

National Institute of
Environmental Health Sciences
Worker Education and Training Program



MINORITY WORKER
TRAINING PROGRAM:
Guidance on How to
Achieve Successes and
Best Practices



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Contents

EXECUTIVE SUMMARY	4
Major Findings	5
Major Recommendations	6
INTRODUCTION	7
ABOUT THE MINORITY WORKER TRAINING PROGRAM	8
HOW THE MWTP WORKS: COMPONENTS OF THE PROGRAM AND WHY IT IS SUCCESSFUL	11
Life Skills Development and Social Network Support.....	11
Success through Partnerships	15
Recruitment	15
Wrap-Around Services	18
Remedial Education and Basic Skills Development	19
Technical Training Assistance	20
Streamlining Employment	22
Programmatic Sustainability	24
Approaches to Addressing Barriers to a Successful Program	26
Evaluation Component	27

IMPACTS AND OUTCOMES OF THE MWTP	30
Supporting Worker Health and Safety	30
Increasing Capacity of Underserved Population to Obtain Employment	31
Facilitating Economic Development and Community Revitalization	32
Involvement in Major National Disasters.....	32
Advancing Environmental Justice.....	33
Impact of MWTP on Broader WETP (a model intervention in classic public health)	34
Replication	34
FINDINGS	36
RECOMMENDATIONS	39
APPENDICES	41
APPENDIX A: LIST OF STATES AND COMMUNITIES WHERE MWTP TRAINING HAS BEEN PROVIDED	41
APPENDIX B: HISTORICAL SUMMARY OF MWTP TRAINING	41
APPENDIX C: PEOPLE INTERVIEWED	42
APPENDIX D: LIST OF ACRONYMS.....	43



Two female CPWR trainees work together to erect a wall partition.

EXECUTIVE SUMMMARY

The National Institute of Environmental Health Sciences (NIEHS) Worker Education and Training Program (WETP) was established in 1987 under the authority of the Superfund Amendments and Reauthorization Act (SARA). Since its inception, the WETP has trained more than three million workers. One of the WETP's most successful programs is the Minority Worker Training Program (MWTP).

Since 1995, the MWTP has provided pre-employment and health and safety training to thousands of people from underserved* communities across the country. As a result of this program, approximately 10,000 people have been trained in more than 30 communities nationwide.¹ The MWTP model is designed to effectively address the significant impediments to training and employment that challenge underserved and disadvantaged people. By helping to increase sustainable employment opportunities, promote economic development, address health disparities, and advance environmental justice, the program has transformed the lives of trainees, families, and communities traditionally overburdened by economic distress and ongoing, multiple exposures to hazardous environmental conditions. The MWTP has provided significant contributions to environmental justice by providing training and increasing job opportunities to people from underserved and disadvantaged communities. The program enables these people to participate in addressing the needs of their communities in a more meaningful way. The MWTP provides a model and useful guidance for other federally-funded worker training programs focused on recruiting and training underserved and disadvantaged people for sustainable employment opportunities.

¹ See Appendix A for a complete list of the states and communities where MWTP Training has been provided.

* While there is no single, universally accepted definition of "underserved," for the purposes of this report underserved denotes groups whose demographic, geographic, or economic characteristics impede or prevent their access to a variety of services including health care, employment, and education, among others. Specifically these groups include workers that experience occupational health disparities such as immigrants, minorities, non-English speaking, low literacy and low-wage workers in this definition.



OAI potential trainees participate in exercise component during the program try-out period.

■ Major Findings

- The MWTP has benefited thousands of trainees and families in underserved and disadvantaged communities.
- Life skills training and other pre-employment training are fundamental to the success of the MWTP and its trainees, as they effectively address barriers students face in accessing sustainable employment opportunities.
- Mentoring and counseling are an important part of the training program, as they provide a social support network for trainees.
- MWTP awardees have established valuable partnerships with various types of organizations to support program goals.
- Program advisory boards are critical to individual program success.
- MWTP provides alternatives to costly incarceration and effectively supports ex-offender rehabilitation and reductions in recidivism.
- Individual program evaluations are essential to improving the effectiveness and impacts of the MWTP. Evaluations have already helped identify valuable lessons learned, best practices, program successes, and opportunities for improvement.
- The MWTP has actively worked to address barriers to successful program implementation.
- The MWTP helps to advance environmental justice and address environmental/occupational health disparities in the workplace and at the community level.
- Program graduates have helped support several significant national disaster response efforts in multiple states.
- The MWTP has served as a model for other federally funded worker training programs.

- MWTP awardees who have programs in communities with limited local government leadership support for the program and/or fewer opportunities to leverage resources with other organizations, are disproportionately impacted by WETP/MWTP budget cuts and increasing pressure to acquire supplemental funding from other sources.
- The MWTP has seen a moderate shift in the demographics served by the program. African Americans continue to make up the largest group served by the program, but MWTP has seen a recent rise in Hispanic/Latino participation. Other minority groups, including Asian Americans, Pacific Islanders, and Native Americans, continue to make up only very small percentages of those benefiting from the program, however this outreach and training has been instrumental at addressing safety issues for the types of jobs performed in these communities.

■ Major Recommendations

WETP/MWTP should:

- Continue to provide funding for critical life skills and other job readiness instruction.
- Work to identify opportunities to incorporate greater flexibility into awardee reporting requirements to acknowledge hiring periods that do not coordinate with current reporting periods.
- Expand the scope of performance measures to capture the frequency of graduate certification renewal and to account for graduates who pursue further educational opportunities and/or achieve job promotion.
- Provide training and facilitate opportunities for awardees to conduct outreach to other organizations that might provide additional funding for these programs.
- Work with federal agencies to help MWTP awardees gain access to additional funding sources and employment opportunities for program graduates.
- Disseminate this final guidance to other federal agencies and training providers so other organizations may benefit from this guidance on how to overcome impediments to successful program implementation.
- Conduct a follow-up evaluation of the significant contributions to minority worker training and job creation provided by the entire WETP.

MWTP Program Awardees should:

- Continue to expand relationships with the judicial and corrections systems to identify suitable ex-offenders for the training program.
- Continue to expand training to include additional areas of green industry and consider the growing concerns about climate change when working to identify new areas of training.
- Explore partnership opportunities with cities working to implement Clean Water Act consent decrees.
- Consider working more with local government and private contractors to include program graduates as a part of first source hiring agreements and project labor agreements.
- Increase efforts to recruit greater percentages of other minority populations, such as Native Americans, Pacific Islanders, and women, into the program.



CPWR program trainees perform hazmat safety training exercise.

INTRODUCTION

In 1995, the National Institute of Environmental Health Sciences' (NIEHS) Worker Education and Training Program (WETP) established the Minority Worker Training Program (MWTP). The MWTP set out to support the development of pilot national worker training programs aimed at recruiting and training people from underserved and disadvantaged backgrounds for careers in construction and environmental remediation. The program addresses the lack of access to training opportunities for underserved and underrepresented minorities that not only often work in jobs with the greatest exposures to toxic substances and experience higher rates of injuries, illnesses, and mortality in the workplace, but also face extraordinary impediments to employment. The MWTP strives to empower underrepresented minorities and other underserved people with pre-employment and health and safety training to increase their opportunities to gain employment in the construction and environmental remediation industries and engage in community improvement efforts.

This report and the findings and recommendations within were developed through a multi-pronged process including a close examination of program documentation, and thorough interviews with current program grantees conducted in 2013. Grantee annual progress reports, success stories, and evaluations between 2010 and 2013 were a major component of the document review process. A second major source of information emerged through extensive interviews with 9 program coordinators and principal investigators associated with the 5 MWTP grantees, as well as labor union and community-based representatives that have experience with the program. The information gathered through these methods informed the report and the findings and recommendations outlined in it.

This report documents the importance of the MWTP, and provides a detailed description of the program's best practices and major successes. The report summarizes the history of the MWTP, how the program works, the major impacts and outcomes of the program, how major impediments to job training and employment can be overcome, and provides recommendations for future program improvements.



OAI trainees utilize new skills for service-learning community revitalization project.

ABOUT THE MINORITY WORKER TRAINING PROGRAM

The origin of the MWTP is linked to the passage of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the subsequent emergence of the NIEHS WETP. It was also greatly influenced by the February 11, 1994 Presidential Executive Order on Environmental Justice.²

The WETP administers funding to non-profit organizations that have a demonstrated track record of providing occupational safety and health education and training to workers who are involved in handling hazardous waste or in responding to emergency releases of hazardous materials. WETP funding supports awardees in developing innovative approaches to safety and health training and to effective delivery of high quality training to workers. The key objective of the WETP is to prevent the occurrence of occupational injury and illness by assisting in training workers on how best to protect themselves and their communities from exposure to hazardous materials encountered during hazardous waste operations, hazardous materials transportation, environmental restoration of nuclear weapons facilities, chemical emergency response, and brownfields assessment and cleanup.

