs list, including the CRP, and most operate in this way, offering direct assistance to farmers through competitive application processes. USDA's Natural Resources Conservation Service (NRCS) has 11 Justice40 programs, and its Rural Development agency has 16. All these offer assistance to farmers, rural landowners, rural utilities, businesses, and other entities. The Rural Housing Service within Rural Development, for example, provides grants and loans to low-income households and loan guarantees to lenders making home loans to low- and moderate-income households. The Rural Utilities Service provides low-interest loans or loan guarantees to utilities and other businesses that furnish electric services to rural areas, and its programs on the Justice40 list target energy efficiency, conservation, renewable energy development, and distribution infrastructure.

As with project categorical grants, these direct technical and financial assistance programs leave the decisionmaking in federal agency hands, where monitoring and enforcing a Justice40 requirement should be more straightforward. Some of the programs already target low-income households, particularly the programs within

7 FEMA is one example; the agency also lowers the matching fund requirement for small, underserved communities. See <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/direct-technical-assistance>.

8 USDA has offices in every state and operates most of the programs out of those offices rather than from headquarters.

USDA's Rural Development agency. As with the project categorical grants, who submits an application is a key part of the equation. Without an applicant pool that includes people from disadvantaged and underserved populations, it will be difficult to achieve the 40 percent goal. In the case of most FSA and NRCS programs, farmers must take it upon themselves to go to the county USDA offices, fill out forms, and provide all the necessary information for enrollment. How much outreach and support USDA offers varies across states and counties.

Programs that target land conservation and those that provide financial support based on acres in production also face the challenge that changing land uses typically cannot happen quickly. CRP contracts, for example, are for 10 or 15 years, so increasing the share of land in the program in disadvantaged communities could be difficult without the program having more financial resources and increasing acreage overall. Finally, because most of these USDA programs are individual- and not community-based programs, reaching the goal of 40 percent of funds going to disadvantaged communities as identified in the CEJST, which we discuss in Section 2.3, could be difficult.⁹

In summary, how programs operate and the way federal funds are allocated, which is typically established in the legislation creating a program, have a great impact on the extent to which agencies can reach Justice40 goals. The road to 40 percent may be significantly more winding for some programs than others.

2.2.2. Defining Disadvantaged Communities

A clear definition of disadvantaged communities is necessary for federal agencies to measure whether benefits of their investments are meeting the Justice40 goal. There are two components to the definition: what a community is and what determines whether the community is disadvantaged.

The 2021 interim guidance states that agencies should define *community* as “either a group of individuals living in geographic proximity to one another, or a geographically dispersed set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions” (OMB 2021, 2). The 2023 addendum to the guidance directs federal agencies to identify geographic disadvantaged communities using a new mapping and screening tool developed by OMB and CEQ, the CEJST (White House 2023c). The beta version of the CEJST was released in February 2022, with the final first version coming out in November 2022, just before the addendum was published. Agencies are required to use the CEJST by the start of FY2024 (October 1, 2023). Based on our discussions with agency staff in summer and early fall 2023, most agencies are now using the CEJST.

9 The programs carefully monitor where money is going on an individual farm basis, however, using a unique farm identification number linked to a specific address. Based on our discussions with agency staff, this has allowed many of the USDA programs—at least those in the FSA—to accurately track exactly where investments are going and assign them to particular census tracts, something that programs in other agencies have sometimes struggled with.

The CEJST combines information on socioeconomic conditions, pollution burdens, housing, transportation costs, energy costs, and climate and disaster impacts at the census tract level. Census tracts that meet the thresholds for one of the socioeconomic factors and at least one of the environmental or climate burdens qualify as disadvantaged. All federally recognized tribes are also considered disadvantaged (White House 2023c). The 2023 addendum makes clear that agencies may not use a single category in the CEJST or produce separate lists for each category of burden but must rely on the index as a whole (White House 2023c). However, the addendum allows agencies to use a larger number of burdens or categories and their own data and metrics to prioritize communities within the set of disadvantaged communities identified by the CEJST.¹⁰

Several agencies have their own mapping and screening tools. Before the latest directive from the White House, some were using those tools to prioritize Justice40 investments. Most, however, are now using the tools only to supplement the CEJST and prioritize investments within the disadvantaged communities identified by the CEJST. Table 4 lists these alternative tools for seven agencies.¹¹

10 The CEJST instructions also acknowledge that agencies often direct investments to cities, towns, and other geographic units that do not perfectly match with census tracts, saying that agencies “should use best available methods or techniques to translate between geographic units” (CEQ 2023, 8).

11 Some agencies have used other mapping tools as well. HUD maps Difficult Development Areas, which are areas with high land, construction, and utility costs relative to area median income, and Qualified Census Tracts, which have at least half of households with incomes less than 60 percent of area median income or a poverty rate of at least 25 percent for the purposes of providing low-income housing tax credits. See <https://www.huduser.gov/portal/datasets/qct.html>.

Table 4. Federal Agency Mapping and Screening Tools

Agency	Tool	Description
DOE	<u>Energy Justice Mapping Tool - Disadvantaged Communities Reporter</u>	Large number of indicators: 5 related to energy burden, 10 environmental and climate hazards, 19 socioeconomic vulnerabilities (e.g., homelessness, disabled population, lack of internet access, linguistic isolation), and fossil fuel dependence. Currently being updated to include CEJST data layer.
DOT	<u>Equitable Transportation Community (ETC) Explorer</u>	Large number of indicators, including transportation access, cost burden, and safety, along with several measures of environmental burden, climate risks, socioeconomic vulnerability, and health. Designed to be used with CEJST to provide deeper insights into transportation disadvantages.
	<u>Areas of Persistent Poverty</u>	Developed by Census Bureau ; counties with poverty rate of at least 20% in 1990, 2000, and most recent decennial census, or census tracts with at least 20% poverty rate in 2014–18 American Community Survey.
EPA	<u>EJ Screen</u>	Combines demographic index (based on income, unemployment, English language, education, and life expectancy) with each of 13 individual environmental indicators (e.g., air pollution, proximity to hazardous waste and superfund sites, traffic proximity). Does not provide a single index across multiple factors.
FEMA	<u>National Risk Index</u>	Develops census tract level risk factor on 5-point scale across 18 natural hazard types (e.g., coastal flooding, earthquake, drought, wildfire) and accounting for social vulnerability, based on CDC’s Social Vulnerability Index (with 16 metrics, including poverty, unemployment, education, race/ethnicity) and a measure of community resilience. Expected annual loss in dollars from natural hazards is computed and used as a component of CEJST.
NOAA	<u>Climate Mapping for Resilience</u>	Includes drought, flooding, coastal inundation, wildfire, and extreme heat; incorporates current and projected future conditions with climate change.
USDA	<u>Distressed Community Index</u>	Index at zip code level based on 7 socioeconomic metrics (% of population with high school degree, housing vacancy rate, % adults not working, poverty rate, median income, job growth, and establishment growth). Used by USDA’s Rural Development agency to assign priority points in funding applications , along with CEJST.
HHS	<u>Environmental Justice Index</u>	Developed by CDC, produces a single score for each census tract based on cumulative environmental burdens and socioeconomic, health, and demographic factors.

