Pillar V: Equity

“Fifth, and finally, equity must run through everything that we do. We must learn from our historical mistakes ... By doing it differently this time, we will enhance our economic competitiveness ... this is what it is going to take to build an economy from the bottom up and the middle out.

—Brian Deese, Director of National Economic Council
June 23, 2021
Section Overview

In a February letter our team wrote to OSTP Director Dr. Eric Lander, we offered a series of science and technology policy recommendations to address our nation’s racial, gender, and wealth inequalities. We wrote then:

For too long, the advances of science and technology (S&T) have reproduced and exacerbated inequities in American society, most notably severe racial and socioeconomic disparities. The administration can do more to promote equity, diversity, and justice across all of its S&T departments and agencies...Agencies can put words into action by actively bringing new voices to the table...As President Biden pursues an ambitious clean-energy agenda, the administration must prioritize clean-energy investments for low-income households and communities of color. The administration can also move to address the lasting, adverse effects that urban-renewal transportation policies of the 1960s continue to have on marginalized neighborhoods and communities.

Today, we reaffirm these sentiments, applaud your commitment to incorporating equity considerations into the heart of U.S. industrial policy, and have integrated several equity-focused actions into each of the above pillars. Below, we offer several additional proposals for an industrial policy of inclusive R&D, entrepreneurship, and infrastructure.

Regionally Inclusive Innovation

The administration could launch a national Place-Based Public-Private Partnerships for Innovation (P4I) Initiative to grow a network of American innovation zones (IZs) in deindustrialized and underserved communities. The IZs would weave together place-based investments with educational, research, entrepreneurship, and financial support to advance inclusive economic development. The P4I initiative would be led by an OSTP-convened interagency committee overseeing over $1 billion in annual investment over a 10-year period. This large-scale investment would create a network of IZs, generate a diverse and prepared labor force for sustainable innovation, and expand R&D programs to build innovation capacities via tax credits, grants, and more. Place-based innovation could also take place via a strategic, bottom-up national-challenge grant system funding “Regional Centers for Shared Prosperity” in order to accelerate startup creation, develop the next generation of talent, and provide alternative capitalization models. Initially funding the program to award six regional challenge grants of $25 million each is expected to yield at least a 3:1 return in private-dollar investments (for a total of $500 million) and create at least 21,000 jobs in underserved areas of the country.
Entrepreneurship for All

Regionally inclusive innovation would depend on a thriving small-business ecosystem to diversify offerings and distribute economic profits equally. However, minority entrepreneurs routinely face systemic barriers such as limited access to capital or isolation from key dealmaker networks. To create an inclusive entrepreneurial ecosystem, the administration should create the E-Corps, a four-year pilot of 1,000 small-business incubators backed by federal grants, training, and placement programs. With grant support from the Small Business Administration (SBA) Office of Investment and Innovation, the E-Corps would provide early-stage and minority-led small technology businesses with the networks, resources, and tools needed to better access outside capital and scale up businesses. SBA’s Office of Investment and Innovation could also support inclusive entrepreneurship through a public-private partnership for business-to-business (B2B) data sharing. Using temporary “data grants” in the form of fiduciary data pooling, API access, online directories, and federated data and learning, this data-sharing effort would level the playing field between startups and established, data-rich companies. The partnership would ensure that data providers would retain ownership over data assets while delegating operational responsibility to the government. Relatedly, the administration could also increase early exposure to relevant inventor role models and entrepreneurship programs for young people, by structuring SBIR programs toward first-time applicants, with an emphasis on women and minorities.

However, America’s greatest asset may be its ability to attract and retain the world’s most talented individuals. Half of our nation’s billion-dollar startups were founded by immigrants. But maintaining this high-skilled immigration pipeline has never been easy. In addition to overcoming a host of obstacles in their home countries, foreign-born entrepreneurs must endure a long, convoluted, and highly politicized immigration process in the United States. Unlike many other countries competing in the global battle for talent, the United States has no operationally active immigration pathway for attracting talented startup entrepreneurs. Therefore, the administration, U.S. Citizenship and Immigration Services (USCIS) and U.S. Customs and Border Protection (CBP) should reimplement, publicize, and issue guidance for the to implement the International Entrepreneurship Rule (IER) (Innovation Frontier Project, 2021).

Equity-powering Infrastructure

An innovation ecosystem and workforce are only as strong as the physical infrastructure that supports it. For too long, underserved communities across the country have felt the impacts of aging roads, buildings, and water systems, creating a wide-range of consequences that have disproportionately affected minority populations. These disparities have only exacerbated the ever increasing gaps in wealth and opportunity that exist between American workers, making it essential that our nation’s new industrial policy includes robust, equitable, and comprehensive investments in 21st-century infrastructure to create a level playing field and unleash stronger economic growth.
To start, the Administration can invest in next-generation technologies that efficiently and effectively eradicate lead contamination in water lines. Anywhere from 6 to 10 million residential lead service lines remain in use and are responsible for disastrous public health impacts that often impact low-income communities. These consequences are well-documented and devastating, with over 400,000 Americans dying from lead poisoning each year and over half of American children under the age of six having detectable levels of lead in their blood. But lead is an instantiation of a broader issue with the American water ecosystem, which remains catastrophically out of date. In fact, the U.S. water sector—some 50,000 community systems and 16,000 sanitary sewer systems—only receives 4% of its funding from the federal government, far below standard for other critical infrastructure (e.g. highways at 25%, mass transit and rail at 23%, and aviation at 45%). Meanwhile, nearly 75% of federal funding for the water sector supports primarily legacy water operations and maintenance systems, which, without any modernization, will require $1 trillion over the next two decades to sustain.

This is a life- and livelihood-costing market failure in need of a dedicated initiative to locate and promote the commercialization of key technologies, like the Federal High Administration’s Every Day Counts initiative. With the Department of Commerce as part of the new Water Subcabinet, there is an opportunity to launch a strategic national directive to support the innovation and manufacturing of water technologies. Through an expanded Manufacturing Extension Partnership, the administration could create a joint Environmental Protection Agency (EPA)-NIST collaboration to identify, down-select, demonstrate, and commercialize the promising technologies. While water policy would still primarily remain under the authority of the EPA, NIST could support the effort by evaluating key technology areas in AI, predictive analysis, advanced sensors, intelligent networks, cloud based data storage, and consumer focused communications and treatment products. By finally ensuring that the water we drink and the air we breathe are lead-free and sustainably equipped with the latest infrastructure, the U.S. will take a necessary first step towards supporting the diverse workforces of both today and tomorrow.

We must also invest in bringing modern digital infrastructure to the communities who need it most. The digital world is here to stay, but millions of Americans lack the high-speed, affordable internet necessary to learn or work from their own homes. To tackle this challenge, the American Jobs Plan (AJP) allocates $65 billion in spending—a large portion of which will flow through the National Telecommunications and Information Administration (NTIA) to states. To ensure that incumbent service providers are not de facto recipients of this funding, the NTIA should evaluate a range of novel approaches to expanding affordable broadband services and inform state broadband offices of their recommendations. More broadly, instituting new measures that make it easier for all Americans to understand where broadband is currently offered and at what price and speed will also promote transparency and competition in the broadband market. Combined, these necessary, targeted investments in physical and digital infrastructure will lay the foundation needed to build an economy from the bottom up and the middle out.