



# Lessons from Local Leaders

## How Federal Agencies Can Help Ensure Data-Driven and Equity-Centric Infrastructure Investment

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Passed by Congress in November 2021, the Infrastructure Investment and Jobs Act (IIJA) provides an influx of up to \$1.2 trillion in federal funds to address top infrastructure priorities at the local level.<sup>1</sup> Such a level of spending provides enormous opportunity for communities in need to address major infrastructure challenges. But given the racial inequities left unaddressed or exacerbated by past infrastructure investment, ensuring that funding is distributed to the communities most harmed and in need is a crucial priority.

In accordance with the Biden administration's Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 13985) and the Justice40 initiative, federal agencies are requiring more data and documentation in the application phase of how proposed projects will affect low-income communities and communities of color. To better understand what it takes for communities to secure funding made available under IIJA, we interviewed representatives of local and regional government agencies and eligible nongovernmental organizations to learn from their experiences applying for federal funding for infrastructure projects that would benefit their communities.

This research brief is designed to lift up key findings from those interviews, with a particular focus on data-driven and equity-centric concerns throughout the application lifecycle. We will explore the pressing needs of IIJA applicants, highlight best practices from winners of these discretionary grants, and provide recommendations for how federal stakeholders can ensure that applicants of varying capacities can unlock infrastructure funding for their communities.

# Background

The Infrastructure Investment and Jobs Act, often referred to as the Bipartisan Infrastructure Law, authorizes \$1.2 trillion in infrastructure funding for roads, bridges, power, rail, broadband, drinking water, water storage, and public transit, among other approved investment categories. To execute on this vision, IJIA leverages competitive federal grants and contracts as well as formula funding for states to fund local actors who can implement infrastructure projects on the ground.

Many hope IJIA funds will be used to address long-standing inequities caused by our nation's infrastructural racism, a system by which racist policy choices about our infrastructure systems have disproportionately negatively affected communities of color.<sup>2</sup> Highways offer one example. Following congressional approval of the Federal-Aid Highway Act of 1956, interstate highways were constructed to eliminate unsafe road conditions and facilitate efficient cross-country travel. However, these public investments often displaced and uprooted neighborhoods largely composed of poor, Black or Latinx communities, disrupted pedestrian walkways, tanked property values, bolstered segregation, and distanced many communities of color from essential services like hospitals, grocery stores, and public parks.<sup>3</sup> The effects of inequitable infrastructure investments like these compound, contributing to racial wealth gaps based on lower property values or to adverse health conditions caused by worsened air quality or higher exposure to pollutants.

In an effort to redress these structural issues, the White House and federal agency leadership have prioritized advancing racial equity through this infrastructure investment. EO 13985 lays the foundation for delivering on this priority by requiring federal agencies to assess the extent to which their programs and policies perpetuate systemic barriers to opportunities for people of color and underserved groups.<sup>4</sup> And Justice40 offers a framework for federal agencies to work with states and local communities to achieve its goal: delivering 40 percent of the overall benefits from federal investments in climate resilience and clean energy to disadvantaged communities.<sup>5</sup> To help explore what it would take to measure progress on these goals, EO 13985 also formed the Equitable Data Working Group, which recently released its initial recommendations, including to normalize the collection of race-disaggregated data while protecting privacy and leveraging underused data (White House 2022).

In practice, the EO and Justice40 Initiative mean that competitive federal grant programs are shifting to include more explicit criteria on racial equity and are asking applicants to demonstrate how their projects serve or affect disadvantaged communities. In many cases, doing so includes using data assets of many types to build a project narrative that clearly aligns with these equity goals. Yet writing compelling grant applications that weave in relevant data is complex and often requires considerable in-house analytical capacity or the money to hire external consulting support (especially when federal requirements can be particularly rigorous).

To best understand how localities, especially those most in need of infrastructure investment, are navigating these shifts, our research team conducted 20 semistructured interviews with local actors

that engaged in recent IJA applications to get a sense of their experience building data-driven, equity-centric narratives for infrastructure projects.

We concentrated on speaking to local actors who are experts in transportation and brownfields revitalization, two types of infrastructure investment that offer clear windows into issues communities of color face and data challenges for localities addressing those issues.

- **Transportation:** According to the National Equity Atlas, households of color are less likely to have access to personal vehicles than white households and to rely more on public transportation as well as bike and pedestrian infrastructure to access employment, education, and health care resources, to name a few.<sup>6</sup> Yet, Black, Hispanic, and Asian people are significantly more likely than white people to have to walk 30 minutes or more a day to reach public transit (Besser and Dannenberg 2005). Low-income Americans walk and bike more than higher-income Americans, and cycling as a mode of transportation is growing fastest amongst people of color.<sup>7</sup> But only 49 percent of low-income communities have sidewalks, compared to 89 percent of high-income communities (Gibbs et al. 2012). Protected lanes for cycling and walking are also particularly important for people of color, who face both higher risk of collisions with vehicles *and* a greater threat of injury or death when involved in such collisions.<sup>8</sup> Additionally, exclusionary zoning and historical patterns of segregated housing have disparately affected the quality, quantity, and frequency of transportation and transit services for low-income communities, limiting access to jobs, schools, hospitals, and more.<sup>9</sup> Federal funding in these spaces is needed to address issues such as access and mobility, health and safety, economic development, and environmental justice, all of which confront communities of color at disproportionate rates.
- **Brownfields:** Brownfields sites are more likely to be in neighborhoods with higher shares of people of color and close to individuals or families who have income below the federal poverty level, who are linguistically isolated, and who are less likely to have a high school education.<sup>10</sup> Brownfields can affect public health both directly and indirectly. Directly, brownfields sites can contaminate the surrounding soil, air, and water, affecting people who walk, breathe and drink groundwater near the site.<sup>11</sup> Indirectly, the presence of brownfields can affect community cohesion (such as by leading to abandoned buildings) or pose a local economic burden and barrier to businesses near the sites. Federal infrastructure investment is crucial to equitable brownfields revitalization, particularly when government voices attend to imbalances of power by communicating about environmental cleanup and redevelopment with their local communities (Lehigh, Wells, and Diaz 2020).

Competitive federal grants for transportation and brownfields revitalization that received additional funding through IJA reflect these priorities. Competitive grants in transportation such as Rebuilding American Infrastructure with Sustainability and Equity (RAISE); Infrastructure for Rebuilding America (INFRA); and Safe Streets and Roads for All include specific criteria to evaluate how proposals address issues of racial equity and barriers to opportunity for communities of color. And federal grants through the Environmental Protection Agency's (EPA's) Brownfields Grant Program

that provide funding for brownfields remediation and redevelopment will similarly seek to rectify inequities facing communities of color, who live near these sites at disproportionate rates. These initiatives, including Multipurpose, Assessment, Revolving Loan Fund, Cleanup, and Job Training grants, also represent an actionable way for affected communities to contribute to the planning and designing of new public amenities and investments in infrastructure.

We reached out to local and regional government agency representatives, community-based organizations, and select consultants who had experience applying to at least one of the grants listed above to learn from their experience. After identifying a first wave of contacts, we added potential interviewees to our outreach list given recommendations from other interviewees and experts. In total, we conducted 20 semistructured, hour-long interviews split evenly across our two policy areas of interest: 10 interviews with transportation stakeholders and 10 interviews with brownfields stakeholders.

## Findings

Our interviews with experts at the local level coalesced around five core themes:

- quantifying racial equity and environmental justice
- measuring the impact of investments
- facilitating meaningful community engagement
- contending within the application cycle
- managing relationships within the local ecosystem

In the following sections, we will explore each theme by sharing the needs and challenges facing local stakeholders regarding the theme, best practices to highlight from exemplary local actors, and recommendations for ways federal stakeholders can best support localities as they intentionally pursue infrastructure funding for their communities.

### Quantifying Racial Equity and Environmental Justice

#### CHALLENGES

Applicants struggle with quantifying racial equity and environmental justice given confusion over terminology and methodologies, fear of deviating from federal guidance, and trouble with data wrangling and integration.

