

Wraparound Services: Its Overview and Context in DC's Economy

Following the Data and Expert Analysis on Effective Economic Development Policy

Kevin Hundelt

Office of Revenue Analysis
Office of the Chief Financial Officer
District of Columbia Government

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I. Introduction

In a rapidly changing business and economic environment, it is crucial for the District of Columbia to update and refine its economic development policies. In this regard, DC can become a national leader in developing its people and industries. With the rise of remote work and the acceleration of artificial intelligence technologies, changes in how we work are occurring at a rapid pace. Therefore, a reorientation in policy focus may need to be adequately discussed. If technological changes are not enough, the recent changes in Federal government policy focusing on reducing its workforce, budget, and footprint, as well as the possibility of establishing more control over the affairs of the District, should prompt the City to examine what it can do and how to make its operations more effective.

For many years, the main economic development question in the District of Columbia has been something along the lines of, “How can the City better attract new businesses and industries?” Perhaps the question should be, “Does the City have the qualified workers to fill the labor demands of a desired industry?” DC has a high number of highly skilled workers, as evidenced by the average number of residents holding four-year or more college degrees.¹ Can it better accommodate those whose goals and ambitions are to pursue new careers or acquire more suitable credentials? What are their prospects for a high-paying job? In pursuit of finding responses to these questions, it is worth noting that the District has already initiated programs to address some of these issues. To prepare for hard skills, there are multiple institutions, such as UDC’s Community College associate programs, the DC Infrastructure Academy, and the K-12 school system. There also exists a robust network of nonprofit community organizations that aid residents in many ways, helping them survive and then thrive.²

It is, however, essential to coordinate and connect all available support programs and services with workforce training centers to assist individuals' success. This approach, called wraparound services, encompasses meeting the specific needs of applicants during their training, in line with the needs of specific industries. The DC Department of Human Services, through its Career MAP pilot program, is implementing this approach. It provides financial assistance for housing, individualized career coaching, employment placement, and coordinated access to peer group and family support, including health services, education, and childcare.³ Based on the existing system and recent program evidence, coordinating wraparound services within hard-skills training programs has already demonstrated its potential, yielding additional benefits for the local economy and advancing community goals.

To provide an opportunity to explore additional economic development prospects, the Office of Revenue Analysis (ORA) has, through this study, attempted to identify other approaches for advancement. This study provides a high-level overview of DC’s labor market and policies, along with an outline of alternative approaches to the same results-driven concept,

¹ See <https://usafacts.org/articles/which-states-are-the-most-educated/>

² The network of DC workforce development community-based organizations is loosely connected, and much is based on organization-to-organization referrals. Still, most are members of the Coalition (formerly CNHED), and they have published a directory of the many services and programs available to residents. See <https://cnhed.org/news/workforce-training-and-services-directory/>

³ See <https://dhs.dc.gov/page/career-map>

divided into five sections. Section 1 of this study examines the current economic development policies and goals in DC and different approaches; section 2 describes DC's current market and labor conditions and its potential growth areas; section 3 introduces the support services and training programs available for District residents and a time series analysis of income tax data on a group of residents illustrating established areas of employment with potential for policy intervention such as targeted industry training and wraparound services; section 4 is the overview and findings of a randomized controlled trial study of identified Potomac Job Corps participants and their outcomes; and in section 5 are case studies of four sectoral training programs with positive evaluative results are provided. In this section, the highlights of their overarching strategies that contribute to their success are discussed in more detail.

1. A city's economic development policy by way of business tax incentives, direct funding of public goods and services, or both

Past academic studies have shown that targeting specific industries with tax incentives to locate within a jurisdiction can have a modest impact on that jurisdiction's economic development.^{4 5} For example, Amazon's search for its second headquarters in 2017-2018 was not influenced by the various states' tax incentive packages offered, as the company ultimately chose a different jurisdiction.⁶ Similarly, ORA's past evaluations of the pre-reform QHTC tax incentive laws found that most of the benefits went to large, established corporations with small office footprints in DC. At the same time, they were mainly headquartered out of state. This leads us back to asking what the goal of economic development policy is. Is it to facilitate the growth of an emerging or established industry? Encourage the launch of more small businesses? Or welcome the hiring of more residents? Or a bit of everything? The next question is, are tax incentives for businesses the most effective use of public resources? If not, then what approach is most effective? Suppose the government focused its funding on its long-held roles, such as maintaining quality transportation, education, and public safety. Is it already contributing to the economy's development? If a jurisdiction maintains its current approach of using tax incentives and direct economic support, certain practices should be implemented to enhance the efficiency and effectiveness of the incentive program. First, incorporating best practices in policy design, such as routine audits, specifying agency responsibility, caps on benefits, clawback provisions, discussion of sunset dates, and data transparency mandates, is essential for effective use of tax incentive programs. Second, before enticing businesses with tax incentives, a jurisdiction must have the labor force to fill the desired jobs, and its workforce development system is integral to achieving that policy goal. Yet challenges affect any jurisdiction's labor market, such as the gap between the need for middle-skill workers and the career paths available to residents without

⁴ Bartik, T. (2018). "Who Benefits From Economic Development Incentives? How Incentive Effects on Local Incomes and the Income Distribution Vary with Different Assumptions about Incentive Policy and the Local Economy." Upjohn Institute Technical Report No. 18-034. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. <https://doi.org/10.17848/tr18-034>

⁵ Klemm, A., Van Parys, S. Empirical evidence on the effects of tax incentives. *Int Tax Public Finance* 19, 393–423 (2012). <https://doi.org/10.1007/s10797-011-9194-8>

⁶ Arlington County and Virginia agreed to pay Amazon \$573 million (based on annual performance reviews) in cash grants plus a \$250 million investment by the state towards building a nearby higher education campus, compared to Maryland's approved \$8.5 billion deal. Montgomery County (Maryland's selected site) and the District of Columbia chose not to publicly disclose their incentive package deals. See <https://www.nytimes.com/2018/11/13/business/economy/amazon-hq2-va-long-island-city-incentives.html>

college degrees, those working minimum-wage jobs, and the unemployed. Another challenge is achieving the city’s goal of empowering residents from diverse cultural and socioeconomic backgrounds to work in various fields.⁷ However, with high-level planning and policy recommendations from experts, there could be achievable wins to boost our economy and support our disadvantaged residents.

2. Overview of the labor market of DC and its development

An important aspect of economic development is addressing the labor or supply side of the region’s economy. Having the right amount of trained/skilled labor in the District is critical for the region’s growing industry clusters to simultaneously grow businesses and raise the quality of life for many residents. According to DC’s current economic development strategy, the top targeted industry clusters for predicted employment growth are government services, consulting services, technology, education and research, construction, communications, and hospitality.⁸ According to 2024 data from the DC Department of Employment Services (DOES), the industries that employ the most DC residents cluster around government and professional, scientific, and technical services.⁹ In terms of labor force participation¹⁰ According to the US Census Bureau, as of 2023, the latest data available at the time of this study’s writing, the District had a participation rate of 72.4 percent. Our analysis of the same data shows that this labor participation trend has improved each year since 2018. However, this participation varies across subgroups within our labor force, including race, residents below 200 percent of the federal poverty level, educational attainment, and geography. Map 1 illustrates a connection between poverty, race, educational attainment, and unemployment east of the Anacostia River, specifically in Wards 7 and 8, as of 2023, as characterized by the public-use microdata area (PUMA) 104.¹¹ Table 1 compares each selected economic statistic of each PUMA to the District’s total in the same year.¹² According to the US Bureau of Labor Statistics' data on unemployment rates for the 50 largest cities in the US, DC has consistently ranked among the bottom 10 cities over the past five years, excluding 2020. This ranking is due to consistently high unemployment rates in these Wards.¹³

⁷ See page 32 of <https://ore.dc.gov/actionplan>.

⁸ See page 108 of the Government of the District of Columbia, Office of the Deputy Mayor for Planning and Economic Development. (2023). *DC’s Comeback Plan: Our 2023-2027 Economic Development Strategy*. Note that hospitality is not considered a high-average-wage industry.