The MWTP is one of four training programs under the WETP umbrella.³ The MWTP was created following recommendations made at the first multi-agency/grassroots health conference on

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- 2 Clinton WJ. 1994. Executive Order 12898. Federal actions to address environmental justice in minority populations and low-income populations. Fed Reg Vol. 59. No. 32.
 - 3 The four training programs of the NIEHS WETP include the Hazardous Waste Worker Training Program, NIEHS/Department of Energy Nuclear Worker Training Program, Hazmat Disaster Preparedness Training Program, and Minority Worker Training Program. The NIEHS WETP also includes the Advanced Training Technical Program, which provides Small Business Innovation Research grants.

environmental justice, “[Symposium on Health Research and Needs to Ensure Environmental Justice](#),” and the signing of [Executive Order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”](#) by President William J. Clinton (both taking place in February 1994). The program was developed with consultation from environmental justice advocates, labor-based training providers, and other occupational and environmental health and safety training providers through an NIEHS workshop entitled “Environmental Job Training for Inner City Youth” held January 5-6, 1995. This workshop focused on identifying crucial components of training needed to implement a successful minority worker training program.

Formally established in September 1995, the MWTP set out to support a series of national pilot programs through partnerships with academic and community-based organizations to test a range of strategies for recruiting and training people who live near hazardous waste sites or in communities at risk of exposure to contaminated properties. These people were to be trained in environmental remediation and construction workplace health and safety.

The program strives to empower underrepresented minorities and other underserved people with health and safety training to increase their opportunities to gain employment in the construction and environmental remediation industries and to engage in community improvement efforts. Currently, MWTP funds five organizations that develop training curricula and administer trainings, including a strong job placement support function. The five organizations include:

- CPWR – Center for Construction Research and Training (CPWR)
- Dillard University, Deep South Center for Environmental Justice (Dillard University)
- New Jersey/New York Hazardous Materials Worker Training Center (NJ/NY Consortium)
- Opportunity Advancement Innovation, Inc. (OAI)
- Western Region Universities Consortium

Through these five awardees, MWTP provides trainings in 15 communities. Each of the five organizations has its own extensive network of formal and informal partners from government, community-based organizations, faith-based organizations, labor



OAI trainee removes debris from vacant home.

Racial and ethnic minorities as well as unskilled and untrained workers often have the most dangerous and dirty jobs; experience higher rates of injury, illness and mortality in the workplace; lack access to personal protective equipment and other safety equipment; lack access to formal training programs and career opportunities in the field; experience language, cultural and literacy barriers to employment; and lack access to healthcare.

The MWTP works to address these conditions and empower disadvantaged people in their workplace and in their communities.

Sources: BLS 2003, 2005; Murray, 2003; CPWR Construction Chart book 2007

unions, employers, and other organizations that help it to provide training, connect students with wrap-around service providers,⁴ and facilitate employment opportunities.

Since its inception, MWTP has helped to transform the lives of about 10,000⁵ people in more than 30 communities across 20 states and the District of Columbia through its basic skills and health and safety training. Early collaborative efforts with the U.S. Environmental Protection Agency (EPA) on the Superfund Jobs Training Initiative and the Brownfields Minority Worker Training Program contributed to additional impacts in other communities. About 70 percent of program graduates are now gainfully employed in a variety of construction and environmental remediation fields earning wages averaging \$12-\$18 per hour, and reaching more than \$30 per hour for union jobs.⁶

NIEHS Minority Worker Training Program 15-Year Summary of Training (9/01/1996 – 10/01/2013)			
Year	Students Trained	Placed in Jobs	Percentage of Students Placed in Jobs
1996-2013	6,240	4,310	69%
1998-2008*	3,365	2,306	69%
Total**	9,605	6,616	69%

(*) People trained through the NIEHS/EPA Brownfields Minority Worker Training Program.
 (**) Totals include additional people trained through supplemental funding.

For more information about the NIEHS MWTP, please visit: <http://www.niehs.nih.gov/careers/hazmat/programs/mwt/index.cfm>

- 4 Wrap-around services can be described as supplementary socio-economic and health-related services that complement the overall goal of a primary social service provided an individual. The concept of wrap-around services acknowledges the multi-faceted nature of an individual’s socio-economic and health-related circumstances and challenges.
- 5 This number includes people trained through the NIEHS/EPA Brownfields Minority Worker Training Program (1998-2008) and supplemental trainings provided over MWTP’s history.
- 6 See Appendix A for a list of states and communities where MWTP training has been provided.



OAI trainees prepare for their next hands-on lesson.

HOW THE MWTP WORKS: COMPONENTS OF THE PROGRAM AND WHY IT IS SUCCESSFUL

The MWTP model consists of multiple components that contribute to its uniqueness, significance, and profound impact. This section explores some of these components and how they contribute to the effectiveness of the program. The major components include life skills development, partnerships, recruitment, wrap-around services, remedial education and basic skills development, technical training assistance, and streamlining employment.

■ Life Skills Development and Social Network Support

The primary focus of the MWTP is to recruit and train underserved and disadvantaged people who live in communities affected by contaminated properties so that they can access construction and environmental remediation jobs in their communities. However, oftentimes, these people face significant barriers to accessing and obtaining long-term employment. Barriers can include educational deficiencies, underdeveloped life skills and job readiness, ex-offender status, other physical and social health

Life skills are defined as abilities for adaptive and positive behavior that enable people to deal effectively with the demands and challenges of everyday life.

—World Health Organization (WHO)

conditions, and socio-economic circumstances that can negatively affect an individual's ability to secure employment.

While some workforce training grant programs (e.g., EPA Environmental Workforce Development and Job Training Grants Program⁷) restrict awardees from using funds for life skills training that addresses the needs of people facing these barriers to employment, the MWTP sees such skills development training as an essential component of training for people from disadvantaged backgrounds. The program actively supports awardees in developing and providing essential remedial mathematics and literacy education as well as life skills training for people who need these skills to prepare them for sustainable employment.

Life skills curricula developed by program awardees includes some variation in structure and modular focus across the five programs, but generally constitutes a series of modules fitting under the thematic umbrellas of confidence building, cultural diversity, stress and time management, financial responsibility, future planning, job readiness/employment success, and work relationship dynamics. Additional instruction in computer literacy, environmental literacy, physical fitness, and leadership training can complement life skills training.



Dillard University trainees exhibit new skills in community service-learning project.

7 Formerly known as the Brownfields Job Training Program

Dillard University, Deep South Center for Environmental Justice: Life Skills Curriculum (2002)

<p>Culture and Ethnicity Personal Rights/Assertiveness Positive Self-Esteem Powerful vs. Powerless People Seeing the Good in Me Taking Responsibility Voter Registration/Draft Values Stress Management</p>	<p>Time Management Job Search Principles Understanding Job Search Skills Financial: Needs, Wants, and Desires Planning and Establishment Long-Term Financial Goals Self-Identification Effective Communication Goal Setting</p>
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The life skills development component of MWTP training serves as an effective way to address academic weaknesses and life skills deficiencies so that students can successfully complete the more advanced technical health and safety training related to work involving hazardous materials. Moreover, this training enhances the personal lives of the trainees by developing reflective skills, such as problem-solving and critical thinking; personal skills, such as self-awareness; and interpersonal skills. In essence, it teaches trainees how to effectively deal with the demands and challenges of everyday life and how to become a part of a sustainable workforce.⁸

Commonly, MWTP trainees are without the moral and resource support of family and friends, which can be crucial to a trainee’s successful completion of training and transition into sustainable employment. MWTP training providers, along with their partners, serve as support systems for these disadvantaged people through formal and informal counseling and mentorship. For example, the Dillard University program includes a formal six-month counseling element with both group and individual counseling components. The group counseling component serves to address any struggles a trainee might have related to the training program, while individualized counseling focuses on identifying a trainee’s personal

OAI, Inc.—Life Skills Curriculum Learning Objectives

1. Work productively within teams
2. Set short-term, mid-range, and long-term goals
3. Identify characteristics of achievable and measurable goals
4. Identify preferred learning style and how to learn using various media
5. Identify and manage conflict
6. Identify sexual harassment and how to manage workplace incidents
7. Use critical thinking processes to assess, evaluate, and solve problems
8. Operate a computer and use workplace productivity software
9. Navigate the Internet
10. Create, send, and receive e-mail
11. Manage personal finances

8 Weinstock, D., Elisburg, D. (April 1998). *Brownfields: Hazmat Cleanup, But More*. Bethesda: National Clearinghouse for Worker Safety and Health Training.

needs and helping him to develop short- and long-term personal goals. Other program awardees have developed similar counseling elements.

