



OFFICE OF STRATEGIC WORKFORCE DEVELOPMENT

# Annual Report

February 1, 2024



Empire State  
Development



Office of Strategic  
Workforce Development

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# Letter from the Commissioner



**Empire State  
Development**

Governor Kathy Hochul's 2022 announcement launching the Office of Strategic Workforce Development (OSWD), housed within Empire State Development (ESD), signaled a renewed commitment to coordinated statewide workforce development strategy and investment. Paired with more than \$530 million in funding in the past two years, New York State's workforce strategy supports the talent needs of the state's most essential industries, while addressing persistent disparities surrounding access to good jobs. This work is critical to ESD's broader efforts to grow the state's economy, strengthen New York's economic competitiveness, and expand opportunity and mobility for all New Yorkers.

OSWD has made remarkable progress since its launch in the fall of 2022. In less than 16 months, OSWD has awarded over \$35 million to expand 52 innovative training projects that will prepare New Yorkers for good paying jobs in industries critical to the State's economy, covering every region in the state. OSWD has established itself as a leader in interagency collaboration, guiding strategic workforce investments and establishing best practices such as uniform performance measures. This coordination better aligns workforce strategy across the State, optimizing programs to maximize impact. Equally important, OSWD continues to focus on scaling innovative practices that improve pathways to good jobs for historically marginalized New Yorkers. Past economic investments have not benefited all New Yorkers equally, and OSWD's work is critical to improving racial and gender representation across growing sectors.

New York's economy is strong and growing, as historically dominant industries like manufacturing adapt and emerging industries like cleantech develop new technologies. New York's emergence as a home base for semiconductor manufacturing, led by Micron's historic \$100 billion commitment in Central New York, will fuel job growth statewide for decades. However, 2023 also saw new challenges, including a slowdown in tech industry hiring and labor actions that temporarily stalled the film and television industries. OSWD has been nimble and responsive to these trends, a testament to its industry-driven approach and commitment to improving the livelihoods of New Yorkers.

New York's workforce is one of its greatest strengths, allowing the state to attract new investments that further the growth of the State's economy and provide employment to millions of New Yorkers. Further training and preparing a well-qualified, diverse workforce is crucial to the State's continued success, and OSWD's collaborative work to support industry-driven, innovative programs will shape the State for decades to come.

A handwritten signature in blue ink, appearing to read "Hope Knight".

Hope Knight  
President, CEO and Commissioner  
Empire State Development

# Introduction & Summary

In 2022, Governor Kathy Hochul announced a historic investment of \$350 million for strategic workforce development (since supplemented by \$180 million in additional funds in 2023), and the creation of the Office of Strategic Workforce Development (OSWD) within Empire State Development (ESD). The announcement marked a shift toward a statewide workforce strategy committed to connecting New Yorkers to high-quality, in-demand jobs in priority industries, a commitment that continues today. There was continued economic recovery from the global COVID-19 pandemic in 2023, creating opportunities to increase economic prosperity across the state by training workers for positions in high growth industries.

This report – OSWD’s second progress update and first formal annual report to the State Legislature – summarizes OSWD’s activities from its launch in fall 2022 through 2023, including achievements and lessons learned that can inform a coordinated statewide workforce strategy going forward. It also summarizes the status of all funding programs launched or expanded through New York State’s \$530 million investment across seven agencies, the tracking and reporting of which is a core function of OSWD.

## OSWD’s Strategic Approach & Recent Progress

Since its inception, OSWD has been guided by its mission to align the State’s workforce efforts with the needs and priorities of employers and workers to ensure that New Yorkers have the skills needed to power economic growth and improve their livelihoods. With direct oversight over \$150 million in grant funding, OSWD prioritizes training programs that are developed with employers, lead to good jobs within high-growth target industry sectors, address the needs of historically marginalized New Yorkers, and measure impact in line with other New York State programs. OSWD also serves a broader role in connecting industry-aligned workforce efforts across regions, sectors, and State.



OSWD Director Rangel with REDC leadership on a tour of the Finger Lakes Workforce Development Center on Monroe Community College’s Downtown Campus.

### THE OFFICE’S THREE CORE FUNCTIONS ARE:



Drive innovative, high-impact workforce programming






Establish strategic priorities for workforce investment



Connect the dots across regions, industries, and agencies



Core Functions	Progress to Date	Year Ahead
 <p><b>Drive innovative, high-impact workforce programming</b></p>	<ul style="list-style-type: none"> <li>• Awarded over \$35 million in grants to support 52 innovative workforce training projects, prioritizing applicants committed to scalable models that benefit historically marginalized groups.</li> <li>• Established uniform metrics for all grants and a common database to measure impact across programs.</li> <li>• Developed and shared best practice documents to guide grantees and other workforce training providers, now available on the OSWD website.</li> </ul>	<ul style="list-style-type: none"> <li>• Fund additional workforce training models and capital improvements through grant awards.</li> <li>• Promote best practices with grant applicants and awardees to maximize funding impact and improve outcomes.</li> </ul>
 <p><b>Establish strategic priorities for workforce investment</b></p>	<ul style="list-style-type: none"> <li>• Conducted in-depth analysis of target industries to guide investments.</li> <li>• Supported historic efforts to supercharge New York State’s semiconductor industry through the Governor’s Office of Semiconductor, Expansion, Management, and Integration (GO-SEMI).</li> </ul>	<ul style="list-style-type: none"> <li>• Share insights on statewide target industries and focus populations to guide high-impact workforce program design.</li> <li>• Engage industry on talent needs and training programs.</li> </ul>
 <p><b>Connect the dots across regions, industries, and agencies</b></p>	<ul style="list-style-type: none"> <li>• Conducted the first in-person regional convening on Long Island to promote grant programs and understand regional needs, leading to an uptick in awards in 2023.</li> <li>• Coordinated investment of more than \$530 million across seven state agencies with data reporting requirements to ensure that investments are measured and scaled.</li> <li>• Advised additional agency efforts to advance high-impact workforce programming, including around broadband and digital equity and other major infrastructure investments.</li> </ul>	<ul style="list-style-type: none"> <li>• Host additional regional convenings across the state to ensure priority alignment and discuss talent gaps, successful programs, and recommendations for statewide action.</li> </ul>

# Notable Trends in Statewide Target Industries

In 2022, OSWD identified seven industry sectors to prioritize for statewide workforce development investment based on their size and projected growth, the quality and accessibility of jobs, and the hiring needs of employers across the state. These “statewide target industries” are critical to the overall economy, employing 1 in every 8 workers in New York and adding 51,000 new jobs to the economy in 2022.

They also make up nearly 1 in 10 accessible jobs in the state (jobs that pay above a living wage and do not typically require a four-year degree), indicating their importance in providing economic mobility to all New Yorkers. All target industries experienced job growth from 2021 to 2022, with most industries outpacing statewide employment growth.

STATEWIDE TARGET INDUSTRIES ARE CRITICAL TO THE OVERALL ECONOMY

employing  
**1 in every 8**  
workers in New York

## STATEWIDE TARGET INDUSTRIES

	2022 Jobs	Job Growth Since 2021
<b>Advanced Manufacturing &amp; Materials</b>	238,034	3.0%
<b>Biotech</b>	117,534	5.2%
<b>Cleantech</b>	119,295	1.3%
<b>Construction</b>	466,627	2.3%
<b>Electronics &amp; OPI</b>	74,016	2.8%
<b>Film &amp; TV</b>	143,937	3.1%
<b>Software &amp; Digital Media</b>	308,462	8.8%
<b>All Target Industries<sup>1</sup></b>	<b>1,063,356</b>	<b>4.3%</b>

**Core to OSWD’s mission and strategy is a recognition that past investment in our economy has not benefited all New Yorkers equitably.** While target industries were chosen based on their potential to provide high-wage jobs to all New Yorkers, some industries have historically been male-dominated and there is work to do to increase racial diversity. Progress has been made from 2021 to 2022, as female representation did grow marginally across all target industries. However, average female representation across the target industries is still only 29%, lagging the average of 51% for all industries in the state. Representation of non-white workers also grew but continues to lag behind the statewide average, especially among Black workers. **OSWD is investing in innovative programs working to diversify representation in these high-opportunity industries, and grantees from the first four rounds are making meaningful progress – work that will continue with future grantmaking.**

ANNUAL WAGES, ALL JOBS:

**\$79,000**

in target industries  
(vs. \$67,000 statewide)

ANNUAL WAGES, ACCESSIBLE JOBS:

**\$58,000**

in target industries  
(vs. \$47,000 statewide)

<sup>1</sup> The figure for 2022 Jobs for All Target Industries accounts for overlap in jobs between different target industries, hence the discrepancy between this figure and a sum of 2022 jobs for each target industry.