⁹ See the DC DOES website’s labor market awareness dashboard on industries. <https://does.dc.gov/page/labor-statistics>

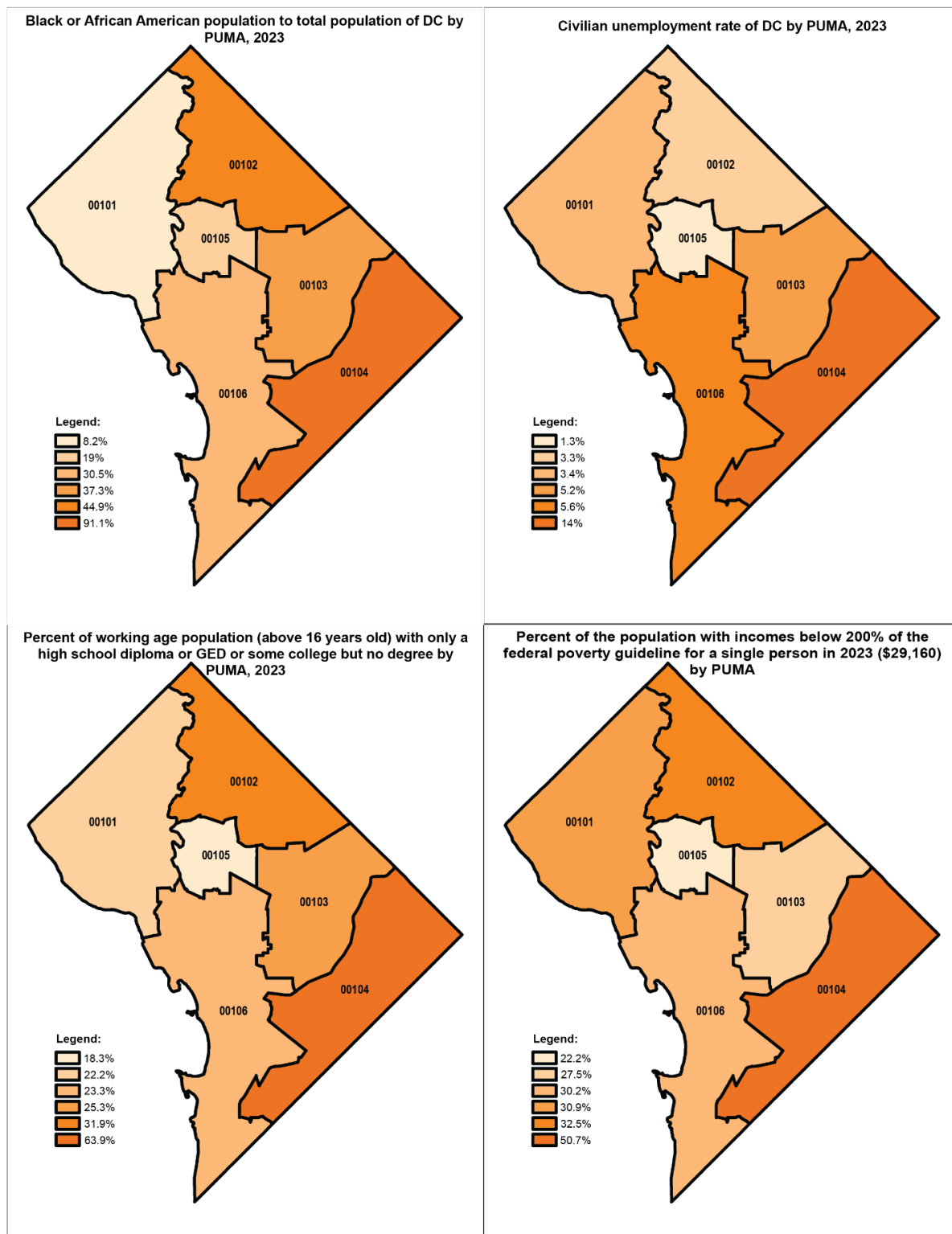
¹⁰ Labor force participation is the percentage of the working-age population (older than 16 years old) that is either employed or actively looking for work. Those not included are working-age people who are not actively seeking work but want to work.

¹¹ 2023 represents the latest Census data available at the time of writing this study and was chosen to best represent the current labor force conditions of District residents.

¹² For more information on recent geographic and demographic trends in DC’s labor force participation, see the DC Policy Center's recent publication. Burge, D. (2024). Labor force participation in the District of Columbia: Six key facts you need to know. *D.C. Policy Center*. <https://www.dcpolicycenter.org/publications/labor-force-participation-in-the-district-of-columbia-six-key-facts-you-need-to-know/>

¹³ U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics Information and Analysis (2024). Unemployment Rates for the 50 Largest Cities, 2019-2023 Annual Averages. <https://www.bls.gov/lau/tables.htm#stateaa>

Map 1: The geographic relationship of black, unemployed, less formally educated, and low-income residents in DC by Public Use Microdata Area (PUMA), 2023 ACS PUMS 1-Year estimates



Source: ORA analysis of the US Census Bureau's American Community Survey Public Use Microdata Sample 1-year estimates, 2023

Table 1: Comparing key economic statistics of DC’s population by PUMA, 2023 ACS PUMS 1-Year estimates

PUMA	White proportion of PUMA	Black proportion of PUMA	All other races proportion of PUMA	Labor force participation rate	Civilian unemployment rate	High school diploma or equivalent or some college but no degree to total working age population (above 16 years old)	Incomes of the population below 200 percent of the 2023 federal poverty guideline for a household of 1
101	70.2%	8.2%	21.6%	67.6%	3.4%	22.2%	30.9%
102	25.6%	44.9%	29.5%	70.1%	3.3%	31.9%	32.5%
103	45.5%	37.3%	17.2%	77.9%	5.2%	25.3%	27.5%
104	3.0%	91.1%	5.9%	62.3%	14.0%	63.9%	50.7%
105	52.3%	19.0%	28.7%	79.5%	1.3%	18.3%	22.2%
106	47.9%	30.5%	21.6%	77.3%	5.6%	23.3%	30.2%
Total for DC	38.8%	41.0%	20.2%	72.4%	5.4%	30.8%	32.7%

Source: ORA analysis of the US Census Bureau’s American Community Survey Public Use Microdata Sample 1-year estimates, 2023

Note: The All-Other Races column includes Native Americans, Alaskan Natives, Asians, Native Hawaiians and other Pacific Islanders, some other races, and two or more races.

3. Examining the areas for growth and barriers to long-term high-wage careers in the DC area

This concentration of low-income and traditionally under-skilled workers creates extra barriers to high-wage, middle-skilled jobs in our region. These barriers include a lack of access to soft skills training or mentoring, affordable transportation or childcare, professional networks, and mental health care services. This has played out before, as DC struggled to fulfill its policy goal of employing district residents in high-wage industries through its first-source program.¹⁴ For example, a previous DC Auditor report highlighted that DC’s training apparatus has not met employers’ needs for skilled labor, particularly in the construction industry.¹⁵ This gap in skilled labor demanded by industry and government is partly due to the failure to meet all the needs of those targeted for uplift. Another reason industries lack skilled labor is that employers may under-provide training in both general and industry-specific skills that are useful at multiple firms, due to concerns about poaching. The concern for firms is that workers could switch employers, thereby losing out on long-term productivity gains, which disincentivizes employers from providing such training. However, by addressing these barriers alongside providing hard-skills training at a nonprofit organization, this untapped potential can become a significant opportunity for economic mobility and for society at large.

Hard or technical skills, such as occupational certifications, are concrete, measurable abilities that are often specific to a particular job. Hard skills training programs for a trade or

¹⁴ DOES’ first source program is an important policy lever the DC government uses to reduce unemployment in the city. The program ensures that city residents are given priority for new jobs created by municipal financing and development programs. See <https://does.dc.gov/page/office-of-first-source-employment-program> for more information.

¹⁵ See page 14 of the Office of the District of Columbia Auditor (2018). [Less than One-Fifth of First Source Provisions Have Been Effectively Implemented and the District Has Not Demonstrated Success in Hiring and Retaining District Employees.](#)

profession include apprenticeship programs, standalone trade schools, and community colleges funded and run by one or multiple sources, such as federal and state governments, community-based organizations, and private industry. These programs, available to DC residents, include the DC Infrastructure Academy (DCIA), the University of the District of Columbia Community College (UDC-CC), and nonprofit-run job training programs such as Catholic Charities DC, Thrive DC, and So Others Might Eat (SOME), among others. These programs alone have achieved good results for participants who have completed the available training. For example, DCIA, in their initial year-and-a-half performance report, reported that the 1,200 participants who completed the training amassed an average of 1.3 credentials.¹⁶ However, in many cases, earning these hard-skill certifications alone is difficult due to life circumstances that hinder attendance, and hard skills are not the only skills a worker needs to succeed in a high-wage career. As stated earlier in this section, access to affordable childcare, reliable transportation, professional networks, and soft skills such as communication, conflict management, and problem-solving are essential to success. In researching the topic that addresses these barriers, *wraparound services* is the common term experts use in the supply-side economic or labor development research field. Wraparound services encompass a range of support services for individuals seeking employment, including housing assistance, mental health care, job placement support, and behavioral support. It is a comprehensive, person-centered model of care that provides individualized support for individuals with complex needs. In most cases, these services, such as housing or childcare vouchers, are provided outside of the training program. A care coordinator typically refers them, and the training program directly coaches the individual on soft skills, focusing on topics such as effective workplace behavior and supervisor relationships, in a classroom or one-on-one setting. These services are sometimes housed within the training program, provided there is appropriate funding and staff.