Dillard University's program also provides mentorship to trainees. One of the most effective mechanisms for providing mentorship consists of utilizing previous MWTP graduates who are now employed in sustainable careers as mentors for current trainees. Prior graduates of the program help demonstrate the opportunities and possibilities that become accessible to trainees upon graduation. The counseling and mentorship elements of the MWTP effectively help trainees to develop direction, goals, confidence, and positive attitudes towards job training and work.

MWTP Counseling/Mentoring Provides Trainees with Vital Support System and Encouragement

Lowe G. had not been able to shake past mistakes. He spent time in prison for aggravated robbery, and the conviction prevented him from accessing employment to support his family. Prior to entering the MWTP, his most recent employment was as a ranch hand, where he earned very little money and was unable to provide for his family. Lowe saw the MWTP as an opportunity to change things for the better. He also saw the training as an opportunity to prove to his wife, mother, and children that he could finish something. Lowe struggled with math during his training, but he remained focused and committed to succeeding. He arrived early before each school day to receive tutoring, and he would stay after class to get additional tutoring. Lowe was awarded the program's Survivor Award. At graduation, Lowe stated, "I have finally finished something, and everyone here was responsible for helping me to get there." Today, Lowe works for Brand International, performing asbestos clean-up. He now earns enough money to support his family.

Provided by Dillard University (2012)

SUCCESS STORY

■ Success through Partnerships

Partnerships with the community, government agencies, non-profit organizations, academia, unions, and employers are vital to the success of any training program. These partnerships can be either formal or informal. Each partner plays a critical role in the operation of an effective program, from beginning to end. Across the MWTP grantee landscape, formal and informal partnerships help to facilitate recruitment, connect trainees with needed wrap-around services, provide remedial education instruction, assist in training, and help trainees to access and obtain employment.

Partnerships should be established as early as possible. They should consist of symbiotic relationships, where partnering entities enjoy mutual benefits from leveraging their resources.

Recruitment

Partnerships with community-based organizations and local government agencies are vital to MWTP outreach and recruitment efforts. These entities have helped to distribute brochures about training programs and to pre-screen and refer qualified candidates to MWTP training providers. For example, the NJ/NY Consortium maintains formal contracts with three community-based organizations to recruit, pre-screen, and refer qualified candidates to the program. The Dillard University program, on the other hand, relies on less formal relationships with community-based organizations that have aligning missions, to refer potential candidates.

Program awardees have established partnerships with community-based organizations focused on poverty alleviation, affordable housing, women's issues, and drug rehabilitation as well as with faith-based organizations. For example, OAI utilizes partnerships with organizations such as Goodwill Industries and the Salvation Army to conduct outreach and recruitment for its training programs in Kansas and Missouri. The Western Region Universities Consortium's Los Angeles-based program has worked with organizations such as the Apollo Alliance and Venice Community Housing, and CPWR – Center for Construction Research and Training's program in St. Paul, Minnesota, works closely with local churches and other organizations to recruit students.

Program awardees have also developed fruitful partnerships with local government entities including workforce investment boards and various organizations associated with municipal court systems (e.g., district attorney's offices, and probation and parole boards) to identify and refer candidates to MWTP training programs.

Highlighted MWTP Recruitment Strategies

- *On-site presentations* at local government meetings, high schools, community-based organization meetings, and churches
- *Referrals* from partnering government agencies, community-based organizations, and unions
- *Media outreach* such as door-to-door canvassing, radio advertisements, and brochures



CPWR – Center for Construction Research and Training trainee receives confined-space training.

Partnerships with municipal court systems are especially noteworthy. An ex-offender status often presents significant barriers to employment, which contributes to high recidivism rates. The MWTP provides an alternative to costly incarceration and helps to reduce recidivism rates among those that participate in the program. For example, OAI's, Chicago-based training program has worked closely with the United States Probation Office and the Illinois Department of Employment Security's Re-entry Employment Service Program to provide a skill-building alternative to incarceration that prepares ex-offenders for employment opportunities and supports ex-offender recidivism rate reductions. In addition, the Dillard University program facilitates parole and probation officer visits to training sites so that ex-offender trainees can fulfill their legal obligations with minimal disruption to training.

On a smaller scale, community college partners and unions have also helped refer people to MWTP training providers. Also noteworthy, OAI's Dallas-based training provider established and utilized a partnership with a popular local radio station that provides free radio advertising for their training program.

Partnerships with Judicial System Entities Can Support Reductions in Incarceration Recidivism Rates

After graduating high school, Robert C. worked menial jobs with few opportunities for advancement or wage increases. The downturn of the economy exacerbated his situation. His employment situation became unstable, with the majority of his positions being temporary assignments. Like so many others in his situation, Robert felt his dreams of a better life drifting further and further out of reach.

Unfortunately, in his despair, Robert made some wrong choices and ended up incarcerated for several years. While incarcerated, he vowed to turn his life around and commit himself to doing whatever it would take to become a productive member of society and to learn the job skills necessary to improve his life.

Upon his release in 2010, Robert and his parole officer worked to develop a pathway forward. They reviewed options that included job training programs. Robert's interest in environmental remediation led him to discover OAI's MWTP, and he enthusiastically enrolled in the program.

Robert graduated the program in February 2012. Since then, he has been consistently and successfully employed in the environmental remediation industry. His hard work and skills caught the attention of one of his employers, Myleer Corp. The company offered to sponsor him to join the Laborer's International Union of North America, Local No. 4. In fact, not only did the employer sponsor Robert, the employer advanced Robert money to pay his annual union dues. Now, as a proud union member, Robert makes \$36.20 per hour, enabling him to realize his dreams and take care of his family.

Provided by OAI, Inc. (2012)

SUCCESS STORY

Wrap-Around Services

Many MWTP students come to the program with a variety of needs and barriers to employment. Partnerships with community-based organizations and other social services providers help ensure that trainees receive holistic supportive services (i.e., wrap-around services) to help them overcome socio-economic and other barriers to becoming self-sufficient, employable job candidates. By working closely with these types of organizations, MWTP awardees have successfully connected students with necessary food, housing, and transportation, as well as drug and alcohol rehabilitation, legal support, child and/or elder care, career and other counseling, life skills development and related training, and other services.

For instance, CPWR – Center for Construction Research and Training’s (CPWR) New Orleans-based training program has worked with the Neighborhood Development Foundation to provide students with first time homebuyer and financial fitness training. CPWR’s partnership with Community Action Partnership of Ramsey & Washington Counties provided its students in St. Paul, Minnesota, with low-interest loans and referrals to car dealers for older model cars that were inspected and repaired through the organization’s Car Ownership Program. CPWR also partnered with food banks to increase its students’ access to food. In addition, MWTP training providers and their partners have used their networks and resources to connect eligible students in need with government social safety net programs.

In some cases, academic partners can also help connect trainees with wrap-around services. For example, Western Region Universities Consortium’s Seattle-based training provider, Seattle Vocational Institute has a Pre-apprenticeship Construction Training program that maintains partnerships with a range of social service providers to assist students with access to food, housing, work clothing, legal assistance, obtaining driver’s licenses, and other needs. In addition, the program’s affiliation with the Seattle Community Colleges District allows program trainees to benefit from the college district’s public transportation discount programs.

Wrap-around services are supplementary socio-economic and health-related services that complement the overall goal of a primary social service.

Highlighted Wrap-Around Services that Support Trainee Success

- Food access
- Affordable housing
- Transportation assistance
- Rehabilitation services for substance abuse
- Legal support
- Child/elderly care services
- Career and personal counseling services
- Clothing
- Life skills development and related training

Remedial Education and Basic Skills Development

As previously mentioned, remedial education and basic skills development is a common need for many students who enroll in program trainings. Partnerships with federal, state, and local government agencies; community-based organizations and faith-based organizations; academia; and unions and employers have helped MWTP awardees provide the educational foundation and basic skills primer that trainees need to successfully complete technical training and obtain long-term employment.

For example, Western Region Universities Consortium's Labor Occupational Safety and Health program has utilized a partnership with the Los Angeles Urban League, a community-based organization, to help provide basic reading, writing, and mathematics instruction. Other community-based organization

partnerships have also helped to provide introductory environmental justice training to MWTP students. Partnerships with academic institutions, including historically black colleges and universities and other public schools, have also helped provide training space and instruction in basic subjects and science, as well as provide basic skills development instruction, including life skills and job readiness training. In addition, these academic partners sometimes provide trainees with the opportunity to obtain their General Education Development degree, opening doors for additional educational attainment opportunities.