# Update on Statewide Workforce Development Investments

Governor Hochul and the New York State Legislature have made an unprecedented investment in workforce development across the state investing a total of \$530 million - including \$350 million in the Fiscal Year 2023 budget and an additional \$180 million allocated in the Fiscal Year 2024 budget - toward new and expanded programs that directly address critical workforce needs.

**New York's investments are made across five initiatives that involve seven state agencies:**

- Investing in Statewide Target Industries (ESD, OSWD)
- Health Care Workforce Investment (DOH, SUNY)
- Education Workforce Investment (DOL, SUNY)
- Expanding Opportunities for SUNY and CUNY Students (SUNY, CUNY)
- Advancing Workforce Skills for All Abilities (OPWDD, OMH)

Together, these investments support a wide range of workforce development needs throughout the state. They ensure a wholistic approach to support all New Yorkers in securing access to good jobs.

- **12 programs launched or expanded** supporting more than 15,000 participants (of those grants awarded to date).
- **These programs include over 750 apprenticeships and internships** for college-level students and 566 New York graduate level teachers to recruit the next generation of teachers.
- The remaining six programs made progress toward launch, with an additional three programs slated to kick off in 2024 – including Caregiver Flexibility for Direct Workers, Financial Burden for Healthcare Workers, and SUNY Mental Health Training.

## Looking Ahead

While many of the programs referenced in this report are still at the early stages of deployment, OSWD has begun to gather initial insights from program design and early metrics to guide its future work. Three main themes have emerged, which are discussed further later in this report:

- *Grant flexibility allows awardees to design and implement more successful programs.*
- *State support can bolster and scale local efforts around industry-aligned workforce training.*
- *Wraparound services are essential to increasing trainee participation and retention, and partnerships can support this effort.*

OSWD is excited for the year to come, with successful workforce programs continuing and new programs launching across the state. Grant programs in other agencies will continue to launch, and OSWD will work with agencies to collect and analyze data to inform future policies and programs.

# OSWD Strategic Approach & Progress to Date

The creation of OSWD, housed in ESD, signaled a reimagining in how New York State approaches its workforce development strategy – one that is laser-focused on the talent needs of businesses while creating new opportunities for historically marginalized New Yorkers. Announced in April 2022 and launched that fall, OSWD hit the ground running to shape a new strategic approach to workforce development, focusing on 1) partnerships with employers, 2) good jobs within high-growth industry sectors, 3) the needs of historically marginalized New Yorkers, and 4) improved coordination and data tracking across New York State programs.

**OSWD's work elevates workforce development as a critical component to economic development, necessary to strengthen New York's economic competitiveness, support pandemic recovery, and advance racial and economic equity.**

Over the last year, OSWD has made significant strides to advance its mission. The OSWD team is now eight members strong, with four additional positions to be filled in the coming year. In addition to the Director, the team includes a Deputy Director who supports the office in all aspects, leading the agency's strategy and coordinating with State agencies and the 10 Regional Economic Development Councils. OSWD's Data and Metrics Manager is busy establishing a new database and performance metrics to track the progress and impact of State-funded workforce programs, as well as industry and labor force trends. The Outreach and Coordination Manager supports inter-agency workforce development and fosters collaboration across state government, managing internal and external stakeholder engagement to support OSWD's programs. Finally, the team of Program Managers work with grantees as they pilot new approaches to high-impact workforce development. An internal strategic plan developed last year guides the team's work today and sets out a path for impact in the years ahead. The following summarizes OSWD's chief activities and accomplishments in 2023.



OSWD Director Amber Rangel with ESD North Country Regional Director Stephen Hunt and North Country REDC and partners at Fort Drum.



## MISSION STATEMENT

Align New York State’s workforce development efforts with the needs and priorities of current and future employers and workers.

## KEY PRIORITIES

To advance this mission, OSWD is focused on these priorities to support a growing economy that is accessible to all:

- **Industry-driven workforce development:** Ensuring that all workforce investments meet real market needs and that training programs focus on in-demand skills and competencies that position New Yorkers for direct job placement and retention.
- **Focus on good jobs in the state’s high-growth sectors:** Ensuring that investments lead to direct placement in good jobs with good pay, benefits, and career growth opportunities.
- **Expanded opportunity for historically marginalized communities:** Ensuring that workforce opportunities are accessible to New Yorkers who have not benefited equitably from growth, with a focus on improved outreach, wraparound supports, and employer engagement.
- **Improved data collection and tracking:** Ensuring that workforce spending is tied to industry and labor market data and that program outcomes are clearly tracked and inform future investment.

## CORE FUNCTIONS

OSWD’s work is organized around three core functions, which together help create a more effective and equitable workforce system:



### **Drive innovative, high-impact workforce programming:**

- Partner with industries, training providers, and community-based organizations to launch, scale, and evaluate programs through the \$150 million Pay-for-Performance and Workforce Capital Grant programs.
- Track metrics and outcomes for the Governor’s \$530 million workforce development investment.
- Share best practices to inform future programs and partnerships.



### **Establish strategic priorities for workforce investment:**

- Leverage data and industry insights to inform and prioritize workforce investments.
- Work to ensure that New Yorkers seeking training are well-positioned for in-demand jobs, employers’ most pressing needs are met, and programs are designed intentionally to serve New Yorkers most in need of support.



### **Connect the dots across regions, industries, and agencies:**

- Serve as a connector across the State’s complex and regionally diverse workforce ecosystem.
- Surface insights about workforce needs and ensure that innovative, successful approaches inform investment across the state.

# Achievements and Leadership

OSWD has made major progress in its first 18 months, including awarding four rounds of grants to innovative workforce training programs across the state, coordinating statewide workforce efforts to support the growth of New York's semiconductor industry, and hiring a team of full-time staff to develop the foundational programmatic infrastructure to further implement the office's vision. In addition to its own grantmaking, OSWD's leadership has supported collaboration and coordination across the workforce development ecosystem of New York State.

## DRIVE INNOVATIVE, HIGH-IMPACT WORKFORCE PROGRAMMING

**Awarded over \$35 million in grants to support 52 innovative workforce training projects:** In its first 18 months, OSWD has awarded more than \$35 million and leveraged an additional \$38 million in public and private funding, for a total investment of over \$73 million in innovative workforce programs. This funding has supported 52 projects that aim to reach more than 12,000 trainees and partner with more than 400 employers across all 10 regions of the state. OSWD's rapid disbursement of funds began less than four months after the office launched. Additional information on OSWD's grantmaking, including data on focus areas to date and the impacts of specific programs, can be found in the subsequent chapter, *Update on Statewide Workforce Development Investments*.

**Prioritized applicants committed to scalable models that benefit historically marginalized groups:** Providing wraparound and supportive services to trainees is critical to ensuring more equitable access to both training and quality jobs. OSWD grants are unique in that they allow training providers to directly fund these services, which organizations often struggle to find sustainable funding streams for, enabling programs to reach wider and more diverse populations. Furthermore, the funding allows for flexibility, with many providers blending multiple funding streams. Direct employer engagement is also critical to ensuring trainees have clear paths to employment after their program and to pilot funding models that may sustain programs long term. All OSWD grants included wraparound services, with common services including childcare support, transportation vouchers, and translation services, and all grants included support from employers, including interview days, facility tours, and mentoring support. Almost

40% of program participants identified as female and almost 50% identified as Black or African American (both significant increases over existing gender and racial diversity ratios in most target industries).