Given the focus on measuring equity investments for competitive federal grants under IJJA, applicants are required to determine if their proposed project is located within a “disadvantaged community” (box 1). Although the White House Council on Environmental Quality is still developing its Climate and Economic Justice Screening Tool (CEJST), the US Department of Transportation (DOT) has developed interim guidance for identifying disadvantaged communities in Justice40-covered grant

programs, as well as a mapping tool to identify “Transportation Disadvantaged Census Tracts.”<sup>12</sup> CEJST will eventually take over as the resource for identifying the communities that should receive 40 percent of the benefits from federal investments under Justice40.<sup>13</sup> However, the tool’s methods for defining “disadvantaged communities” have come under criticism. Although the desire to target benefits to communities most in need is laudable, none of the indicators used to define “disadvantaged communities” explicitly accounts for race. This was a common point raised during the comment period, including by the Urban Institute (McTarnaghan et al. 2022).<sup>14</sup> Omitting race relies on its correlation with other included socioeconomic and environmental indicators (Bullard 2001; Mohai and Saha 2007; Mohai and Saha 2015). In other words, simply controlling for these other indicators that are correlated with race ignores the inequities in transportation and environmental burdens that are explicitly driven by structural racism. The tool’s definition also fails to account for the interaction effects among various indicators, meaning it is unable to capture the cumulative impacts that confront communities across environmental, health, and socioeconomic indicators. To that end, communities are either classified as disadvantaged or not disadvantaged, a binary outcome that ignores nuances and degrees of severity across localities.

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#### BOX 1

##### Defining Disadvantaged Communities

The Climate and Economic Justice Screening Tool (CEJST) identifies communities that are disadvantaged for the purposes of the Justice40 Initiative, at the census tract-level.<sup>15</sup> A census tract is identified as “disadvantaged” if it lies above the threshold for one or more environmental or climate indicators (such as climate change, clean transit, or health burdens) and if the census tract is above the thresholds for the socioeconomic indicators (such as if the tract is at or above the 65th percentile for low income or if 80 percent or more of individuals age 15 or older in the tract are not enrolled in higher education). For more information, explore the interactive map or methodology.<sup>16</sup>

Other terms used to describe communities with similar characteristics include environmental justice communities, overburdened communities, equity priority communities, and communities of concern (Ezike, Tatian, and Velasco 2020).<sup>17</sup>

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Beyond the methodology, even what language is used in grant applications is a point of confusion and contention for local applicants.

- The EO 13985 uses the term “underserved communities,” referring to “populations sharing a particular characteristic...that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life”<sup>18</sup>
- In transportation planning, “communities of concern” are defined at the census tract or block level according to some guidance from Title VI of the 1964 Civil Rights Act, but the methodology differs across metropolitan planning organizations, state transportation departments, and public transit agencies (Ezike, Tatian, and Velasco 2020).

- The most recent EPA Multipurpose, Assessment, Revolving Loan Fund, and Cleanup grant guidelines for brownfields funding denote “sensitive populations,” including “minority or low-income communities,” as a way to demonstrate community need on an application.<sup>19</sup>

Representatives from one public transit agency noted that because many consider the terms quoted previously to have a pejorative connotation, they want to move toward more progressive language, such as “priority populations.” However, those respondents also expressed uncertainty about deviating from the official language that might appear in a Notice of Funding Opportunity, or NOFO, even if they dislike that official language, sharing: “even if you are changing your vocabulary to be more progressive, it may potentially hurt your chances of winning that grant. And so that’s an internal discussion we all have to have, about what those trade-offs are and how to best advance along that continuum.”

This was not the only example of local agencies expressing trepidation at the prospect of deviating from federal guidance to try to be more inclusive or creative. The incorporation of equity and environmental justice into the benefit-cost analysis required by DOT for discretionary grant programs is given one small paragraph in the latest guidance (entitled **Distributional Effects**), but absent more detailed guidance, local actors are hesitant to try new methodologies that could be rejected out of hand by DOT because they don’t follow guidelines.<sup>20</sup> One interviewee proposed ideas to try to monetize these concepts to fit in a traditional benefit-cost analysis framework, including the use of a factor by which to multiply benefits for outcomes such as pollutant reduction in at-risk communities. Accounting for externalities around environmental justice may not be entirely possible with simple approaches like this, but they are better than the alternative of omitting these effects entirely, because doing so neglects to reveal who benefits from the efforts. As one interviewee argued, it may be difficult to define racial equity metrics in spaces like transportation that overlap with so many other policy areas, but they added “you can’t let the perfect be the enemy of the good in a situation where you’ve got an incredibly inequitable society to start.”

Besides language and guidance, we consistently received local feedback about the data and methodological challenges of quantifying racial equity impacts. On the transportation side, commonly used travel demand models are generally not as comprehensive as planners would like (and they are often prohibitively expensive), and in less car-reliant regions, they fail to capture nondriver behavior. Therefore, these models may not adequately represent the experiences of nonwhite households, who are less likely to have access to their own vehicles. Granular sources of race-disaggregated data are most widely available through the American Community Survey or tools such as CEJST or EJScreen that use those sources, so although localities can identify disadvantaged communities as defined previously, capturing other relevant information or behavior is much more difficult.

However, simply allocating funds to disadvantaged communities does not mean the investments themselves will advance racial equity. For some past applicants, being able to identify disadvantaged communities simply confirms what is already widely known anecdotally, especially for brownfields revitalization. In Trenton, New Jersey, potential brownfields projects often line up with maps of redlining along canals and former industrial areas. And applicants we spoke with in majority nonwhite,

Promise Zone, or Opportunity Zone areas indicated that those designations have driven federal funding to their communities, with the prevailing assumption being that investments in those areas are by default investments that further racial equity. But research finds the opposite to be true in Opportunity Zones, indicating that tax breaks are costly and benefit wealthy investors rather than improving conditions in low-income communities.<sup>21</sup> At the same time, measuring the specific mechanisms by which funding opportunities can advance equity or tracking the impacts of these investments seems beyond the scope of what can be done without a wider diversity of race-disaggregated data sources other than the American Community Survey, and few of these data sources exist.

For instance, some localities had challenges wrangling sources of data that were crucial for producing compelling grant applications, such as data on where folks travel using public transportation, health data in areas near brownfields sites, and measures of gentrification and displacement caused by new investments in transportation or redevelopment efforts in blighted areas. Some of the higher-capacity applicants rely on sources such as ridership data, rich internal surveys of customers or residents, and data on housing occupancy for redeveloped brownfields sites to fill gaps in available race-disaggregated sources and measure racial equity. On the other hand, representatives we spoke with in many localities did not know where to begin trying to quantify racial equity, whether because they lacked knowledge about federal tools such as EJScreen, because they needed more in-house analytical capacity to leverage available data sources, or because they lacked knowledge of racial equity goals and priorities altogether. Many tools, including EJScreen, require a level of geographic information system (GIS) proficiency to perform custom analyses of the underlying data or to overlay additional geospatial data sources, so localities that can hire GIS analysts will have an advantage. An interviewee from one local transportation department that is just beginning to add GIS and data analysis capacity to their staff this year cautioned it takes time for agencies to become familiar with doing in-house analysis. They explained to us that it might take a year before they had the data and tools they needed at their disposal to conduct internal research.

Potential brownfields applicants often struggle with another type of identification process: finding and cataloguing relevant brownfields sites. Most localities do not have access to comprehensive data with parcel-level information on potential sites to target for assessment, cleanup, or redevelopment. Tools such as EJScreen are powered by the Facilities Registry Service environmental records database, which suffers from incomplete state records that add critical, more granular information.<sup>22</sup> This lack of data—sometimes at even the state level—means that prioritization occurs in many ways. Sometimes a blighted site is apparent to anyone who lives in the community, like in the case of Sherman Park in Indianapolis, and local stakeholders rally around that specific location.<sup>23</sup> But for many other areas, no parcel of land is obvious to select, so a common practice is to search for sites and then determine whether they're eligible for funding, often by seeking out the locations of former gas stations and dry cleaners. Particularly for regional organizations like the Delaware Valley Regional Planning Commission, whose jurisdictions can cross state lines, this process can entail the wrangling of site history parcel by parcel and locality by locality, and for privately held land this process can be especially burdensome. Several brownfields applicants with whom we spoke explained that there is

simply no robust process to prioritize sites for redevelopment. Although the cleanup of any vacant and contaminated site in a community of need is a positive step, the ad hoc nature of the process is a significant challenge to localities targeting maximally equitable funding opportunities rather than just eligible ones. One interviewee explained as much, that when they began the process of selecting sites, “they were kind of randomly around the city.” But once they started strategically prioritizing sites for which they could demonstrate real value for developers, the process changed, leading to the redevelopment of that site into a dialysis clinic that addressed health needs for the city and community. The current landscape produces a dichotomy: some localities know exactly where to focus their efforts because anyone who lives in a community can point to an obvious blighted site in the middle of their neighborhood; other localities have no idea where to look because the best candidates are less obvious, and they don’t have the necessary data.