Government agencies can also be good partners for basic skills development instruction. For example, the Dillard University program and Western Region Universities Consortium's Los Angeles-based program have developed relationships with local law enforcement agencies to provide life skills training and strategies for avoiding future legal problems that threaten prospects for sustainable employment. Furthermore, one of OAI's training providers has worked with the EPA Region 7 to provide training to students on environmental justice. Training in environmental justice helps to increase student awareness of issues that directly impact their health and well-being and that of their families and community.



TOP: OAI trainees receive general classroom instruction.
BOTTOM: OAI students learn about environmental justice and environmental issues in their community.

Technical Training Assistance

MWTP grantee partnerships have been important in the facilitation of the program's more technical training components.

For example, program awardees have successfully leveraged MWTP funding to acquire additional funds from other federally funded training programs administered by agencies such as the EPA and Department of Labor. On the local level, partnerships with government agencies have also helped program awardees gain access to training space, expert instruction, and free equipment. For example, Dillard University's Detroit-based training provider established relationships with the local firefighters to provide health and safety training.

Partnerships with community-based organizations have helped to facilitate increased opportunities for hands-on, on-site training, and access to free tools and other work supplies. In addition, through partnerships with community-based organizations, some MWTP training providers are able to include a service-learning component in their curriculum. Service-learning projects provide students with opportunities to utilize their newly developing skills to contribute to community revitalization. For example, CPWR – Center for Construction Research and Training, NY/NJ Consortium, and OAI training providers have all established partnerships with Habitat for Humanity, where students apply what they've learned to real on-the-ground conditions that also contribute to the increased availability and quality of affordable housing in their communities. In addition, OAI's partnership with the Northeast Development Council brought access to training space and tools.

Partnerships with unions and employers also contribute to effective training. Unions have provided space for MWTP training, and union members have served as guest speakers, provided job-readiness training and career guidance, in addition to technical instruction. Representatives from various industry employers have also offered expertise on a range of construction and environmental fields to training sessions.

Service-learning projects provide students with opportunities to utilize their newly developing skills to contribute to community revitalization projects.



CPWR – Center for Construction Research and Training trainee develops masonry skills.

MWTP Prepares Trainees for the Growing Green Economy

Western Region Universities Consortium members have developed a variety of new curricula and training materials to meet the specific needs of our training populations under the MWTP. Three new curricula for Introduction to Green Jobs, Green Construction Safety, and Green Chemistry courses were originally developed under a supplemental American Recovery and Reinvestment Act grant and then incorporated as MWTP course offerings. New course curricula have been developed for Lead Renovation and Repair and Environmental Justice courses.

Western Region Universities Consortium's Washington-based program has continued to refine its Green Building Health and Safety course based on experience with each cohort. AA segment on residential energy auditing and weatherization measures, including a walk-around audit of the Seattle Vocation Institute building, is now a regular part of the course. Also, on July 26, 2012, a construction pre-apprenticeship program cohort toured the construction site for the Bullitt Foundation headquarters, which is billed as the "greenest commercial building in the world" and is working toward certification under the Living Building Challenge. Students viewed inner building construction areas, such as the geothermal HVAC, water collection, and sewage collection systems. The green building curriculum reinforces math skills with a number of exercises in which students examine utility bills, calculate return on investment for recycling versus waste disposal of construction materials, and determine payback periods for various energy saving measures. The structure of the curriculum allows instructors to reinforce learning on topics such as hazard communication by presenting them first in the General Construction Safety course and later in the 40-hour HAZWOPER course. In addition, global harmonization has been added to the Hazard Communication course and will be expanded in future courses.

Provided by Western Region Universities Consortium (2012)

SUCCESS STORY

In response to the promise of the growing "green" economy and associated new job opportunities, particularly for people who are prime candidates of the MWTP, program awardees have worked to develop and expand their green-focused instruction.⁹ Multiple MWTP awardees offer green building construction and remediation/weatherization skills development curricula, including instruction focused on the unique health and safety hazards associated with green building features. Western Region Universities Consortium also offers Introduction to Green Jobs and Green Chemistry courses.

9 University of Massachusetts (2009), "Green Prosperity: How Clean-Energy Policies Can Fight Poverty and Raise Living Standards in the United States." Last Accessed on 9/9/13: http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/green_economics/green_prosperity/Green_Prosperty.pdf

Streamlining Employment

Partnerships, especially those with government, unions, and employers play a big part in helping students move quickly into employment positions upon completion of training. Partnerships with these entities open lines of communication about future community plans and prospective labor force needs with respect to construction and environmental remediation.

One effective strategy for facilitating an on-going dialogue that ensures MWTP trainings are relevant to community needs, is through an advisory board that includes representatives from government, unions, and employers, as well as representatives from community-based organizations and academia. State and local government agencies, including chambers of commerce, workforce investment board, transportation departments, port authorities, environmental agencies, planning or redevelopment departments, and others possess keen insight into community development plans, labor needs, and other needs in communities.

Advisory board members can provide equally valuable insight into specific areas of training needed to meet demands for particular labor skill sets. These insights allow training programs to adapt curricula to best fit the community's specific labor needs. Advisory board membership and/or other forms of partnerships with state and local government agencies, elected or appointed government officials (e.g., mayors), unions, and employers can also help to increase communication and opportunities regarding the consideration of program graduates as part of government-supported development and/or revitalization projects and contracts. Advisory board members also sometimes donate necessary equipment to help MWTP graduates transition into employment.

Strategic Advisory Board Members

- Chambers of commerce
- Workforce Investment Boards
- Transportation departments/port authorities
- Environmental agencies
- Planning/redevelopment agencies
- Community and faith-based organizations
- Elected/appointed government officials
- Unions
- Potential employers
- Trainers
- Previous MWTP graduates

**Dillard University, Deep South Center for Environmental Justice:
Savannah, Georgia, MWTP Advisory Board (by organization)**

Economic Opportunities Authority	Amerigroup	Good Service, LLC.	Doenator
West Broad St. YMCA	First African Baptist	Health Services Coordinator	Savannah Abatement
Christian Revival Center	Goodwill Industries	Environmental Protection Department	New Beginnings, Inc.
Top Ladies of Distinction	General Missionary Baptist	Headstart	Zammuu – Independent Marketing

Furthermore, advisory board members can help streamline the process to sustainable employment through mechanisms such as pre-apprenticeship and apprenticeship programs for construction and environmental remediation worker training. Apprenticeships provide trainees with intimate on-the-job training by an expert in a specific trade and prepare the trainee for a long-term career in the trade.

For example, CPWR – Center for Construction Research and Training (CPWR) operates a construction pre-apprenticeship program that counts for one year toward the individual’s formal apprenticeship with a union. CPWR’s Advisory Committee members play an important role in helping identify potential employment opportunities, as well job market trends in environmental, green, and general construction arenas to align training with job forecasts. For instance, the CPWR East Palo Alto JobTrain program advisory board has members from the San Francisco Public Utilities Commission who significantly helped open up employment opportunities for program graduates. Recently, the JobTrain program collaborated with its San Francisco Public Utilities Commission partners on the Commission’s Water System Improvement Project Jobs Training Opportunity Program. The purpose of the Program is to promote employment and career development of low-income people residing in the Commission’s water system service territory and to support and promote local area hiring practices in the areas where construction will take place. The Commission has provided at least 66 placements for program graduates at the Baylands and Commission water system projects (Harry Tracy Water Treatment Plant, Irvington Tunnel and the Crystal Springs Dam) since the partnership began.

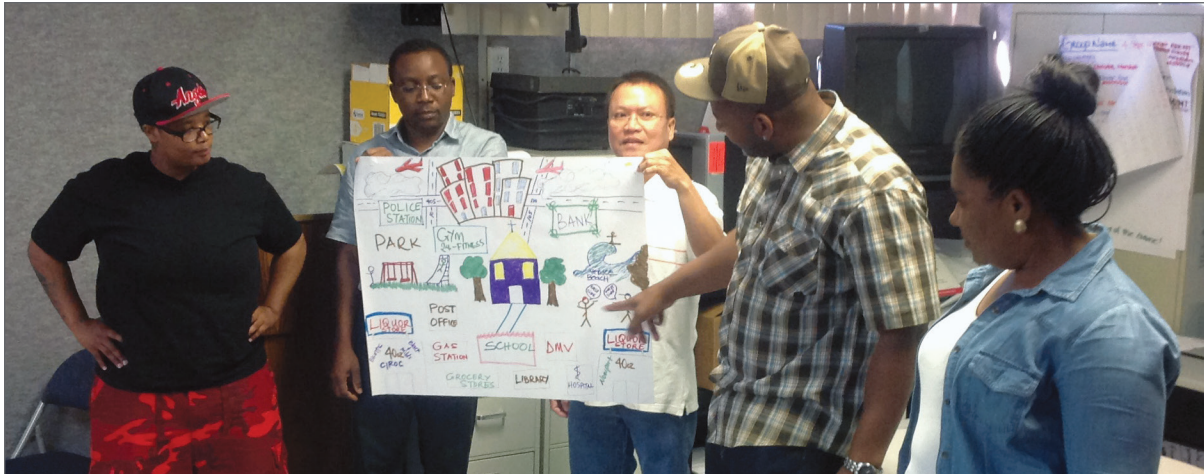


OAI trainees perform hazmat drill.