2.2.2.1. Screening Tools

To guide investments to particular geographic communities, some kind of tool using spatially detailed data is necessary. A significant amount of demographic and socioeconomic data is collected at the census tract level, so it is natural that census tracts are the geographic communities used in most tools. A tract is a small, relatively permanent statistical subdivision of a county, with an average population of around 4,000. Tracts vary substantially in geographic size; they may be small in urban areas but quite large in rural areas. As a result, average demographic and socioeconomic characteristics for rural tracts may mask wide heterogeneity within the tract. Currently, screening tools do not allow for analyzing variation within tracts. Some experts have also pointed out that census survey sampling is less reliable in rural areas and that there are more “hard to count” populations in rural than urban locales (O’Hare 2017; Scally et al. 2020).

Tools, such as the CEJST, that combine multiple demographic and socioeconomic metrics into an overall measure of social vulnerability have the advantage of capturing a variety of factors that affect vulnerability but the disadvantage of not knowing which factors are the most important or the biggest drivers of that vulnerability. In addition, it can be hard to attribute changes over time, positive or negative, to changes in certain underlying factors that constitute the index. Some components of an index may go up while others go down, and the more components included in the index, the harder it can be to trace overall changes. Furthermore, attributing changes in the index to policies and programs affected by Justice40 can be even harder. Ideally, Justice40 would lead to better outcomes for disadvantaged communities and move them out of the disadvantaged category, but with an index based on a compilation of multiple factors, combined with widely varying implementation of Justice40, it will be difficult to conduct this kind of program evaluation.¹²

2.2.2.2. The CEJST

Critics of the CEJST have pointed out the absence of race and ethnicity as a shortcoming of the tool (Chemnick 2022a). Many studies have found that environmental injustices are highly correlated with race; in fact, several studies identify race as playing a bigger role than income in inequitable pollution outcomes (see Box 2). The White House acknowledges that it left race out of the CEJST because of concerns that legal challenges might result if federal funding is directed to communities based on race (Friedman 2022). It argues that many of the factors included in the CEJST would effectively proxy for race. Some analyses found this to be largely true, with criteria such as proximity to traffic and hazardous waste sites and linguistic isolation being strongly correlated with race and ethnicity (Sadasivam and Aldern 2022). Others found that the extent of overlap varies by location. Burnley (2022) compared the tracts identified by the CEJST as disadvantaged with census tracts having a majority of people of color in Washington, DC, and Hennepin County, Minnesota (including Minneapolis), and found that while Hennepin County had a great deal of overlap—that is, most tracts with a majority of people of color were identified as disadvantaged—Washington, DC, did not.

12 Program evaluation in which policy changes are causally linked to changes in outcomes is challenging in general (CEA 2014; Abadie and Cattaneo 2018).

Box 2. The Role of Race in Environmental Justice

Environmental justice has long been found to be synonymous with environmental racism, beginning with studies that launched the EJ movement in the late 1980s and early 1990s. The 1987 report of the Commission for Racial Justice at the United Church of Christ identified race as the most significant factor associated with the placement of hazardous waste processing sites. A follow-up study 20 years later concluded that negligible progress had been made since the original report, finding that minority communities were even more concentrated around contaminated sites than previous research had suggested (Bullard et al. 2007). Robert Bullard's *Dumping in Dixie*, originally published in 1990, focused on the role of race in the South and showed that dispute resolutions over toxic sites were more successful in predominantly white neighborhoods than in Black ones.

Over the past 30 years, multiple studies have demonstrated that compared with income, race is an equal or stronger predictor of environmental injustice. Downey (1998) found that the statewide distribution of toxic emissions in Michigan were inequitably distributed along racial lines but also emphasized that disentangling race and income is difficult because poverty and geographic racial discrimination in housing and public services are comorbid social ailments. Mohai and Bryant (1992) conducted a literature review of 15 papers and concluded that lower income was the second-leading factor associated with higher pollution levels, after race. These findings have been reinforced by findings in other studies, including those in a 2019 edited volume by the original authors (Mohai and Bryant 2019).

In more recent studies, Cushing et al. (2015) have shown that a variety of environmental health hazards are higher in communities of color in California and that the disparities are much greater along race/ethnicity lines than with poverty rates. In studies that have analyzed trends over time, findings suggest that communities of color have benefited less from environmental improvements than white communities. Clark et al. (2017) have found this to be the case for transportation-related air pollution over 2000 to 2010, and Salazar et al. (2019) reported similar results for exposure to industrial air toxics between 1990 and 2014, a period when overall exposure declined but inequality along racial lines persisted. Other studies have focused on the role of redlining in a legacy of long-standing environmental problems in minority communities (e.g., Lane et al. 2022).

In response to numerous public comments on the beta release of the CEJST about the omission of race, CEQ and OMB added factors that are highly correlated with race to the final version. Most important, they included areas of “historic underinvestment,” city neighborhoods labeled as “hazardous” for mortgage lending in the 1930s by the federal government’s Home Owners’ Loan Corporation (Mitchell and Franco 2018; ad Orlando 2021). These “redlined” neighborhoods, which had predominantly minority populations, ended up suffering from discriminatory lending practices, leaving a long legacy of injustices. Studies have shown that cities with redlining remain highly segregated, and redlined neighborhoods have higher minority and low-income populations and worse environmental and health outcomes than other neighborhoods (Aaronson et al. 2021; Lane et al. 2022; Nardone et al. 2021; Perry and Harshbarger 2019). Shrestha et al. (2023) finds that adding the historic underinvestment factor did alter the CEJST in a way that better accounts for race and ethnicity. They report that 68 to 72 percent of residents in tracts meeting the historic underinvestment threshold

are Hispanic/Latino, Black, or Native American. Not all cities experienced redlining, however, so this measure alone does not provide a complete accounting of race.¹³

Another criticism directed at the CEJST is that it does not account for the cumulative impacts of multiple pollutants (Shrestha et al. 2023). Its binary designation means that census tracts that meet one indicator threshold are given the same designation as tracts that meet all eight. The problem of cumulative impacts is getting a great deal of attention in environmental justice circles, with studies finding that communities with exposure to multiple pollutants and climate impacts, combined with multiple underlying vulnerabilities, face worse health and other outcomes (Baptista et al. 2022; Lee 2021). New Jersey's groundbreaking EJ law, which requires that permits for polluting facilities be denied if it is shown that those facilities would impose disproportionate impacts on "overburdened" communities, was designed to address cumulative impacts.¹⁴ The fact that the CEJST does not capture cumulative impacts also limits its ability to account for heavier burdens in minority communities, which have been shown to be disproportionately affected by multiple pollutants.