### BEST PRACTICES

As noted, higher-capacity applicants administered strategic planning and ridership surveys with demographic information about their riders that they could associate with behaviors, preferences, and new initiatives. Of course, not every locality has the budget, scope, or analytical capacity to launch surveys that collect demographic data while preserving privacy, but we see some examples of applicants who fill gaps in federal data to measure racial inequalities by simply collecting their own disaggregated information.<sup>24</sup> For example, Bay Area Rapid Transit administers a biannual customer survey with rich information on the demographic composition of their ridership, where folks work and live, and how they use and rely on public transit.

Some localities are leading by creating their own methods of community identification, which they use as a benchmark for equity in project prioritization and spending rather than a reaction to federal guidance. Los Angeles identified neighborhoods that it calls Equity Focused Communities (EFCs) to prioritize transportation investment across the city.<sup>25</sup> They use a mix of criteria, such as a community’s share of low-income residents, nonwhite residents, or zero-car households. Unlike the CEJST tool previously discussed, this definition takes steps toward explicitly accounting for race and considering the cumulative impact of several indicators in combination. The city has several performance measures to track progress toward certain outcomes for EFCs, including metrics such as the share of EFC households within a 10-minute walk of high-quality public transit, collisions by mode of transportation and severity in EFC areas, and share of household income spent on combined transportation and housing costs in EFCs.

Several organizations have thought more creatively about identifying eligible brownfields sites to facilitate more strategic and equity-focused redevelopment. Denver’s Department of Public Health & Environment combed through publicly available “reverse phone books” to find the names and locations of former gas stations and dry cleaners in their geospatial database, cross-checking what they found against GIS data from Sanborn fire insurance maps to build a comprehensive inventory of potential brownfields sites in their area. Although Denver did this using geospatial data, the process could also be done manually. Reverse phone books and Sanborn fire insurance maps are likely available in many cities’ public library collections, and Sanborn maps are also available through the



Library of Congress.<sup>26</sup> Other larger cities in need of such an inventory might outsource such work to a consultant or pay for access to environmental records databases, but multiple interviewees suggested that for smaller towns with only a few potential sites, keeping this work in-house could be a cheaper alternative that allows them to catalogue parcels for redevelopment more comprehensively. Community Lattice, a Houston-based organization that works on environmental justice challenges in underserved communities, partnered with DataKind to clean and standardize EPA's ACRES (Assessment, Cleanup and Redevelopment Exchange System) database and use natural language processing tools to build a cleanup cost calculator, another tool that can enable localities to think more strategically about the sites they identify and target for federal funding.<sup>27</sup> Community Lattice also offers a list of resources for localities that want to build their own brownfields inventory.<sup>28</sup>

## RECOMMENDATIONS

### ***Increase efforts at the federal level to responsibly collect and disseminate race-disaggregated data sources***

Two key priorities of the Equitable Data Working Group are to generate and disseminate more granular sources of race-disaggregated data, indicating that federal stakeholders are already aware of and prioritizing the issue localities currently face. Our stakeholder interviews confirm this gap at the local level, highlighting that beyond American Community Survey data on demographic information, few resources exist to demonstrate the current disparities and future promises that transportation and infrastructure investments can hold for communities of color in expanding access to mobility, connectivity, jobs, green space, and healthy environs. Further investigation is needed to determine the specific data assets within these topic areas that should be prioritized. Race-disaggregated data should always meaningfully account for what localities already know anecdotally about their constituents while striving to supplement that knowledge by offering actionable insights for prioritizing or deprioritizing proposed initiatives and tracking the impact of federal funding flows.

The risk of expanding access to sensitive information at more granular levels of geography is that individuals in the data face harms around reidentification. This trade-off between the utility and privacy of a dataset is inherent, and there are growing bodies of work to address it responsibly. Researchers at Urban have called attention to this issue and are developing a privacy-preserving method that generates synthetic (fake, statistically representative) data and a validation server for researchers to submit analyses without accessing the actual data.<sup>29</sup> The team is also engaged in efforts to educate federal stakeholders about more modern advances in the data privacy landscape.

***Signal that creative approaches to describing and measuring racial equity and environmental justice are encouraged***

Absent official guidance, federal agencies should make clear that methodological risk-taking in the name of quantifying or monetizing equity will not be penalized. In addition to the dearth of data sources to unlock new analysis, localities have to grapple with other issues such as the lack of internal capacity to conduct racial equity analyses and the need for thoughtful treatment and understanding of issues around structural racism and equity. Given these barriers, federal stakeholders should be making it easier rather than harder for competitive grant applicants to attempt to demonstrate the equity implications of their proposals. This extends to language (and associated definitions) that localities use in place of “disadvantaged communities.” Recognizing the flaws in that language and definition, federal agencies should encourage states and localities that use asset-based or positive language and innovative criteria. Finally, if agencies want to see specific analyses or methodologies, these should be clearly defined and explained in their guidance. Holding webinars (discussed in more detail later in this brief) to disseminate expectations around these creative approaches would add needed clarity to the entire process.

## **Measuring the Impact of Investments**

### **CHALLENGES**

Core to federal applications across policy areas is impact tracking, both in formal benefit-cost analyses for transportation projects and projected environmental results of brownfields clean-ups. However, applicants of all capacities shared the difficulties of forecasting project benefits, including capacity constraints, problems with attribution and overestimation, and limitations regarding the estimation of *who* is benefiting. These are cross-cutting issues that are common for any sort of policy impact analysis, and it should be no surprise they appear in the context of federal IJA investments.

With transportation projects in particular, applicants shared concern around the benefit-cost analysis requirements because they necessitate significant technical capacity. Applicants of all sizes shared that they rely on in-house or consultant teams to provide analytical capacity to build a competitive benefit-cost analysis model, which relies on many assumptions. The project idea has to be far enough along to develop reliable costs, and the model has to be easily understood to pass application review. Applicants shared that these requirements have equity implications because smaller and lower-resourced localities might struggle to meet them. As Dale McKeel, Bicycle and Pedestrian Coordinator for the City of Durham and Durham-Chapel Hill-Carrboro MPO, explained, “I have mixed feelings about the whole [benefit-cost analysis] thing. I understand the US DOT needs information to make decisions, but I can’t imagine some small town in rural North Carolina actually being able to do that.”

Some localities shared that they struggle to properly weigh how to attribute their projects to certain outcomes. In their applications, applicants want to list health, community, and economic impacts that align with their project goals, but given a multitude of other investments in the surrounding area, they hesitated to attribute all benefits to this particular investment. Maceo Wiggins,

Director of the Office of Civil Rights for BART, shared, “It is very hard to isolate the benefits attributable to a single project, so that is inevitably going to be a challenge for BART to say that we made this investment in a sea of all these other investments and that this project in particular produced this outsized impact on this community. It’s important that we build systems to better understand these project benefits and how they are allocated in the planning process so we can maximize benefits going to our priority populations.” Applicants regularly shared hesitation about overestimation as well. In follow-up calls with federal agency leaders after award decisions were finalized, a few applicants who were unsuccessful in receiving awards were told that part of the reason their locality did not receive funding is because they overestimated project benefits in their benefit-cost analyses and were told to be more conservative or realistic next time.

