

Where Are Sectoral Training Programs Offered? Insights From a Systematic Review

Executive Summary

Sectoral training programs are occupational training programs designed to prepare participants for careers in growing industry sectors, such as information technology, health care, and manufacturing. Several studies suggest that sectoral training programs do help jobseekers and workers improve their educational, employment, and earnings outcomes (J-Pal Evidence Review, 2022; Katz et al., 2022; Peck et al., 2021). A 2021 meta-analysis of career pathways evaluations (Peck et al., 2021), a specific type of sectoral training program, explored which features of career pathways programs might be contributing to positive outcomes. In this brief, we describe the context in which evaluations of sectoral training programs take place. We examine where people have had access to these programs and which regions have remained outside the scope of program evaluations. We also examine how program participants compare to other individuals in the same locality. These investigations help us understand who has had access to these programs and whether the programs themselves are recruiting samples representative of their local areas.

PROPEL Center at AIR

The [PROPEL Center at AIR](#) advances innovations in workforce development and education through community-centered partnerships. Together, we strengthen and amplify solutions to broaden the reach of what works in improving employment and economic opportunity for all.

The PROPEL Center at AIR conducted a descriptive systematic review. We investigated:

- **Where sectoral training programs were offered.** Sectoral training programs generally take place in defined locations, which limits access and restricts who can take part. The studies included in this review served individuals across 36 states and Washington, D.C. They were more frequently offered in larger metropolitan areas and in rural/very small urban areas.
- **How did the economic situation of program participants compare to the average situation of local and national populations.** Economic indicators show that counties that hosted sectoral training programs were fairly representative of the nation as a whole. However, participants in sectoral training programs had lower baseline income and higher unemployment rates than both local county and national averages.

- **How did the race and ethnicity percentages among program participants compare to local and national averages.** Participants in the included sectoral training programs were more racially diverse than local county and national populations. This was true despite the fact that counties with sectoral training programs tended to be less racially diverse than the national average.

HOW DID WE IDENTIFY STUDIES?

We identified evaluations of sectoral training programs that were potentially eligible for our review by

- searching for evaluations of promising sectoral training programs identified by workforce development experts,
- including the [Pathways for Advancing Careers and Education \(PACE\) evaluations](#),
- including programs studied via the U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCT) grant program, and
- screening all references of studies included in the review and including those that were relevant.

We screened the resulting candidate reports for eligibility, ensuring they met the scope and methodological requirements of our project. Eligible studies met the following criteria:

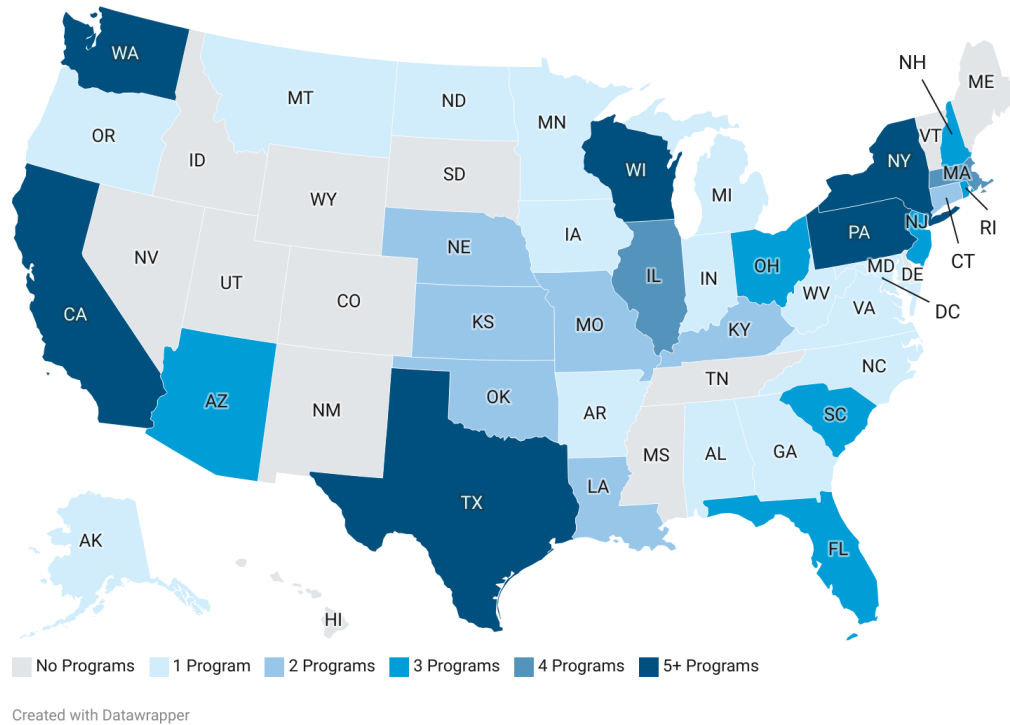
- used experimental or quasi-experimental methods,
- examined employment and earning outcomes, and
- were free of observable confounds and therefore could credibly provide information on efficacy.