The CEJST is also lacking measures of environmental exposure that are important in some communities but for which data are not available at the national level. Examples include proximity to combined animal feeding operations (CAFOs), exposure to agricultural pesticide use, and problems associated with mines and mine waste. Researchers and EJ advocates have noted the absence of consistent, spatially detailed data on CAFOs as a serious shortcoming in evaluating environmental impacts, and EJ impacts, from the operations (Devine and Baron 2019).

EJ experts have noted that state and local screening tools, which are often able to bring in localized data, can be used to supplement the CEJST. The number of states with their own screening tools is growing.¹⁵ California's tool, CalEnviroScreen, predates many of the national tools and is often held up as a standard-bearer.¹⁶ New York finalized a tool in March 2023 for use in implementation of the state's Climate Leadership and Community Protection Act, which mandates that 40 percent or more of the investments in clean energy and other state money go to disadvantaged communities (Krupnick et al. 2023). Maryland's tool accounts for proximity to CAFOs and many other factors missing from the CEJST.¹⁷

13 Several other factors were also added to the beta version of the CEJST and remain in the final version: lack of green space, lack of indoor plumbing, transportation barriers, the presence of abandoned coal mines, formerly used Department of Defense sites, and leaking underground storage sites. These additions led to a greater share of the overall US population being classified as disadvantaged, across all races (Shrestha et al. 2023).

14 See <https://dep.nj.gov/ej/law/>.

15 See Konisky et al. (2021) for a review of state tools.

16 See <https://oehha.ca.gov/calenviroscreen/sb535>.

17 See https://mde.maryland.gov/Environmental_Justice/Pages/EJ-Screening-Tool.aspx.

Finally, concerns have been raised about use of the CEJST for the five inhabited US territories: American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the US Virgin Islands. The main problem is large data gaps. The Department of the Interior’s (DOI’s) Office of Insular Affairs coordinates federal administration of the territories, with the exception of Puerto Rico. The department is currently requesting a CEJST exemption for use in defining disadvantaged communities in the territories.

2.2.3. Measuring Benefits

EO 14008 states that 40 percent of the “overall benefits” of federal investments must flow to disadvantaged communities. From our review of Justice40 implementation and discussions with agency staff, how to measure benefits is the most fundamental challenge agencies face for reaching Justice40 goals.

The 2021 interim guidance from OMB states that “benefits include direct and indirect investments (and program outcomes) that positively impact disadvantaged communities” (4). The examples of benefits provided by the White House make it clear that these are not just dollars spent; benefits can include environmental, economic, and health improvements, such as job creation, better air quality, and the development of community resilience plans. The guidance also suggests agencies should consult government and community stakeholders and ensure the public is meaningfully involved in determining what constitutes a program benefit (OMB 2021, 7). The WHEJAC, however, has recommended that “Justice40 benefits should ... be defined as direct financial investment in frontline communities” (2022, 1). This view reflects a concern that dollars may be spent in nondisadvantaged communities based on an argument that benefits from those investments will flow to disadvantaged communities. Even though there are instances where those benefits may be realized—for example, land conservation in the headwaters of a river should provide benefits to downstream communities that rely on the river for drinking water—measuring those outcomes and attributing them to investments made in a different location can be difficult.

Benefits measurement challenges fall into the following broad categories:

1. tracing money at the program level, from appropriations to obligations to spending outlays;
2. tracking where money goes, especially in a way that matches the geographies of disadvantaged communities as defined by the CEJST;
3. defining and quantifying beneficial outcomes that result from the financial investment (e.g., environmental improvements, health outcomes, resilience enhancements, and economic impacts such as jobs created);
4. quantifying these beneficial outcomes at the necessary geographic scale, meaning one that matches the definition of disadvantaged communities; and
5. figuring out what “indirect benefits” (language in the EO) are and how to measure them, particularly benefits that accrue in areas that differ from where money is spent.

Challenges 1 and 2 are related to the financial investments themselves. In some cases, the most basic information—exactly how much money is actually going to communities—may be difficult to identify. The second problem relates to the geography of spending: *where* the money goes is not tracked in every program, at least in a way that can be easily mapped to census tracts. Challenges 3 through 5 are about moving beyond dollars spent to some measure of benefits, both direct and indirect. DOE has addressed these issues by developing eight policy priorities and requiring applications for DOE project funding to include a Community Benefits Plan that specifies how projects and activities will perform relative to these goals: decreases in environmental exposure and burdens; increases in clean energy jobs, job pipeline, and job training for individuals; increases in clean energy enterprise creation and contracting (e.g., minority-owned or disadvantaged business enterprises); increases in energy democracy; increased access to low-cost capital; increased parity in clean energy technology access and adoption; and increases in energy resiliency (DOE 2023a).¹⁸

DOE's Justice40 General Guidance includes example metrics for each of the eight priorities (DOE 2023b), while acknowledging that the characterization of benefits will vary by program. Benefits aimed at DOE's policy priority to decrease energy burden, for example, can be measured by "dollars saved [\$] in energy expenditures due to technology adoption in DACs" and "energy saved [MMBTU or MWh] or reduction in fuel [GGe] by DACs." For the decreases in environmental exposure and burdens, the guidance lists as an example metric "avoided air pollutants (CO₂ equivalents, NO_x, SO₂, and/or PM_{2.5}) in DACs," and for increases in clean energy enterprise creation and contracting, the example metric is "number of contracts and/or dollar value [\$] awarded to businesses that are principally owned by women, minorities, disabled veterans, and/or LGBT persons" (DOE 2023b, 14).