The architectures of Justice40 and EO 13985 also add new dimensions to impact measurement. The core goal of Justice40 is to deliver the benefits of all federal investment to disadvantaged communities. One way these “benefits” are being quantified is by tracking how federal investments are flowing to disadvantaged communities. However, applicants shared that it is harder to capture who is truly benefiting from these investments beyond the estimated benefits of those who might live near a project investment. One applicant shared that although disaggregated data exist to easily identify where disadvantaged communities are living, and such data help prioritize projects in those areas, those data do not necessarily shed light on, for example, where or how these communities are using the bus stop on their street. That applicant questioned, “How do we capture equity in the users of the system, and not just in ... investments tied to a certain area?”

This same challenge extends to the brownfields space. Once awarded, grantees are required to use ACRES to log project performance measures such as economic development, jobs created, and money leveraged. However, localities shared that these indicators don’t always capture the racial equity measures used to help support the project narrative. Applicants are not required or incentivized to report impact measures retroactively to ACRES that would speak more directly to racial equity concerns. For example, how have demographics of residents changed around the site? Have cancer rates, high school dropout rates, access to affordable housing, or other environmental justice indicators changed since the project was implemented? A focus on economic development in terms of aggregate benefits can often miss who is benefiting from an investment and can leave other crucial metrics unexamined. Critically, the solution to this issue is likely not to impose more reporting or collection of data at the local level, given the capacity constraints localities face throughout the application lifecycle.

Brownfields applicants are explicitly encouraged to pull in health data to make inferences about the health risks that a contaminated or polluted site could pose to nearby communities. Several brownfields applicants expressed concern about the seemingly causal arguments EPA was asking them to make, given the uncertainty that brownfields were directly responsible for health risks. They feared that conflating correlation and causation, especially in the case of brownfields sites present for decades, would lead to drawing incorrect conclusions. Although considering the negative externalities caused by pollution and blight is a crucial aspect of environmental justice, local stakeholders felt that

from a technical perspective, the connections were tenuous, but by omitting them, they would be undermining their own chances for funding.

Timing is also an important consideration for tracking the impacts of brownfields projects. Local leaders who have led federally funded brownfields projects have shared that some project impacts (e.g., community health indicators) cannot be seen until long after the project is implemented. Because ACRES data are collected at the end of the project implementation, some applicants shared that the data might miss some important indicators that would only come to fruition years later. Additionally, brownfields-funded project teams are not incentivized to update ACRES data beyond implementation, so there are fewer opportunities to aggregate these long-term effects.

## BEST PRACTICES

Given these challenges, localities are making strides to improve impact tracking for infrastructure investments by using creative sources of data to explore *who* is benefiting from proposed projects, reserving time early in project development to consider intended project impacts and proxies to measure success, and choosing key impact measures that consider all aspects of how a project may influence its surroundings. Sometimes these data require a certain level of capacity to gather and explore, but other times the opportunity exists to invest in basic administrative data collection about an initiative and who is benefiting from it.

Kirsten Mote and her team at Modern Mobility Partners use a combination of techniques to better capture beneficiaries of investments at the individual level. On a recent project for the Atlanta BeltLine, the team used a mixture of trail sensors to count users on existing portions of the trail and intercept surveys on site to ask people whether they were using the trail for commuting, leisure, or exercise. Using the responses from the surveys and average daily counts from trail counters, Modern Mobility Partners estimate how many residents are using the trail and for what purpose in order to better project travel time savings and health savings benefits. In particular, localities could attempt to pair the survey data with respondents' self-reported race or ethnicity to tell an even more comprehensive story.

Regardless of the project type, many local leaders described the importance of thinking about impact measurement early in project planning. Because of the length of infrastructure projects, which typically involve a needs assessment followed by community engagement, project selection, planning, evaluation, and implementation, impact tracking is not always a priority while the project is getting off the ground. In one case, an interviewee shared that one project they are working on did not originally have an equity analysis plan or impact measures determined in the project planning stage, so they retroactively considered what analyses would be appropriate given the project's impacts. They shared, "In some ways, we're trying to fit a square peg in a round hole and trying to do equity analysis like it is a post-processing event." This local leader recommends that project teams think about what impacts are important to measure early in the process, not after a project is already developed, to ensure that equity measures guide the project rather than the other way around.

Multiple projects in the affordable housing and land use spaces focused on impact throughout the process. SouthEast Effective Development (SEED) in Seattle is wrapping up a long and successful brownfields redevelopment project that started in 1996 to bring mixed-use affordable housing to Seattle's Rainier Valley, for which they track impact quantitatively, qualitatively, and anecdotally. In addition to data on jobs creation, SEED tracks the units of housing and their occupancy levels disaggregated by race. They also collect information on the commercial tenants on the ground floors of these new buildings and whether or not their business aligns with SEED's mission and values. Finally, developments were intentionally targeted in areas within a block from affordable transit, grocery stores, and recreational space because of the envisioned positive impacts for residents. Similarly, Near East Area Renewal in Indianapolis advocated for language in their request for proposals for developers that ensured affordable housing built on the former brownfields site was available to people with felony convictions in reentry programs. The organization was aware of the prevalence of halfway houses in the area and considered the positive impact of subsidized housing for those involved in the criminal justice system early on in the project's redevelopment journey.

## RECOMMENDATIONS

### ***Share recent successful models with applicants to demystify how to build a competitive benefit-cost analysis***

Given that many applicants shared difficulty in building benefit-cost analysis models that they felt confident would meet expectations of application reviewers, federal agencies should share successful examples of benefit-cost analyses using past applications to help guide others as they develop these models. This would be a low-effort approach for federal agencies, which could build on guidance they already share for benefit-cost analyses to offer clarity using sample calculations.<sup>30</sup> Sharing full applications (with applicant consent) would be helpful and put these calculations in context by showing how applicants choose measures most relevant to the project and rationalize each choice. Such examples of projects are available from the 2012 TIGER grant, but more up-to-date examples that reflect changes to the benefit-cost analysis guidance would be helpful.<sup>31</sup> We also heard from several interviewees that they were told they overestimated benefits, so these successful examples would add further clarification for how to avoid this pitfall.

### ***Invest in developing methodologies to include gentrification in benefit-cost analysis***

Federal agencies are primed to lead the field in building benefit-cost analysis methodologies that can better capture who benefits from different infrastructure investments. One way to explore this would be to develop methodologies that integrate gentrification or displacement into the benefit-cost analysis. For example, the DOT's current benefit-cost analysis guidance already outlines ways to incorporate property value increases into project benefits, but it doesn't yet capture what the cascading effects of this increase of property value might be. Though neighborhood change can be measured in many ways, cities such as Austin and Seattle are using different techniques to actively track neighborhoods with ongoing displacement or those at risk of gentrification (Cohen and Pettit 2019).<sup>32</sup> Applicants can include this context in the application narrative, but these costs are important to consider in parallel with the benefits of increased property value. Federal agencies should ensure

that their benefit-cost analysis methodologies incorporate potential for displacement or gentrification to try to specify who benefits.

### *Consider different models for capturing project impacts*

Federal agencies should consider opportunities to capture long-term project impacts that may not be able to be captured at the final reporting stage. By conducting follow-ups with projects three or five years after the project is completed, federal agencies could learn more about how projects are affecting their surrounding communities more holistically.

In terms of metrics captured, leaders in the brownfields space noted that the NYC Mayor's Office of Environmental Remediation project questionnaire is a particularly strong example of the types of indicators that should be collected at the beginning and end of projects to get a sense of impact.<sup>33</sup> Applicants did not necessarily suggest all these measures should be integrated into the ACRES system at the application stage, but they shared that having this data on hand made subsequent applications more competitive as they could point to their success in another project with discrete data.

## **Facilitating Meaningful Community Engagement**

### **CHALLENGES**

Applicants reported three core community engagement-related challenges: (1) processes for determining how and when to conduct community engagement vary widely, (2) the compressed timespan of the application cycle makes it hard to build representative coalitions of community support, and (3) past failures have understandably led to community distrust or skepticism.

