



ADVANCED MANUFACTURING SKILLS PROGRAM (AMSP)

PROGRAM OVERVIEW

The Metro Regional Workforce Development Authority launched the Advanced Manufacturing Skills Program (AMSP) in 2022 to address critical shortages in skilled manufacturing workers. The program provides intensive training in CNC machining, quality control, and workplace safety to unemployed and underemployed adults.

Program Design:

- **Duration:** 8-week intensive program
- **Schedule:** 6 hours per day, 4 days per week (192 total training hours)
- **Setting:** Dedicated training facility with industrial CNC equipment
- **Capacity:** 180 participants annually (6 cohorts of 30)
- **Target Population:** Adults 18+ with high school diploma, currently unemployed or earning less than \$15/hour

Core Components:

1. **Technical Training (70% of time):** CNC machining operations, blueprint reading, quality control procedures, OSHA 10-hour safety certification
2. **Soft Skills Development (20% of time):** Communication, teamwork, problem-solving, workplace professionalism
3. **Job Placement Services (10% of time):** Resume building, interview preparation, employer networking events

Participant Support:

- Weekly stipends of \$200 to offset lost wages during training
- Transportation assistance (bus passes) for participants without reliable transportation
- Basic childcare referral services

EVALUATION DESIGN

Study Period: January 2023 - December 2023 (full calendar year)

Participants Enrolled: 120 individuals across 4 cohorts.

Comparison Group: Matched sample of 180 individuals who went through the Metro Career Pathways program.

Data Sources: Program records, state employment database, Labor UI data, participant surveys at 6 and 12 months post-completion.

KEY FINDINGS

Program Completion and Immediate Outcomes

- **Completion Rate:** 85% (102 of 120 participants completed the full 8-week program)
- **Certification Achievement:** 95% of completers (97 participants) earned CNC machining certification; 100% earned OSHA 10-hour certification

Employment Outcomes (12 months post-completion)



Program Participants (n=102 completers):

- Employment Rate: 78% (80 participants employed in manufacturing at 12-month follow-up)
- Average Hourly Wage: \$22.50 (compared to \$12.00 pre-program average)
- Average Wage Increase: \$10.50/hour

Comparison Group (n=120):

- Employment Rate: 45% (54 individuals employed)
- Average Hourly Wage: \$14.25
- Average Wage Increase: \$2.25/hour from baseline

Program Impact Estimates

- **Employment Impact:** 33 percentage point increase in employment rate
- **Wage Impact:** \$8.25/hour average treatment effect on wages
- **Annual Earnings Impact:** Estimated \$17,160 increase in annual earnings per participant

IMPLEMENTATION CHALLENGES

Recruitment and Retention Issues:

- Program served 120 participants against capacity of 180 (67% utilization)
- Primary recruitment challenges: lack of awareness in target communities, concerns about income loss during training
- 15% dropout rate primarily due to financial pressures and family obligations

Operational Challenges:

- Initial equipment setup took longer than anticipated, delaying first cohort by 6 weeks
- Difficulty finding qualified instructors with both technical skills and teaching ability
- Employer partnerships took time to develop, affecting early job placement rates

Unexpected Costs:

- Higher than expected equipment maintenance due to intensive daily use
- Additional safety training required after initial OSHA certification
- Transportation support costs exceeded projections due to gas price increases

Policy Context

The program was launched in response to regional economic development initiatives and feedback from local manufacturers reporting difficulty finding qualified machinists. State workforce development funding supported the program with the expectation of demonstrating cost-effective job training that could be replicated in other regions.

KEY STAKEHOLDER QUESTIONS

1. Is the program cost-effective compared to other workforce development interventions?
2. Should the program be expanded to serve more participants or replicated in other locations?
3. How do the costs compare to the economic benefits generated by improved employment outcomes?
4. What would be the true cost of operating this program at full capacity in a new location?