Based on our assessment of Justice40 implementation, DOE has moved farther along than other agencies in attempting to define benefits separate from spending, along with making that information publicly available and including it in applications for funding. However, it is important to note that many DOE programs provide funding for industrial-scale projects, such as hydrogen, carbon capture and storage, direct-air capture, and nuclear, that are typically opposed by EJ organizations and communities, including the WHEJAC (Chemnick 2022b). They view these technologies as delaying retirement of polluting fossil fuel plants in disadvantaged communities. Moreover, the direct outcomes from investments in these technologies are mostly divorced from the outcomes in DOE's eight policy goals. Investment in a hydrogen hub, for example, will not in itself decrease energy burdens and pollution in DACs, improve energy democracy, or increase access to capital; applicants generally need to include add-ons in projects to reach these goals. This is not to suggest that the goals are inappropriate or that the add-ons might not provide benefits to communities, but the benefits are not integral parts of the programs themselves. As a result, the extent to which Community Benefits Plans (and related Community Benefits Agreements) are enforceable and the outcomes achieved across these eight areas are up for debate.

18 While Community Benefits Plans are required, Community Benefits Agreements, which are legally binding agreements negotiated between community representatives and developers of projects, are not (Draklellis and Richardson 2023; Stephan 2022).

EPA acknowledges the difference between monetary investments and benefits and stated in an April 2022 meeting of the National Environmental Justice Advisory Council (NEJAC), the interagency EJ group created by EO 14008, that it is committed to tracking both and meeting and exceeding the 40 percent goal for both (EPA 2022). EPA also announced that it would begin calculating a baseline benefits level by having each covered program identify two or three of its critical nonmonetary benefits. These nonmonetary benefits may include reductions in pollution, remediation of sites, improvement in health outcomes (e.g., total cancer risk reduced), or creation of jobs (EPA 2022). EPA's 2022 Equity Action Plan states that the agency intends to measure the percentage of infrastructure investments that benefit disadvantaged communities, the number of new grantees that receive funding, and the percentage of programs that work in or with EJ communities, are community-driven, and support community development (EPA 2022).

Conversations with agency staff suggest that many EPA programs still face some challenges in meeting these aspirations for measuring benefits. Challenges 1 and 2 on our list loom large, suggesting that even tracking dollars at the program level can be difficult. Moving from dollars to other benefits such as health outcomes and pollution reductions at the necessary spatial scale is at this point more aspirational for most programs. We were unable to find reported progress on the plans in the NEJAC meeting or Equity Action Plan. EPA does not face the problems we highlighted for DOE, where many projects are seen as imposing costs on, not benefits to, many disadvantaged communities. However, EPA does have formula grant programs—namely, the two SRF programs—that give the agency limited control over how money is allocated at the state level.¹⁹

Challenges 4 and 5 on our list are especially a concern for agencies with programs that have primarily a rural lands focus, where the geography of benefits may not match census tracts and the location of benefits may differ from where money is spent. US Forest Service investments in wildfire mitigation and Bureau of Land Management abandoned mine cleanups and orphan well programs, for example, will yield benefits that accrue well beyond the site of the activity. Discussions with DOI staff revealed that this is a well-recognized challenge and one that they are wrestling with, with improving data collection methods as a first step. USDA runs several conservation programs that the agency has included among the 65 programs on its covered programs list, such as the Conservation Reserve Program, Conservation Stewardship Program, and Environmental Quality Incentives Program. The programs are set up to provide wide

19 The 1996 amendments to the Safe Drinking Water Act, which established the Drinking Water SRF, requires that states define disadvantaged communities and provide between 12 and 35 percent of their annual grants as additional subsidies to those communities in the form of grants, negative interest rate loans, and so forth. States use their own criteria to define *disadvantaged*, which usually includes water rates and income but often not a lot of other factors (EPA 2022), and the law does not require that a specific share of the total funding states receive from EPA go to disadvantaged communities. The Bipartisan Infrastructure Law authorized additional funding for the Drinking Water SRF; 49 percent of the additional general funding, and a special program for lead service line replacements, and 25 percent of a new emergency contaminant funding program must go to disadvantaged communities.

geographic benefits, including improvements to water quality that might be enjoyed well downstream from where the conservation activity takes place. Conversations with agency staff indicate that they have grappled with the benefits measurement issue and tested alternative approaches. However, they have concluded for now that tracking dollars is the preferred approach. Because payments in these USDA programs are made to individual farmers, and staff track the precise locations of the farms, they are able to assign dollar investments to specific geographies and readily calculate the percentage going to disadvantaged census tracts as defined by the CEJST.

Scientific research programs have similar problems, and although there are not a lot of them on the covered programs list, there are a few, including programs at the NSF, DOE's Office of Science, USDA's National Institute of Food and Agriculture (NIFA), and NOAA's Climate Adaptation Partnerships Program. NOAA has addressed the benefits problem by encouraging grant applicants to achieve at least one of the following: collaboration and partnerships with frontline communities to build local, community, adaptive capacity through engagement and codeveloped, coproduced or comanaged projects; exploration of new directions in research and engagement methods that are indirectly beneficial to frontline communities by centering on EJ and equity themes; and direct investments in frontline communities or representative institutions to build climate adaptive capacity through financial and other resources.²⁰ Agency staff acknowledge that measuring the benefits of scientific outcomes and assigning them to particular geographies will be difficult, but NOAA seems to have gone further than other agencies in at least listing specific requirements for its research grants.²¹

2.3. Opportunities from Justice40

Justice40 is still in its early days, and as discussed in Section 3, implementation has a long way to go for some programs. However, the initiative has provided some opportunities for advancing justice and improving some government practices.

First, the initiative seems to be bringing about greater attention to improved data collection and measurement methods. Because it is impossible to report whether 40 percent of investments (let alone benefits) are going to disadvantaged communities without identifying the census tracts where money is spent, many agencies are working hard to improve their data collection and mapping practices. In some cases, this involves mapping the geographic identifiers they have already in place to tracts; in others, it involves new ways of collecting data. To understand what society is achieving with the billions of dollars the federal government spends on hundreds of programs, and to measure progress as Justice40 and other initiatives move forward, step one is collection of the right data. Justice40 appears to be moving this needle.

20 <https://cpo.noaa.gov/divisions-programs/climate-and-societal-interactions/cap-risa/justice40-initiative/>.

21 NIFA's Bioproduct Pilot Program mentions Justice40 in its request for applications but without specific guidelines. See <https://www.nifa.usda.gov/sites/default/files/2022-06/FY23-BPP-RFA-508-F.pdf>.