**Established uniform metrics for all grants and a common database to measure impact across programs:** OSWD developed a robust set of metrics to evaluate the impact of its grantmaking, including job placement, wages before and after program participation, hiring barriers faced, and support services utilized. Grantees are required to collect and report data at regular intervals throughout the grant period, and all data is stored and tracked through a new dashboard within the One-Stop Operating System (OSOS), the same platform used by the NYS Department of Labor and other state agencies. Using this existing tool helps to standardize statewide tracking and makes it easier to evaluate outcomes across statewide programs. OSWD continues to work closely with sister agencies to align metrics and grant reporting across programs through OSOS.

**Developed best practice documents to guide grantees and other workforce training providers:** OSWD partnered with the national nonprofit Jobs for the Future to source and summarize best practices in topics relevant to a broad array of workforce partners in New York State. These include best practices in sector-based partnerships and employer intermediaries; direct partnerships between employers and training providers; inclusive training and recruitment strategies (including wraparound services); and post-graduation support upskilling initiatives. These summary documents, which draw on national expertise and successful models, are now available on OSWD's website.<sup>2</sup>

IN ITS FIRST 18 MONTHS,

total investment in  
OSWD programs was  
over \$73 million

2 OSWD homepage: <https://esd.ny.gov/workforce>;  
Best practices: <https://esd.ny.gov/workforce-development-best-practices>



## ESTABLISH STRATEGIC PRIORITIES FOR WORKFORCE INVESTMENT

**Conducted in-depth analysis of target industries to guide investments:** In its first year, OSDW established seven statewide target industries that are projected to drive the growth of New York State’s economy and provide well-paying and accessible jobs to New Yorkers. To guide investment in these industries, OSDW conducted a robust analysis of current and future workforce needs within each industry, both across the State and by region. The analysis revealed talent and skills gaps that are critical to develop a well-trained workforce and shone a light on opportunities for workers to enter well-paying jobs that do not require bachelor’s degrees. This analysis has informed grantmaking throughout 2023 and will continue to guide priorities in years to come. The analysis will also be continually updated to reflect progress and new opportunities throughout the State, with planned periodic releases of industry profiles to support regional efforts.

**Supported historic efforts to supercharge New York State’s semiconductor industry:** Since last year’s launch of the Governor’s Office of Semiconductor Expansion, Management, and Integration (GO-SEMI), OSDW has been a core partner in efforts to develop New York’s semiconductor industry – and in particular to prepare New Yorkers for the thousands of quality jobs that will be generated by the industry’s growth, including Micron’s historic commitment to build a \$100 billion semiconductor fabrication facility (fab) in Central New York – making it the largest in the nation. Investments by Micron and other industry employers are expected to create more than 50,000 jobs over the next two decades. OSDW has worked closely with GO-SEMI, Micron, sister agencies, and regional partners to fund near-term training programs that directly address imminent hiring needs in construction, software, and advanced manufacturing to train the large and diverse talent pool that will be required over time to fully realize this major opportunity.

\$530 million

INVESTED ACROSS SEVEN STATE AGENCIES

Through Micron’s Future-Ready Workforce Innovation Consortium, OSDW has collaborated with a broad constellation of colleges, p-12 schools, training providers, and community-based organizations to establish a roadmap for the next one to two years to specifically meet Micron’s construction and technician workforce needs by upskilling the local workforce.



## CONNECT THE DOTS ACROSS REGIONS, INDUSTRIES, AND AGENCIES

**Conducted first in-person regional convening to promote program and understand regional needs:** Core to OSDW’s mission is a continuous feedback loop with regional economic development leaders, who have on-the-ground insights and unique employer and community relationships that are integral to effective workforce programming. Regional outreach is also critical to spreading awareness of available funding programs. In July 2023, OSDW conducted its first in-person regional convening of workforce leaders, hosted on Long Island. The event brought together stakeholders from workforce development organizations, unions, and private industries for a facilitated conversation about improving local and regional coordination. Since the convening, OSDW has funded four projects in the region, building on needs identified during the discussion. Separately, OSDW has presented in-person or virtually at 11 Regional Economic Development Council meetings, sharing information about the office’s goals and promoting upcoming grant cycles. In the coming year, OSDW will continue to host convenings with regional partners and foster collaboration.

**Coordinated investment of \$530 million across seven State agencies:** Governor Hochul’s allocation of \$530 million, including \$360 million awarded to agencies other than ESD, allows the State to not just accelerate but coordinate investment in successful workforce strategies that train New Yorkers for additional high-demand industries, including health care and education, and cater to specific populations, including New Yorkers with disabilities. Since its inception, OSDW has worked with sister agencies to launch and sustain 12 programs, with multiple programs set to launch in 2024. See the subsequent chapter, *Update on Statewide Workforce Development Investments*, for a more detailed update.

**Coordinated GO-SEMI Interagency Workforce Meetings:** Since the launch of GO-SEMI in the beginning of 2023, OSDW has been coordinating regular meetings across State agencies regarding workforce development efforts in the semiconductor



industry. OSWD has engaged Department of Labor (DOL), New York State Energy Research and Development (NYSERDA), State University of New York (SUNY), City University of New York (CUNY), New York State Education Department (NYSED), the Governor's Office, and the Central New York Community Engagement Committee (CEC) leadership in meaningful discussions on the progress of various workforce initiatives and plans to strengthen the semiconductor talent pipeline in New York State.

**Advised additional agency efforts to advance high-impact workforce development:** As a center of workforce development expertise and strategy within State government, OSWD has become a go-to resource for other ESD offices and multiple State agencies seeking to plan and design workforce programming in line with the State's broader economic development goals. For example, the NYS ConnectALL Office, which is responsible for achieving the ambitious goal of delivering universal broadband across New York State, is collaborating with OSWD to ensure that the thousands of jobs created in the buildout and ongoing operation of broadband networks are accessible to all New Yorkers and that sufficient workforce training programs are in place to meet the significant labor needs created by broadband investment. Similarly, OSWD has had discussions with federal and State agencies involved in other major infrastructure investments, including in transportation and energy, to strategize on high-impact workforce programming and partnerships alongside historic investment.



OSWD with MACNY's Real-Life Rosie's participants, teachers, and program staff.



Participants of Centerstate Programs tour Lockheed Martin Facility.  
Credit: Lockheed Martin



OSWD on a tour of Monroe Community College's Optical Systems program on their Brighton Campus.



## CASE STUDY

# Ensuring Strong Retention by Providing Services Essential for Success



**Project:** North Country Chamber of Commerce Institute for Advanced Manufacturing Welding Training Program

**Region:** North Country

**Target Industry:** Advanced Manufacturing

*“These support services are why we haven’t lost a single student in these programs. The students feel completely supported. Absent this funding, we would not be supporting the un- and underemployed population we serve.”*

*– Joel Wood, Vice President of Strategic Initiatives, North Country Chamber of Commerce*

Last year, the North Country Chamber of Commerce was approached by local employers including Alstom who shared that they had a growing demand for skilled welders but were struggling to recruit them. This is a major impediment to regional economic growth considering 30% of all new jobs created in the region over the last year were in advanced manufacturing roles, one of the highest industry growth rates in the State.

Drawing on its experience designing skills training programs in concert with industry, the North Country Chamber partnered with Clinton Community College’s Institute for Advanced Manufacturing to develop a welding training program that would be available at no cost to participants. However, the rural nature of the region meant that to attract people to participate in the program and complete training, other supports would be needed for trainees to join a full-time program, namely support with transportation and childcare.

OSWD’s investment allowed the North Country Chamber to provide these necessary and not easily accessible services, including reimbursing for taxi rides to ensure that trainees without a personal vehicle could attend training. The flexibility of OSWD’s grant allowed for blended funding with other sources, with the ability to spend on non-traditional wraparound services for trainees prohibited by other funding sources.

Since launching in 2023, the welding program has graduated two cohorts totaling 24 students, with two more cohorts set to begin in 2024. The program provides necessary industry-recognized credentials and to date has had a 100% retention rate, with multiple assembly line workers already moving up the career ladder and earning promotion to welders in their companies. Such programs will be essential as the North Country works to prepare un- and underemployed workers in the region for the next emerging wave of quality jobs.