That said, many nonprofit and government programs already fill this role by providing services to help overcome various barriers; however, in most cases, they operate separately from hard-skills training programs. Pictured in Map 2 are the 36 organizations carrying out workforce development training and services in the District as of 2024. This list includes the locations for DCIA, UDC-CC campuses, the DC Department of Human Services (DHS), and various community-based organizations, such as the SOME Center for Employment Training, Catholic Charities DC, and the Academy of Hope PCS. Several DC agencies provide the same services to clients but serve slightly different populations, such as DOES, DHS, and the DC Housing Authority. Half are in Wards 5, 7, and 8, where most under-employed workers reside, and most of the programs' locations are accessible to Metro train stations. Many independent organizations refer clients to social services outside their programs and rely primarily on their organizational knowledge and networks. Part of the reason for this fragmented effort in service referrals is that many community organizations compete for the same grants, which impedes high-level collaboration. The DC Workforce Investment Council, a government-run, private-sector-led investment board, is uniquely positioned to facilitate and coordinate a more

¹⁶ See pages 9 and 14 of the DC Department of Employment Services (2020). District of Columbia Infrastructure Academy 18-Month Report. https://does.dc.gov/sites/default/files/dc/sites/does/publication/attachments/20200305_DCIA%2018%20Month%20Report_web.pdf.

visible and comprehensive platform for training and service referrals among businesses, workers, government, and community organizations.¹⁷

In addition, since the underlying principle of wraparound services is that they address all the needs of a worker seeking to improve their situation, they represent a multifaceted approach to helping the most economically disadvantaged residents. In this way, we can demonstrate how low-income residents often rely on multiple tax or direct cost relief programs in different areas to remain in DC and be productive members of the economy. Examples of tax relief programs include income tax credits, such as the Earned Income Tax Credit, Property Tax Circuit Breaker Credit, and the Property Tax Homestead Deduction or Assessment Increase Cap Credit. An example of a direct cost relief program is DHCD's Emergency Rental Assistance or Home Purchase programs. Table 2 demonstrates how this multifaceted approach becomes essential for DC's low-income residents to stay and contribute as members of the economy.

Table 2: A Noncomprehensive List of Governmental Assistance Programs for Low-Income District Residents by Need Category

Financial:
Federal & DC Earned Income Tax Credit: EITC
Federal Temporary Assistance for Needy Families program: TANF
Social Security Income: SSI
Housing:
DC Schedule H Property tax credit or Homestead deduction
Federal & DC housing vouchers or public housing
DC inclusionary zoning subsidy for low-income housing
DC Home Purchase Assistance Program: HPAP & Emergency Rental Assistance Program: ERAP
Transportation:
WMATA Metro Lift: reduced fare program for Metro bus and train based on SNAP enrollment
Food:
Federal Special Supplemental Nutrition Program for Women, Infants, and Children: WIC
Federal Supplemental Nutrition Assistance Program: SNAP
Federal Free and Reduced Meals at School
Health:
Federal Medicaid healthcare program
Federal Children's Health Insurance Program: CHIP
Education/Childcare:
Federal Head Start program for birth to 5 year old children
Federal Pell grants
Federal & DC Child and Dependent Care Credit: CDCC & Federal Child Tax Credit: CTC
DC 3–5-year-old Universal Pre-K
DC Tuition Assistance Grant: TAG for higher education
Federal higher education tax credits: AOTC & LLC
Energy Assistance:
Federal Low-Income Home Energy Assistance Program: LIHEAP
Federal & DC Solar for All
Job Training:
Various local nonprofit workforce training programs funded by Federal grants
DC Infrastructure Academy: DCIA

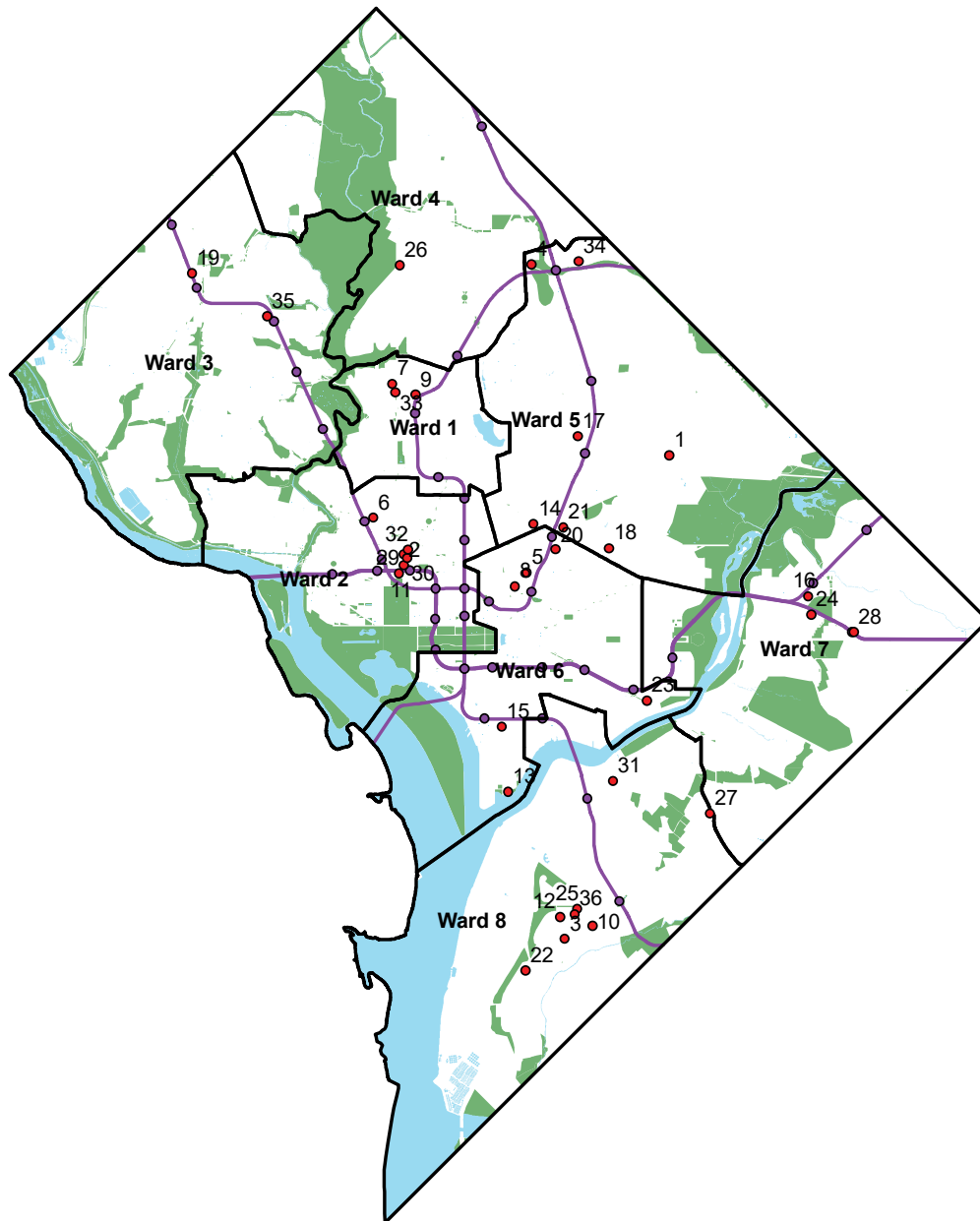
Source: ORA compiled information.

¹⁷ Note that the DC Workforce Investment Council provides an online support system called *My Journey DC* for workforce development professionals who need referral resources for services and other resources from organizations across the District.

The DC government has an opportunity to facilitate connections between these training programs and service providers, integrate wraparound services into its own initiatives to enhance its effectiveness, and potentially scale up already established programs. However, the DC government is running a pilot that employs a wraparound services approach for residents who have experienced homelessness but are committed to pursuing careers in high-demand sectors. The DC DHS has implemented a Career Mobility Action Plan (Career MAP) program that began in the summer of 2022 and serves 500 families. The program provides 5 years of cash assistance for housing and public benefits loss, career advancement coaching, and family case management support.¹⁸ Upon completion, the program will undergo a comprehensive evaluation, providing further insight into its effectiveness in DC and into how to better support residents facing similar barriers to high-wage careers. Meeting with the Career MAP program manager about their experience in implementing a wraparound services program, they advised maintaining the quality of the case management delivery system if developing a larger-scale operation. The focus should be on minimizing case worker turnover and preserving the relationship between case managers and clients, especially for those with numerous barriers to employment. The most challenging task is advancing participants in their careers, so addressing obstacles such as mental health, basic math and reading skills, and childcare needs are key.