The NJ/NY Consortium also utilizes the pre-apprentice/apprenticeship approach. Training is designed to address a range of deficiencies that can inhibit the ability to achieve and retain employment. The Consortium and its partners, including those serving as advisory board members, actively support program graduates to secure meaningful, living-wage employment. Trainees are thoroughly prepared for the opportunity to become members of the Carpenters Union. Improved relations with other unions, including the Electricians’ and Sheet Metal Workers’ Unions, has also helped to provide program graduates with increased employment opportunities. The NJ/ NY Consortium reports that its MWTP pre-apprenticeship program participants maintain an apprenticeship-retention rate double that of those people entering carpentry apprenticeships through traditional ways.

Lastly, Western Region Universities Consortium has partnered with Brand Scaffolding, IQ Opportunities, and has recently begun working with the International Brotherhood of Electrical Workers to improve the employment pipeline for trainees upon graduation to move into green careers.

The MWTP's partnerships and apprenticeship programs have established an effective pipeline to employment for program graduates.



Western Region Universities Consortium trainees give presentation during interactive classroom exercise.

■ Programmatic Sustainability

The sustainability of the MWTP can be largely attributed to it being a component of a very successful WETP, and the ability of MWTP awardees to successfully leverage MWTP funding and other resources to acquire additional funding, technical expertise, and other resources from other government and non-government organizations. This additional support has aided MWTP success at every stage of the program, from trainee recruitment to employment. Through leveraging, MWTP awardees have successfully boosted their operating budgets, enabling them to provide training to more disadvantaged people; gained access to other supplemental resources and wrap-around services to holistically prepare trainees for long-term employment; and improved and increased trainee connections to employment opportunities.

For example, CPWR – Center for Construction Research and Training's (CPWR) St. Paul MWTP program staff worked closely with the Minnesota Department of Transportation to increase the number of women and minorities working on state-funded highway projects. The longstanding, mutually beneficial relationship yielded a \$400,000 two-year contract between Minnesota Department of Transportation and Merrick Community Services to administer a fund that supplements the salaries of graduates who work with contractors doing heavy highway construction. The success of the St. Paul program was a catalyst to enable CPWR's program partner, Merrick Community Services, to train an additional 35 minorities and women with funding from Minnesota Department of Transportation.

OAI has leveraged funds and in-kind services from a range of sources. For example, for the past three years the Chicago Tribune Charities/McCormick Foundation has supported OAI's Chicago-based program through a grant that funded a two-week basic carpentry course. In 2012, the Foundation increased support to expand the carpentry training to three weeks each training cycle. The grant also provided funds necessary to purchase the materials required for a more extensive hands-on curriculum. OAI's Chicago-based program is also supported by the Lloyd A. Fry Foundation, which funded a full-time academic and life skills coordinator to oversee soft skills training and other pre-employment programs.

In 2012, the Illinois Department of Commerce & Economic Opportunity provided OAI with a one-time Training for Tomorrow grant. This grant is part of Governor Quinn's Neighborhood Recovery Initiative to generate economic growth and opportunity in Chicago's most vulnerable communities. It allowed OAI to increase recruitment efforts and build new relationships with organizations in targeted recruitment areas. Additionally, this funding enabled the MWTP to enroll six more participants and to provide additional technical training, job placement, and supportive services to enhance the program. In addition, OAI uses a portion of its Eliminate the Digital Divide grant from Department of Commerce & Economic Opportunity to provide MWTP-Chicago trainees with computer training and access to OAI's Community Technology Center.

Lastly, through OAI's leveraged partnership with the North Lawndale Employment Network, seven MWT-Chicago graduates were admitted into the Urban Weatherization Initiative, which is funded by the Illinois Department of Community and Economic Opportunity. This six-week rigorous classroom and hands-on training offers MWT trainees a stipend and an additional BPI Certification to work as a whole house air leakage control installer, at no cost to NIEHS. The North Lawndale Employment Network has informed OAI that contractors have committed to hire these graduates upon successful program completion.



OAI trainee applies new skills to safely perform welding exercise.

Despite MWTP awardees' ability to leverage resources through partnership, trending budget cuts across the MWTP and other federal programs, and increasing pressure to leverage more and more resources each year, is creating real challenges for program awardees. Most awardees have very limited manpower and resources to dedicate to identifying and maintaining symbiotic relationships with partners that have resources to supplement MWTP budget and funding cuts. Awardees have noted that increased time spent on these activities hinders their ability to perform important administrative activities, including those related to job placement for graduates.

It is vital that NIEHS recognize that local government leadership and potential partners vary across the 15 communities where MWTP is provided. Thus, funding cuts and pressure to leverage resources impact awardees differently, creating a disproportionate burden on awardees with programs in communities with government leadership that do not have established partnership with the MWTP or do not have organizations with which to leverage their resources. NIEHS should consider ways to facilitate more opportunities for its awardees to introduce their programs to potential partners with resources to leverage. NIEHS should also work with the Department of Labor to help its awardees gain access to Workforce Investment Act funds, and the Department of Housing and Urban Development to facilitate increased access to jobs for program graduates.

■ Approaches to Addressing Barriers to a Successful Program

There are a number of barriers to a successful MWTP. Perhaps one of the most significant barriers is ensuring that recruited students are fully committed to completing the training and obtaining employment. Committed students are vital to the success of the program because the demand for training by prospective students already far exceeds the resources that are available for the program.

In order to address this challenge and ensure the highest student graduation and job placement rates, MWTP training providers and their partners maintain a criteria for admittance and have each developed additional unique pre-screening processes that help to determine a candidate's readiness to meet the demands of the MWTP.

General criteria for MWTP admittance are pretty similar across each grantee program and usually include the following:

- age restrictions (e.g., must be at least 18 years old)
- geographic requirement (i.e., must live in the affected community)
- employment status restrictions (e.g., un/underemployed)
- language requirement (e.g., must speak English)
- educational requirement (e.g., must be able to do math and read at 6th-8th grade level)
- students must also be able to pass a drug test

Personal interviews and preliminary trial trainings help to gauge prospective student commitment and readiness to participate in the training program. MWTP grantee trial trainings, including OAI's

Try-Out¹⁰ and Dillard University's Week of Endurance,¹¹ usually involve a series of worksite simulation exercises spread over multiple days that measure prospective trainee performance of field-related duties, physical fitness, leadership abilities, self-discipline, team-building skills, stress management, and problem-solving skills. These trial tests can also include academic challenges, drug abuse awareness, and campus and construction site tours. Trial testing provides prospective trainees with a general idea of the types of work they will be trained for, and gives students an opportunity to decide whether they would like to participate in the formal training program. It also allows MWTP training providers to identify and select the candidates that possess the greatest potential for success to ensure that limited resources and training are utilized in a way that maximizes returns on investment.

It is worth reiterating the importance of life skills development, other pre-employment training, and wrap-around services to the success of the MWTP. This approach to training holistically addresses the needs of disadvantaged people and creates a pathway to sustainable employment opportunities.

■ Evaluation Component

The WETP requires its MWTP and other awardees to perform annual evaluations of their training programs. General requirements for training program evaluation are outlined in the WETP Minimum Health and Safety Training Criteria (Minimum Criteria) document, which serves as the quality control basis for the training grants awarded by WETP. Awardees are required to report on recruitment, training, retention, job placement, and utilization of community partners.