### Key Metrics:

- 24 new welders certified
- 100% retention rate



Institute for Advanced Manufacturing Welding Training Program participant in class.

# Notable Trends in Statewide Industries

To guide the State's strategic workforce approach, OSWD established seven statewide target industries that are critical to New York State's economy and provide well-paying and accessible jobs to New Yorkers. **These seven industries employ 1.2 million New Yorkers – 1 in every 8 workers in the State – and represent nearly 1 in 3 new jobs created across the State over the last decade.**

They also make up a significant share of quality, accessible jobs (jobs that pay above a living wage and do not typically require a four-year degree) – comprising nearly 1 in 10 jobs in the category.<sup>3</sup>

New York State has 19.7 million residents and a total civilian workforce of nearly 10 million. While the size of the State's labor force has grown over the last two decades, the labor force participation rate declined from 63% in 2003 to 60% in 2022 as the State's population aged. Despite growing participation among prime working-age adults and low unemployment (aside from the pandemic), this has led to a general labor shortage. Some demographic groups are disconnected from the labor force and quality jobs, with women, people with disabilities, and those without a four-year degree having lower labor participation overall. People of color are more likely to be unemployed, and many workers in the State are either in positions with median wages below the living wage for the region or vulnerable to job loss. These remain important long-term indicators, and OSWD continues to make investments that support increased labor force participation among underrepresented groups and more diverse talent pipelines into good jobs for New Yorkers.

## Statewide Target Industries:



**Advanced Manufacturing and Materials:** R&D-driven manufacturing such as the production of electronics and machinery, as well as processing of glass, metals, chemicals, and minerals.



**Biotech and Life Sciences:** Industries that research, develop, and manufacture health care products, equipment, and pharmaceuticals.



**Cleantech and Renewable Energy:** Industries that generate, transmit, and store clean energy; manufacture components for clean energy generation; and retrofit buildings and infrastructure to incorporate modern technology.



**Construction:** Industries related to the construction of buildings and infrastructure, including specialty trades.



**Electronics and Optics, Photonics, and Imaging (OPI):** Computer, electronics, and chemical manufacturing industries (including semiconductor manufacturing), and related professional services.



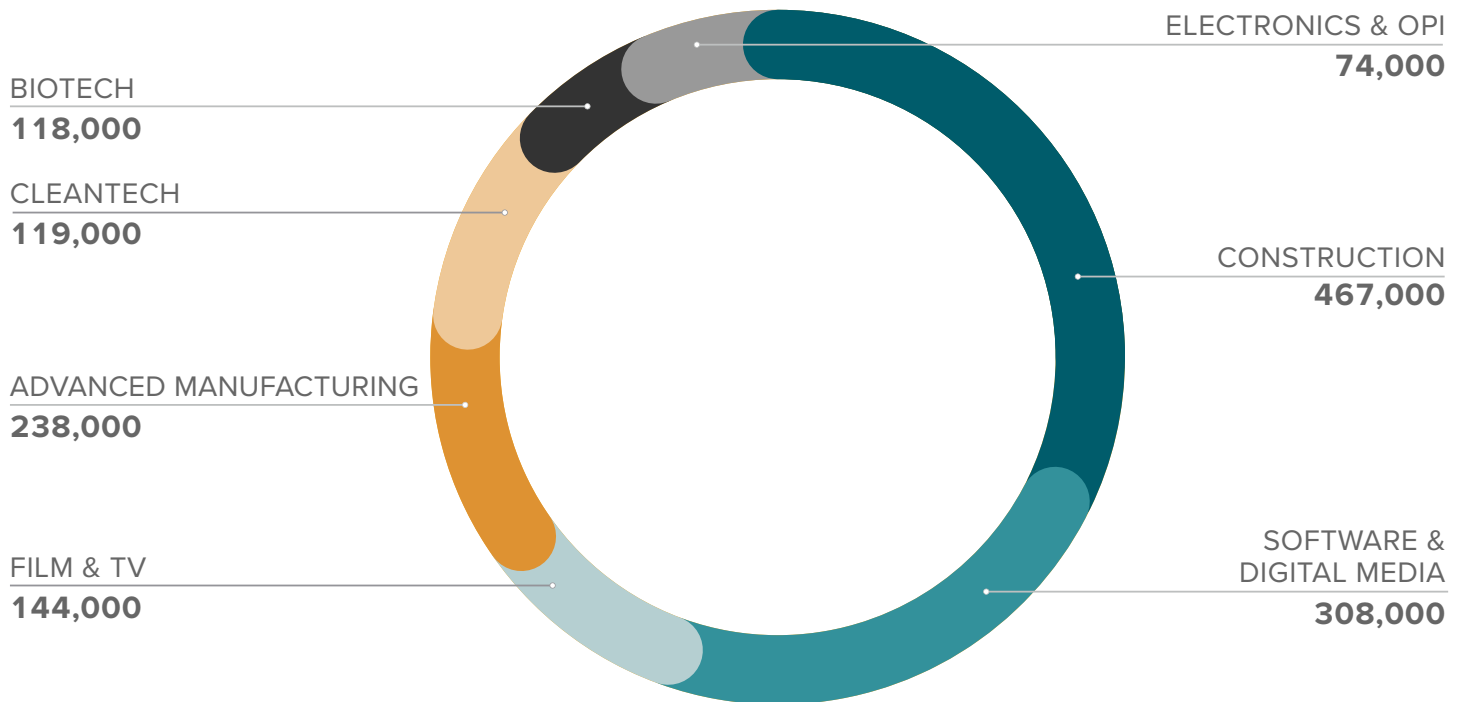
**Film and TV Production and Post-Production:** Motion picture, television, sound recording, and other industries involved in video and audio production and post-production.



**Software and Digital Media:** Software development, data processing, information services, and telecommunication (including broadband).

<sup>3</sup> The North American Industry Classification System (NAICS) is a common industry classification system used by the US and are the basis for this analysis. The NAICS codes are reviewed and revised every five years to keep them current with changing economic activities. These codes were changed in late 2022, including changes to the industries that are reviewed here in this report. This led to changes in both baseline data and future projections. This is mostly seen in the Software & Digital Media Industry analysis, which saw the most change to codes.

## TOTAL JOBS BY INDUSTRY (2022)<sup>4</sup>



## TARGET INDUSTRIES: 2021 - 2022

	2022 Jobs	2021-2022 Job Growth (#)	2021-2022 Job Growth (%)	Average Annual Job Growth Rate (2011-2022) (%)
<b>Advanced Manufacturing</b>	238,000	6,900	3.0%	-0.7%
<b>Biotech</b>	118,000	5,800	5.2%	1.6%
<b>Cleantech</b>	119,000	1,500	1.3%	0.3%
<b>Construction</b>	467,000	10,500	2.3%	1.5%
<b>Electronics &amp; OPI</b>	74,000	2,000	2.8%	-1.5%
<b>Film &amp; TV</b>	144,000	4,000	3.1%	2.0%
<b>Software &amp; Digital Media</b>	308,000	24,900	8.8%	3.9%
<b>All Target Industries</b>	<b>1,230,000</b>	<b>51,100</b>	<b>4.3%</b>	<b>1.4%</b>
<b>All Industries in State</b>	<b>10,247,000</b>	<b>454,000</b>	<b>4.6%</b>	<b>0.7%</b>

<sup>4</sup> Total jobs by industry do not sum to total jobs as some occupations span multiple industries.

# Trends Across Target Industries: 2021 - 2022

**EVERY TARGET SECTOR EXPERIENCED JOB GROWTH** Every target sector grew from 2021 to 2022, and each outpaced average annual growth from the prior decade by a wide margin. Target industries added 51,000 new jobs to the economy in 2022, 1 in every 10 new jobs in the State.