¹⁸ For more information on this program and research behind its methods, please see: <https://dhs.dc.gov/page/career-map>

Map 2: Address points (red dots) of prominent workforce development training and services organizations in the District as of 2024



1	Academy of Hope Adult PCS	19	Friendship Place
2	America Works of Washington DC	20	Goodwill of Greater Washington
3	Bright Beginnings Inc	21	GRID Alternatives Mid-Atlantic
4	Briya PCS	22	H.O.P.E. Project Training Academy
5	Byte Back	23	Jobs Have Priority Inc.
6	Capital Clubhouse Inc.	24	Marshall Heights Community Development Center, Inc.
7	Catholic Charities DC	25	Opportunities Industrialization Center of DC
8	Central Union Mission	26	Samaritan Ministry of Greater Washington
9	Collaborative Solutions for Communities	27	Skyland Workforce Center/Building Bridges Across The River
10	Community College Preparatory Academy	28	SOME Center for Employment Training
11	Community Services Agency of the Metropolitan Washington Council, AFL-CIO	29	StreetWise Partners
12	Congress Heights Community Training Development Corp.	30	Suited for Change
13	DC Central Kitchen	31	UDC-CC, Congress Heights Campus
14	DC Department of Human Services	32	UDC-CC, Lamond-Riggs Campus
15	DC Housing Authority, EnVision Center	33	UDC-CC, Van Ness Campus
16	DCIA, DOES, American Job Center	34	Urban Ed, Inc.
17	Edgewood/Brookland Family Support Collaborative	35	Washington Literacy Center
18	Four Walls Career and Technical Education Center	36	Youthbuild DC PCS

Source: DC Workforce Training and Services Directory Spring/Summer 2022. The Coalition, formerly the Coalition for Nonprofit Housing and Economic Development. See <https://cnhed.org/news/workforce-training-and-services-directory/>

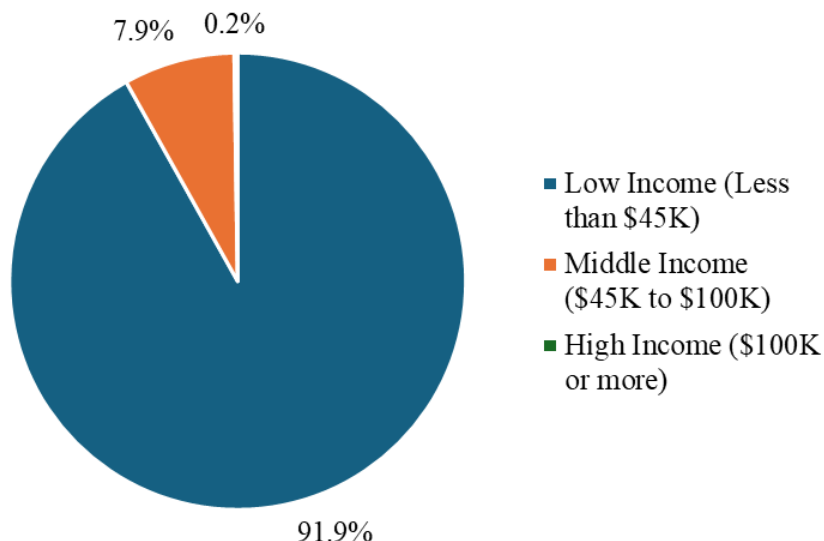
Note: The purple line and dots indicate the Washington Metro train lines and stations in DC, respectively, for transportation accessibility purposes.

Programmatic data on these training and wraparound services organizations, located on Map 2, are largely unavailable to the public. Thus, it is difficult to track outcomes for underemployed or disadvantaged workers who use these services, compared with those who do not. Furthermore, tracking these individuals in the income tax data without knowing their personally identifiable information (PII) limits direct longitudinal analyses of program effects. However, as a limited substitute for this, ORA can examine the trends of a targeted population, such as those who could benefit from policy intervention, using income tax records, and review the results. To start, income tax records are tax returns filed by federal and state taxpayers that contain a plethora of information on each person's PII, yearly gross income, deductions, and credit usage. These records are important because they allow us to assess the current functioning status of tax programs and derive analyses based on concrete data, enabling us to learn more about our population and the economy. This way, we can identify the percentage of young taxpayers who could benefit from new industry training—and subsequent services—and better understand how to target the needs of each income group. We can examine income tax records of 18–25-year-olds from 2010 to 2012 to observe differences in demographics, industries, and tax credits used by those who advance into low-, medium-, and high-income groups after 10 years.

According to our analysis of Federal and DC individual income tax data for matched taxpayers aged 18-25 in TY 2010-2012, an average of 92 percent of those identified earned under \$45,000 in annual adjusted gross income (AGI), as shown in Chart 1. This is

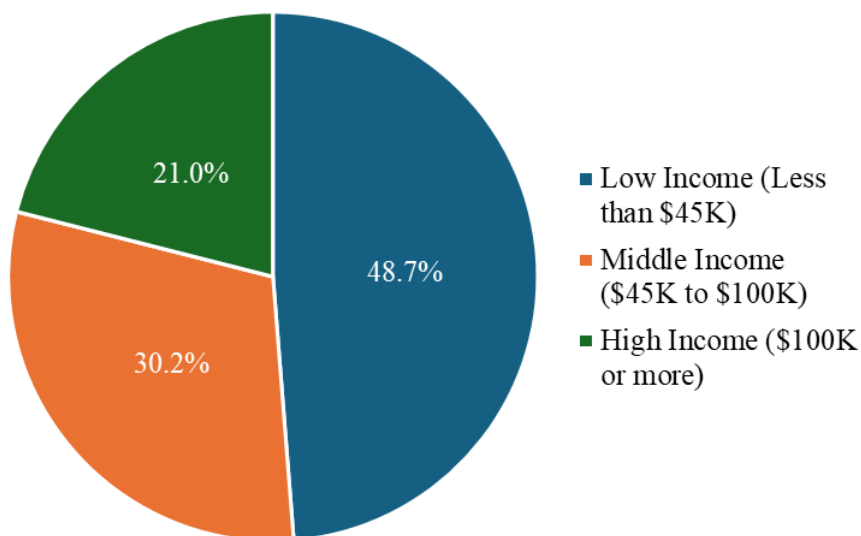
understandable, as many of those identified were still in education or at the beginning of their careers, where little money is typically earned. Ten years later, this same cohort of taxpayers experienced improvements in their annual income, with only 49 percent of the total number observed having AGIs under \$45,000 in TY 2020-2022, as shown in Chart 2. We assume most of this income growth stems from graduating from higher education and entering a high-paying career.

Chart 1: Average Percent Share of the Total Number of Filers Identified by Income Group, TY 2010-2012



Source: ORA analysis of Federal and DC Individual Income Tax data from TY 2010-2012 and 2020-2022

Chart 2: Average Percent Share of the Total Number of Filers Identified by Income Group, TY 2020-2022



Source: ORA analysis of Federal and DC Individual Income Tax data from TY 2010-2012 and 2020-2022

Regarding educational attainment, a strong indicator of higher earnings and a proxy for identifying individuals with a college degree is reporting student loan interest on one's tax return. When looking closer at the difference of each income group in TY 2020-22, the lower-income group had less of a percentage of the group declaring they paid interest on student loans, 3 percent of the group on average, than the middle-income group (\$45,000 to \$100,000 in AGI), 9.4 percent, but slightly higher than the high-income group (\$100,000 or more in AGI), 2.3 percent. Extenuating circumstances, such as the Biden administration's pause on student loan payments during the COVID-19 pandemic or higher-income taxpayers who had already paid for their education, play a factor in these low rates. Additionally, paying off loans after a degree is not guaranteed.¹⁹ Recalling the earlier Census' ACS demographic data analysis of 2023 records, when filtering for individuals aged 28-35, the percentage of the population with a bachelor's degree or higher was 79.1 percent. Moreover, those with annual incomes below \$45,000 and ages 28 to 35 had a bachelor's degree or higher attainment rate of 41.6 percent.