MWTP awardees employ a variety of tools and measures to collect valuable quantitative and qualitative information to evaluate their training programs. The input of program administrators,

Program evaluations should consider feedback related to the following:

- Trainers
- Instruction
- Facilities
- Activities
- Training materials
- Equipment
- Course Objectives
- Overall Course

- 10 OAI's Try-Out is a two-day evaluation of potential trainees used to gauge their readiness and commitment to completing the program and attaining work. Try-Outs involve a series of activities that simulate site work (e.g., measuring, shop, role playing, spatial relations, physical fitness, heavy moving and lifting), coupled with academic challenges (e.g., math tests, essay writing) and social observation (e.g., group and individual decision making, anger management, stress handling, leadership abilities, and self-discipline). OAI staff, trainers, partners, and employers serve as observers and evaluators. At the completion of Try-Outs, evaluators participate in an OAI staff-supervised group evaluation process to select finalists. The Try-Outs process results in high retention rates by eliminating those who are not ready and/or uncommitted to the program.
- 11 Dillard University's Week of Endurance involves a set of activities designed to assist program administrators in selecting trainees to participate in the training program. The week-long activities involve physical challenges, problem solving activities, team building exercises, drug abuse awareness, and campus and construction site tours. This comprehensive week of participatory training allows trainees to self-select out of the program if they lack the ability to function within a structured, group-oriented training process, or if they lack the interest and initiative needed to obtain careers in the construction and environmental industry. It also provides training program staff with valuable information to assist them in the final selection process.

trainers, trainees, and other stakeholders is viewed as essential to the evaluation process. MWTP awardees gather perceptions related to trainers, instruction, facilities, activities, materials, equipment, course objectives, and the overall course through carefully designed surveys, questionnaires, and other mechanisms. To illustrate the effectiveness and impacts of the program, evaluation information is aggregated with statistical information on the numbers of students recruited, trained, graduated, and placed in jobs as well as the number of contact hours achieved.

Tools used to evaluate the quality of training include on-site observations of trainings by program administrators, peer trainers, and other third-party evaluators; reviews of instructor qualifications; focus groups consisting of advisory board members to review curriculum; and focus groups of MWTP graduates to provide feedback on the overall course. Tools used by training providers to evaluate the knowledge acquired by students include pre- and post-training testing, intermittent quizzes, and instructor observations of student performance during hands-on activities. Quantitative data regarding graduation and post-training tracking of job placement and retention rates are important for evaluating the impacts of the MWTP. However, qualitative information is also an extremely significant component for the holistic evaluation of MWTP effectiveness and impact. Stories collected by MWTP awardees capture what cannot be captured quantitatively by showing how disadvantaged people overcome incredible barriers of severe poverty, educational deficiencies, homelessness, substance abuse, legal trouble, and absent support networks to become empowered and employed in careers that are helping to revitalize their own communities.

Some MWTP awardees are utilizing the qualitative and quantitative data to further evaluate the effectiveness and impacts of their training programs on five levels: intrapersonal, interpersonal, institutional, community, and policy. This approach to evaluation can be described as a socio-ecological model for evaluation. Evaluation at the intrapersonal level looks at how a training program addresses knowledge gaps and other basic skills deficiencies to increase the capacity of people to protect themselves at work and improve the quality of their lives. The interpersonal level inspects how a training program impacts the capacity of trainees to successfully manage their personal and professional relationships and interactions with others. Evaluation at the institutional level examines how a training program is connecting trainees to needed goods and services. The community level of evaluation in the model observes how a training program influences economic development in localities, and the policy level of the model looks at how the training program impacts local decision-making.

Highlighted Program Evaluation Tools

- On-site observations by program administrators, peer-trainers, and other third-party evaluators
- Reviews of instructor qualifications
- Focus groups to review curriculum
- Focus groups of program graduates to provide feedback on overall courses

Program awardees identified some opportunities to further advance MWTP performance measures to more holistically capture the program's impact. They suggested that performance measures should include frequency of graduate certification renewal and account for graduates that pursue further educational attainment and/or achieve job promotions.

Furthermore, program awardees suggested WETP/MWTP should consider ways to incorporate greater flexibility into grantee reporting requirements to acknowledge hiring periods that do not coordinate with the grant's reporting period.

MWTP Opens New Doors to Opportunity

Corey B. grew up in mid-city New Orleans, where he attended John McDonough Senior High School and graduated in 1995. He is 33 years old and has a younger sibling and a 12-year-old daughter Brittany, whom he has raised as a single parent since she was born.

Corey heard about the MWTP through a family member. He is a hard working young man who has worked in various hardware stores over the past ten years gaining informal training in carpentry and plumbing. His daughter has been his motivation to gain more education and training to provide a better life for her.

Corey was determined and focused when he entered the MWTP. He has always encouraged his daughter to do her best in school. After being recognized as Best Overall Student in his class, he told his daughter Brittany, "When you stay focused and work hard it pays off in the long run." Corey said the program has given him more direction and purpose. Finishing the training has enhanced his confidence. Not only did he finish what he started, but he also finished strong. The training and certificates he received have given him the leverage needed to be competitive. He feels much more confident when he goes to interviews.

Corey says that he is not only prepared for a job but also for a career. He wants to start his own business that would offer services in lead abatement, asbestos abatement, and hazardous waste disposal. He and some of the other graduates in the MWTP have already started developing a business plan and have applied for a Tax ID.

As Best Overall Student, Corey demonstrated great leadership skills during the training and has been selected to become a hazmat technical assistant for the MWTP. Corey is excited about what the future holds and looks forward to owning a hazmat business and seeing his daughter Brittany off to college in the next five years.

Provided by Dillard University (2011)

SUCCESS STORY



Western Region Universities Consortium trainees perform engage in dress out and decontamination exercises.

IMPACTS AND OUTCOMES OF THE MWTP

The impacts and outcomes of the MWTP are extensive and produce tremendous benefits for participants of the program as well as their families and communities. This section of the report highlights some of the significant impacts and outcomes of the MWTP.

■ Supporting Worker Health and Safety

Racial and ethnic minorities, unskilled, and untrained workers often work the most dangerous and dirty jobs. They experience higher rates of injury, illness, and mortality in the workplace, lack access to personal protective equipment, and lack access to health care. These disadvantaged populations often lack access to formal training programs and career opportunities in the field. Since 1995, the MWTP has helped provide workplace health and safety training to about 10,000 minority and other disadvantaged people who would likely have never received it otherwise. As a result, thousands of workers around the country have been empowered with the information they need to avoid hazards at work. In 2012 alone, MWTP awardees offered 295 courses, trained 367 students, and provided more than 155,000 contact hours.

NIEHS Minority Worker Education and Training Program: Training by Grantee (FY2012) 8/1/2012 – 7/31/2013			
AWARDEE	COURSES COMPLETED	STUDENTS TRAINED	CONTACT HOURS
CPWR – Center for Construction Research and Training	61	61	52,612
Dillard University, Deep South Center for Environmental Justice	60	100	36,144
NJ/NY Hazardous Materials Worker Training Center	37	48	20,476
OAI, Inc.	75	77	24,746
Western Region Universities Consortium	62	81	21,652
TOTAL	295	367	155,630

■ Increasing Capacity of Underserved Population to Obtain Employment

The MWTP helps create a bridge to long-term, sustainable employment opportunities for underserved populations. Trainees are equipped with valuable skill sets and the knowledge needed to access employment opportunities in their communities. Trainees receive instruction in subject areas including, but not limited to, basic safety and health, hazardous waste operations, emergency response, lead and asbestos abatement, and various construction-related fields such as weatherization, green building design, and deconstruction. Since 1995, more than 6,500 MWTP graduates¹² have successfully accessed employment opportunities in a range of construction and environmental remediation fields. MWTP awardees continue to expand their networks and employment opportunities with green industries, including recycling programs.

Data reveals some interesting shifts in the demographics served by the MWTP from 1995 to 2013. African Americans continue to make up the largest group served by the program. However, the MWTP has seen considerable growth in Hispanic/Latino participants. Other minority groups, including Asian Americans, Pacific Islanders, and Native Americans, continue to make up only very small percentages of people benefiting from the program. WETP/MWTP needs to do more to improve outreach to these other minority groups.

In addition, available data shows a decrease in women's participation in the MWTP since the early years of the program. WETP/MWTP should do more to attract women from disadvantaged communities into training programs. WETP/MWTP should also explore new training opportunities for women in the growing green economy.

12 This figure includes graduates trained through the NIEHS/EPA Brownfields Minority Worker Training Program. NIEHS's MWTP is directly responsible for 4,250.

As concerns about climate change continue to grow, WETP/MWTP should evaluate and consider new areas of training related to disaster response, particularly with regard to coastal climate change concerns and water systems. As a part of these efforts, WETP/MWTP should work to identify opportunities to partner with cities on Clean Water Act consent decree activities that focus on addressing water contamination in disadvantaged communities.

■ Facilitating Economic Development and Community Revitalization

The MWTP also helps promote and support economic development and community revitalization. In addition to facilitating opportunities for disadvantaged populations to access employment, improving their living standards and transforming their lives, the MWTP also provides a workforce for various environmental remediation and community redevelopment projects. Several MWTP graduates have worked on large public works as well as private and community projects, including brownfields¹³ clean-up and redevelopment, renewable energy, weatherization, and green construction and deconstruction projects. Some MWTP awardees, such as CPWR – Center for Construction Research and Training, have pursued and successfully utilized first-source hiring agreements and project labor agreements to secure work for program graduates.

