

#### INTRODUCTION

The nation's crumbling infrastructure has garnered bipartisan interest in recent months. In January 2017, Democrats in the United States Senate introduced the "Blueprint to Rebuild America's Infrastructure."

This was followed by President Trump's Fiscal Year 2018 budget, which allocates \$1 trillion in public funds to help rebuild the nation's infrastructure.<sup>2</sup>

The American Society of Civil Engineers (ASCE) recently graded American infrastructure as below standard and significantly deteriorated. According to ASCE, failure to invest in infrastructure improvements will result in a loss of almost \$4 trillion to the country's GDP and 2.5 million jobs within the next 10 years, and will cost the average family \$3,400 per year.<sup>3</sup>

According to the federal government, infrastructure includes: water resources and the environment, highways and transit, railroads, pipelines, hazardous materials, aviation and maritime transportation, public buildings, emergency management, and economic development of rural and urban areas.<sup>4</sup>

Given the implications for health, it is critical that infrastructure discussions expand beyond these domains. They must include a public health perspective and focus on equity for underserved communities. Infrastructure investments should include the renovation and building of schools, parks, sidewalks, recreational facilities, and other resources communities need to be healthy.

Infrastructure investments, if structured for equitable outcomes that close gaps and focus resources among populations and communities most in need, can lift up millions of working families and create thriving cities and towns that promote the health and economic well-being of all residents.

If well-crafted, an infrastructure plan can promote health equity, economic opportunity, and environmental sustainability. This fact sheet outlines key ways that infrastructure investments can benefit underserved families and communities through jobs, community development, and improvements in the natural and built environment that promote health. It also provides recommendations to help policymakers ensure that equity-centered provisions are included in infrastructure legislation.

## How Infrastructure Investments Can Improve Underserved Communities

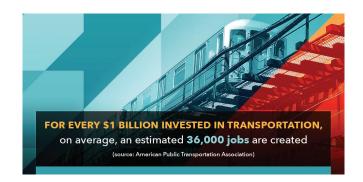
Underserved rural and urban communities, consisting disproportionately of people of color and low-income individuals and families, are often isolated and disconnected from employers, retailers, health care, accessible transportation, and telecommunications services, including broadband. These communities often also lack quality jobs and housing that families need. These social determinants drive poorer health outcomes for residents of these areas. Adopting an equity-centered approach to infrastructure investments that focuses on the social determinants of health can provide an important framework for promoting the health and economic well-being of vulnerable communities.

# Provide employment opportunities that promote a diverse workforce, provide health benefits, and guarantee worker protections

High rates of unemployment and underemployment remain among communities of color, women, and in rural areas. Investment in infrastructure can provide desperately needed employment opportunities for populations that are chronically unemployed or working part-time jobs but would prefer full-time employment. It is essential, however, that labor contracts resulting from federal infrastructure funding include recruitment and hiring practices that ensure diversity across gender, race, and ethnicity, and protect workers by guaranteeing safe working conditions, fair wages, overtime pay, paid sick leave, and health insurance.

 Infrastructure projects can have a big impact on the labor market. For every \$1 billion invested in transportation, on average, an estimated 36,000 jobs are created.<sup>6</sup> A \$1 trillion investment in infrastructure is estimated to create more than 11 million new jobs over the

next 10 years.7 To help ensure equity, incentives should be offered to employers that hire lowincome job seekers from rural and urban areas. Models for this include the 2009 American Recovery and Reinvestment Act's ("stimulus bill") funding of employment programs through the Temporary Assistance for Needy Families (TANF) Emergency Funds. Through this funding pool, 39 states created 260,000 jobs in a short period of time. An evaluation of these subsidized employment programs found positive benefits for both businesses and job seekers, including increased employment for chronically unemployed workers and workers with criminal records, higher earnings for disadvantaged workers, the creation of jobs that otherwise would not have been created absent of subsidies, and positive bottom line outcomes for participating employers. Importantly, these programs helped to transition disadvantaged workers into unsubsidized employment after the subsidies expired.



 Strategies to create employment pathways for communities of color include coordinating with labor unions, waiving DOJ prohibitions against ex-offenders, providing on-the-job training and minority business set-asides. Frameworks for these types of incentives are well established. In 2007 for example, during the construction of the Washington Nationals' baseball stadium in Washington, D.C., which at the time was a

majority-minority city, project labor agreements included provisions that guaranteed 50 percent of new hire and apprenticeship opportunities be given to D.C. residents. This project generated more than \$12 million for local residents and their families.<sup>8</sup>

 In 2015 alone, almost 5,000 workers were killed on the job and 3.7 million work-related injuries and illnesses were reported. Executive Order 13502 urges agencies engaged in large-scale construction projects to consider using Project Labor Agreements (PLAs). Without these agreements in place, workers are unable to engage in collective bargaining, leaving them vulnerable to unsafe working conditions and unfair labor contracts.