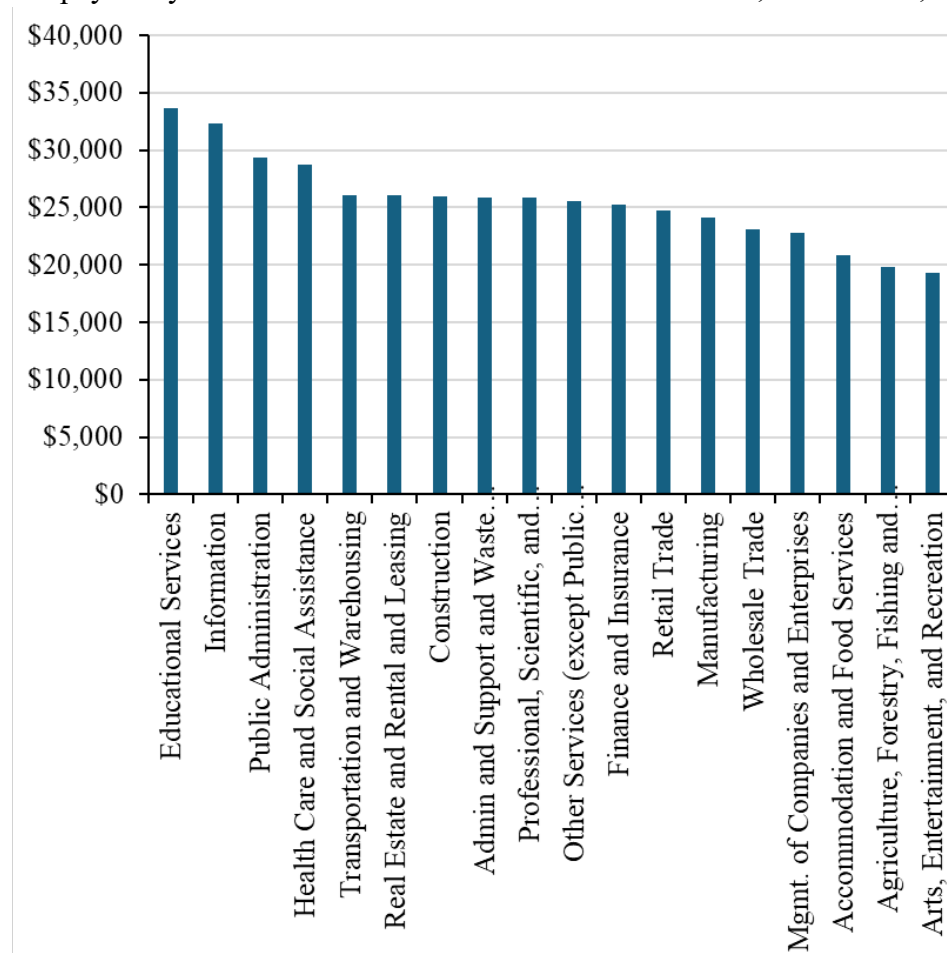
Among the highest-income group of those declaring any interest paid on a home mortgage from FY 2020-2022, an indicator of income stability was 39.9 percent, while the low-income group was 0.5 percent. Interestingly, high-income taxpayers in this analysis had a much higher rate of a spouse being present on their tax return (44.1 percent) than the other two groups combined (11.5 percent). Counterintuitively, the highest rate of a child being declared exempt was in the low-income group (1.1), and in the middle- and high-income groups (0.6 and 0.3, respectively). The low-income group also had an average of 52.9 percent of its members filing as the head of household. In contrast, the middle- and high-income groups had 35.1 and 3.4 percent, respectively. Furthermore, the middle-income group was more likely to take up the federal or DC child and dependent care expenses tax credit or the child tax credit than the other two groups. Lastly, as an indicator of the need for government financial assistance to keep low-income taxpayers in the District, the federal and DC Earned Income Tax Credit (EITC) take-up rates were 64.7% and 72.2% of the total low-income group in FY 2020-22, respectively. In addition to the EITC, the District's homeowner and renter property tax credit, another DC tax expenditure that helps low-income taxpayers afford high living costs, only 22 percent of the low-income group took this credit. It is unknown why the take-up rate is much lower than the EITC for this cohort.

For TY 2020-2022, examining the industries in which each income group is employed, a few sectors account for a large share of the cohort and offer living wages and salaries. These sectors also employ many low-income workers. This supports the notion of hierarchy within the labor force. There are opportunities to equip individuals in industries earning below \$45,000 with credentialing and wraparound services to advance their careers. Some of the individual tax records in the cohorts can be matched to their employers' quarterly wage report records. We averaged the results over the three years to gain insight into the cohort's employment status. According to the corporate franchise tax data, almost half (48.6 percent) of the average 1,028 records matched in the low-income group were from the following sectors: administration and

¹⁹ According to different estimates of the National Center for Education Statistics data on student borrowers and other research, federal student borrowers who do not have a four-year college degree range from 35 to 60 percent of the total number of borrowers. See PolitiFact's September 13, 2022 article on the subject for substantiation: <https://www.politifact.com/factchecks/2022/sep/13/elizabeth-warren/40-student-borrowers-lack-4-year-degree/>

support, waste management and remediation, health care and social assistance, and other services (excluding public administration), as shown in Chart 3.

Chart 3: Average Adjusted Gross Incomes of Longtime (10 Years) Young (28–35-year-olds) DC Taxpayers by NAICS Economic Sector for Less Than \$45,000 Earners, TY 2020-2022



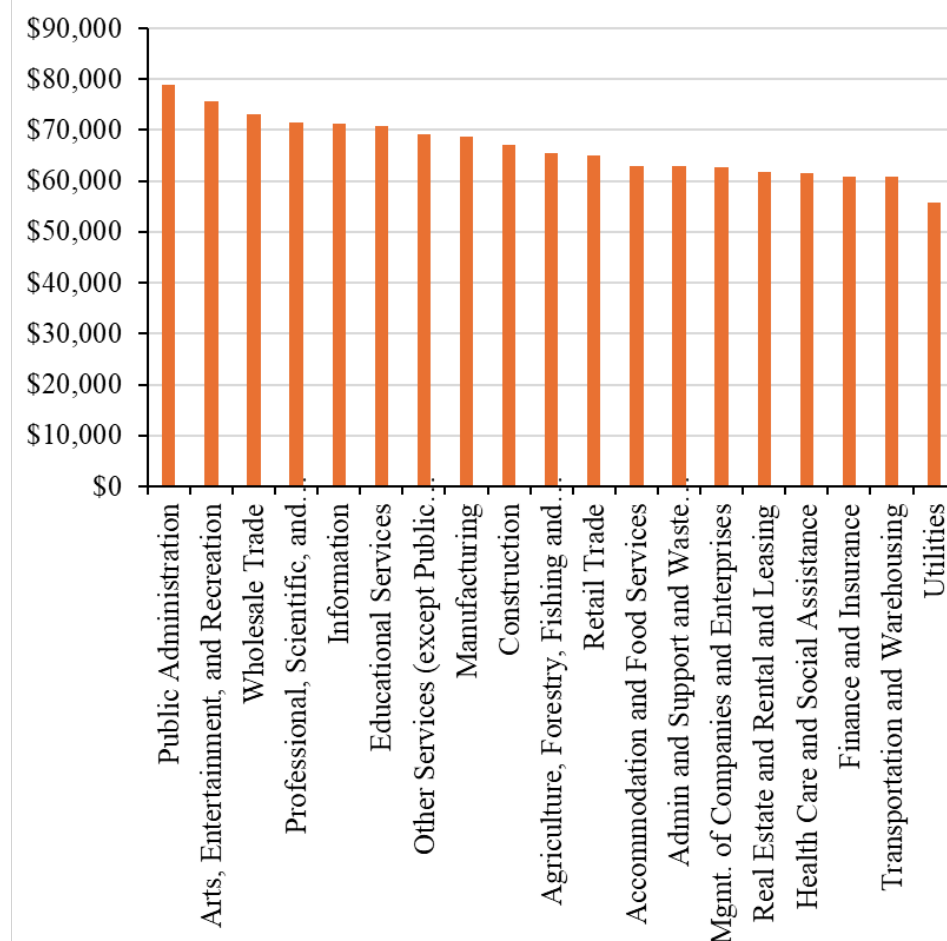
Source: ORA analysis of Federal and DC Individual Income Tax, Corporate Franchise Tax, and quarterly DOES employer wage data from TY 2010-2012 and 2020-2022

Note: Many of the targeted population's income tax records did not match a DOES employer wage report record or Corporate Franchise tax record in our analysis; however, we believe the available sample represents the cohort as a whole.

The average annual adjusted gross income²⁰ for these sectors was \$26,777. In the middle-income group (\$45,000 to \$100,000), the top sectors by employment were professional, scientific, and technical services, other services (excluding public administration), and admin and support and waste management and remediation, accounting for 52 percent of the average 680 records matched (see Chart 4).

²⁰ The root of this figure comes from the federal adjusted gross income line on a tax return, which includes certain above-the-line subtractions that reduce income, like retirement contributions, student loan interest, etc. deemed non-taxable by Congress.

Chart 4: Average Adjusted Gross Incomes of Longtime (10 Years) Young (28-35-Year-Olds) DC Taxpayers by NAICS Economic Sector for \$45,000-\$100,000 Earners, TY 2020-2022



Source: ORA analysis of annual DC Individual Income Tax, Corporate Franchise Tax, and quarterly DOES employer wage data from TY 2010-2012 and 2020-2022

The average AGI for these sectors was \$67,734. Examples of industries within the two similar sectors with large proportions of the cohort employed include all other personal services (primarily businesses providing personal services, such as concierge services or staffing for rehabilitation services), security guards and patrol services, and voluntary health organizations. A career in professional, scientific, and technical services typically requires a four-year or more college degree. However, the charts above show that there are currently sectors with good-paying jobs that typically do not require higher education, such as other services, construction, and information. Combining this analysis with research on sectors with potential for growth in middle-income careers, an opportunity to scale up or coordinate credentialing and wraparound services seems evident, yielding solid returns for the economy and long-term DC residents.

As of 2022, an estimated 11,455 adults are identified as potential beneficiaries of wraparound services in conjunction with a new credential. This number combines results from the income tax data analysis and the DOES Office of Labor Market Research and Information's annual average unemployment data for Wards 7 and 8. In the unemployment data, Wards 7 and 8 were selected based on the Census PUMS analysis, which indicated that PUMA 104 has the

highest need for upskilling and wraparound services, and that these Wards overlap with that PUMA. PUMA 104 had the highest level of residents with only a high school diploma or equivalent and annual incomes of 200 percent or less than the Federal Poverty Guideline for a single person in 2022 and 2023, as shown in Map 1.

To further understand the impact of a training program that includes wraparound-like services on a comparable population of low-income young adults, as the above study assesses the need, ORA has sought to analyze wage-earnings outcomes of Potomac Job Corps Center participants relative to a selected control group using local income tax data.