Second, technical assistance programs in federal agencies are being designed to benefit disadvantaged communities. In many cases, as we pointed out in Section 2.2.1.2b, the ability of an agency to direct funding to disadvantaged communities depends on whether it receives competitive applications for funding from those communities. FEMA's Building Resilient Infrastructure and Communities (BRIC) program, which provides resilience grants to local governments, has introduced a Direct Technical Assistance program in which communities fill out a simple form requesting technical assistance from FEMA in advance of pulling together a full application to the BRIC program.²² The impetus is to increase the number of competitive full BRIC applications that FEMA receives from disadvantaged communities. USDA's Rural Development agency has technical assistance programs that provide grant funding to nonprofit organizations and other entities that, in turn, provide technical assistance to farmers and rural small businesses, helping them apply for USDA funding.²³ Many agencies have long had some kinds of technical assistance programs, but Justice40 has led to an additional emphasis on them and a focus on reaching disadvantaged and underserved populations.

A third opportunity Justice40 presents is the ability of the federal government to lead by example on justice and equity. Although many decisions on environmental policy and infrastructure investments fall to state and local governments, and some federal programs give states a great deal of latitude in spending federal dollars, the federal government has enormous policy influence. It generally brings larger amounts of money to problems than individual states. It sets national standards and regulations, provides information and technical assistance, and defines priorities in ways that states often follow. Several states are now considering establishing Justice40 oversight committees to monitor spending to reach the 40 percent objective.²⁴ Some states have adopted a form of Justice40 in their own spending policies. Maryland, for instance, has a requirement that at least 40 percent of overall spending in several energy, environmental, and housing programs goes to overburdened communities.²⁵ Some state climate laws include a Justice40 provision. Washington's Healthy Environment for All Act, passed in 2021, is one example.²⁶ For specific programs, there is some evidence that many states are changing

22 Information on the program and the downloadable form are available at <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/direct-technical-assistance>.

23 The Rural Energy for America Technical Assistance Grant Program is one example. See <https://www.rd.usda.gov/programs-services/energy-programs/rural-energy-america-technical-assistance-grant-program>.

24 Delaware has passed such a law. See <https://legis.delaware.gov/TaskForceDetail?taskForceId=441>. A bill was introduced in the South Carolina legislature but failed.

25 See <https://mgaleg.maryland.gov/Pubs/BudgetFiscal/2022rs-budget-docs-jcr.pdf>.

26 See <https://app.leg.wa.gov/billsummary?BillNumber=5141&Year=2021&Initiative=False>. Some state laws came before the federal initiative. New York's Climate Leadership and Community Protection Act includes a Justice40 provision and is often held up as the example on which the federal initiative is based. California's Cap-and-Trade Program, launched in 2013, directs 35 percent of revenues to disadvantaged and low-income communities. Several other aspects of the program guide investments and funding to "priority populations." See <https://www.caclimateinvestments.ca.gov/priority-populations>.

their administration of programs to prioritize spending of federal funds in disadvantaged communities. EPA staff report that several states have changed their definitions of disadvantaged communities for the purposes of the Drinking Water SRF programs. Thus, even though the enforcement authority of federal agencies around equity may be limited, their “soft” power and leadership can change the way states operate.

A fourth opportunity is provided by the setting of a specific numeric target. Compared with procedural requirements, such as the development of agency EJ scorecards and strategic plans, Justice40 sets a goal based on program *outcomes*. Additionally, instead of setting goals around nonspecific equity objectives, the establishment of targets for program benefits—whether defined as dollar investments or something else—is more measurable and provides a tangible guidepost for program administrators. One may question whether 40 percent is the “right” number, but it provides a focal point.

Finally, engagement with disadvantaged communities is a key component of Justice40—a requirement stated in EO 14008 and laid out in the initial July 2021 guidance from the White House—and thus the initiative has furthered outreach and consultation with disadvantaged communities. While stakeholder engagement has long been a part of many federal government programs, the specific focus on disadvantaged communities is a new emphasis. This is another way in which Justice40 is a work in progress. It is not clear whether engagement is yet occurring in the right way and as fully as it should—the questions arising around DOE’s required Community Benefits Plans are a case in point. But the requirements have provided an opportunity for the federal government to do more in this regard, which should ultimately lead to more equitable and community-driven outcomes.

3. Status of Justice40 Implementation

3.1. Methods

We began our review of the status of Justice40 implementation by listing the number of the 468 covered programs released in April 2023 in each agency (see Table 2). In the end, we were able to perform at least some assessment of 445 programs across 12 agencies, or 95 percent of all programs on the April 2023 list.²⁷ We dug deep into federal agency websites for program descriptions, budgets, Notice of Funding Opportunities (NOFOs) and Funding Opportunity Announcements (FOAs), webinar

27 The original list of covered programs was developed based on budget authorities. Agency staff pointed out to us that there can sometimes be a mismatch between these budget lines and actual operating programs in the agencies. For this reason, we sometimes were unable to identify the exact covered programs on the White House list and find budgets and other information. Some of the other programs were omitted because they are smaller and not as directly linked to climate and energy outcomes as programs in the major agencies.

recordings, slide decks, fact sheets that were relevant to the programs and included any mention of equity or justice, and in rare cases, agency reports of Justice40 progress (e.g., share of grant dollars, or other measure, going to disadvantaged communities). We reached out to agency staff, and in a number of cases, we were able to have helpful conversations that clarified things beyond public-facing documents.²⁸ We centered most of these conversations around data and measurement issues, including the use of the CEJST and other tools, the challenge of measuring benefits versus investments, and the program’s or agency’s general approach to reaching the 40 percent goal established in Justice40. Because programs and agency missions are diverse, often the conversations centered around issues specific to the programs and agencies that might not have broad applicability to other agencies. We emphasize again that Justice40 implementation is a work in progress, so many aspects of implementation, reporting, and measurement are still being actively worked on by agency staff.

3.2. Measuring Implementation Status

To quantify implementation status by program, we created a 1–5 scale based on common factors throughout Justice40 program information. Table 5 describes the criteria we used to assign numbers to each program.

We assigned programs a 1 if we could find no information on Justice40. In some cases, there might be broad agency (or individual bureau/office) guidance about equity, including equity action plans, outreach and engagement goals, and provision of technical assistance. But if there is no explicit mention of Justice40, we assigned a 1. Numbers 2 through 4 have varying degrees of Justice40 information available, with 2 being more general guidance, usually somewhat vague and possibly at an agency or office level, and 4 being very specific information, usually in funding notices, including prioritization criteria, metrics, and definitions.²⁹ We divide a score of 5 into two groups: 5A indicates programs reporting that 40 percent of the benefits of the programs are going, or by design will go, to disadvantaged communities, and 5B denotes programs that automatically achieve the Justice40 goal by the way they are set up. Most of the programs in 5B are designed to benefit tribal and low-income communities. We made a judgment call to assign low-income programs to 5B even though these programs are not officially designed to benefit “disadvantaged” communities as defined by the CEJST. Some examples of programs in this category are all HUD programs, the HHS LIHEAP program, and DOE’s WAP.