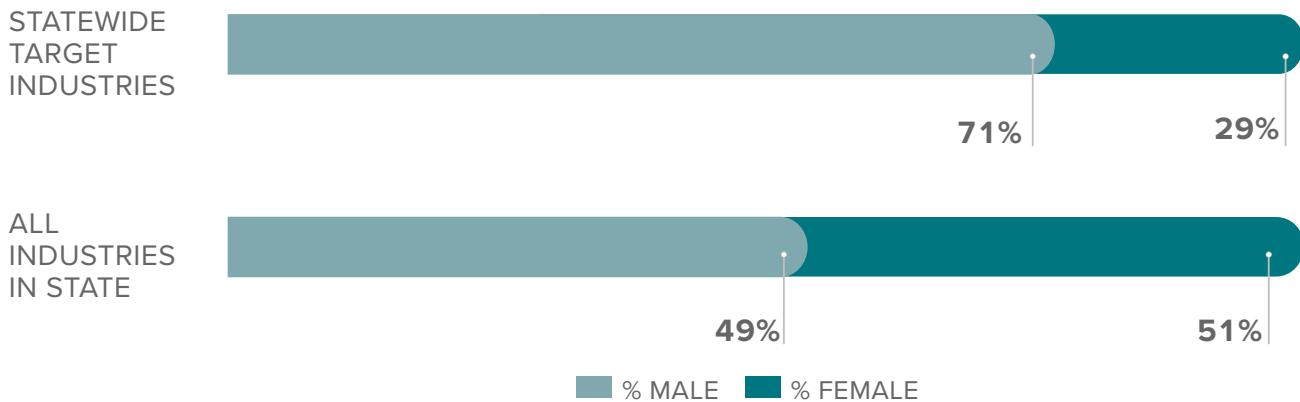
**NEW YORK SAW GROWTH IN NEARLY EVERY REGION** Nearly every region of the State saw growth in jobs for all target sectors combined, with the Mohawk Valley experiencing the highest percent change in target sector jobs at 10%. Regional growth trends are closely aligned with where State and federal investment has been made, including the Capital Region’s cleantech growth (14%) and electronics and OPI in Western New York (16%).

**GROWTH IN KEY SECTORS** Tech and digital media added the most jobs, with biotech, advanced manufacturing, and TV and film industries also showing substantial gains, aligned with recent State investments in each sector.

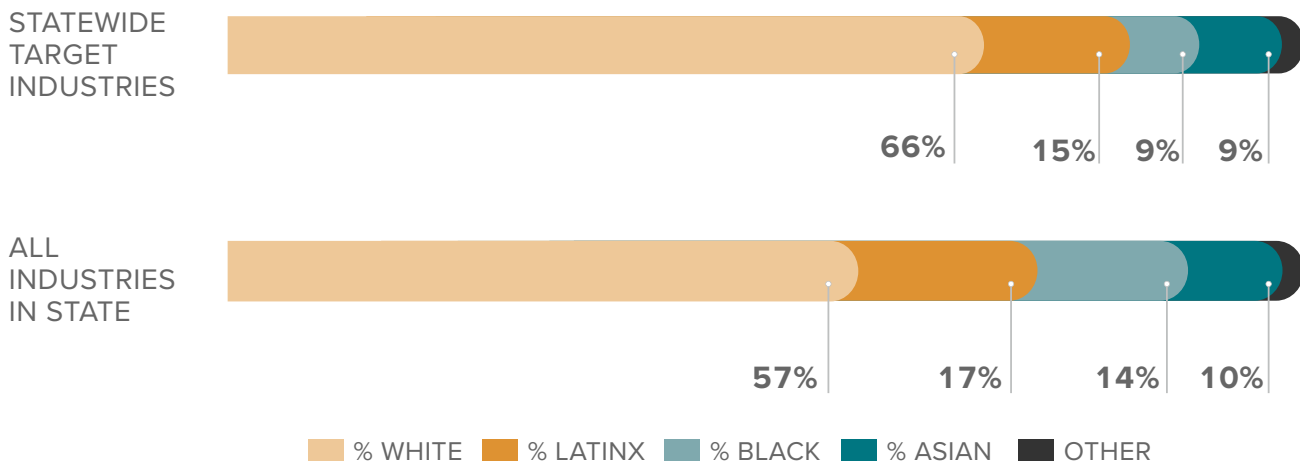
**MEDIAN WAGES GREW IN TARGET INDUSTRIES** Median wages across target industries grew by 5% from 2021, outpacing the 4.7% wage growth for jobs overall in the State. Wage growth was fastest in the tech and digital media, advanced manufacturing, and biotech sectors.

**INVESTMENT STILL NEEDED TO DIVERSIFY TARGET INDUSTRIES** Female representation grew marginally in all the target industries in 2022 – however, average female representation across all target industries is still only 29%, lagging behind the 51% average for all industries in the state. Representation of non-white workers also grew but continues to lag behind the statewide average, especially among Black workers. OSWD has designed its grant programs to begin to shift this balance, and numerous grantees from the first four rounds of OSWD grantmaking are focused on training workers from historically disadvantaged groups or disinvested communities.

## GENDER REPRESENTATION (2022)



## RACIAL REPRESENTATION (2022)





# Updates by Target Industry



## Advanced Manufacturing and Materials

Like many states and regions across the country, New York experienced a steep decline in manufacturing starting in the middle of the last century that cost tens of thousands of jobs, impacting families across the State. Today, advanced manufacturing in New York is on the rebound, with growth in the production of computer chips, batteries, optics equipment, advanced materials, and more. The advanced manufacturing and materials industry grew by more than 5% from 2021 to 2022, adding more than 6,800 jobs, and growth over the next decade is projected to more than recover losses from the mid-20th and early 21st centuries. This industry is critical to providing accessible, well-paying jobs throughout the State, as 71% of these jobs typically do not require a four-year degree.

In December 2023, Governor Hochul announced \$10 billion in new partnerships with semiconductor industry leaders including IBM, Micron, Applied Materials, Tokyo Electron and others to establish the next-generation semiconductor research and development center at NYCREATES' Albany Nanotech Complex. This will fund construction of a cutting-edge center, making New York State home to the most advanced, publicly owned semiconductor R&D infrastructure, and creating and retaining thousands of direct, indirect, and union construction jobs.

Adding to the State's momentum, the U.S. Department of Commerce awarded one of only 31 Tech Hub designations to the NY SMART I-Corridor Tech Hub, a partnership among semiconductor-focused partners in Buffalo, Rochester, and Syracuse. The region is now eligible to compete for up to \$75 million in implementation grants to further transform the region's industry. Semiconductor investments, such as those listed above and the Micron investment, support a wide range of industries including electronics and OPI and advanced manufacturing.

*"Indium Corporation supports the incredible work that the Real-Life Rosies™ program does to inspire and empower women in manufacturing. We are committed to continuing our support by meeting with apprentices, providing tours to each cohort, and discussing career options with program graduates."*

*– Nate Discavage, Talent Acquisition Supervisor, Indium Corporation*



Participants of MACNY's Real-Life Rosies™ Program

## CASE STUDY

# Expanding Opportunity for Historically Marginalized Communities



**Projects:** Syracuse Build, Syracuse Surge, High Tech Careers Bridge Program - CenterState CEO, CNY Works



**Region:** Central New York

**Target Industry:** Construction and Advanced Manufacturing

*“The support of OSWD has enabled a pretty magical transformation.”*

*– Dominic Robinson, Senior Vice President of Inclusive Growth, CenterState CEO*

Micron’s historic investment in Central New York will create nearly 50,000 jobs across manufacturing, construction, and various supply chain-related roles. Workforce training efforts are underway to meet these needs, and OSWD investments are supporting a range of partners to expand training for careers across the semiconductor and construction industries. Two recently expanded programs exemplify this collaboration.

Syracuse Build and the associated Pathways to Apprenticeship Program prepare local talent, specifically un- and underemployed people including women, veterans and people of color, for careers in the building trades, diversifying access to an industry that provides family-sustaining wages and strong benefits. Pathways to Apprenticeship introduces diverse talent to careers in the trades and prepares them for union apprenticeship programs that lead to in-demand local careers. Pathways to Apprenticeship works to build a more inclusive workforce in the building trades, with the current class of trainees over 90% people of color and 20% women, both higher than the existing construction workforce. These programs have also helped build relationships between 11 trade union locals and community organizations, supporting future efforts to recruit historically underrepresented residents for good jobs.