4. Potomac Job Corps Center’s impact on the annual wages or salaries of former participants in the tax data

To begin, the Potomac Job Corps Center is one of many locations of the larger federally funded Job Corps program, administered by the U.S. Department of Labor, serving the Washington, D.C., area. Job Corps is a vocational education and training program for low-income at-risk youth, aged 16 to 24, primarily delivered in a residential setting. The program’s stated goal is to help youth become more responsible, employable, and productive citizens. The Potomac Job Corps Center offers training and pre-apprenticeship opportunities in construction trades and related fields (e.g., electrical, HVAC), hospitality, finance and business, healthcare, homeland security, and advanced transportation services. After applicants are screened for eligibility, each participant progresses through three program stages: Career Preparation, Career Development, and Career Transition. Eligibility for program attendance depends on legal resident status, age, unless waived due to a disability, meeting the low-income criteria²¹, and certain background requirements. In addition to free housing, the Job Corps offers benefits such as books and supplies, childcare allotment, clothing for career training, food, basic medical care, a living allowance, and transportation for off-campus students.

As previously mentioned, gathering PII or programmatic data on residents who use the various training and services available in the area is difficult, as their parent organizations protect them. However, ORA has access to the records of DC income taxpayers. Since Job Corps is primarily delivered in a residential setting and participants receive a taxable living allowance during the program, we can identify participants through their tax returns, which are filed under their return address, e.g., the center’s address. Using this method, we identified 239 individuals who resided at the Potomac Job Corps Center from 2001 to 2019.²² Of the 239 individuals identified, we were able to follow 34 taxpayers with three or more tax records over the seven years following the program, who either resided or worked in the District. A potential reason for

²¹ The Job Corps defines low income as an applicant or their family having one of the following for the six months prior to application: receiving public assistance (e.g. SNAP, TANF, SSI, CHIP, or state public assistance), earned income at or below DHHS’ poverty guidelines or 70 percent of the Lower Living Standard Income Level (whichever is higher), homelessness, free or reduced lunch, or foster child.

²² Because our federal income tax data begins in 2006, which has the taxpayers’ date of birth, and most of the program participants before this year were not found later in the data, we limited the scope of the analysis to 2006-2023.

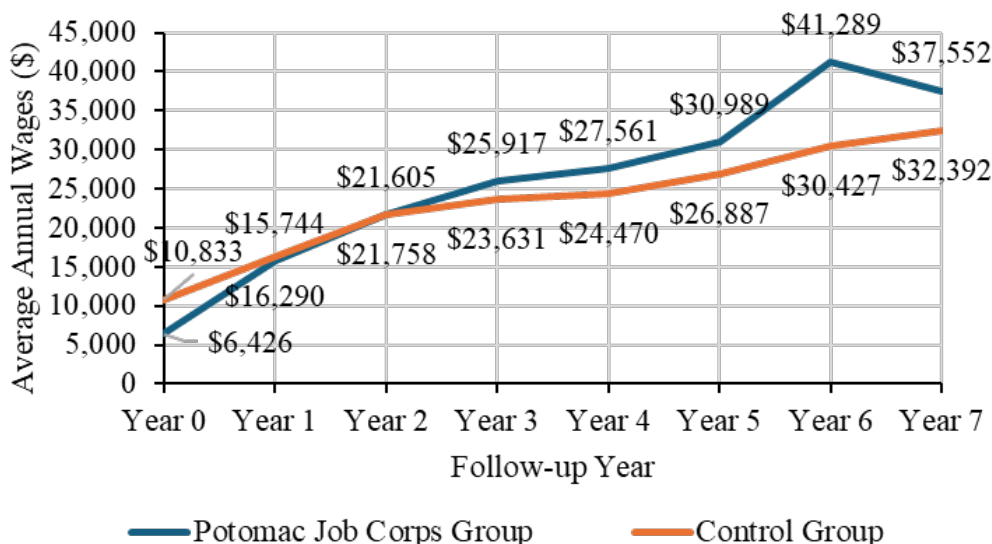
the sharp drop in records found among participants is that this program is region-based, and many individuals return to their home state or find employment opportunities outside DC. The median age of those individuals who met the criteria of having filed three or more tax returns after leaving the program (treatment group) and who lived and/or worked in the District in the seven years post-treatment was 21. 85 percent of these individuals filed as single in their initial year of the program; the rest filed as head of household, signaling they cared for a dependent or child. To determine whether these individuals experienced a wage boost compared with similar individuals in the same age range who were not part of the program (the control group), we conducted a randomized controlled trial.²³

Over the entire seven-year follow-up period after the last treatment or initial selection year,²⁴ Potomac Job Corps (PJC) participants earned an average of \$24,802 more in wages or salaries than control group members, unadjusted for inflation. This means the total dollar difference between the two study groups, calculated by summing the average wages or salaries for all study participants across all 7 years. As shown in Chart 5, PJC participants earned more than control group members in the third through seventh years after program enrollment. During the last year of program attendance (Year 0), PJC participants earned less than control group members, as they primarily received the program's living allowance while training. In the next two years, they earned roughly the same amount as control group members upon entering the workforce. In year seven, the wage gap between the groups closed slightly, partly due to a lack of later tax records for some of the more recent participants in the PJC and control groups, which reduced the number of observations available for these years in this analysis. Year-over-year attrition rates in tax return filings between the treatment and control groups are similar, with an average annual difference of 8 percent in favor of the control group, which means that control group participants who met the criteria filed tax returns at only an 8 percent higher rate than the treatment group over the seven-year post-treatment study period.

²³ Selection of the control group for this study was based on the criteria of the Job Corps' application's low-income status each year (e.g., DHHS' poverty guideline multiplied by two because the application asks for 6 months of gross earned income), age of treatment group participants during their first year of the program each year, the most common zip code of each participant's tax return address before the program or the earliest record found in the data each year, and filing status of treatment group participants during the program each year. An online random number generator assigned a one-to-one match from the pool of eligible control group members to that year's number of treatment group participants. The total number of control group members with three or more tax records in the first seven years after the initial year chosen was 166.

²⁴ Depending on the type of career training and if one pursues additional advanced certifications, the program can last anywhere between 8 months and 3 years. Fewer than a quarter of the selected treatment group remained in the program for more than a year.

Chart 5: Average Annual Wage or Salary During Each of the Seven Years Post Treatment by Treatment-Control Status

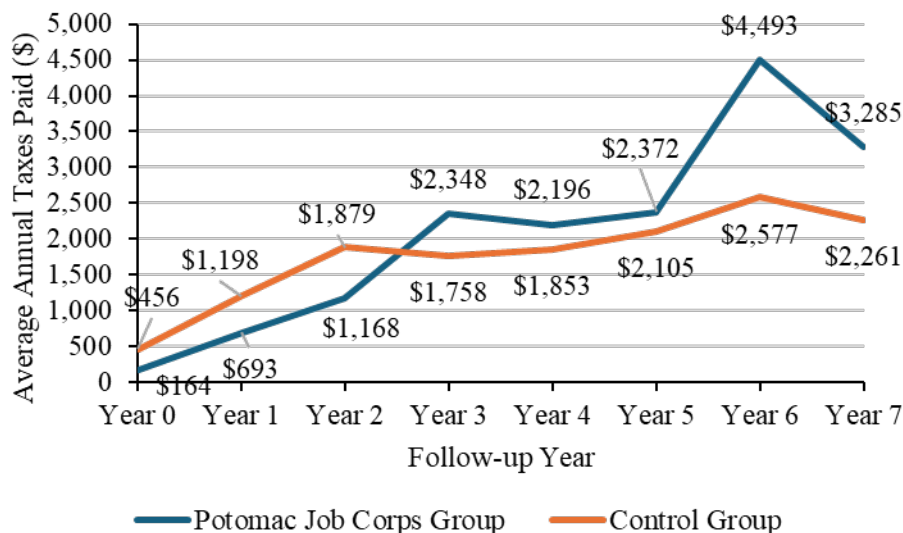


Source: ORA analysis of Federal and DC individual income tax data, TY 2006-2023

Note: Year 0 indicates the last year of program attendance for the treatment group and the initial year of selection for the control group. Figures are for all available study participants, including those with zero wages each period.

In terms of the average total taxes paid to the federal and DC governments, PJC participants paid \$2,926 more in income taxes after credits than the control group over the seven-year follow-up period. The average taxes paid chart below (Chart 6) mirrors the trends in wages earned for both groups, showing that PJC participants paid more in taxes than the control group after year 2. Several participants from both groups paid self-employment or business taxes to the federal and DC governments throughout the study period on their respective economic activities. Still, these incomes and taxes were not included in the study because of the study's focus on wages. More analysis of these activities should be conducted in the future. In addition, several participants in both groups moved in and out of the District during the study period, which complicates the calculation of total taxes paid, since other states were collecting all or part of their taxes, and we cannot access other jurisdictions' tax data. Furthermore, some participants in both groups reported having children on their tax returns during the post-treatment study period, which helps lower their tax liability but also hinders their ability to work while caring for a child and thus, in some cases, lowers their annual wages.