We screened 241 potentially eligible reports, of which 37 studies met our eligibility requirements. The Appendix has the full list of the studies included in the review.

Finding 1: Sectoral training programs are implemented across the United States (though mainly in urban or rural areas).

The 37 studies included in this review were implemented in 36 states and Washington, D.C. (see Figure 1). Some states had as many as eight programs, such as New York and Wisconsin. Ten of the studies offered programs in multiple states. States with a greater number of programs likely embraced the sector- and industry-based approaches to workforce training sooner, and similar patterns in geographic variation are seen in grantees from the 2001–2007 High Growth Job Training Initiative (Eyster et al., 2010, Chart 2.5, p. 10).

Figure 1. States With Sectoral Training Programs Included in this Systematic Review



The sectoral training programs in our review were especially common in the Mid-Atlantic, Midwest, Pacific Coast, Northeast, and South regions, and very few programs were based in the Southwest and Rocky Mountain states. Although we did not identify any rigorous evaluations of sectoral training programs in these states, such programs may exist. For instance, Colorado has a strong track record of sector partnerships and training programs (McKay et al., 2013).

Next, we sought to describe the urbanicity of areas that had sectoral training programs. To do so, we identified 769 counties that had at least one sectoral training program included in our review and matched them to the Rural-Urban Continuum Codes, which categorize counties by the population of the area, degree of urbanization, and adjacency to a metropolitan area (*County-Level Data Sets*, 2023; 2020 Standards for Delineating Core Based Statistical Areas, 2021). As shown in Figure 2, the counties served by evaluations in this review had a higher percentage of metro areas (42% of counties served) and a higher percentage of rural/very small urban areas (24% of counties served) than

Urbanicity of Program Counties

Counties are grouped by those that are (a) in metro areas, (b) in areas that are urban and adjacent to a metro area, (c) in areas that are urban and not adjacent to a metro area, and (d) in rural/very small urban areas.

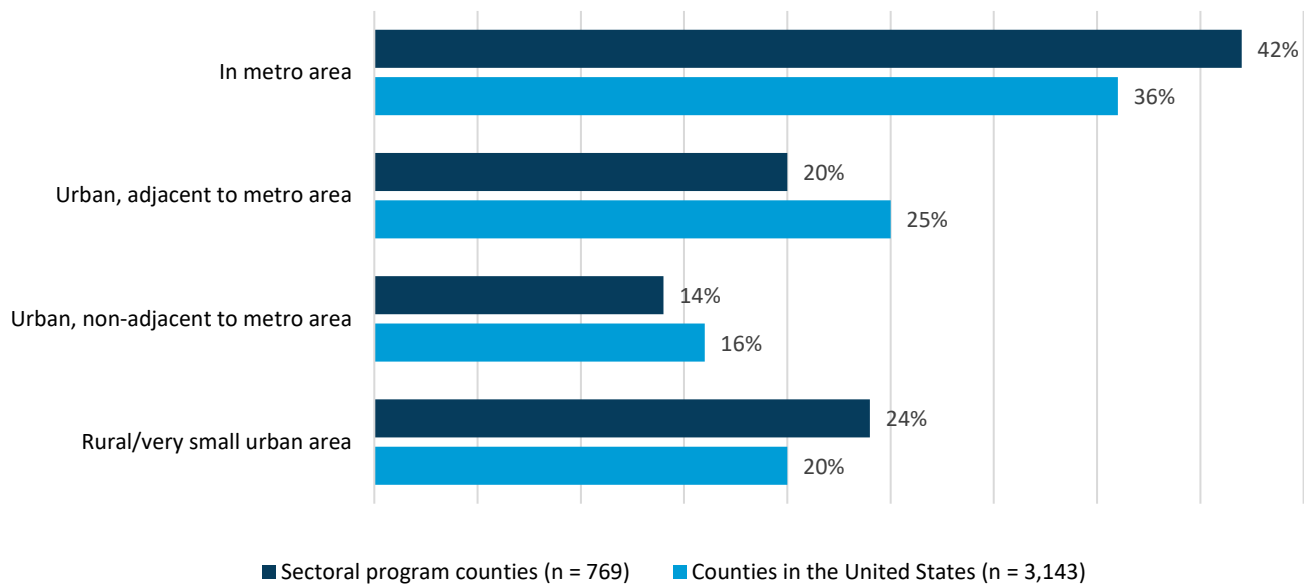
Metro area: central county with an urban population of at least 50,000