Syracuse Surge workforce strategies (a partnership among the City of Syracuse, CenterState CEO, SUNY Syracuse EOC, Onondaga-Cortland-Madison (OCM) BOCES, Le Moyne College/ERIE 21, Onondaga Community College, and others) provide training for entry-level positions in high-tech manufacturing, computer programming and cybersecurity. OSWD is supporting these programs, which expand access to high-tech careers. While many jobs in these industries have historically required a two-year

degree, CenterState CEO and partners have condensed training programs into credentials at a range of skill levels. The program is also paid, a key component of increasing access as most participants must take time away from employment to attend trainings.

OSWD is also supporting the creation of a bridge strategy which will prepare underrepresented individuals to enter training programs in high-tech industries. The goal is to create a replicable model of an “experience” for working adults that enables them to understand career opportunities and connect with their own aptitudes and experience that would enable them to succeed in these careers; address challenges to employment in their own lives (childcare, transportation, housing); and identify and address areas of skill or educational gaps.

These programs are integral to meeting the expanding opportunities available due to the Micron investment, creating a pathway for diverse local talent to develop in-demand skills. And graduates do not need to wait until Micron’s first facility opens to gain work – in 2022 alone, Central New York added nearly 900 new jobs in the advanced manufacturing industry and over 300 in the construction industry.

### Key Metrics:

- 71 participants in Syracuse Build and Syracuse Surge programs, including 29 graduates and 42 current students (additional cohorts forthcoming)
- 67% of participants in the Syracuse Surge programs identify as female
- 81% of participants in Syracuse Build, and 78% in Syracuse Surge programs, identify as Black or African American





## Biotech and Life Sciences

New York is a national leader in biotech and life sciences thanks to its investments to attract, grow, and retain companies that advance health care solutions. Building on a strong R&D base, New York is growing its life science industry through a broad range of economic development programs and public-private partnerships – including through the State’s \$620 million Life Science Initiative. New York State’s world-class research institutions on Long Island, including the Brookhaven National Laboratory’s Discovery Park Village, the Center for Bioelectric Medicine at the Feinstein Institute for Medical Research, and the new Hofstra University Science and Innovation Center, all continue to support the growth of jobs in this industry, and all received support from State investment. The private sector is also expanding their investment, as New York’s largest biotech company Regeneron expands in the Mid-Hudson and Capital regions with the \$1.8 billion research and preclinical manufacturing and support facilities in Tarrytown bringing an estimated 1,000 new full-time, high-skilled jobs over the next five years.

Biotech is the most diverse of the target industries and representation continues to improve. As of 2022, its workforce is 47% female and 38% people of color. The industry also saw significant job growth in 2022, with 5% annual growth equal to nearly 6,000 new jobs. One area of continued focus for OSWD is to strengthen training for, and broaden awareness of, accessible job opportunities within the biotech industry. While many life sciences jobs require four-year degrees or above, 46% are typically accessible to jobseekers without a four-year degree.



ESD CEO Hope Knight, Hofstra University’s President Susan Poser, and community leaders celebrate the completion of Hofstra University’s Science & Innovation Center on Hofstra’s South Campus.



## Cleantech and Renewable Energy

New York’s strength in technology, advanced manufacturing, and construction-related industries, coupled with its natural resources, has positioned the State as a center of cleantech innovation. Cleantech encompasses a wide range of emerging industries and is supported by a growing network of research at universities, established firms, new startups, and recent State investments in this innovative industry. New York’s unprecedented clean energy investments, through the work of NYSERDA, include more than \$55 billion in 145 large-scale renewable and transmission projects across the State.



Trainees of United Way of Long Island’s Power Up! Wind, Solar and Renewables lift and install solar panel.

New Energy New York (NENY), a multisector partnership catalyzed by a \$63 million Build Back Better Regional Challenge award and \$50 million in matching New York State investment, further powers innovation in battery technology at Binghamton University and across the Southern Tier. The impact of this funding is already evident in the 30% growth in total jobs in the cleantech and renewable energy industries in the region, in 2022. Furthering this momentum, NENY also received a Tech Hub designation, one of two in the State, which unlocks the potential for future federal investment to position the Southern Tier as a clean energy capital and create an estimated 10,000 jobs over the next decade.

Cleantech is one of the most accessible industries for workers without a four-year degree, thanks to its high share of manufacturing jobs. More than 80% of jobs in the industry do not typically require a degree, and those jobs have a median annual wage of \$65,000, above the statewide median. However, this industry continues to see challenges regarding equitable racial and gender diversity – only 10% of the industry identifying as Black, and 21% as female – which will remain a core focus of OSWD efforts.

## CASE STUDY

# Focus On Good Jobs in the State's High-Growth Sectors



**Project:** United Way of Long Island's Power Up! Wind, Solar and Renewables

**Region:** Long Island

**Target Industry:** Cleantech and Renewable Energy

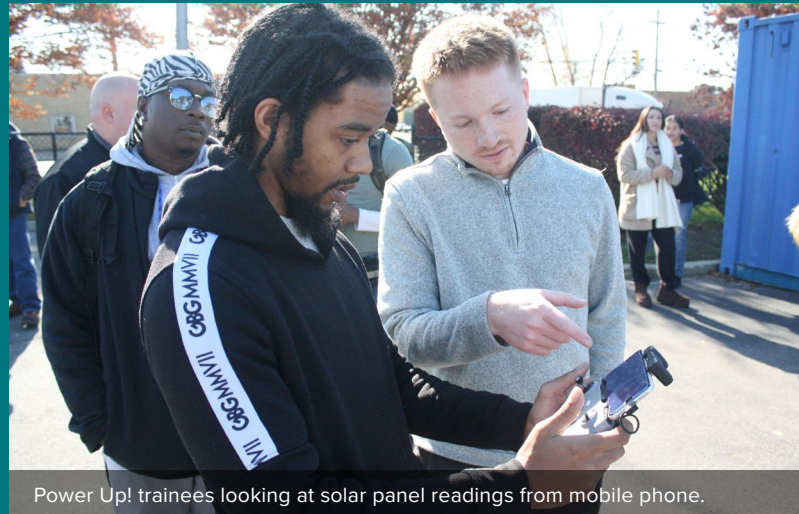
As New York State becomes a leader for the nation in cleantech, additional investments in talent are necessary. Green collar jobs – those careers that increase sustainability and decrease waste, energy, and pollution – are growing, and additional standards, skills, and certifications must be established.

Amid record investment in offshore wind and solar development on Long Island, United Way of Long Island developed a free program providing basic training in wind, solar, and drone operation and an industry-recognized national building science credential. These credentials provide a wide range of potential job opportunities following completion, from clean heating and cooling technologies, high-efficiency HVAC, heat pumps, solar panels, EV charging, and maintenance and weatherization to technical jobs providing assessments for real estate owners – allowing trainees options in their career path.

As buildings remain one of the biggest emitters of greenhouse gas, the program also teaches families how to green their own homes, helping to reduce energy costs. Launched in 2023, graduates from the program are beginning to find placements at a range of jobs in the region, including TRC, a leading engineering and construction management firm, and Building Performance Institute (BPI), a certification and standard-setting organization for home professionals.

### Key Metrics:

- 60 certified trainees in nationally recognized credentials
- 90% of participants identify as people of color (in an industry where only 10% identify as Black)



Power Up! trainees looking at solar panel readings from mobile phone.



Power Up! graduates





## Construction

New York State is poised to invest billions of dollars in infrastructure funding stemming from federal and statewide stimulus programs and has embarked on the most ambitious effort in recent history to create housing to address meaningful shortages. This includes a wide range of projects funded with State and federal dollars – such as nearly \$6.76 billion for New York’s ambitious transportation agenda, more than \$1 billion in public and private investment to support broadband infrastructure expansion, and \$63.7 million New Energy New York investment for the Southern Tier’s global energy storage manufacturing. The investments will require a significant expansion of the construction workforce, which has a long history of providing well-paying, accessible (often union) jobs to workers without advanced degrees.