## Promote economic development and greater inclusion of women, minority businesses, and rural communities in the economy

Commuter mode patterns are linked to economic opportunity as traffic design, highway and street placements, transportation policy, and roadwork are all designed in a manner that links residents and commuters to areas of commerce, including businesses and shopping centers. Investment in infrastructure can have the net effect of generating jobs, boosting property values, and increasing tax revenues.

- Developing roadways, eliminating blight, and making public transportation more accessible can produce a substantial return on investment in low-income communities. For every dollar invested in public transportation, another \$4 is generated in economic returns.<sup>11</sup>
- Almost 40 million Americans living in rural communities, 10 percent of people in urban environments, and 41 percent of schools lack access to high-speed broadband.<sup>12</sup> Broadband internet access provides a vital linkage to

jobs, fuels small business growth, and drives innovation in business, health care, economic development, and other sectors. Investing in expanding broadband in underserved areas will connect people and communities to opportunities that open doors to economic stability and prosperity.

 Billions of dollars will go to construction projects, and minority-owned small businesses should benefit. Minority-owned businesses are more likely to hire minority employees and should be part of a strategy for targeting unemployed workers from these population groups. Despite generating more than \$1 billion in economic output daily, minorityowned businesses continue to face barriers



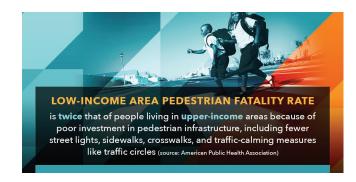
in contracting.<sup>13</sup> To reduce discrimination in government contracting, the Minority Business Development Agency advocates for developing a uniform capacity assessment of firms, the creation of a centralized bidding notification hub, and research on the economic impact of discrimination in hiring Minority Business Enterprises (MBEs).<sup>14</sup>

 As of 2012, women own 37 percent of nonfarm privately owned businesses.<sup>15</sup> Women are less likely to win federal government contracts compared with similar firms not owned by women.<sup>16</sup> It has taken the Small Business Administration nearly 20 years to reach a

goal of 5 percent of prime contracts awarded to women-owned small businesses.<sup>17</sup> This remarkably slow pace of inclusion of women in government contracting must be accelerated to ensure federal government contracting dollars are distributed equitably. The women-owned small business set-aside program is an existing mechanism that should be leveraged in federal infrastructure legislation to reduce gender-based disparities in government contracting.

- Facilitate healthier and safer communities Investing in infrastructure can promote active living through the creation of healthy and safe communities that facilitate walking, biking, and other forms of physical activity. Low-income communities and communities of color are more likely to lack neighborhood features like parks, bike paths, and sidewalks. A history of residential segregation and the building of highway ramps in poor urban communities have combined to create built environments that isolate residents and limit safe options for physical activity. Through equitable infrastructure projects, these communities can be transformed through intentional design and planning that prioritize health and safety.
  - Communities with higher walkability scores (i.e., proximity to businesses, parks, schools, and pedestrian-oriented design) enjoy better overall well-being. The presence of green spaces, parks and bicycle paths encourage healthy living by prompting higher rates of physical activity. Walking and biking are associated with lower cardiovascular and breast cancer risks and better mental health. Facilitating no- and low-cost physical activity options in low-income communities through healthy built environments can help reduce the rates of obesity and other chronic diseases among residents.

- Investing in the built environment of a neighborhood can reduce the number of pedestrian fatalities. The pedestrian fatality rate for people living in low-income metro areas is twice that of people living in upper-income areas.<sup>22</sup> The inequality seen in pedestrian fatalities is in part due to poor investment in pedestrian infrastructure, including fewer street lights, sidewalks, crosswalks, and traffic-calming measures like traffic circles.<sup>23</sup>
- Low-income communities tend to be more hazardous than communities inhabited by middle- and high-income populations.
   Adopting policies requiring "complete streets" interconnected street networks accessible and safe for users of all ages, abilities, and modes of transportation—for infrastructure projects can safeguard against these risks for injury and death. <sup>24</sup>



• Prioritizing the elimination of food deserts through infrastructure investments would provide rural and urban communities with greater access to affordable and nutritious foods. Pennsylvania's Fresh Food Financing Initiative is a public-private partnership that promotes the development of grocery stores in underserved communities. To date, the partnership has helped to develop 83 grocery stores in 27 rural and urban communities.<sup>25</sup>

affordable water and fresh foods

Planning processes in communities have the potential to create or reproduce health inequities by race, class, gender, neighborhood, and other socioeconomic factors. Alternatively, smart and equitable infrastructure planning can reduce inequities in access to quality food and water that still plague too many low-income communities.

