

Preparing Workers for Skilled Trades and Economic Returns

**NIEHS WTP Discussion
August 5, 2025 Chicago, IL**

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Skilled trades are crucial

- **Why are the skilled trades important?**
- **They provide the crucial inputs required for a well-functioning society**
 - **Hazardous waste removal training**
 - **Safe workplace training in construction and others**
 - **Emergency response training**
- **What is their impact on the economy?**
- **Two of the largest occupations for WTP skilled trades**
 - **Construction and extraction (~7.3 million jobs)¹**
 - **Installation, maintenance, repair (~6.5 million jobs)¹**
- **Employment = ~8% of total US employment**

Skilled trades status and future

- Average wage of comparison occupations: \$24.09²
- Average wage of two largest occupations:
 - Construction and extraction: **\$30.73**
 - Installation, maintenance, and repair: **\$29.63**
- Total US employment expected to grow by 4% between 2023 – 2033¹
- Two largest skilled trade occupation growth rates:
 - Construction and extraction: **5.6%**
 - Installation, maintenance, and repair: **5.3%**



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NIEHS WTP Contributions

→ **Worker training programs play an important role in training and preparing people to safely serve in these crucial roles.**

- **Engaging teaching methods improve safety knowledge and performance more so than less engaging methods⁶**
- **Program trainees are more likely to make worksite improvements in safety and health⁷**
- **Trainees are significantly less likely to suffer severe work-related injuries in big firms⁸**

→ **Over 2019 – 2024, HWWT programs trained 716,603 people**

→ **HWWT programs have grown by more than 20% since the pandemic⁵**

→ **Communicating the importance of WTPs and their value to the community is vital to sustain funding for these programs**

Communication notes via ECWTP

- **Stick to key information and utilize neutral terminology**

- **The ECWTP offers trainees unique advantages in the job market**
 - **Boosts likelihood of employment**
 - **Increases individuals' work hours**
 - **Increases wages**
 - **Builds individuals' confidence, job readiness, financial responsibility, and work relationship dynamics among trainees and their colleagues**

- **The ECWTP offers benefits to employers and communities too**
 - **Improves safety on the job and reduces chronic disease and illness**
 - **Reduces costs born by employers to find workers**
 - **Trains workers in skills and occupations that communities need and value, such as construction, hazardous waste removal, and emergency response**

Communicating the local impact

- **Success stories/anecdotes are powerful**
 - **Track trainees, identify life-changing stories, and publish**
- **Data-driven macro economic impact is a strong complement**
- **The ECWTP report demonstrates the *nationwide* economic impact but communicating *local* impact is oftentimes more salient:**
 - **Sustains/grows local support from politicians and donors**
 - **Aids in recruiting trainees and instructors/staff**
- **3 approaches to estimate the local impact of each WTP:**
 1. **Use the ECWTP report's approach and localize the estimates**
 2. **Hire an economic research organization in the region**
 3. **Estimate the economic impact using own resources**

Case study: ECWTP

Leveraging the nationwide ECWTP report

- **Lifetime/career benefits per trainee = \$235,210⁴**
 - **Earnings boost from increased employment probability, wages, and hours**
 - **Savings from increased safety, reduced hiring costs, reduced crime**
- **We need to localize this estimate by adjusting for migration likelihood and cost-of-living**
 - **~87.5% of people remain in their community after high school or leave, on average, halfway through their 35-year career³**
 - **Regional cost of living differences range from 0.66 in San Juan, PR to 1.11 in East Palo Alto, CA.**