For example, NJ/NY Consortium graduates have gone on to work on redevelopment projects in lower Manhattan and on public transit construction projects including the New York City's 2nd Avenue subway. Western Region Universities Consortium's Seattle-based graduates worked on public transit and light rail projects as well as other infrastructure projects, including the Evergreen Bridge. They also worked with the Seattle Housing Authority on low-income housing construction and retrofit projects.

Western Region Universities Consortium's Los Angeles-based graduates are working to weatherize homes and businesses with RePower L.A., a broad-based coalition of community organizations, environmentalists, labor, small businesses, and faith-based leaders working to make Los Angeles more sustainable. MWTP graduates from Dillard University and NJ/NY Consortium also engage in community projects focused on weatherization.

■ Involvement in Major National Disasters

The MWTP has helped the WETP to enhance national environmental and emergency preparedness and response capabilities. Program awardees have helped train cleanup workers following several disasters. For example, following Hurricane Katrina in August 2005, the Dillard University program joined forces with the United Steelworkers to launch the "A Safe Way Back Home" initiative to train local low-income and minority neighborhood residents to dispose of waste and replace soil on properties in New Orleans. Trained volunteers from universities, church groups, government

13 The EPA defines a brownfield site as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

programs, community programs and initiatives, and participant neighborhoods removed contaminated soil, grass, and other tainted items from yards, streets, and sidewalks. Sidewalks, curbs, and streets were also pressure washed until the contaminated sediments were removed. As a result of this effort, residents of cleaned up communities were committed to return and rebuild New Orleans. Also in 2005, OAI helped to train cleanup workers in Houston and Port Arthur, Texas, in the aftermath of Hurricane Rita. More recently, MWTP graduates supported cleanup efforts in the aftermath of the Deepwater Horizon Oil Spill in 2010 and Superstorm Sandy in 2012.



OAI students learning to cut and install roof trusses.

■ Advancing Environmental Justice

As stated previously, the MWTP began at about the same time as the federal commitment to address environmental justice. The MWTP focus on low-income and minority trainees originated from environmental justice concerns and the recommendations of environmental justice stakeholders. The program embodies a partnership with communities, government agencies, academia, non-profit organizations, contractors, and labor unions. The trainees come from communities impacted by significant environmental justice concerns. The life skills and technical training equips trainees to be successful in the workplace and, therefore, to address public health and environmental concerns impacting their communities.

Environmental justice can only be achieved when all populations in the U.S. are meaningfully involved and participate in environmental decisions that impact their communities. The MWTP provides for the fair treatment of low-income and minority residents of environmental justice communities. The MWTP helps address economic and health disparities, and other environmental justice conditions in the workplace and at the community level. Through strategically designed

coursework, trainees learn how to address public health and environmental threats impacting their communities. They become great assets to their communities. The knowledge attained through training allows them to understand the environmental justice concerns and increases their capacity to meaningfully participate in improving their communities. Trainees also pass newly gained information onto their families, friends, and other residents, providing them with important information to help them become more meaningfully engaged in environmental decision making in their communities. The increased environmental awareness and capacity building to address concerns perpetuated through the MWTP, helps support the advancement of environmental justice in communities overburdened by pollutants.

■ Impact of MWTP on Broader WETP (a model intervention in classic public health)

The Laborers International Union of North America Training and Education Fund (LIUNA Training) was one of the MWTP's original awardees in 1995. As an MWTP grantee, LIUNA Training developed the Minority Outreach Program to help disadvantaged and under or unemployed workers secure living wage jobs as construction craft laborers.

In 2005, LIUNA Training restructured its training program to incorporate its innovative Minority Outreach Program strategies into its broader WETP-funded Hazardous Waste Worker Training Program. Today, LIUNA Training continues to utilize and build on the innovative strategies for recruitment, retention, and training models developed as a previous MWTP grantee, to support its current WETP-funded training. LIUNA Training's curriculum continues to closely resemble the MWTP model. Program activities include strategic outreach and recruitment; employability (life skills) and job skills training; case management (referral to and/or provision of needed social services); career guidance; employment placement assistance; and post-graduate follow-up.

Other WETP awardees have also trained large numbers of low-income and minority populations since WETP's inception in 1987. The additional training under the broader WETP has helped increase the awareness of low-income and minority people about environmental and health hazards, and helped to increase their capacity to become engaged and participate meaningfully in decision making processes to improve their communities.

■ Replication

The MWTP was created in 1995, toward the beginning of the federal government's commitment to address environmental justice and to better the lives of disadvantaged communities. Based on its early success, other job-training programs were created using the MWTP model.

Created in 1997 under the Comprehensive Environmental Response, Compensation, and Liability Act, EPA's Brownfields job training program has four goals: protecting the environment, promoting partnerships, strengthening the marketplace, and sustaining reuse. In 2012, the EPA Brownfields training program was renamed the Environmental Workforce Development and Job Training

program. The 2013 application guidelines for the job training grants indicate that the program is to recruit, train, and place unemployed and under-employed people—including low-income and minority residents historically affected by hazardous and solid waste sites and facilities—with the skills needed to secure full-time, sustainable employment in the environmental field and in the assessment and cleanup work taking place in their communities.

The EPA Superfund Job Training Initiative was established in 1996 and supported by NIEHS through interagency agreements until 2006. This training initiative is an environmental remediation job readiness program that provides training and employment opportunities for people living in communities affected by Superfund sites. The Training Initiative mirrors NIEHS MWTP through its emphasis on building partnerships, rigorous recruitment with a focus on increasing opportunities for people living in affected communities, strategic training, and streamlining employment. The Training Initiative also encourages awardees to tailor their programs to address the specific conditions and needs of each community.



An OAI trainee cuts 2"x4" wood using the electrical Skilsaw.



Western Region Universities Consortium trainees participate in hands-on classroom learning exercise.

FINDINGS

The MWTP has benefited thousands of trainees and families in disadvantaged communities.

The MWTP has helped to transform the lives of about 10,000 people from underserved communities. About 70 percent are now gainfully employed and earning wages averaging \$12-\$18 per hour, and reaching more the \$30 per hour for union jobs. Graduates have gone on to contribute to significant community construction and revitalization projects. The training program has also helped increase awareness about hazardous exposures and increase community engagement in environmental decision-making.

Life skills training and other pre-employment training are fundamental to the success of the MWTP. Life skills and pre-employment training effectively addresses some of the significant impediments to employment faced by people from disadvantaged backgrounds. This training equips trainees with essential personal and interpersonal skills to effectively deal with the challenges of everyday life and to obtain and sustain employment.

Mentoring and counseling are an important part of the MWTP, as they provide a social support network for trainees. Group and individual counseling and mentorship for trainees help to address barriers to successful completion of the training program. Counseling and mentorship also help trainees to develop direction, confidence, and positive attitudes toward job training and work. Previous MWTP graduates who are now employed in sustainable careers can provide valuable mentorship and bring possibilities to life for current trainees.

MWTP awardees have established valuable partnerships with various types of organizations to support program goals. MWTP awardees have developed fruitful partnerships with federal, state, and local government agencies; community and faith-based organizations; academia; labor unions; and employers. Many MWTP partners also serve on individual program advisory boards. These partnerships have helped support MWTP recruitment, trainee wrap-around services, training, and employment opportunities.

Program advisory boards are critical to individual program success. Each MWTP has an advisory board that includes representatives from many of the individual program's partnering organizations. Advisory board members provide keen insight into specific areas of training needed to meet current and anticipated labor demands. They also contribute to curriculum development, training, and donate equipment to trainees.

MWTP provides alternatives to costly incarceration and effectively supports ex-offender rehabilitation and reductions in recidivism. Ex-offender status is more common in underserved communities and often presents a significant barrier to employment opportunities. MWTP works with probation and parole offices and others to identify appropriate candidates for training. MWTP has helped provide increased pathways to sustainable employment for ex-offenders, thus helping to reduce recidivism and re-incarceration among ex-offenders who participate in the program.

MWTP individual program evaluations are essential to improving the effectiveness and impacts of the MWTP, and awardee evaluations have already helped to identify valuable lessons learned, best practices, program successes, and opportunities for improvement. MWTP awardees have developed a variety of innovative tools and measures to collect qualitative and quantitative information from a range of stakeholders to evaluate their training programs. The value of qualitative stories should not be overlooked. These stories capture what cannot be captured by quantitative measures.

