



## **NIEHS Environmental Career Worker Training Program (ECWTP)**

# Impact Evaluation of Workforce Development in Underemployed and Unemployed Communities

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## Executive Summary

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*The National Institute of Environmental Health Sciences (NIEHS) Environmental Career Worker Training Program (ECWTP) funds nonprofit organizations to provide training opportunities for individuals who are underemployed or unemployed to obtain employment and engage in community improvement efforts. Today, this distinctive, results-driven program reaches workers in more than 30 communities across 15 states and U.S. territories.*

This executive summary provides an overview of a comprehensive impact evaluation report – composed of an economic impact study and qualitative program evaluation – that was initiated to demonstrate how the ECWTP increases employment opportunities for individuals, addresses occupational and environmental exposures, and helps revitalize their communities. The ECWTP benefits many aspects of society. The evaluation shows that the worker training model provided by the ECWTP could be scaled up to serve more people successfully.

## Economic Impact Study

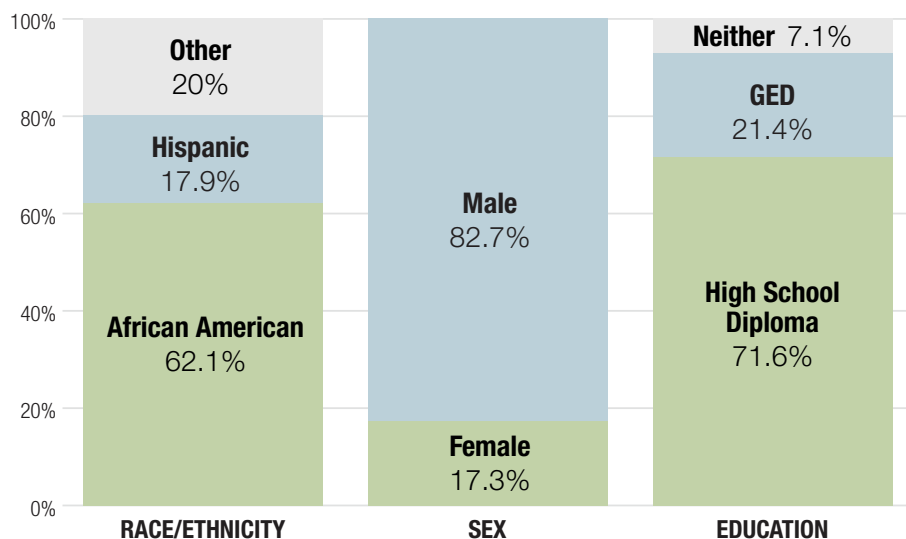
The study<sup>1</sup> quantifies the economic impact of the ECWTP from 2014 to 2022.

This economic impact study was conducted by an economist at the University of Wisconsin Oshkosh. Information about the trainees,<sup>2</sup> including their demographic characteristics and pre- and post-program employment statuses, was obtained from data submitted by ECWTP award recipients. Wages and weekly hours data were also collected, then benchmarked against a national dataset from the U.S. Bureau of Labor Statistics (BLS).

The study compares the career outcomes of approximately 3,800 ECWTP graduates with the outcomes of non-graduates and non-trainees who have similar demographic characteristics.

### Trainee Demographics

Based on a sample of approximately 3,600 graduates and non-graduates from 2014-2022



The study results are listed below, along with the approximate value-added for direct and indirect benefits. Direct benefits refer to monetary benefits and cost savings that arise as a result of the ECWTP's impact on graduates. These direct benefits are cumulative estimates based on conservative assumptions and values. Therefore, the estimated returns and impacts could be higher. Indirect benefits include effects that accrue to third parties, such as the federal government, or effects that must be treated quantitatively differently than the direct benefits. All values and estimates, for direct and indirect benefits, have been inflation-adjusted to 2023 dollars.

- <sup>1</sup> The update follows the methodological approach of the initial economic impact study conducted in 2015. It also includes data from the 2020 COVID-19 pandemic, when many ECWTP award recipients had to pause and adapt their training to remote learning.
- <sup>2</sup> For the purpose of this study, the term "trainee" refers to a participant in a training program, while the term "non-trainee" refers to individuals who share demographic characteristics with trainees but are not enrolled in a training program. Non-trainee data was obtained from a national dataset from BLS. The terms "graduate" and "non-graduate" refer to trainees who completed and did not complete the program, respectively.