The need for and importance of community outreach was a ubiquitous theme in our conversations. Community engagement is a process of including the input, participation, and reflections of the people and communities at the center of the issue being researched, changed, or discussed.<sup>34</sup> There is a spectrum of community engagement, ranging from community leadership, where community members have full decision-making power, to community consultation, where community stakeholders and residents provide input at different points of a project. Across the spectrum, community engagement requires that community stakeholders have power to shape a project. As competitive federal grants begin to require more rigorous racial equity criteria, community engagement is a tool for applicants to collaborate more closely with Black, Latinx, Indigenous, and Asian American or Pacific Islander residents in designing infrastructure investments.

*How and when* community engagement takes place varied widely in our conversations. Initiatives led by community-based organizations typically operated in a more grassroots manner, with priorities set by communities and neighborhoods themselves from the start. But the application system is set up to encourage more perfunctory or transactional community engagement. For example, brownfields revitalization projects require a public meeting to discuss the project before an applicant can submit their materials; they also require a community relations plan to describe how feedback will be received, addressed, and reported.<sup>35</sup> However, community members are not given voting authority,

and there are no specific community relations plan requirements for how community feedback will be addressed. Some local government interviewees shared origin stories for projects that involved communities later on and insubstantially in the project development process. We heard examples of meetings that simply tagged on 10 minutes of explanation about brownfields initiatives at the end of an existing agenda, and the resulting response rate and usefulness of feedback was unsurprisingly poor. Said one interviewee, “[residents] are worn out and apathetic because they’re tired of giving their feedback and not seeing the projects implemented.”

Financial incentives can also erode efforts to cede power to community members. For brownfields redevelopment efforts, we heard that there are often two types of projects: those that are community driven and those that are developer driven. This can be reflective of a fundamental gap between what the community wants and what appeals to developers. In one city that is over 75 percent Black or African American, we heard from a representative of their regional planning commission that although the communities wanted higher-tech, skilled, greener jobs, developers seek to build truck stops and other truck- or diesel-supporting businesses. And if an administration needs to raise revenue, it has an incentive to cater to whatever might bring economic development or satisfy other agency goals regardless of community support.

Further, for many applicants interviewed, the public meetings they held for their initiatives were organized in such a way that meeting attendees did not match the demographics of those most likely to be affected by the program, raising concerns about whom is being engaged. For example, on the transportation side, people with the time and resources to attend public meetings are not representative of all public transit riders, a mismatch that biases community feedback. Another interviewee called public meetings a formality, stating that “the majority of people that come to those meetings are environmental companies that want to know how they can get work from it.” Calling such gatherings “community meetings” is a misnomer when the people who have been historically marginalized continue to be left out of decision-making.

Along with issues of representation, the quick turnaround time for federal discretionary grants in transportation and brownfields can hinder equitable and comprehensive community engagement. A consistent refrain we heard was that when localities or regional partners don’t have forward-looking strategic plans that precede a NOFO release, they do not have enough time to do meaningful outreach that identifies the concerns of those who will be most directly affected by a project or which partners to bring onto the proposal to collaborate on a shared vision. Coupled with staffing constraints, one organization told us that they were only able to do tailored, ad-hoc outreach that wasn’t as comprehensive as they would have liked. The reverse can be true too, in that there can be a lag between when initial community engagement occurs and when a project is implemented, such that feedback can be outdated or new problems can arise that haven’t been addressed.

Because of the disproportionate and harmful impacts of past investment in transportation or a lack of investment in the cleanup of blighted, contaminated sites, affected communities rightfully remain skeptical of substantial positive change. Meeting attendance can be poor, or there may be insufficient time for those who do attend to dive deeply into tangible issues, as discussed. Unlocking

grassroots support remains a challenge for local governments that lack a track record of doing right by the communities most likely to be affected by transportation or brownfields initiatives.

## BEST PRACTICES

Amid these challenges, some localities are leading the way in engaging residents and other community-based organizations to ensure proposed projects are informed by the lived experience of broken infrastructure systems.

John Hay, Executive Director at Near East Area Renewal, a community organization in Indianapolis, helped steer a brownfields redevelopment effort that had community support from the beginning.<sup>36</sup> He subscribes to asset-based community development, or the idea that community outreach should focus on the assets, talents, and skills a community offers (rather than highlighting what a community lacks) as the key argument to gain support for investing in those communities. They held regular community meetings and selected a site for redevelopment based on consensus rather than using an ad-hoc site selection process or one hijacked by outside interests. “A local community should drive the effort. If they have a vision for and a desire for something to happen, prior to applying for anything, [they should] begin to meet together and pull people together and form that vision.... We had a common language when we went after the application.” We found that the projects led by community-based organizations tended to be more thoughtful about advancing equity, heeding community voices, and building broad coalitions of support.

There are also examples of more intentional community outreach and dialogue. In several localities in Puerto Rico that applied for brownfields funding, we heard that mayors and other city leaders worked hard to combat a lack of knowledge or galvanization around the brownfields revitalization process. Local government representatives went into the community to meet with people to provide additional insights about the brownfields site of interest, explain the funding opportunities that were available, and gather community support. In the transportation space, several applicants told us that they went back to the community after they won their grant, beyond what was required as a part of the application. Such processes have led to internal reckoning and realignment of priorities around issues such as gentrification and displacement that were insufficiently addressed (or even exacerbated) by previous initiatives. These localities recognize the aforementioned challenges around timing and treat community engagement as an ongoing effort and dialogue rather than as a box to check. They did so proactively even in the face of short grant application windows that often force reactive or superficial community engagement. We encourage localities to also diversify the methods by which they collect community feedback. Data chats entail small conversations with community members about data that emphasize participants’ lived experiences as much as quantitative data; community-engaged surveys apply community-engaged methods to collect feedback through survey research; and community advisory boards empower diverse coalitions of community members to directly contribute in an advisory or co-leadership role with the potential for direct influence on decisions (Arnos et al. 2021; Cohen et al. 2022; Harrison et al. 2021).

To best reach residents and get crucial buy-in on local infrastructure investments, some localities are creating partnerships with community-based organizations that have existing relationships in



neighborhoods. Many applicants interviewed shared that the application changes to focus more on equity reflect a desire for partnerships, but they have yet to make it logistically easier for community-based organizations to get on board at the early stages of proposal development. One interviewee shared that their agency struggled to effectively cocreate project proposals with community-based organizations given the fast timelines and competitive procurement processes that most localities need to go through for the partner to be listed on the grant application. LA Metro is one agency that has thought proactively about community engagement by creating a Community-Based Organization Partnering Strategy. The document highlights best practices for partnering with community-based organizations (CBOs) as well as seven recommendations for how LA Metro will build stronger, deeper, and longer-lasting partnerships with community groups across the county.<sup>37</sup> These recommendations include developing and maintaining a partner database to build new relationships with CBOs, developing a checklist to determine how to best compensate CBOs for their work, creating internal processes that streamline formal partnerships with CBOs, and training LA Metro staff on how to effectively partner with CBOs.

In addition to what we heard from applicants, another best practice around facilitating community engagement is to focus on the logistics of public meetings themselves in order to ensure they are as inclusive as possible. Conventional practices around these meetings that prevent a representative group of voices can be altered in several ways. Urban’s toolkit on Community Engagement and Racial Equity suggests several solutions, such as making events hybrid; offering several times to accommodate all types of schedules; compensating folks for their time and effort; and offsetting costs for child care, transportation, and food to enable more inclusive and meaningful community participation (Rodríguez et al. 2022).

## RECOMMENDATIONS

### ***Ease contract flow-downs for subcontractors to make it easier for localities to partner with smaller nonprofit organizations***

Some applicants shared that it is hard to secure contractual partnerships with community-based organizations given that many flow-down provisions that federal and state agencies require of localities (e.g., certain types of insurance) need to be reflected in their subcontracts.<sup>38</sup> This reality makes it very difficult for smaller nonprofit organizations to partner with local agencies on their projects because they might not be able to purchase the correct insurance required for a federal contract. One applicant expressed frustration that federal agencies are signaling an emphasis on equity and bringing community partners to the table, but the flow-down provisions that define partnership with local applicants have not changed. To make these partnerships easier, federal agencies should reconsider flow-down provisions required of subcontractors and consolidate any unnecessary provisions to allow less-resourced institutions to have a seat at the table. These changes would help CBOs and local agencies work together to promote equitable infrastructure investment.