²⁸ In a few cases, we were unable to make those conversations happen, despite multiple efforts.

²⁹ Agencies were not required to use the CEJST until FY2024, so NOFOs and FOAs released in FY2022 and FY2023 may include information about Justice40 and prioritization based on some measure of “disadvantaged” using alternative tools or the indicators listed in the July 2021 Interim Implementation Guidance (OMB 2021). We still assign these programs to category 4 if they state that they will prioritize funding based on Justice40

Table 5. Justice40 (J40) Status Numbers, Descriptions, and Examples

Progress number	Description	Explanation
Uncertain (U)	Although the program is covered under J40 according to the April 2023 J40 covered programs list, the program cannot be found or it is unclear what activities are encompassed by the program name.	We could not find a website, budget, or funding announcement associated with the program name. Rather than a single program, it is a general agency initiative, tool, activity, or process, in some cases not subject to J40 measurement and reporting even though it is on the covered programs list.
1	No mention of J40 at the program level.	The program website, linked materials, and other related information do not mention J40. Funding announcements and applications, which are the most common place to find mention of J40, either do not mention J40 or have not yet been released. There is agency-wide J40 information but none at the program level.
2	Only an acknowledgment that J40 pertains to the program.	The program acknowledges it is covered by J40 and subject to its requirements, but no further information or progress has been reported (e.g., it explains J40 and may link to the White House webpage but does not connect J40 to program goals).
3	Preliminary J40 implementation guidance and plans for the program provided but with no clear metrics of prioritization methods	Program materials mention that projects located in or benefiting disadvantaged communities will be prioritized but only in general terms (e.g., “will award funding in accordance with J40”; “additional consideration to projects in DACs”).
4	Thorough program-specific Justice40 guidance provided, including clear definitions of metrics, but no statement that 40% or more of investments currently go to, or definitely will go to, disadvantaged communities.	J40 section in a funding announcement requires applicants to submit plans on how the project benefits or intersects with disadvantaged communities. The application for funding requires a descriptive plan of how investments will be prioritized. Priority points are given to projects that benefit disadvantaged communities. Clear program information is provided on how J40 is being defined and implemented, which may include how project benefits will be measured and tracked to meet the 40% requirement.

Progress number	Description	Explanation
5	(A) Program states that 40% or more of investments/benefits are currently going to J40 disadvantaged communities or will go to disadvantaged communities through set-asides and specific requirements.	Funding webinars and award announcements state that 40% or more of benefits have gone to, or will definitely go to, J40 disadvantaged communities.
	(B) Nature of the program, usually linked to legislation creating it, indicates that it will automatically meet J40 goals. This includes, for example, programs targeting tribal and low-income communities.	Based on the office/program name and available information, all investments are presumably directed to disadvantaged communities as defined by J40 (e.g., all DOI Indian Affairs programs and tribal programs in other agencies; HUD programs, which benefit low-income households and communities).

Table 6 provides the distribution of program status across our 1–5 scale. Of the 445 programs we evaluated, we were unable to measure and monitor the status of 42 programs on the covered programs list. This was because either we could not find the program information or the programs are not required to measure and report. These situations often arise because these are not actually programs but collections of associated activities. The April 2023 covered programs list acknowledges this for some programs and notes that they “therefore will likely not be subject to the development of a comprehensive benefits methodology or reporting” (White House 2023a, 5).³⁰

Of the remainder, the largest number of programs fall into category 1—133 of the 445 programs we evaluated, or 30 percent. The second-largest number is in category 5. Thus implementation progress is bimodal according to our analysis—that is, many programs are, at least publicly, not yet acknowledging Justice40, listing Justice40 goals as priorities, or otherwise showing how Justice40 is affecting their operations, yet many other programs are achieving Justice40 objectives, even in these early days of the program. We hasten to point out, however, that most of the category 5 programs fall into 5B, programs that automatically achieve the Justice40 goal because they target tribal or low-income communities exclusively. Only 10 programs fall into 5A. Eighteen percent of covered programs fall into category 4, just slightly below the

30 One example is a covered program for the Forest Service, Hazardous Fuels Management, which includes a range of activities related to wildfire management. Examples for EPA where we could not find a program that precisely matched the name on the covered programs list include Categorical Grant: Lead and Categorical Grant: Pesticides Program.

number in 5B. This category indicates substantial movement toward the Justice40 goal because, in general, it means that funding announcements list specific Justice40 requirements. At the time of our study, however, we could find no public report of whether those programs reached the 40 percent goal.³¹

Table 6. Justice40 Status by Number and Percentage of Programs

Status number	Number of programs	Percentage of programs evaluated
U	42	9
1	133	30
2	40	9
3	52	12
4	80	18
5A	10	2
5B	88	20
Total programs evaluated	445	100

Figure 1 breaks down the numbers in Table 6 by agency. We highlight a few key findings from the figure. First, the 5B programs are mainly in DOI, HUD, and HHS, though several other agencies also have some tribal and low-income programs. The DOI programs are primarily those operated by the Bureau of Indian Affairs. The HUD programs are the CDBG Program (discussed in Section 2.2.1) and related programs that focus on tribal, Native Hawaiian, and Native Alaskan populations. Second, for most of the agencies with a lot of covered programs—DOE, EPA, USDA, DOI, and DOT—these fall into a range of categories. EPA and DOT have programs in every category. Thus it is not that one agency is further along in implementation than others, but rather there is heterogeneity within agencies, with individual programs showing different degrees of progress, at least as represented publicly. Notably, EPA has a large number of programs still in category 1, but it has the largest number of 5A programs of any agency. NOAA and FEMA have the fewest programs but show the greatest progress. DOE has a large number of programs in category 1 (50) but also a large number in category 4 (34).

³¹ Agencies have been reporting Justice40 progress to OMB, but this information is not available to the public.