## Direct Effects and Benefits Across Study Years, 2014-2022

1. **Effect on earnings:** Recognizing that program effects likely continue over a career, the evaluation analyzed the potential for effects on earnings over time. ECWTP graduates earn higher compensation than non-graduates throughout their lives in these ways: higher likelihood of employment, more hours worked, and higher hourly compensation. The effect on earnings is the difference in the current values of lifetime earnings between graduates and non-graduates. The estimated current value of the ECWTP's effect on the lifetime earnings of a single graduate is \$221,329. **Multiplied by 3,800 graduates, the effects on earnings totals nearly \$841.1 million.**
2. **Safety and related cost savings:** ECWTP award recipients typically provide safety and health-focused training. Such courses may reduce the risk of workplace injuries and, therefore, injury-related costs that could otherwise be incurred. **These estimated cost savings total approximately \$7.3 million.**
3. **Hiring cost savings:** Training programs offered by ECWTP award recipients often help graduates with the hiring process by identifying employer matches and can reduce recruitment costs that employers might otherwise incur. **Employer savings in recruitment costs are estimated to be about \$2.5 million.**
4. **Crime cost savings:** Many program participants have criminal records, which can make it harder to find and keep a job. However, improved and lasting employment can lead to fewer crime-related activities. **The evaluation projects lower incarceration and victimization costs – \$42.9 million in combined savings over the analysis period – due to the ECWTP.**

## Cumulative Value Added by the ECWTP<sup>3</sup>



The economic impact of the ECWTP, known here as the cumulative value added, refers to the approximate monetary benefit to the economy that arises from the program's interventions. The cumulative value added over the study's duration (2014 to 2022) was calculated by summing the program's estimated direct benefits, including the ECWTP's positive effect on earnings and the cost savings related to safety, hiring, and crime.

**According to the study, the ECWTP added a cumulative value of \$893.8 million across the study period of nine years, or approximately \$99.3 million annually on average.** In comparison, the federal government dedicated \$3.5 million to fund the ECWTP in 2021. Therefore, the results show that the ECWTP returns approximately 28 times the invested amount back into the economy.

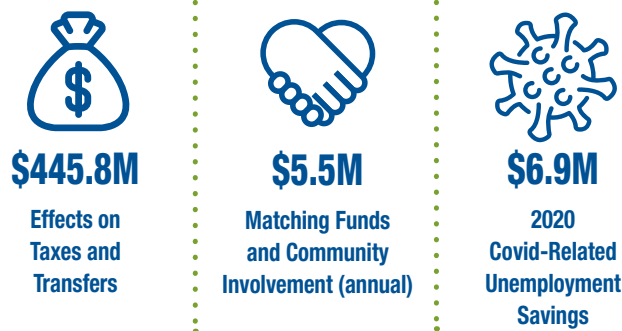
<sup>3</sup> All numbers rounded to the nearest one-tenth.

## Indirect Effects and Benefits

The ECWTP also has several indirect effects.

5. **Effects on federal taxes and transfers:** The increased employment and earnings of ECWTP graduates increase the tax revenues the federal government<sup>4</sup> collects while simultaneously reducing the transfer payments the federal government makes in social assistance programs. **The increased tax revenues and decreased transfer payments buttress the federal government budget by approximately \$445.8 million.**
6. **Matching funds and community involvement:** The success of training programs offered by ECWTP award recipients motivates and secures cash and in-kind donations from many community organizations. **Cash and in-kind donations are estimated to be about \$5.5 million per year. These resources help the ECWTP continue to succeed in its overall mission.**
7. **2020 COVID-related unemployment savings:** The ECWTP may have contributed to helping workers, at least in 2020, to sustain and/or find employment by teaching workers valuable job skills and typically placing graduates in industries and occupations that were more insulated from COVID-19 job losses. **The estimated benefit of avoiding unemployment comes to more than \$6.9 million during 2020.**

Overall, including the indirect benefits provides a more complete accounting of the economic impact of the ECWTP. The calculation for cumulative value added (mentioned in the previous section) does not include the indirect benefits mentioned here, such as tax revenues, transfer payments, matching funds and in-kind donations, and COVID-19 related savings.<sup>5</sup>



<sup>4</sup> This study focuses on the overarching, national benefit of the ECWTP, and thus uses federal tax revenues in this calculation.

<sup>5</sup> Effect on taxes and transfers are considered an indirect cost savings benefit to the federal government, rather than a direct benefit from the ECWTP (NIEHS 2015). Matching funds and community involvement, as well as COVID-19 impacts, were not included in the calculation because both refer to annual benefits rather than cumulative ones.

## Qualitative Evaluation

The qualitative evaluation illustrates the societal benefits to the program's participants and their communities through narrative accounts. Sources of data for the qualitative evaluation include annual progress reports from ECWTP award recipients, narrative accounts from trainees, and interviews with principal investigators and program coordinators of ECWTP grants.