### ***Share guidance earlier for how community-based organizations might need to prepare in order to collaborate with local agencies on their applications***

Given that it might take a few months for community-based organizations and localities to set up partnerships (either in formal agreements or in informal relationships), federal agencies should host webinars or offer resources to alert CBOs to how they might play a role in infrastructure projects. These resources might include information on who is eligible to receive funding and who is eligible to be listed as a partner on a grant application, what partnership structures could look like, what types of activities CBOs could lead, and how to start conversations with local agencies to propose collaborations. These activities would likely need to start months before a NOFO is public, so sequencing these materials to be released three or four months ahead of a NOFO would help organizations prepare and consider how to be competitive.

***Support proactive community engagement by allowing more time and responsiveness in the grant process***

As we will discuss in greater detail later in this brief, short turnaround times are a huge barrier for localities and prevent comprehensive community engagement. More time would allow government agencies and community-based organizations to consult and collaborate with local residents around project proposals. Time could be either baked into the application process by extending application timelines, or federal agencies could lengthen the term of the grant and include an additional community engagement component that spans the first few months of the award period. Such a strategy should include standards around paying community members for their time, which should be reflected in grant amounts.

Creating time and space for real community engagement at the start of a proposal phase and at the start of a grant period would set up grant applications and programs for success and utility within their communities. It also provides the ability for scoping changes to be made to a proposed project, allowing applicants to be responsive to what they hear from engaging with communities. Applicants interviewed shared that current reporting structures under programs like the EPA's Cleanup and Assessment grants allow for this flexibility, and federal agencies should continue to allow for scope changes like this depending on community need. Finally, extra time could pave the way for more robust community collaboration through participatory budgeting, a powerful way to cede decision-making and fiscal influence to communities by granting them the power to identify and prioritize public infrastructure spending projects.<sup>39</sup>

## **Contending with the Application Cycle**

### **CHALLENGES**

This section summarizes challenges that local governments reported as they relate to the application lifecycle for discretionary grant opportunities. Applicants shared that time, budget and financial restrictions, data wrangling issues, and reporting requirements were some of the most common hurdles they must overcome.

Nearly every interviewee mentioned time and scheduling as a key barrier to submitting successful applications for transportation and brownfields competitive funding opportunities. Even well-

resourced and -staffed organizations face a crunch to submit applications on time, and applicants that are not preparing for the release of a NOFO well in advance face an extreme uphill climb. Moreover, when the federal fiscal calendar does not align with states' or localities' fiscal years, planning is actually required a year in advance if a NOFO release precedes the start of local budgetary processes. For first-time applicants, the time investment required for preparation can be a major barrier, as developing a baseline understanding of themes around transportation or infrastructure needs in a community is a prerequisite to even beginning an application process. On the brownfields side, we heard that "if you are just coming into the program, and you don't have an inventory, and you haven't done a lot of investigation, ... you're kind of guessing what contaminants are likely to be present. And so you don't have that information to be able to kind of weave throughout your application and make that case." Such background work in strategic planning is necessary to make the case for equitable and impactful investments, but it can crowd out applicants without a track record who would otherwise be excellent candidates for funding.

In tandem with time concerns are budgetary and other financial restrictions. Several applicants repeated that the amount of time and effort needed to complete an application was simply disproportionate to the amount of funding available or the competitiveness of the process. Applicants told us that it is costly to get budget support for staff time (or consultant time) for grant writing or building travel demand models, none of which even guaranteed that they would secure federal funding. One applicant shared that given a roughly 30 percent success rate for EPA brownfields grants, these outlays are a tough sell when they are far likelier than not to be a sunk cost. Moreover, competitive federal grants for transportation often have requirements that localities contribute matching funds. Although bigger cities have a large resource of local funding that can be harnessed to meet local match requirements, smaller localities often struggle to raise the necessary amount of funding. Certain transportation grant programs like RAISE and INFRA even incentivize exceeding the 20 percent local match, effectively setting the bar above the minimum requirement.<sup>40</sup> Doing so requires the support of political partners, who may come to the table with a different agenda than local agencies or CBOs. In the end, several interviewees told us that they are aware of smaller towns, either in their jurisdiction or with whom they have relationships, that categorically avoid federal funding opportunities because of the burdensome reporting requirements, the cost to create a competitive grant application, and their capacity to execute on the proposed work. To ensure equitable distribution of IJJA funding, these are exactly the localities that need to be brought onto the playing field.

Applicants also face more specific data-related issues in building strong narratives for their applications. For data sources that come at different levels of geographic granularity, cross-walking between units of geography is both time consuming and frustrating for applicants. Regional analyses have to also contend with jurisdictions crossing state lines, such that data at the Metropolitan Statistical Area level may not capture the correct geographies. One more common issue around data was simply wrangling several disparate sources together to form a cohesive narrative. Whether the data exist from various federal resources or have to be collected from other local agencies in the same city, the effort of gathering and linking data sources was onerous for many. In the context of the time

and resource constraints mentioned, these data issues can prohibit applicants from using data altogether. One local stakeholder explained that they end up “not telling a lot of stories via data, because I don’t have the time to dedicate to it. And I especially don’t have the time to transpose census tract data to zip code or district level data.” This is detrimental not only to the competitiveness of an application, but also to designing effective data- and evidence-driven programs. Tools such as EJScreen effectively do much of the wrangling and harmonizing of data sources, which many interviewees reported as being highly beneficial and helpful to their analyses, along with other tools, maps, and overlays that offer similar functions. However, another local stakeholder cautioned that simply solving the problem by adding more data tools could actually worsen the capacity issues that smaller localities face if more work is now required to differentiate a proposal from its competitors. “You still have the same number of applicants and the same number of winners. So you’ve just raised the bar on the playing field...”

Given the aforementioned challenges, many localities must turn to external consultants to assist them with grant applications. Applications are not only administratively burdensome, they also require a high level of technical expertise, including experience with data analysis, GIS data, and scientific or environmental terminology. One interviewee involved in past brownfields applications let us know that “[without consultants], we probably just don’t apply for as many [grants], just wouldn’t have the time to do it.” Another reported: “I did not think I should need a consultant to write these grants. And I ended up finally using a consultant and then it worked.” Several others had similar comments about the need for consultants given the time and experience necessary to submit a strong application. In Puerto Rico, a similar reliance on grant writers has traditionally been present because of language barriers. This presents an additional layer of disconnect for Puerto Ricans, who are great candidates for brownfields redevelopment investment after decades of urban sprawl and after Hurricanes Irma and Maria caused catastrophic damage to the island’s core infrastructure (Martinuzzi, Gould, and González 2007). For localities that need to hire consultants, the associated costs can be prohibitive, taking many worthy candidates out of the running for federal funding before they can even get started.

Even for successful applicants that secure federal discretionary grants, managing the funds poses further challenges. Local stakeholders told us that not knowing exactly when awarded funding would be made available complicated annual budgeting processes. We also heard that having robust accounting systems in place was both necessary and a large lift for smaller areas. One community-based organization detailed the infrastructure required to pursue brownfields funding. Their representative told us, “Brownfields is not for grassroots organizations ... you need to be a nonprofit developer that can manage federal funding, period. If you cannot manage federal funding ... you just can’t do it.” Others shared that other state-level programs offer similar funding but require less reporting and are thus more attractive from a local perspective.

## BEST PRACTICES

The successful applicants we spoke with faced the same challenges highlighted above, but their planning, strategizing, and organization allowed them to meet those challenges. Several agencies or

regional organizations published annual plans or disseminated strategic planning surveys to set priorities and understand community need well in advance of relevant NOFO releases. Brownfields applicants are permitted to converse with EPA representatives before but not after a NOFO is released, so early contact was highlighted as a best practice. This level of proactiveness stands in contrast to localities that reached out to advisors, consultants, or regional planning organizations for advice on project prioritization after the NOFO had been released, which can lead to fast-paced project planning and scrambling. Said one transportation planner, “they pick some project not knowing if they have the data for it or if it’s going to be competitive to meet the current criteria.”