Figure 1. Justice40 Implementation Status, by Federal Agency

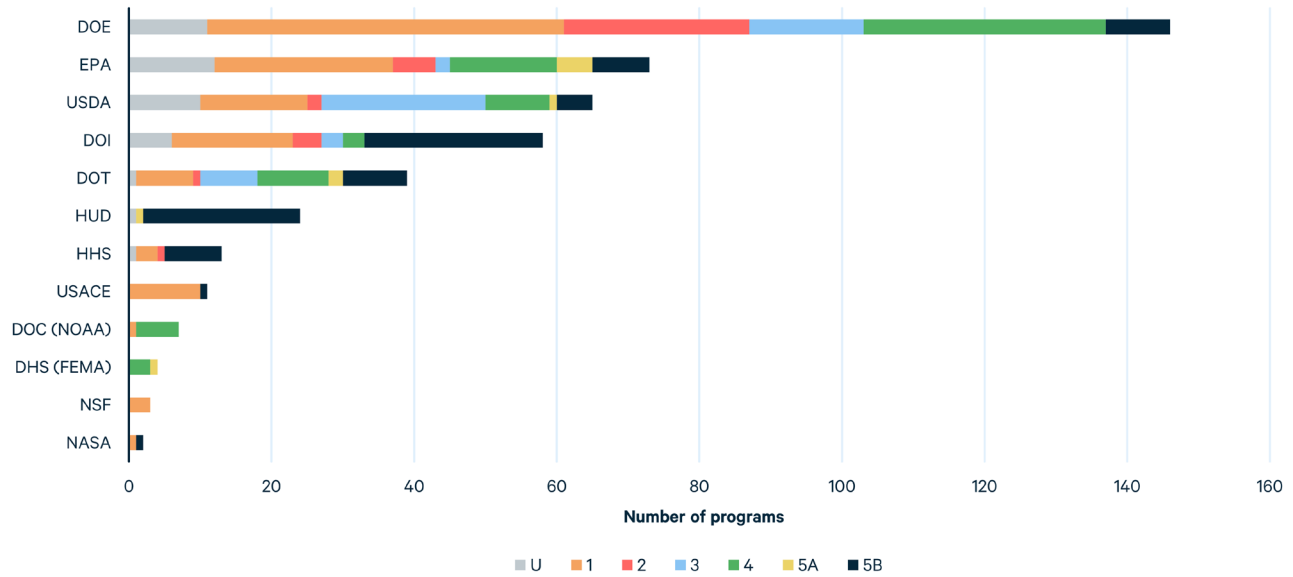
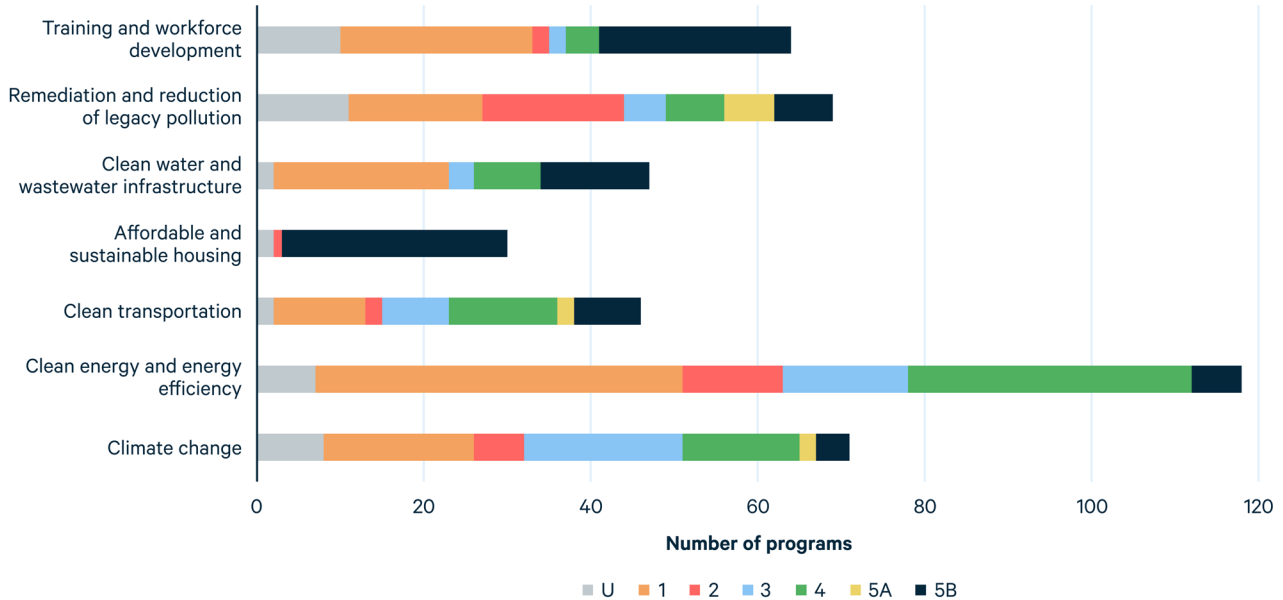


Figure 2 breaks down the program implementation status by the seven categories of benefits that EO 14008 introduced and the interim guidance documented. We made our own determination as to how to assign programs to each of the categories. In some cases, determining whether a program should be assigned to the clean energy and energy efficiency category versus clean transportation or climate change was difficult; we used our best judgment, including noting which federal agency administers the program. In addition, some programs were difficult to assign to a category, such as the Fish and Wildlife Service Fish Passage Program, Land and Water Conservation Fund, Conservation Reserve Program, and many of the USDA crop support programs. In most cases, we used the climate change category for these programs. We assigned almost all the pollution programs to the remediation and reduction of legacy pollution category, even though several of them are addressing current problems as much as past ones. We categorized anything focused specifically on water as clean water and wastewater infrastructure.

By our categorization, clean energy and energy efficiency includes the largest number of programs. This is because of the large number of covered programs at DOE as well as several energy programs at USDA. The second-largest category is climate change. Progress within the seven benefits categories is varied. The only one that stands out is the large number of 5B programs in the affordable and sustainable housing category. This is attributable to the HUD programs and a handful of USDA Rural Housing Service programs that support low-income households. All the other benefits categories have programs ranging from 1 to 5.

Figure 2. Justice40 Status, by Program Type



Although we obtained FY2023 budget numbers for many programs on the covered programs list, obtaining that information for all programs was beyond our scope. Therefore, although it would be useful to view the status of Justice40 spending in addition to number of programs, that analysis is left to future research. There are challenges associated with finding budget numbers for individual programs, and additional challenges brought on by the Bipartisan Infrastructure Law (BIL), which authorized five years of funding for many programs, including several new ones created in the law. We were unable to sort through all this in a consistent way across 445 programs with the limited time and resources available for this project.