Improve access to clean and

- The majority of American water and sewer systems were built more than 50 years ago, and every year there are close to 240,000 water main breaks—enough to supply clean drinking water to 15 million households per day. <sup>26</sup> Improving the nation's water system should be a priority in light of the water crisis in Flint, Michigan, that has exposed the still dangerous levels of lead present in many urban and rural communities. An equitable infrastructure plan would include funds to help high-poverty localities like Flint replace aging and unsafe pipes that may leak lead and other harmful contaminants into water systems.
- Private water companies charge customers 59
   percent more than public companies and often
   avoid low-income communities due to higher
   disconnection rates.<sup>27</sup> Investing in a clean public
   water infrastructure can provide much-needed
   resources that enable local governments
   to maintain greater control of public water
   resources instead of seeking privatization
   options that often result in higher costs and less
   transparency and accountability to residents.
- People living in urban and rural areas often have difficulty accessing fresh and nutritious food.
   Both urban and rural residents often lack access to reliable public transportation, must frequently travel great distances to reach grocery stores, and often have few choices in where to shop.
   Infrastructure funds can support transportation

- and community design projects that better link low-income residents to healthy food outlets in ways that are more convenient and affordable.<sup>28</sup>
- Infrastructure in rural communities should be developed to meet the increased demands of farm-to-fresh retailers. Ensuring environmentally sustainable means of developing and distributing produce will provide rural communities with a boost in productivity, economic growth, and greater opportunities for social inclusion. <sup>29</sup>



## Foster equitable access to transportation options while promoting environmental health

Transportation is integral to daily life. It impacts several social determinants of health, including access to jobs, schools, and health care. High transportation costs can have rippling financial effects that limit the ability to afford other necessities, including food, housing, and child care. Because low-income households and communities of color tend to live closer to highways, where the cost of housing is lower, exposure to poor-quality air from traffic-related air pollution is higher and associated with negative health outcomes.<sup>30</sup>

Low-income households spend almost 16
 percent of income on transportation compared
 to only 11 percent spent by mid-income
 households and the 9 percent spent by highincome households.<sup>31</sup> For example in



New York City, blacks have a 25 percent longer commute than their white counterparts. Additionally, residents who earn less than \$35,000 per year are 11 times more likely to have commutes greater than an hour each way than those earning over \$75,000.<sup>32</sup>

• Nearly half of rural bridges and 40 percent of rural roads are in need of repair.<sup>33</sup> Long distances between residences, retailers, and employers require access to safe, affordable, and dependable transportation, but rural communities are often left out of the planning stages of state infrastructure projects. Consequently, rural areas remain isolated as insufficiently developed infrastructure creates barriers to higher education and career opportunities for young people.<sup>34</sup>



- Motor vehicle emissions are responsible for one-quarter of greenhouse gases.<sup>35</sup> Increased investment in transportation options that reduce the use of automobiles would help protect the environment and communities most at risk of exposure to harmful vehicle emissions.<sup>36</sup>
- Investment in green spaces can capture carbon and greenhouse emissions, while simultaneously encouraging physical activity. One study found that young adults who lived in neighborhoods with green spaces were less likely to have increased body mass indexes over a two-year period than their counterparts.<sup>37</sup>

Households in economically distressed areas are more vulnerable to bad weather because they are more likely to be located in areas that are prone to natural disasters such as flooding or landslides.<sup>38</sup> Infrastructure legislation should include funds targeted to communities that are vulnerable to the impact of climate change.

Invest in Indian Country and Tribal Nations

Infrastructure in Indian Country has never been properly funded or developed.

In 2009, several U.S. senators signed a letter citing a \$50 billion unmet need for infrastructure development in Indian Country. Underinvesting in Indian Country severely limits the potential of human capital and consigns a population of people to living in substandard environments that have detrimental effects on both physical and mental health.

- Tribal Nations require an estimated \$45 million annually to maintain safe water systems, \$25 million more than they currently receive.<sup>39</sup> The Indian Housing Block Program currently estimates that Indian Country is lacking approximately 68,000 housing units. The existing housing stock, however, is severely in need of health and safety updates and electric service. In 2015, 47 percent of American Indian and Alaska Native (AIAN) homes were in need of sanitation repair, and 9 percent of American Indian homes lacked access to safe water, compared with only 1 percent of homes throughout the U.S.<sup>40</sup> Fourteen percent of tribal homes lack access to basic electricity.<sup>41</sup>
- Many American Indian and Alaskan Native communities can access health care only through Indian Health Services (IHS) and tribal facilities—both of which are woefully underfunded. IHS and tribal facilities are, on average, 30 years older than U.S. hospitals and can only adequately serve half of the

AlAN population.<sup>42</sup> Adequate investment in the development and modernization of the infrastructure in Indian Country can address critical health care needs and promote the economic development of Indian and Alaska Native communities.