Some applicants constructed effective methods for conducting needs assessments and prioritizing potential projects. Kathy Luther, Director of Environmental Programs for the Northwest Indiana Regional Planning Commission, walked us through a scoring matrix used to evaluate brownfields project submissions, with specific criteria related to redevelopment readiness, public good, economic benefit, financial leverage, and community need/environmental justice. Maria Schaper, Mary Ann Frantz, and Abby Barnes of the Mid-Ohio Regional Planning Commission highlighted an interactive web map that the commission created, identifying all local, state, and regional projects from annual plans and plotting them on the map. They then opened the tool to members of the public to add to the list of projects by drawing on their own proposals (such as sidewalks, trails, or lanes) and commenting on all submitted projects. Crowdsourcing of ideas and feedback in user-friendly ways is a best practice for stakeholders at all levels of government.

On both transportation and brownfields grant applications, attention to narrative framing was a common feature of successful applicants. We heard the phrase “tell a story” from interviewees in several localities, and these localities—that could speak clearly to community needs, historical context, and the promise of federal funding to drive positive impact—that fared the best, especially when their narrative was backed by data-driven evidence. Building an application narrative around a theme, which requires engagement with and knowledge of affected communities, led to more streamlined applications. Especially on the brownfields side, where the maximum application length is very short (10 pages), this brevity is helpful to paint a full picture, often without the benefit of having room for maps or charts, which several interviewees wished they had had the space to include to help reviewers understand project context.

Finally, there are a few strong examples of ecosystem leaders that help local actors produce competitive grant applications for infrastructure investments. Community Lattice has published a screening tool called PEER (Platform for Exploring Environmental Records) to inform redevelopment decisions made around brownfields.<sup>41</sup> The tool assigns a “revitalization risk rating” to brownfields sites within the Facilities Registry Service database, providing potential applicants with more information about the costs that a cleanup and redevelopment effort may entail. Such tools, with user-friendly and non-technical explanations, empower localities to operate with less asymmetry in information and lower barriers to entry.

## RECOMMENDATIONS

*Provide more streamlined and transparent NOFOs*

A key piece of feedback was the desire for greater transparency around the calendar of NOFO release dates. Given the amount of advanced planning required, localities must be able to incorporate NOFO releases into their strategies for new initiatives. We also heard that shortened NOFOs would make the process more accessible for new applicants who may struggle with the current density of text they must decipher. Finally, we heard very positive feedback about agencies hosting webinars to explain NOFOs in more detail, a practice that prospective applicants would like to continue.

***Consider applications on a rolling basis or with longer lag time from NOFO to deadline***

Federal agencies could consider grant applications in the order they receive them, while showing awareness of timing constraints and flexibility by eliminating fixed deadlines. There would still be an incentive to submit projects in a timely manner, but particularly for capacity-constrained or first-time applicants, a rolling deadline is more responsive to the urgent challenges that the compressed timeline presents. Such an effort would require introducing restrictions on how much of the funding can be awarded right away. An alternative measure aimed at the same problem is to provide more time between when the NOFO is released and the deadline for submission. Whether through expanding the application window or eliminating it altogether, localities were consistent in their desire for more time to compile quality applications.

***Provide targeted grant-writing support***

Smaller and first-time applicants that don't have the funds to hire an effective grant writer or the capacity and experience to write the grant themselves may not be able to put together a grant application that wins funding, even though their community may have a real need for a worthy and promising project. Regional planning groups are often the go-to grant-writing resource for localities in their purview, but not all towns and cities have one. Agencies like the DOT and EPA should provide targeted grantwriting resources to fill gaps for localities that don't have other free assistance at their disposal.

***Prioritize transparency in the review process***

Several past applicants told us they felt the federal agency review process could be more transparent. One told us that they feared reviewers of their application, who are based in an entirely different region of the country, would have little understanding of their specific needs and local landscape. Another felt that dividing an application among a team of reviewers (e.g., some to review the budget and others to review the narrative) may dilute the full story of an applicant, because specific reviewers find particular parts interesting and may overlook content in other sections that would have addressed their concerns. Federal agencies should share more context on how the review process works to better communicate expectations to applicants.

For applicants that did not receive grant funding, a few interviewees noted that they appreciated the follow-up calls made by federal agencies to unsuccessful applicants and found it informative for future applications to learn about specific shortcomings. Localities take this feedback seriously and hope that federal agencies will continue to offer this as a resource for teams that plan to apply again.

They found it helpful to learn first-hand what reviewers thought was missing and what other strategies would be effective that they had yet to include.

## Managing Relationships Within the Local Ecosystem

### CHALLENGES

This section details the moving parts that local applicants must navigate and manage and the community relationships that must be forged in order to successfully apply. These include consultants, grant writers, political leaders and leadership from other local agencies, the business and financial communities, and technical assistance providers.

The demands of applying for federal discretionary grants often necessitate the hiring of grant writers and consultants, as noted. Although we heard of many examples of consultants who are deeply embedded in a given place and bring needed guidance and expertise to an application process, we heard other cases where consultants may not understand local issues and stick to predetermined formulas or methodologies, which can inspire a lack of faith in the community about effective project delivery. Others may wield asymmetric information about the application process and required costs. One transit agency representative told us that they are reliant on consultants to obtain the data they need, and so knowledge about the data source and contents lies with the consultants rather than the agency. Another interviewee cautioned that when applicants don't know the true cost of work to complete an application, it opens the door for consultants to overcharge them. Consultant goals and incentives may unsurprisingly differ from the party who hires them. On the brownfields side, we heard from multiple voices that environmental or engineering consulting firms can maintain much of the control over the program in exchange for writing the grant for free. This then allows them to follow official EPA procurement regulations but still have major influence over jobs and funding flows in the event that the locality wins the grant. To be clear, these issues were not widespread among all of the localities we spoke to representatives from, and we do not want to paint all consultants as bad actors in the grant application process. But a system with asymmetries of capacity and information can lead to dependencies that create opportunities for abuse, and that is problematic.

Navigating financial relationships within agencies or with state agencies can also add difficulties to applying for and managing federal grants. One interviewee explained that their state Department of Transportation could charge a significant markup to manage the grant, and they had to reach a separate agreement with the Federal Transit Administration for funding to flow directly to them and circumvent the state. However, that was only possible because of an existing relationship with the Federal Transit Administration for a previous grant. For newer applicants with less savviness and experience, such maneuvering may be more difficult. Meanwhile, brownfields applicants that need to reach agreements with lenders and members of the business and development community often have to handle squeamishness around investing in previously contaminated or polluted sites. Particularly for programs with shorter track records, developers can and do walk away in the middle of a project, which can spoil the entire redevelopment plan for a site. In tandem with the concerns raised previously about the misalignment of developer and community interests, this is a crucial relationship

to manage that can have outsized importance for not only the survival of a project but also its racial equity implications. Unfortunately, we hear consistently that what is profitable for a developer may not be equitable or beneficial for a disadvantaged community.

Because much of the data that local respondents told us they use for applications come at the local level, the localities must work in cooperation and collaboration with other departments to share data. Transit agency representatives said that they relied almost entirely on local-level data from other departments such as public health, public works, planning, engineering, and budgeting. Even if relationships existed for data sharing, sometimes perceptions or expectations around what data another department would have proved incorrect. For instance, one brownfields coordinator said that they expected to be able to pull local-level health data, such as lead blood levels or cancer rates, but their health department's priorities were on different topics, such as nutrition and drug abuse. This meant relying on county-level health data, which obscured crucial trends for environmental justice communities because they were being aggregated together with their wealthier neighbors.

Outside of government actors, technical assistance providers play a crucial role in capacity building for smaller or newer grant applicants contending with rigorous application and reporting requirements. For the most part, we heard that technical assistance with wrangling and analyzing data needed for eligibility and merit criteria on applications and benefit-cost analyses is helpful and appreciated, and more is needed to continue to level the playing field. One caveat is that managing relationships with technical assistance providers can introduce additional work. As multiple applicants told us, they want to be sure assistance is necessary before making a request because doing so introduces more iterations of feedback and internal deadlines to meet in the middle of an already tight application schedule.