We can point out a few things about funding. First, of the agencies with covered programs, HHS has the largest budget, followed by USDA. However, the big-spending programs in those agencies are not on the Justice40 covered programs list. The Centers for Medicare and Medicaid Services accounts for 91 percent of the FY2023 HHS budget, and the Food and Nutrition Service accounts for 68 percent of the USDA budget; neither is a Justice40 program.³² By our preliminary calculations, DOE accounts for the bulk of the Justice40 spending. Using the Appendix of the Budget of the U.S. Government for Fiscal Year 2023, which includes detailed information on monetary obligations for individual programs in each federal agency, we estimate that 7 offices in DOE that focus on new clean energy options, including research and demonstration programs, and management of carbon from fossil energy sources, had approximately \$21 billion to spend in FY2023 on 69 programs covered by Justice40. DOE’s Office of Energy Efficiency and Renewable Energy and Office of State and Community Energy Programs had approximately \$5.3 billion for 37 covered programs.

³² Federal agency budgets can be compared at <https://www.usaspending.gov/>.

Although only 10 programs fall into the 5A category, it is worth noting which programs these are. Table 7 lists each of these individual programs and the information we found about their progress or stated requirements in meeting the 40 percent goal for disadvantaged communities.

As the table makes clear, our assignment of programs to category 5A is based on a mix of actual reported outcomes, either from grant awards or hazardous site cleanup projects, and stated intentions backed by clear metrics to provide at least 40 percent of program funding to disadvantaged communities. The FEMA BRIC and HUD Lead Hazard Control and Healthy Homes Grant Programs, for example, fall into the first category—that is, their funding awards show more than 40 percent of investments going to disadvantaged communities. For the second group, it is worth further explaining why we assigned the programs to category 5A rather than 4. Programs in category 5A provide information on webpages and in other materials stating that they *will* achieve the 40 percent goal. By contrast, programs in category 4 tend to have prioritization methods laid out in NOFOs and FOAs, along with other information, that state *an intention* to try to achieve the 40 percent goal.

Table 7. The 10 Programs Fully Implementing Justice40 as of Fall 2023 (Category 5A)

Agency	Program	Justice40 information
DHS: FEMA	Building Resilient Infrastructure and Communities (BRIC) Grant Program	According to FEMA summary of selections, 61% of FY2022 grants went to disadvantaged communities.
DOT	Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program	According to a June 2023 Press Release , 70% of grants are going to regions defined as Areas of Persistent Poverty or a Historically Disadvantaged Community.
DOT	Reconnecting Communities Grant Program	Of the 45 pilot projects funded in FY2022, 100% were in disadvantaged communities. (DOT combined this program with the Neighborhood Access and Equity Program created by IRA, which requires 40% to disadvantaged communities.)
EPA	Brownfields Program	EPA reports in a May 2022 press release that 86% of grants to 256 communities went to disadvantaged communities.
EPA	Leaking Underground Storage Tank (LUST)/Underground Storage Tank Program	EPA reports in a June 2023 webinar that as of March 2023, 42% of underground storage tank cleanups have taken place in disadvantaged communities.
EPA	Consumer Recycling Education and Outreach Grant Program	Created in BIL, which requires that 20% go to low-income, rural, and Native American communities, but EPA states that 40% of funds will go to projects in disadvantaged communities.
EPA	Solid Waste Infrastructure for Recycling Grant Program	Created in BIL, which requires that 20% go to low-income, rural, and Native American communities, but EPA states that 40% of funds will go to projects in disadvantaged communities.
EPA	Superfund Program	EPA states in a June 2023 webinar that 88% of economic impacts from program occur on reused/redeveloped sites in “communities with potential for EJ concerns.”
HUD	Lead Hazard Control and Healthy Homes Grant Program	Of awards announced in September 2022, HUD states that 92% of successful applicants committed to use at least 60% of their grant funds in disadvantaged communities.
USDA Forest Service	Wood Products Infrastructure Assistance Grants Program*	An April 2023 announcement from the Forest Service states that two-thirds of all funded proposals will be implemented in disadvantaged communities.

Note: *On the Justice40 covered program list, this program is called “Financial Assistance to Facilities That Purchase and Process Byproducts for Ecosystem Restoration Projects.”

4. Conclusion

Nearly three years after the announcement of Justice40, implementation appears to be uneven across the 445 programs that we reviewed. A large number of programs, across almost all agencies, have no publicly available information about how administration is changing to meet Justice40 objectives. At the same time, there are some early success stories, and a significant number of programs have clear guidance on how they are working toward achieving the 40 percent goal. These mixed results appear across agencies, with some programs making substantial progress and others, according to our research, lagging behind.

As we stated at the outset, Justice40 is still in its early stages. Therefore, our findings about progress on implementation should be viewed with caution. Even as this report is published, new activities are taking place, new funding announcements are rolling out, and there likely will be new reports of progress. Justice40 is a moving target. The announcement at the end of November 2023 of more IRA-funded programs added to the list provides clear evidence of this.

We also hasten to point out that our implementation progress scale does not say anything about actual outcomes in disadvantaged communities. That kind of analysis will be critical at some point in the future, and we are hopeful that the data being collected in agencies will lay the groundwork for careful program evaluations. To that end, we hope that agencies will make various progress metrics public so that disadvantaged communities can ground-truth those metrics and researchers and others can use the information for program evaluation.

Until then, our view is that there are two important issues that could be fruitful areas for researcher and EJ community engagement with government. The first is measurement of benefits versus dollar investments. The executive order that introduced Justice40 used the term benefits, and the White House has repeatedly stated that benefits are not equivalent to dollars spent. Measuring the benefits of federal investments is challenging, however, and careful analysis of how to do this in the context of specific program structures is needed. The second issue needing attention is how programs that send money to states by formula can ensure that the states spend 40 percent of the money in (or provide 40 percent of the benefits to) disadvantaged communities. An assessment of the options available to federal agencies to incentivize states to follow through on Justice40 would be worthwhile.

The Justice40 initiative could be transformative for the EJ movement, directing federal government resources toward solving long-standing environmental problems in disadvantaged communities and ensuring that those communities enjoy the benefits of the clean energy transition. The government is still in the early days of implementation, however, so it remains to be seen how much Justice40 can accomplish. In this report, we laid out several challenges having to do with the structure of funding programs, the definition of disadvantaged communities, and the measurement of benefits. At the same time, Justice40 also provides new opportunities, including improvements in data collection and measurement, federal leadership that drives changes at the state level, improved engagement with communities, and a sharp focus on outcomes.

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