*Local economic impact =
local adjusted CPI x 0.875 x \$235,210 x # of trainees*

Case study: ECWTP

Leveraging the nationwide ECWTP report

Region	June 25 CPI	CPI adj.	Regional ben.	Migration adj.	Ben. per trainee
US - nationwide	322.56	1.0000	\$235,210.00	1.00	\$235,210.00
Anchorage AK	271.73	0.8424	\$198,144.88	0.875	\$173,376.77
Atlanta GA	318.57	0.9876	\$232,300.50	0.875	\$203,262.94
Boston MA	347.9	1.0786	\$253,687.87	0.875	\$221,976.89
Brevard Cty FL	306.59	0.9505	\$223,564.71	0.875	\$195,619.12
Chicago IL	302.44	0.9376	\$220,538.54	0.875	\$192,971.23
Dallas TX	303.36	0.9405	\$221,209.40	0.875	\$193,558.23
Detroit MI	298.93	0.9267	\$217,979.06	0.875	\$190,731.68
E Palo Alto CA	356.46	1.1051	\$259,929.80	0.875	\$227,438.58
Flint MI	252.03	0.7813	\$183,779.69	0.875	\$160,807.23
Houston TX	279.07	0.8652	\$203,497.19	0.875	\$178,060.04

Case study: ECWTP

Leveraging the nationwide ECWTP report

Region	June 25 CPI	CPI adj.	Regional ben.	Migration adj.	Ben. per trainee
US - nationwide	322.56	1.0000	\$235,210.00	1.00	\$235,210.00
Indianapolis IN	299.16	0.9275	\$218,146.77	0.875	\$190,878.43
Kansas City MO	293.58	0.9102	\$214,077.85	0.875	\$187,318.12
LA CA	343.02	1.0634	\$250,129.38	0.875	\$218,863.21
New Orleans LA	312.33	0.9683	\$227,750.31	0.875	\$199,281.52
Newark NJ	346.33	1.0737	\$252,543.03	0.875	\$220,975.15
NYC NY	346.33	1.0737	\$252,543.03	0.875	\$220,975.15
Orlando FL	306.59	0.9505	\$223,564.71	0.875	\$195,619.12
Pensacola FL	259.08	0.8032	\$188,920.53	0.875	\$165,305.47
Portland OR	353.03	1.0945	\$257,428.65	0.875	\$225,250.07
San Juan PR	213.33	0.6614	\$155,559.74	0.875	\$136,114.77

Case study: ECWTP

Hire a regional econ research organization

- **Alaska – U of Alaska Anchorage Business Enterprise Institute**
- **California – Chapman University Anderson Center for Econ Research**
- **Florida – University of West Florida Haas Center**
- **Georgia – Economic Impact Group LLC**
- **Illinois – U of Illinois Chicago Center for Urban Econ Development**
- **Indiana – Ball State U Center for Business and Econ Research**
- **Louisiana – U of New Orleans Inst. for Econ. Dev. and Real Est. Res.**
- **Massachusetts – Cambridge Economic Research**
- **Michigan – University of Michigan Economic Growth Institute**
- **Missouri – Missouri State University Bureau of Econ Research**
- **New Jersey – Rutgers University Heldrich Center for Workforce Dev**
- **Oregon – Portland State University Northwest Econ Research Center**
- **Peurto Rico – Estudios Tecnicos, Inc**
- **Texas – Stephen F. Austin State U Center for Business and Econ Res**

Case study: ECWTP

Estimate a simple local economic impact

- For simplicity, only calculate the annual earnings estimates
- The key is to track workers before/during and after their training
- Employment status, hourly wage, typical weekly hours worked

$$\text{Annual earnings estimate} = \text{Emp. Rate} \times (\text{Hourly Wage} \times 1.30) \times (\text{Weekly Hours} \times 50)$$

Example: You have 50 total trainees in 2025 and you sample at least 30 of them

	<u>Pre-training</u>	<u>Post-training</u>
Employment rate	0.25	0.75
Avg. hourly wage x 1.30	\$29.00	\$37.00
Avg. hours worked	37	40
Annual earnings est.	\$13,412.50	\$55,500
Training impact est.	(\$55,500 - \$13,412.50) x 50 trainees = \$2,104,375	



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- 3 <https://www.pewresearch.org/social-trends/2008/12/17/who-moves-who-stays-put-wheres-home/>
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