Chart 6: Average Combined Income Taxes Paid After Credits to the Federal & DC Governments During Each of the Seven Years Post Treatment by Treatment-Control Status



Source: ORA analysis of Federal and DC individual income tax data, TY 2006-2023

Note: Year 0 indicates the last year of program attendance for the treatment group and the initial year of selection for the control group. Figures are for all available study participants, including those with zero taxes each period.

When comparing our findings to those of previous studies on the national Job Corps program, similarities emerge. For example, in a large-scale randomized controlled trial that compared outcomes of Corps members to an eligible but not enrolled control group during the mid-1990s, researchers at Mathematica found that the program increased education attainment, reduced criminal activity, and increased earnings for several post-program years.²⁵ However, the impacts on earnings also diminish over time, particularly for younger Corps members. A follow-up study by the same leading researcher on the same mid-1990s sample, now with tax data through 2015 (20 years later), found that older participants were 4.2 percentage points more likely to be employed and had a 7.3 percent earnings advantage of \$1,265 per year over their peers in the control group.²⁶ For participants ages 16-19, there was no impact on employment or earnings in years 10-20.

These studies' results are similar to ORA's, in which participants who met the post-program number of tax returns criteria were predominantly older at program entry and had an average wage advantage of \$3,543 per year over the control group in the 7 years post-treatment.²⁷ A little over 90 percent of ORA's study treatment group was 20 years or older in their first year at the PJC center. These results may indicate selection bias within the treatment group, favoring older participants, who may be more likely to remain in DC and file tax returns, while younger PJC participants are underrepresented. Or it may identify a trend that mostly older eligible applicants choose to attend the program. An analysis of the ages of all 239 PJC participants in their first year of the program showed that 79 percent were 20 years or older, and

²⁵ Schochet, P., Burghardt, J., & McConnell, S. (2008). Does Job Corps Work? Impact Findings from the National Job Corps Study. *American Economic Review* 98 (5): 1864-86.

²⁶ Schochet, P. (2020). Long-Run Labor Market Effects of the Job Corps Program: Evidence from a Nationally Representative Experiment. *Journal of Policy Analysis and Management*. 40. 10.1002/pam.22233.

²⁷ Annual average wage totals do not include self-employed or business and/or cash-only or casual jobs income.

no one was under 18.²⁸ Potential reasons for this age discrepancy may include that they are more likely to move away due to cost or job accessibility, need additional foundational education or soft skills training, or are less likely to file a tax return because their gross income does not exceed the required income threshold. As noted in the previous study, the Job Corps program needs to address differences in outcomes for younger participants through its program-readiness structure while improving job placement services for all graduates.

In summary, the results from the Potomac Job Corps Center treatment vs. control group analysis provide strong evidence of the potential medium-term benefits of investments in strategies such as training with wraparound services to help young adults from disadvantaged backgrounds obtain the middle-skill credentials required to access well-paying careers. Furthermore, government investments in these types of programs yield better financial returns in the form of higher taxes and reduced dependence on public assistance, compared with doing nothing.

In this vein, we highlight case studies in the next section of sector-focused training programs that include wraparound services, which have been studied to be effective in helping low-income adults transition into long-term, successful, and financially sustainable careers.

5. Case studies of successful sector-focused training programs employing wraparound services

The goal of presenting the frameworks and evaluative evidence for these four selected case studies on sectoral training programs is to demonstrate how and why these approaches are succeeding in helping disadvantaged workers attain and sustain high-wage jobs. This section aims to provide an overview of the mechanisms and elements, such as wraparound services and nonprofit training program-employer partnerships, that make them effective and could be adopted in DC's workforce development system.

WorkAdvance

The WorkAdvance model is a private-public partnership-funded, sector-focused training program established in multiple cities for low-income adults, providing post-employment retention and advancement support. Previous randomized controlled trials (RCTs) have shown promising results in higher career advancement and wages for those who graduated from the programs, multiple years after job placement.²⁹ The program targets unemployed and low-wage workers aged 18 and above with incomes below 200 percent of the federal poverty level, who hold a high school diploma or its equivalent.³⁰ All chosen sites focus their training on sectors

²⁸ Note that ages were calculated by the available date of birth on tax returns to December 1 of each tax year when the participant first attended the PJC program. Because Job Corps enrollment is open year-round, it is difficult to determine a standard start date within each year.

²⁹ Katz, L., Roth, J., Hendra, R., and Schaberg, K. Why Do Sectoral Employment Programs Work? Lessons from WorkAdvance. *Journal of Labor Economics*. 2022;40 (S1): S249-S291. Retrieved from <https://scholar.harvard.edu/lkatz/publications/why-do-sectoral-employment-programs-work-lessons-workadvance>

³⁰ Tessler, B. (2013). WorkAdvance: Testing a New Approach to Increase Employment Advancement for Low-Skilled Adults. MDRC. Retrieved from https://www.mdrc.org/sites/default/files/WorkAdvance_Brief.pdf

with strong local employer demand and work directly with affected employers to design technical skills training tailored to their current needs. The difference between this program and earlier sector-based training programs is that it includes job coaching and specific soft skills training before and after participants are placed into jobs.³¹ What stands out about this program is that, after the initial screening of applicants for motivation and readiness, each subgrantee provides sector-focused pre-employment and career-readiness instruction before hard skills training. Then, after certification and placement with signed-on employers, these nonprofits provide services such as ongoing coaching for graduates, rapid reemployment assistance if needed, and guidance for employers to create career advancement pathways.³²

After 6 to 7 years, compared with the randomized control group, WorkAdvance graduates at all four sites earned higher annual wages than before the program, along with more opportunities to advance their careers.³³ Furthermore, the program had a statistically significant impact on the likelihood of participants earning at least \$30,000 6 to 7 years after completion.³⁴ However, WorkAdvance did not have a statistically significant effect on the employment rate of its treatment group compared to the control group³⁵ after 6 or 7 years of being randomly assigned to a targeted-sector job.³⁶ Finally, the net program costs for WorkAdvance, compared to service costs for the control group, varied among the 4 sites from \$4,459 to \$7,527 over a 5-year span.³⁷ Evidence has shown that one site, Per Scholas³⁸, achieved significantly better success in increasing career earnings (excluding fringe benefits) over its net program costs after five years, demonstrating the value this type of program provides in generating a net benefit to society.³⁹

Funding began in 2011 at four nonprofit subgrantees: Towards Employment of Northeast Ohio (healthcare and manufacturing), Per Scholas of New York City (information technology), St. Nicks Alliance of New York City (environmental remediation), and Madison Strategies Group of Tulsa, OK (transportation and manufacturing). They all still run the program today. For comparison to DC's local industry context, see page 108 of DMPED's DC Comeback Plan for a list of viable local emerging industries in DC.

Project Quest

Project Quality Employment through Skills Training (QUEST) is a support services program that helps participants complete occupational training programs at local community colleges and professional training institutes with wraparound services. These services include

³¹ Ibid

³² Kazis, R. and Molina, F. (2016). Implementing the WorkAdvance Model Lessons for Practitioners. MDRC. Retrieved from <https://www.mdrc.org/work/publications/implementing-workadvance-model>

³³ See page 7 of Katz et al.'s paper.

³⁴ See page 27 of Schaberg, K. and Greenberg, D. (2020). Long-Term Effects of a Sectoral Advancement Strategy: Costs, Benefits, and Impacts from the WorkAdvance Demonstration. New York: MDRC.

³⁵ The control group is like the treatment group characteristically, but does not receive the treatment to serve as a baseline for research comparison.

³⁶ See page 8 of Katz et al.'s paper.

³⁷ See page 10 of Katz et al.'s paper.

³⁸ Per Scholas currently has a location in the region. <https://perscholas.org/locations/national-capital-region/>

³⁹ Net benefit to society means that those receiving treatment afterward are assumed to contribute more income tax or economic productivity and receive less safety-net services.

rental assistance, scholarships, job interview preparation, tuition and book funds, childcare assistance, counseling, and additional support. The main sector it focuses on is healthcare, but it also includes manufacturing and information technology careers. The target population is adults 18 years or older who have a high school diploma or equivalent and can demonstrate, at a minimum, basic math and reading skills. The program lasts one to three years, with longer durations for students who require more foundational reading and math skills. Historically, most participants have been women, reflecting the sector's traditional gender norms in employment.

Based on independent RCT evaluations of Project Quest, the program's long-term⁴⁰ positive impact on participants' earnings compared to the control group is statistically significant; participants earned \$31,000 more.⁴¹ After the first two years following completion of postsecondary education, participants' annual earnings grew more positively each year of the study than those of the control group.⁴² The program also increased postsecondary credential attainment by 13 percentage points compared to the control group over the same period.⁴³ Importantly, earnings gains from program participation far exceeded the program's costs and the cost of college attendance.⁴⁴ The study's sample size is relatively small, so staffing up for a large-scale implementation may pose risks to maintaining quality. Additionally, an earlier study revealed little difference in quarterly employment rates between the control and treatment groups.⁴⁵ However, similar health-focused training programs, such as WIOA⁴⁶-Funded local workforce boards have generated little earnings for their participants relative to control groups because they target low-wage healthcare occupations, like certified nursing aides, that often experience high burnout rates.⁴⁷

Project Quest was originally implemented in San Antonio, TX, by two community-based organizations in 1992 and has expanded into multiple other cities in Texas and Arizona.