Urban: urban population of 2,500–20,000 and adjacent or not adjacent to a metro area

Rural/very small urban area: completely rural or with a population of less than 2,500 people

all U.S. counties combined. There are reasons why we might see this pattern. Metro areas host larger populations and were more likely to have job opportunities after the recession (Hertz et al., 2014). In addition, many metropolitan areas and rural/very small urban areas are home to concentrations of low-income individuals, who are among those who could most benefit from these programs (Parker et al., 2018). Together, this suggests that programs are placed in areas where workers are especially likely to profit from greater support in establishing careers.

Figure 2. Comparison of Counties with Sectoral Training Programs and All U.S. Counties



Note. Thirteen geographic areas were excluded from the “Counties in the United States” sample because they had no assigned urban continuum code in 2013.

Finding 2: Program participants had more economic challenges than others in their counties and in the country as a whole.

Sectoral training programs typically train workers for careers in higher paying jobs, and consequently many jobseekers gravitate to these programs when they face economic hardship, chronic unemployment, and underemployment (J-Pal Evidence Review, 2022). This motivation is reflected in our data: Of studies that reported data on economic challenges, the average study sample had a majority of participants who were unemployed at the time of study enrollment (64%) and a substantial portion who utilized public assistance (43%), including WIC, SNAP, TANF, and unemployment insurance. These patterns were unique to program participants, and not representative of the areas that hosted the programs. Program participants had lower household incomes and higher unemployment than others in their counties (see Table 1). For example, in the period 2010–2015, unemployment rates in counties served by sectoral training programs (7%) were similar to the national unemployment rate (8%). The average study sample had a 64% unemployment rate. Likewise, the

average household income across the sectoral training program samples was more than \$30,000 lower than the average household income in counties served by the programs or the national average. Overall, the counties with sectoral training programs were quite similar to the United States as a whole. Despite this, programs were effective in recruiting individuals in need of a job.

Table 1. Comparison of Income and Unemployment Data for Sectoral Training Program Participants and Local County and National Averages

	Participants of sectoral training programs in this review	Average in counties with sectoral training programs (n = 769)	National average
Average household income	\$14,478	\$48,876	\$52,266
Unemployment rate	64%	7%	8%

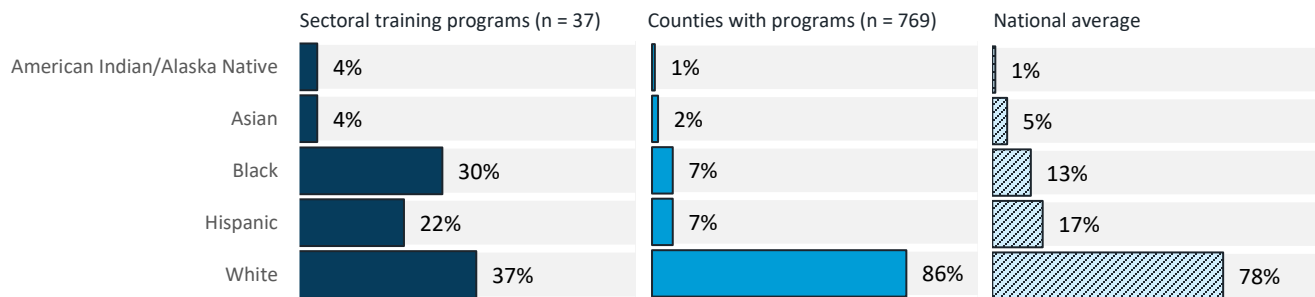
Note. Nineteen studies reported household income, and 22 studies reported the unemployment rate.