### Policy Tools for Advancing Infrastructure Equity

There are several recommendations that policymakers should consider when drafting an infrastructure bill, including allocating funds for hiring and training members of disadvantaged groups, implementing prevailing wage minimums, conducting racial impact assessments and health assessments, and creating set-aside strategies that ensure diversity in contracting and distribution of funds to communities most in need. By intentionally structuring legislation in a manner that seeks to reduce inequities, policy-makers can leverage infrastructure investments to improve the health and economic well-being of economic and socially disadvantaged populations in rural and urban communities. There are already proven policy tools and strategies that can be built into a legislative package to ensure equity. These include:

Incentives for Hiring Unemployed
Workers: In 2010, Congress passed the
Hiring Incentives to Restore Employment (HIRE)
Act. The law included payroll tax credits for
employers that hired unemployed workers

and included \$20 billion for highway and transportation projects. By prioritizing hiring of the chronically unemployed, federally funded infrastructure projects can play a role in reversing the trend of high unemployment and underemployment rates among African American men, older workers, and other disadvantaged groups. The subsidized employment programs in the 2009 stimulus bill discussed above is another important model of how federal legislation can create jobs and increase earnings for low-income workers.

- Fair Wage Protections: The Davis-Bacon Act should be included in all federal infrastructure legislation and enforced to ensure that workers receive, at minimum, the equivalent pay and benefits as the local workers in their area. Federal law requires that construction projects that use federal funds provide the prevailing wage to workers. Using and enforcing the prevailing wage protects workers by providing a living wage, benefits, and overtime compensation. The Davis-Bacon Act should be incorporated in infrastructure legislation to ensure that workers are not exploited.<sup>43</sup>
- Disparate Impact Assessments: Under federal law, no federal funds may be used in a manner that discriminates against minority and low-income communities. To ensure that undue burdens are not placed on disadvantaged communities, racial impact assessments are conducted to determine how projects using federal funds impact minority and low-income populations. However, because these guidelines are not always regulated or enforced, two key civil rights provisions should be included in federal infrastructure legislation:
  - Title VI of the Civil Rights Act of 1964 prohibits recipients of federal funds from discriminating on the basis of race, color, or national origin.<sup>44</sup>



Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires federal agencies to assess disproportionately high and adverse environmental and human health or environmental effects of federal programs on minority and low-income populations in order to ensure equitable environments for all communities. 45

• Health Impact Assessments (HIAs):

HIAs should be conducted before major infrastructure projects begin to determine how these proposed plans would affect the health and well-being of vulnerable communities. It is important to conduct an independent health assessment because many traditional impact assessments have a narrow definition of health. By focusing specifically on health, HIAs allow for a determination of how infrastructure projects can benefit or harm the health of communities and can include assessments on the impact of various social determinants of health such as job creation, construction of affordable housing, and expansion of transportation options in underserved areas. 46

### • Targeted and Set-Aside Approaches:

Targeted approaches should be used to ensure that traditionally disadvantaged groups and communities have a fair chance to participate and benefit from jobs and contracts generated from federal infrastructure investments. So that communities most in need benefit from infrastructure improvements, funding should be set aside to prioritize projects targeted to underserved communities. This would allow for inclusion without direct competition against more affluent municipalities. Criteria defining target areas should be set to effectively direct infrastructure resources to areas of high poverty, unemployment, and/or health disparities. Existing federal government

contracting programs, including 8a, minority and small disadvantaged, and women-owned business set-aside programs, should be used to their fullest extent to ensure equity in contracting for infrastructure projects.

#### **CONCLUSION**

Repairing and enhancing the nation's infrastructure has wide-reaching societal implications, benefits, and potential harms. With a focus on equity, the federal government, states, and local governments can leverage infrastructure funds to improve health, employment opportunities, economic development, and environments for all residents while targeting projects and resources to areas where significant investments can have ripple effects across communities and regions. Projects that produce multiple benefits, including expansion of mass transit to underserved communities, new jobs generated from that expansion, and resultant reductions in greenhouse gases, can reduce inequities across several social determinants of health simultaneously. By committing to fair, equitable, and responsible investment of public funds, policymakers can play a significant role in building healthier and more equitable communities.

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