Year Up

Year Up is a national sectoral training program for urban young adults aged 18-24 with a high school diploma or equivalent. Operated by a non-profit organization of the same name, Year Up provides six months of full-time training in both soft and hard skills, primarily in the information technology and financial services sectors, followed by a six-month internship at local employers, often major corporations. The program actively recruits prospective applicants through a multi-stage screening process that assesses their fit and desire to work. Throughout the program's training sessions and internship, each local office maintains a team of social workers

⁴⁰ 11 years after the chosen cohort acquired their credential.

⁴¹ See page 6 of Roder, A. and Elliott, M. (2021). Eleven-Year Gains: Project QUEST's Investment Continues to Pay Dividends. New York: Economic Mobility Corporation.

⁴² Ibid

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ See Figure 7 of Roder, A. and Elliott, M. (2019). Nine-Year Gains: Project QUEST's Continuing Impact. New York: Economic Mobility Corporation.

⁴⁶ The Workforce Innovation and Opportunity Act.

⁴⁷ See <https://www.theatlantic.com/ideas/archive/2024/06/federal-job-training-law/678759/>. This article highlights the need for worker representation on local workforce boards to ensure that the WIOA trains people for high-paying jobs.

and mental health professionals to provide direct services and referrals for housing, childcare, legal advice, medical insurance, or SNAP benefits. In addition, the program provides a weekly stipend to cover transportation to and from class and internship, making it easier to work fewer outside hours to focus on the program. After the program ends, each office assists its participants with job search and placement services for up to four months after graduation. As for funding, more than half of the program's per-participant costs are covered by employer payments for interns, and the remainder is funded through private foundations and individual philanthropy.

Year Up, like WorkAdvance, offers a different environment from community college: a small, supportive group setting with wraparound services and greater structure for acquiring the middle skills demanded by local employers. Its goal is to help young adults access well-paying careers with strong upward mobility potential and to provide workers to growing sectors facing labor shortages. Participant outcomes, including increased earnings, financial independence, and steady employment in targeted occupations, in short- and medium-term evaluations appear to support its approach.⁴⁸ After 18 months from random assignment of the treatment and control groups, the treatment group increased its attainment of relevant sectoral certifications by 21 percentage points relative to the control group.⁴⁹ However, 7 years after random assignment, there was no significant effect on more substantial educational attainment.⁵⁰ In the same 2013-2014 treatment cohort, their average earnings increased by 28 percentage points over the control group after 7 years from placement.⁵¹ Additionally, the average quarterly earnings of the Year Up cohort in year 7 who were at or above the "good job" pay threshold of \$20/hour were 12 percentage points higher than the control group's average.⁵² This later report also notes that society received a \$33,884 net benefit per Year Up participant 7 years after program enrollment, assuming companies paying interns achieve a 50 percent return on investment.⁵³ This means the total cost of serving a Year Up participant in this study is less than the benefits society, i.e., participants, employers, levels of government, and individual donors, receive. Benefits include participant gains in total earnings, fringe benefits, and program stipends, but do not include longer-term reductions in crime or improvements in health and child well-being.

Since its establishment in 2000 in Boston, the program has expanded to 30 cities nationwide, including Washington, D.C., and now offers virtual campuses in addition to in-person training.⁵⁴ Virtual campuses should be studied more to determine whether they are a worthwhile training medium.

⁴⁸ See pages 14, 18, and 30 of Fein, D. and Dastrup, S. (2022). Benefits that Last: Long-Term Impact and Cost-Benefit Findings for Year Up. OPRE Report 2022-77. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁴⁹ See Exhibit 6-8 of Fein, D. and Hamadyk, J. (2018). Bridging the Opportunity Divide for Low-Income Youth: Implementation and Early Impacts of the Year Up Program, OPRE Report 2018-65, Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁵⁰ See Exhibit 3-2 of the 2022 report above.

⁵¹ See Exhibit 2-1 of Fein, D. and Dastrup, S. (2022). Benefits that Last: Long-Term Impact and Cost-Benefit Findings for Year Up. OPRE Report 2022-77. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

⁵² See Exhibit 2-1 in the report above.

⁵³ See Exhibit 5-6 in the report above.

⁵⁴ For more information on the Washington, DC location, see <https://www.yearup.org/about/stories/vision-future-year-ups-new-campus-washington-dc>. Washington, DC's office was included in this program's evaluation, focusing

Pursuit

Pursuit is a sectoral training program with support services focused on jobs in the technology sector. It targets low-income adults (with an annual income of \$45,000 or less). The program has no stated educational requirements and no previous sector experience required. It leads its “fellows” through 12 to 24 months of training and 3 years of continued technical and professional skills support after placement in a job. Like the earlier training models, Pursuit combines hard skills and soft skills training while providing students with wraparound services, such as transportation, housing, and childcare, typically through referrals to community organizations. It sources jobs through its partnering employers, which range from major technology companies to startups, for entry-level software engineering roles. Its screening process for fellows is selective and multi-stage, accepting only 10 percent of applicants.⁵⁵ But those who graduate reap starting average salaries of over \$90,000.⁵⁶ Its innovative approach offers students no cost until they are placed in a job paying \$70,000 or more. Then, they pay a share of their salary (5-15 percent) for a few years.⁵⁷ Upfront financing for cohorts is provided by private investors and philanthropy. There have been no published long-term evaluations of the program, but the organization estimates that, based on graduates' average starting salaries, they could earn \$2 million or more over their lifetimes.⁵⁸ Pursuit, a nonprofit organization based in New York City, NY, launched its first class of fellows in 2013.

6. Conclusion

Across all four case studies, each program's objectives were similar: training for both hard and soft skills in local high-wage industry sectors and investing more in wraparound services. Academics have studied earlier and current government-funded sector-based training programs and found that they have yielded mixed results on key outcome metrics.⁵⁹ ⁶⁰ Newer program evaluations of training models that provide more comprehensive services have yielded positive results across various samples, including improved sector credentialing, increased long-term earnings, and favorable net societal benefit-program cost ratios. Experts find that the impact of local tax expenditures on firms' location decisions is modest, as tax incentives rank low in

on the information technology field, but cited its earlier learning and development phase at Northern Virginia Community College.

⁵⁵ See Lohr, S. “Income Before: \$18,000. After: \$85,000. Does Tiny Nonprofit Hold a Key to the Middle Class?” New York Times, 2019. <https://www.nytimes.com/2019/03/15/business/pursuit-tech-jobs-training.html>

⁵⁶ See <https://www.pursuit.org/fellowship>.

⁵⁷ See Lohr, S. “A Jobs Program Broke the Rules to Succeed. Now the Rules May Change.” New York Times, 2024. https://www.nytimes.com/2024/05/14/nyregion/pursuit-job-training-low-income.html?unlocked_article_code=1.sE0.W23x.I6h0cRe9Vug3

⁵⁸ See <https://www.pursuit.org/fellowship>.

⁵⁹ Card, D., Kluve, J., and Weber, A. (2018). What Works? A Meta-Analysis of Recent Labor Market Program Evaluations. *Journal of the European Economic Association* 16(3): 894-931.

⁶⁰ Greenberg, D., Michalopoulos, C., and Robins, P. (2003). A Meta-Analysis of Government-Sponsored Training Programs. *ILR Review* 57(1): 31-53.

business decision-making surveys on headquarters relocation.⁶¹ Based on the evidence, direct spending on sector-based training with wraparound services for disadvantaged labor groups can yield greater societal benefits.

DC government leaders could explore various strategies to improve prospects for specific groups in economically disadvantaged areas. The DC government is already considering the wraparound services approach through its Career MAP pilot program. Otherwise, they can maintain their course and continue investing in basic infrastructure, such as traditional education, transportation, and public safety; or facilitate connections between local employers, sectoral training programs, and social services organizations; or perhaps add to their own programs. Indeed, if wraparound services are deliberately combined with hard skills training, evaluative evidence shows improved earnings over time for low-income adults with little to no postsecondary education. Most highlighted programs operate on private employer-connected funding, so cultivating these employer relationships and having their assistance with technical training is vital. In addition, involving worker representation groups, such as unions, in the training with wraparound services planning/coordination process is necessary to advocate for workers' pay, workplace conditions, and job search support that may be overlooked. If done correctly, DC could help its disadvantaged young and middle-aged adults enter high-earning careers, collectively reducing their costs to society, such as lower crime rates, substance abuse, health problems, or economic dependency, while providing talent for employers in established or emerging industries. Potential problems to be further analyzed include issues with scaling up certain models that may unintentionally loosen screening or accountability standards, as well as the per-pupil service costs for harder-to-reach, more disconnected groups that require more intensive services.

⁶¹ See figure 1 of Oliveira, K. and Allen, B. (2023). The Shifting Landscape of Headquarters Relocations: Trends and Outlook. CBRE. <https://www.cbre.com/insights/viewpoints/the-shifting-landscape-of-headquarters-relocations-trends-and-outlook>