Finding 3: Study samples were more racially diverse than the surrounding counties and the country as a whole.

Finally, we examined the racial composition of samples in the studies and compared them with the racial demographics of the counties where sectoral training programs were offered (*Annual Estimates of the Resident Population, 2020*; Mason et al., 2022).¹ As shown in Figure 3, the average study sample was more racially and ethnically diverse than the counties with programs and the United States overall. Our analyses indicated that the included sectoral training program samples had a significantly higher proportion of Black (30%) and Hispanic (22%) individuals than the nation as a whole (13% and 17%, respectively) or the local counties (7% and 7%, respectively). Further, American Indian/Alaska Native individuals, who have the smallest representation in the program counties (1%) and nationally (1%), made up an average of 4% of study sample participants. Programs were able to effectively recruit racially diverse participant samples despite being located in counties that were less racially diverse than the rest of the country. This is important because racially marginalized communities face lower wages and higher unemployment rates than communities with mostly White workers (Johnson et al., 2019).

¹ American Community Survey 5-year estimate data were used to describe the racial/ethnic demographics of counties in this study. This comparison utilized the 2010–2014 estimate, as the majority of the included studies (32 of 37) began within this period. The remaining five studies began in 2003 (n = 3), 2006 (n = 1), and 2015 (n = 1). The provided figure compares the 2010–2014 estimates to all 37 programs. However, we conducted a sensitivity analysis to compare the racial/ethnic data for the 32 studies within the 5-year data period to county- and national-level data and arrived at the same conclusions.

Figure 3. Comparison of the Racial Composition of Sectoral Training Program Samples, Counties With Programs, and the Country as a Whole



Note. Racial demographics of participants were reported at different rates: 10 studies reported percent American Indian/Alaska Native; 13 studies reported percent Asian; 35 studies reported percent Black; 28 studies reported percent Hispanic; 33 studies reported percent White.

Limitations and Constraints on Generalizability

The goal of this work was to examine equity of access to a set of sectoral training programs. In this and the other two briefs, we attempt to answer questions about equity by descriptively summarizing features of the samples, settings, and programs of the 37 evaluations in our review. As this work is entirely descriptive and largely exploratory, the patterns that emerged should not be generalized to other evaluations, settings, or samples in this field of research. While we do offer some recommendations based on what we observed, we understand that other researchers, program providers, and stakeholders may already have made advances on these fronts. Still, we encourage researchers to consider the questions raised in these briefs when designing and utilizing evaluations of sectoral training programs. Finally, we emphasize that this work does not examine the effectiveness of these programs. To learn more about program effectiveness, see Peck et al. (2021), which quantitatively synthesized many of the programs included in this review.

Summary and Recommendations for Future Work

We examined the broader economic and racial contexts of 37 sectoral training program evaluations. We found that the sectoral training programs (a) served individuals across 36 states and Washington, D.C., and were most likely to be offered in counties within large metropolitan areas and in counties with rural/very small urban areas; (b) successfully recruited individuals who experienced more challenging economic conditions on average compared to their counties or the national population; and (c) were successful in recruiting racial groups that have consistently faced challenges in the labor market. These findings, coupled with demonstrations of the effectiveness of these programs (e.g., Peck

et al., 2021), paint a positive picture of sectoral training programs. They provide effective assistance to those most likely to be enrollees.

Building on these positive findings, we suggest that future evaluations consider examining the following possible data sources and methods.

- Studies of sectoral training programs could collect and report indicators of persistent economic challenges. Household income, receipt of public assistance, and unemployment rate data shed light on economic conditions but only at a specific moment in time. Measures of chronic unemployment and underemployment are appropriate for determining whether programs serve individuals who have faced persistent economic challenges.
- Studies could investigate impacts on the local economic landscape to explore how sectoral training programs affect the communities they serve. The focus would be on the ways these programs benefit not just study participants but the surrounding areas as well.
- Programs could explore the development of remote training opportunities to expand program participation and extend it to geographic areas where program evaluations are currently absent.

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