Shifts in the political landscape can also have outsized impacts on grant application efforts. This can be as explicit as the funding for personnel to support with a locality's grant application being voted down, meaning the entire program will likely take a step back for the next fiscal year without the usual support it relies on from having someone in that position. We also heard frustrations about brownfields site inventories, where a database may have been carefully maintained by one administration, but turnover led to information slipping through the cracks that set applicants back significantly. Applicants raised concerns over fundamental support for a project to begin with, fearing that certain projects would be less likely to be considered in areas whose political makeup differed from that of the party in power at the federal level or in areas where local leadership flipped parties. The most successful applicants reported direct lines of communication with city officials and political stability as being crucial, yet this is obviously not the case everywhere. And finally, for regional partners assisting many localities at once or managing a coalition of applicants for federal funding, each member of that coalition has its own interests and may hire its own consulting staff whose agenda can conflict with the broader team's.

## BEST PRACTICES

In our interview sample, projects that originated at the community level broadly had more alignment of the different parties involved and fewer outside interests that needed to be catered to. For



instance, John Hay in Indianapolis told us that their grassroots approach meant that “our neighborhood had the leadership capacity and the will and desire and the political influence. We just never really received a ‘no’ from the city at all.” This approach and city buy-in also allowed them to proceed with their own vision for redevelopment rather than waiting for a developer to line up with a plan that may have been in conflict with community goals. John’s community-based organization, Near East Area Renewal, was the listed federal grant recipient that led the redevelopment efforts, but their coalition included support from a long-standing neighborhood group that had been meeting regularly for years as well as city leadership. “It was our story...There’s been no master developer,” said John.

Lastly, localities that intentionally built relationships with business improvement districts and neighborhood-level business groups reported smoother experiences in leveraging funding from the business and development community. One interviewee put it best, mentioning that the credibility that came from these relationships served them far better than saying to a prospective business partner: “Hey, we’re from the government, we’re here to help, and we’ve got free money.” This same philosophy translated to community outreach as well. Relying on trusted individuals and groups to help foster relationships with local stakeholders who may be wary of the intentions or effectiveness of government actors helped propel projects forward that may have otherwise stalled.

## RECOMMENDATIONS

### *Provide direct technical support and resources to lower-capacity applicants who request assistance*

Although ideally, applicants could use internal capacity to complete applications, several stakeholders indicated that simply hiring a data or GIS analyst may not be enough to meet the data challenges of a rigorous application process. We heard calls for more explicit “hand-holding” on data-driven components of the application, and although the specific data sources will vary by applicant, providing more guidance on candidate data sources, where and how they can be accessed, and what levels of geography are included would ease the burden on many applicants. Urban’s forthcoming data guide for applicants of competitive federal grants related to public transit, bicycle, and pedestrian projects provides exactly this type of information (Fu, Ramos, and Axelrod, forthcoming). The National League of Cities recently launched the Local Infrastructure Hub in partnership with Bloomberg Philanthropies. The “Grant Application Bootcamp” will provide technical assistance to small and mid-size cities to help them access federal infrastructure funding through IIJA. Towns and cities participating in these programs will receive support from NLC to develop a robust federal grant application, including access to subject matter experts, individualized coaching sessions, office hours, and peer-to-peer learning.<sup>42</sup>

Encouraging a one-size-fits-all approach is not the end goal, but helping less-resourced localities overcome initial hurdles and knowledge gaps is an important start to ensuring equitable infrastructure investment. Further, not every applicant was even aware of federal tools like CEJST and EJScreen that reduce barriers to data access and initial analysis. Raising ongoing awareness of these tools to potential applicants who are totally new to the transportation and infrastructure spaces is a needed next step.

### *Raise up examples of local agency collaborations to pull together competitive data stories*

Several federal agencies make publicly available some of the success stories of local grantees, which is a great way to showcase strong projects in transportation and brownfields and the specific innovations or challenges that localities had to overcome.<sup>43</sup> EPA in particular provides very detailed information about the cleanup and redevelopment process for brownfields and potential challenges and benefits, which includes a user-friendly map of past winners colored by project category.<sup>44</sup> Centering important relationships and collaborations in these success stories sheds light on the various stakeholders that applicants must manage to pull off a federal grant project from beginning to end.

In addition to local efforts to increase and upskill their staff, investments in local data systems would facilitate easier and quicker access to data assets, sharing across agencies, and ingesting new sources of data. Communities are already leveraging federal funding from the American Rescue Plan Act (ARPA) to build better data infrastructure, and federal agencies should enable this practice to continue under the Infrastructure Investment and Jobs Act.<sup>45</sup> For data to no longer slip through the cracks at the local level, such prioritization of data systems is crucial.

## Conclusion

Localities were forthcoming about both the challenges and best practices they have encountered throughout the lifecycle for IIJA funding in transportation and brownfields. In many areas, federal guidance and resources have been helpful during the application process, and interviewees lifted up examples that they would like to see federal agencies continue. In others, local stakeholders expressed challenges with the current system that federal agencies are in a position to address. Given the unique opportunity that this influx of federal discretionary grant funding represents, as well as the focus at the federal level around racial equity and environmental justice, we hope federal agencies will be responsive to the unique experiences of local voices who are working to equitably invest in their communities.

Our recommendations to federal agencies are designed with an eye toward facilitating better opportunities for previously unsuccessful or first-time applicants who may be worthy candidates for funding but struggle with issues identified above. Across these issues, our recommendations can be considered in three overarching themes:

### **Increasing Federal Investment**

Applicants made clear the need for increased investment in areas such as the collection and dissemination of race-disaggregated data, time spent developing new equity-focused methodologies for benefit-cost analysis, local data infrastructure, and technical assistance or grant-writing support. Some of the investment requests require time, staffing, and research capacity from federal agencies; others enable local governments to do this work themselves. We believe this all-of-government approach to capacity building is the key to filling data and knowledge gaps.

## **Putting Forth Clearer, Simpler Guidance**

Interviewees applauded the current efforts by federal agencies to provide guidance and transparency and called for an expansion of those efforts. We recommend streamlining NOFOs to improve accessibility as well as providing more notice around the NOFO calendar and more time for applicants to meet the rigorous demands of the competitive federal grant application process. Webinars are already a best practice, and we hope it expands to including guidance for community-based organizations seeking to partner with local agencies, applicants seeking further clarity on their benefit-cost analyses, and local actors looking to implement creative approaches to measuring and talking about racial equity throughout the application process. We also ask federal agencies to continue to lift up successful examples for illustration and provide clarity about common pitfalls and mistakes to limit them moving forward.

## **Setting Up Application Processes That Allow for Responsiveness to Community Needs**

Wherever possible, federal agencies should be encouraging and supporting projects that start at the community level and are led by grassroots coalitions. This means allowing a project to evolve depending on feedback from community engagement rather than treating that step as perfunctory. Providing more detailed guidance for the public meeting requirement to accommodate a representative coalition of community members through flexible meetings and compensation for time and costs would be a major step in the right direction. Changes to the application timeline would help enable more comprehensive community engagement before and during the application process as well as the ability to change project scope in response to this community engagement. We also hope federal agencies will make it easier for community partners to become involved in the application process by reconsidering flow-down provisions required of subcontractors and by lifting up methods for deeper community engagement like data chats, community-engaged surveys, and community advisory boards. Finally, we hope agencies will tamp down on outside and unrepresentative interests that may exert undue influence on a project. It is no coincidence that the most successful projects we heard about were conceived of, led by, and set up to directly impact affected communities.

To truly unlock the promise that transportation and infrastructure funding can offer, agencies should especially consider those localities and communities that should have historically benefited from their grant funding but have not. We hope local stakeholders thinking about prioritizing and measuring the impact of equitable investments can benefit from the best practices of their peers who generously gave some of their time to participate in our interviews. And given our recommendations, we hope federal partners can work with them to share knowledge and technical assistance, lift up lessons learned and best practices, and level the playing field for all applicants.

## Notes

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