The industry provided a total of 467,000 jobs (the largest number among the target industries), continuing to bounce back from the decline in construction jobs during the pandemic and associated economic downturn. While the industry has grown more racially diverse in recent years, women still make up only 15% of the industry, a continued area of focus for OSWD.



Photo Credit: United Way of Long Island



## Electronics and Optics, Photonics, and Imaging (OPI)

The State is making large investments to support this industry's growth, including through OSWD's investments to train workers for advanced manufacturing and related jobs, the launch of GO-SEMI, and New York's Green CHIPS (Creating Helpful Incentives to Produce Semiconductors) legislation. New York has seen immense momentum in this industry, with Micron's commitment to build the nation's largest semiconductor fab and catalyze more than 50,000 direct and indirect jobs in Central New York and with the addition of more than 1,000 semiconductor industry-related jobs in the Western New York region in 2022 alone. Since Micron's announcement, at least three other semiconductor businesses – Advanced Micro Devices (AMD), Menlo Micro, and Edwards Vacuum – have announced plans to make New York their home.

Beyond the Micron investment, OPI-related firms including Bausch + Lomb, Corning Tropol, JML Optical, Rochester Precision Optics, and IDEX Health and Science are making investments to expand the State's capacity, from polishing and grinding to rapid prototyping, to support OPI industry growth.



## Film and TV Production and Post-Production

New York State is a global entertainment hub, with growth in film and television generating some of the largest economic impacts to the State. This growth is supported by the New York State Film Tax Credit Program, which is critically important to attracting productions. The film and TV industry is also one of the largest union employers in the State. The State is committed to advancing the next generation of diverse talent in the industry through the New York State Multicultural Creativity Summit, ShowbizNY: Diverse Supplier Connections, and the New York Entertainment Workforce Diversity Grant Program.

The industry saw tremendous growth from 2011 to 2022, with a 22% increase in jobs, including 4,000 new jobs in 2022 alone. While job growth was halted temporarily in 2023 due to the extended Writers Guild of America (WGA) and Screen Actors Guild (SAG-AFTRA) strikes, many productions have restarted, and the industry is expected to continue growing in the coming years. The industry continues to provide accessible jobs with a median annual wage of \$62,000. Most recently, East End Studios announced breaking ground on a film and TV-ready production studio in Sunnyside, Queens – creating nearly 750 permanent, full-time jobs, as the industry continues to expand following the union and studio agreements.



## Software and Digital Media

Due to a strong pipeline of talent, robust investor base, and close-knit entrepreneurship community – plus the presence of related industries in advertising, media, and finance – New York is a leader in software and media. Led by New York City as a global hub, it is home to large tech and media firms who have all expanded their footprint, including Google, Meta, and Amazon, plus a robust startup community, diverse talent, and venture firms. Many jobs in this industry are well-paid and growing for both technical and non-technical positions, but challenges remain in the sector for diverse

talent and barriers to entry including four-year-degree requirements. However, employers and workforce development training programs throughout the sector have created a movement to support career pathways for diverse talent with a focus on skills-based hiring to create more equitable career opportunities.

Software and digital media are the fastest growing of the target industries, seeing 43% job growth from 2011 to 2022. That includes 9% job growth from 2021 to 2022, representing 25,000 new jobs created, with these jobs also offering one of the highest median wages for accessible jobs, at \$64,500 annually. Despite a contraction in the tech industry nationally in 2023, New York's tech sector has not seen the volume of layoffs reported in other major tech regions of the country. Additional information on recent impacts on the software and digital media industry, including which positions and skills continue to grow in demand, will be available in subsequent OSWD reports when more data is available.



Per Scholas trainee



## CASE STUDY

# Expanding Innovative Satellite Models to Reach Talent Where They Are



**Project:** Per Scholas Tech Training Program

**Region:** New York City

**Target Industry:** Software and Digital Media

Founded in the South Bronx in 1995, Per Scholas' tuition-free tech training – including bootcamp-style courses in IT support, cloud computing, cybersecurity, software engineering, and more – creates career opportunities and economic mobility for underrepresented individuals in New York and across America. To scale up its successful training approach in New York, Per Scholas has embarked on a new effort – the Satellite Model – operating classrooms within the physical locations of community-based organizations and harnessing those organizations' connections with the local community, complementary services, and staff to expand access to high-quality tech training and careers.

OSWD's grant enabled Per Scholas to expand this model to 100 more learners at two new locations – in Jamaica, Queens, and Staten Island – bringing its offerings to all five boroughs of New York City. This hybrid approach to training offers remote instruction from Per Scholas, while learners continue to meet in person to develop with their cohort. This new model broadens Per Scholas' reach into new communities where many individuals identified transportation challenges as a barrier to accessing tech skills training.

Partnering with organizations like CommonPoint in Jamaica, Queens also allows students to benefit from the range of community and human service supports these community-based organizations provide – such as childcare, transportation, and food supports – while receiving the same high-tech training that Per Scholas offers in their Brooklyn, Bronx, and

Manhattan locations. Per Scholas' approach also has implications in the future beyond New York City, with an opportunity to scale in other regions of New York State. Scaling and expanding successful models in this manner is one promising strategy for increasing access to training and unlocking potential for prospective learners in regions of the State without a strong base of tech training providers.

### Key Metrics:

- Additional 100 individuals trained
- 84% of learners identify as people of color
- 85% of learners graduate, with 80% job placement within one year of graduation



OSWD staff with Per Scholas staff and graduates.



# Update on Statewide Workforce Development Investments

Starting in 2022, Governor Hochul and the New York State Legislature have made an unprecedented investment in workforce development across the State – investing over \$530 million toward new and expanded programs that directly address critical workforce needs.

This funding supports wide-reaching and multi-year investment in workforce development across State agencies, including two OSWD grant programs totaling \$150 million that support training in statewide target industries (as described above) and \$360 million managed by six additional agencies, across four critical focus areas outlined below.

Since its inception, OSWD has worked with sister agencies to launch and sustain 10 programs in addition to OSWD’s two grant programs, with multiple programs set to launch in 2024. Together, these investments support a wide range of workforce development needs throughout the State – from meeting critical skills gaps in private sector growth industries to ensuring students graduating from the public college system have job opportunities, to addressing the State’s major teacher shortage and strengthening the healthcare workforce. OSWD has coordinated with agencies on data reporting requirements to ensure that State investments are measured and can then be scaled. These investments are also ensuring New York State becomes a model to support jobseekers with disabilities, who have the lowest labor force participation in the State. These investments ensure a wholistic approach to support all New Yorkers in securing access to good jobs.



Governor Kathy Hochul at the grand opening of the FWD Center on Monroe Community College’s Downtown Campus.

## *New York's investments are made across five initiatives by seven State agencies:*

### **INVESTING IN STATEWIDE TARGET INDUSTRIES - \$165.84 MILLION**

OSWD's grants prioritize applicants that provide training for in-demand skills that will lead to direct employment in good jobs in statewide target industries, that work directly with industry partners, and that provide wraparound services to enable participation by New Yorkers who have been historically disconnected from quality jobs in growing industries. OSWD's investments are meant to drive innovative, high-impact workforce programming that provides New Yorkers with the skills they need to succeed in good jobs.

### **HEALTH CARE WORKFORCE INVESTMENT - \$222.6 MILLION**

All New Yorkers should have access to safe, affordable, and high-quality health care. The COVID-19 pandemic taxed an already strained health care system, exacerbating disparities and systemic health care delivery issues. New programs and funding will strengthen the pipeline of diverse medical professionals and support individuals looking to enter and grow in the health care and direct care fields.

### **EDUCATION WORKFORCE INVESTMENT - \$96 MILLION**

State officials estimate the State will need more than 180,000 new teachers in the next decade – with enrollment in New York's teacher education programs declining since 2009. This funding is meant to respond to this critical teacher shortage – seeking to recruit, prepare, and increase teacher retention to bolster the education workforce.