The data were coded and analyzed for themes by two evaluators to ensure validity and reliability of findings. The following overarching themes were synthesized from the data:

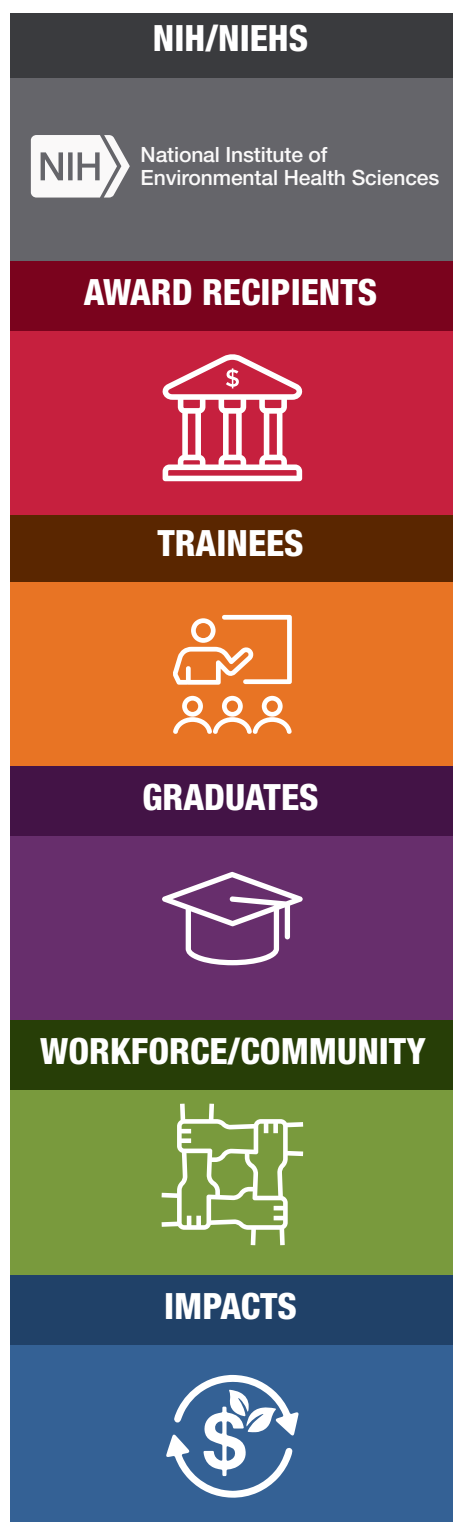
1. **Partnerships:** The ECWTP has fostered and supported partnerships among award recipients, community leaders, and over 200 community-based organizations, leading to recruitment and job placement of trainees.
2. **Basic life skills:** The ECWTP nurtures trainees with skills that build confidence and empowerment, which are central to the program's success.
3. **Societal benefits:** The ECWTP leads graduates to experience several personal and professional benefits, including: building a life after experiencing incarceration, homelessness, and unemployment; giving back to the community; gaining the ability to buy or rent a home, pay for family expenses, or support their children's education; providing a path towards leadership positions; and feeling supported by the program to move forward in life.
4. **Supporting at-increased-risk populations:** The ECWTP has focused on persons with limited resources and educational opportunities, including people experiencing homelessness, people who were formerly incarcerated, and people experiencing underemployment or unemployment.
5. **Evaluation:** Evaluation is a major component of the ECWTP, and such robust examinations have shown continued success and meaningful strategies for improvement.
6. **Recruitment:** Award recipients leverage partnerships to reach and recruit individuals. ECWTP award recipients may need to explore training for new environmental careers in the future to strengthen recruitment efforts in different locations and communities.
7. **Job placement arrangements:** Trusted relationships between the award recipients and their communities helped maintain a high job placement for ECWTP graduates.
8. **Adaptation:** Award recipients often adapt technical occupational health and hazardous materials (Hazmat) safety training for the unique learning needs of ECWTP audiences, allowing more people to benefit from the trainings.
9. **Community:** ECWTP graduates can give back to society by using their training in environmental careers to invest and improve their own communities.



### Building a Life and Career

The ECWT program has this sort of amazing ability to reach participants who are coming out of challenging situations. Whether it's unemployment, homelessness, or correctional facilities, you are giving them tools that they can go out and use in their careers and lives.





**NIEHS** provides funding and technical assistance to **AWARD RECIPIENTS**

**AWARD RECIPIENTS** work with various populations through partnerships with the government and community to recruit **TRAINEES**.

**TRAINEES** gain life and technical skills and receive social resources, which help them become **GRADUATES**.

**GRADUATES** are empowered with new skills, have access to first-hire ordinances or pre-apprenticeships, and are placed in jobs. They become part of the **WORKFORCE AND COMMUNITY**.

**WORKFORCE** efforts lead to leadership roles, careers in environmental cleanup, financial stability, and life satisfaction.

Overall **IMPACTS** include safer workplaces, healthier environments, economic gains, and sustainable communities.

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