MWTP helps to advance environmental justice and address environmental/occupational health disparities in the workplace and at the community level. The MWTP provides training for underserved and minority populations that often occupy the most dangerous jobs, and experience higher rates of workplace injuries, illnesses and mortality, yet also often lack access to health and safety training. The training helps to empower residents from disadvantaged communities with an increased ability to protect themselves from hazards at work, meaningfully participate in community-related environmental decision making, and contribute their skills to community revitalization projects.

Program graduates have helped to support significant national disaster response efforts in multiple states. MWTP graduates have supported cleanup efforts following several national disasters, including Hurricane Katrina, Hurricane Rita, the Deepwater Horizon Oil Spill, and Superstorm Sandy.

MWTP actively worked to address barriers to successful program implementation. MWTP has developed criteria for admittance and each grantee has developed unique pre-screening processes to determine a candidate's readiness for the training program. Pre-screening processes include a range of personal interviews and trial training activities. These processes help awardees to identify and provide training to the candidates with the most potential for successful job placement; thus using their limited resources effectively. Life skills development courses, other pre-employment training, and wrap-around services help to address common impediments to employment faced by disadvantaged populations.

WETP/MWTP has served as a model for other federally-funded worker training programs. The MWTP was created in 1995. Based on its early success, other job training programs, including the EPA Brownfields Minority Worker Training Program and EPA Superfund Job Training Initiative were created using the MWTP mold.

WETP/MWTP funding cuts and increasing pressure on awardees to leverage resources impact grantees differently. Awardees with programs in communities that have limited local government leadership support for the MWTP and/or fewer organizations with which to leverage resources, are disproportionately impacted by MWTP budget cuts.

MWTP has seen a moderate shift in the demographics served by the program. African Americans continue to make up the largest group served by the program, but MWTP has seen a recent rise in Hispanic/Latino participation. Other minority groups, including Asian Americans, Pacific Islanders, and Native Americans, continue to make up only very small percentages of those benefiting from the program, however this outreach and training has been instrumental at addressing safety issues for the types of jobs performed in these communities.

RECOMMENDATIONS

WETP/MWTP should continue to provide funding for critical life skills and other job readiness instruction. Life skills and pre-employment training equips trainees with essential personal and interpersonal skills to obtain and retain employment. MWTP should continue to fully support life skills and other job readiness instruction in funded programs.

WETP/MWTP should continue to expand relationships with the judicial and corrections system to attract ex-offenders to the training program. MWTP awardees should continue to work with probation and parole offices on alternatives to incarceration and ex-offender re-entry programs.

MWTP awardees should continue to expand training focus to include additional areas of green industry and consider growing concerns about climate change concerns in working to identify new areas of training to expand into. As concerns about climate change continue to grow, WETP/MWTP should evaluate and consider new areas of training related to disaster response, particularly with regard to coastal climate change concerns, and water systems.

WETP/MWTP and awardees should explore partnership opportunities with cities working to implement Clean Water Act consent decrees. Many disadvantaged communities have serious water contamination issues. Some of these cities are working to develop and/or implement consent decrees to address these conditions. WETP/MWTP should work to identify opportunities to partner with cities on Clean Water Act consent decree activities that address water contamination in disadvantaged communities.

MWTP awardees should do more to work with local government and private contractors to include MWTP graduates as a part of first source hiring agreements and project labor agreements. First-source hiring agreements and project labor agreements are effective tools for securing work for MWTP graduates. MWTP awardees should consider these tools in trying to secure work for graduates.

More effort should be made to recruit greater percentages of women and other minority populations, such as Native Americans, Asian Americans, and Pacific Islanders, into the program. Available data shows that African Americans continue to make up the largest population served by the MWTP. The MWTP has also seen considerable growth in Hispanic/Latino participants. However, other minority groups including Asian Americans, Pacific Islanders, and Native Americans continue to make up only very small percentages of those groups benefiting from the program. WETP/MWTP needs to do more to improve outreach to these other minority groups. In addition, there has been a significant decrease in women's participation in the MWTP since the early years of the program. WETP/MWTP should do more to attract women from disadvantaged communities into training programs, and should explore new training opportunities for women in the growing green economy.

WETP/MWTP should work to identify opportunities to incorporate greater flexibility into awardee reporting requirements to acknowledge hiring periods that do not coordinate with current reporting periods. MWTP awardees have noted that employer hiring periods do not always align with the grant's reporting periods. This can lead to misleading job placement figures in reports.

WETP/MWTP should expand the scope of its performance measures. MWTP should explore ways to capture frequency of graduate certification renewal, and account for graduates that pursue further educational opportunities and/or achieve job promotion in the program's performance measures.

WETP/MWTP should provide training and facilitate opportunities for awardees to conduct outreach to other organizations who might provide additional funding for these programs. MWTP awardees with programs in communities that have limited support for the program and/or have fewer opportunities to leverage resources with other organizations are disproportionately impacted by WETP/MWTP budget cuts and increasing pressure to acquire supplemental funding from other sources. Program awardees have also noted that increased time spent on these activities can hinder their ability to perform important administrative activities. Thus, WETP/MWTP should provide training and facilitate opportunities for awardees to conduct outreach to other organizations who might provide additional funding for these programs.

WETP/MWTP should work with federal agencies to help MWTP awardees gain access to additional funding sources and employment opportunities for program graduates. NIEHS should also work with federal agencies including, the Department of Labor, to help its grantees gain access to Workforce Investment Act funds, and Department of Housing and Urban Development to facilitate increased access to jobs for MWTP graduates.

WETP/MWTP should disseminate this final guidance to other federal agencies and training providers so other organizations may benefit from this guidance on how to overcome impediments to successful training program implementation.

WETP/MWTP should conduct a follow-up evaluation of the significant contributions to minority worker training and job creation provided by the entire WETP.

APPENDICES

■ APPENDIX A: LIST OF STATES AND COMMUNITIES WHERE MWTP TRAINING HAS BEEN PROVIDED

- | | | |
|--|--|---|
| 1. CA: East Palo Alto,* Oakland, San Francisco, Los Angeles* | 8. MD: Baltimore | 15. NY: New York City* (Manhattan, Bronx) |
| 2. CO: Denver | 9. MI: Detroit* | 16. PA: Exton, Philadelphia |
| 3. CT: New Haven | 10. MN: Minneapolis, St. Paul* | 17. OH: Cleveland |
| 4. GA: Atlanta,* Savannah* | 11. MO: East St. Louis,* Eastern Jackson | 18. TN: Memphis |
| 5. IL: Chicago* | 12. MS: Biloxi, Gulfport, Jackson | 19. TX: Dallas,* Houston* |
| 6. KS: Wyandotte County* | 13. NJ: Newark* | 20. WA: Seattle* |
| 7. LA: New Orleans,* Baton Rouge | 14. NV: Las Vegas | 21. Washington, DC |

(*) Current communities where MWTP trainings are provided

■ APPENDIX B: HISTORICAL SUMMARY OF MWTP TRAINING

NIEHS Minority Worker Training Program Update Historical Summary of Training			
Year	Students Trained	Placed in Jobs	Percentage of Students Placed in Jobs
1996-2007	3,884	2,587	67%
1998-2008*	3,365	2,306	69%
2008	317	222	70%
2009	379	285	75%
2010	531	372	70%
2011	396	291	73%
2012	366	274	75%
2013**	367	279	76%
Total***	9,605	6,616	69%

(*) People trained through the NIEHS/EPA Brownfields Minority Worker Training Program (1998-2008)
 (**) 2013 numbers as of August 31, 2013.
 (***) Total number of students trained includes additional people trained through supplemental training. Total percentage is calculated using actual total number of students trained and total placed in jobs, it is not calculated using rounded calculations from the above percentages.

■ APPENDIX C: PEOPLE INTERVIEWED

Donald Killinger
District Council of Carpenters' Building Works

Samantha Quintero
Western Region University Consortium - Labor Occupational Safety and Health

Ebony Turner
Dillard University, Deep South Center for Environmental Justice

Beverly Wright
Dillard University, Deep South Center for Environmental Justice

Kizetta Vaughn
CPWR – Center for Construction Research and Training

Michael Willis
Western Region University Consortium – University of Washington

Alex Prentzas
OAI, Inc.

Tippi Reed
OAI, Inc.

Gary Gustafson
Laborers' International Union of North America

■ APPENDIX D: LIST OF ACRONYMS

CPWR	Center for Construction Research and Training
EPA	Environmental Protection Agency
LIUNA Training	Laborers International Union of North America
MWTP	Minority Worker Training Program
NIEHS	National Institute of Environmental Health Sciences
NJ/NY Consortium	New Jersey/New York Hazardous Waste Worker Training Center
OAI	Opportunity, Advancement, and Innovation, Inc.
SARA	Superfund Amendments and Reauthorization Act
WETP	Worker Education and Training Program
WHO	World Health Organization



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