### **EXPANDING OPPORTUNITIES FOR SUNY AND CUNY STUDENTS - \$35 MILLION**

SUNY and CUNY colleges have an integral role to play in ensuring that their graduates can compete for in-demand jobs and have the requisite skills to succeed on day one of their careers. To this end, both public school systems have increased their investment in apprenticeship and internship programs, through which SUNY and CUNY students can apply their classroom learnings in hands-on and real-world settings – a strategy which promotes student job placement outcomes. SUNY and CUNY will expand these offerings, including programs in occupations in high demand across the State, such as mental health professions.

### **ADVANCING WORKFORCE SKILLS FOR ALL ABILITIES - \$10.92 MILLION**

New York seeks to empower all residents, including workers with disabilities, to contribute their strengths and develop the skills needed to succeed in one's desired career. Expanding funding for training programs will help make New York State a model for the employment of workers with disabilities.

# NEW YORK'S WORKFORCE DEVELOPMENT INVESTMENTS

Focus	Agency	Status	FY23	FY24	Total Investment
<b>INVESTING IN STATEWIDE TARGET INDUSTRIES</b>					<b>\$165.84M</b>
<b>Pay for Performance (P4P) Grant Program</b>	OSWD	Launched	\$110M	0	<b>\$110M</b>
<b>Workforce Development Capital Grant Program</b>	OSWD	Launched	\$35M	0	<b>\$35M</b>
<b>OSWD Operational &amp; Programmatic Funding</b>	OSWD	Launched	\$20.84M	0	<b>\$20.84M</b>
<b>HEALTH CARE WORKFORCE INVESTMENT</b>					<b>\$222.6M</b>
<b>Diversity in Medicine</b>	DOH	Launched	\$1.2M	\$2.4M	<b>\$3.6M</b>
<b>Caregiver Flexibility for Direct Workers</b>	DOH	Pending	\$39M	\$39M	<b>\$78M</b>
<b>Financial Burden for Healthcare Workers</b>	DOH	Pending	\$47M	\$47M	<b>\$94M</b>
<b>Training Capacity Expansion for Statewide Institutions</b>	DOH	Launched	\$22.5M	\$22.5M	<b>\$45M</b>
<b>Pre-Medical Opportunities</b>	SUNY	Launched	\$1M	\$1M	<b>\$2M</b>
<b>EDUCATION WORKFORCE INVESTMENT</b>					<b>\$96M</b>
<b>Empire State Teacher Residency Program</b>	DOL	Launched	\$30M	\$30M	<b>\$60M</b>
<b>Alternative Teacher Certification Program</b>	SUNY	Launched	\$10M	\$10M	<b>\$20M</b>
<b>Upskilling Paraprofessionals Program</b>	SUNY	Launched	\$8M	\$8M	<b>\$16M</b>
<b>EXPANDING OPPORTUNITIES FOR SUNY AND CUNY STUDENTS</b>					<b>\$35M</b>
<b>CUNY Apprenticeships</b>	CUNY	Launched	\$2M	\$2M	<b>\$4M</b>
<b>CUNY Internships</b>	CUNY	Launched	\$4M	\$4M	<b>\$8M</b>
<b>CUNY Mental Health Training*</b>	CUNY	Pending	\$2M	0	<b>\$2M</b>
<b>SUNY Apprenticeships</b>	SUNY	Pending	\$3M	\$3M	<b>\$6M</b>
<b>SUNY Internships</b>	SUNY	Pending	\$6M	\$6M	<b>\$12M</b>
<b>SUNY Mental Health Training*</b>	SUNY	Pending	\$3M	0	<b>\$3M</b>
<b>ADVANCING WORKFORCE SKILLS FOR ALL ABILITIES</b>					<b>\$10.92M</b>
<b>Individuals with Intellectual Disabilities Programs</b>	OPWDD	Launched	\$2.66M	\$.16M	<b>\$2.82M</b>
<b>Personalized Recovery Oriented Services</b>	OMH	Launched	\$2.8M	\$5.3M	<b>\$8.1M</b>
<b>TOTAL</b>					<b>\$530M</b>

\* \$5 million in funding was set-aside within the OSWD P4P funding appropriation for the CUNY and SUNY Mental Health Training Programs



# Program Updates

## INVESTING IN STATEWIDE TARGET INDUSTRIES

In 2022, OSWD identified seven statewide target industries that represent New York’s most critical growth sectors and have been the focus of the office’s grantmaking. Consistent with its mission, OSWD’s grants prioritize applicants that provide training for in-demand skills that will lead to direct employment in good jobs in statewide target industries, that work directly with industry partners, and provide wraparound services to enable participation by New Yorkers who have been historically disconnected from quality jobs in growing industries. OSWD’s investments are meant to drive innovative, high-impact workforce programming that provides New Yorkers with the skills they need to succeed in good jobs.

OSWD operates two competitive multi-year grant programs, with a total budget of \$150 million:

- **Pay for Performance (P4P) Grant Program:** This \$115 million\* program provides workforce training partners with flexible funding to build or scale their programs through working capital (operating) funding tracks. Both the Operating Grants and the Capacity-Building Awards help providers cover programmatic expenses such as instructors and instructional materials and wraparound services to prepare New Yorkers for in-demand jobs.  
\*\$5 million of this appropriation includes a set-aside for SUNY and CUNY mental health training programs.
- **Workforce Development Capital Grant Program:** This \$35 million program supports facility and equipment needs of training providers that seek to enhance or expand their offerings.

**Status:** Launched. Applications for both OSWD programs opened in the fall of 2022, with a first round of awards in December 2022. Since launch, OSWD has awarded a total of over \$35 million across both programs in grants over four rounds, funding 52 projects across all 10 regions of New York State. Of this investment, \$23.8 million has been awarded through the P4P program and \$11.5 million through the Capital Grant program.

## GRANT FUNDING BY TYPE

	Total to Date (Rounds 1-4)	
	# of Awards	Total Awards
<b>P4P – Operating Grants &amp; Capacity-Building Awards</b>	41	\$23,774,791
<b>Workforce Development Capital Grant</b>	11	\$11,576,132
<b>Total</b>	<b>52</b>	<b>\$35,350,923</b>

## GRANT FUNDING BY INDUSTRY

Industry	Projects*	Awards
<b>Advanced Manufacturing and Materials</b>	24	\$18,084,973
<b>Biotech and Life Sciences</b>	0	\$0
<b>Cleantech and Renewable Energy</b>	10	\$6,556,290
<b>Construction</b>	18	\$11,021,193
<b>Electronics and Optics, Photonics, and Imaging (OPI)</b>	2	\$947,607
<b>Film and TV Production and Post-Production</b>	3	\$1,293,727
<b>Software and Digital Media</b>	12	\$10,318,590

\*Several OSWD-funded projects operate in multiple industries.

## REGIONAL BREAKDOWN

Region	Projects*	Award Total	Trainees
Capital Region	3	\$2,962,839	450
Central NY	7	\$3,884,916	1,157
Finger Lakes	5	\$3,639,769	1,538
Long Island	5	\$5,152,437	574
Mid-Hudson	1	\$933,412	180
Mohawk Valley	4	\$2,736,804	798
New York City	14	\$9,129,422	5,996
North Country	3	\$1,254,742	1,880
Southern Tier	2	\$1,151,953	630
Western NY	17	\$9,644,100	2,350

\* Several OSWD-funded projects operate in multiple regions and the trainee number represents the total number of trainees for each project. Listed here is the prospective number of trainees in that region, which may not be the final number.

**Program Outcomes to Date:** Collectively, these grants will

- **Train more than 12,000 New Yorkers** with the skills and credentials necessary to obtain in-demand jobs in priority industries.
- **Leverage \$38 million in matching funds** from the public and private sector including business, philanthropy, and other government partners to generate a total of more than \$73 million invested in New York’s workforce.
- **Partner with over 400 business and industry organizations** to ensure curricula is consistent with industry standards, provide on-site training and exposure to local businesses, and interview program graduates for full-time well-paying roles.
- **Offer critical wraparound support for 100% of invested programs**, including transportation assistance, childcare subsidies, stipends, career coaching, and mentorship. All grantees provide critical support services, allowing programs to reach communities that would otherwise be unable to participate in training, thereby expanding economic prosperity for more New Yorkers.
- **Diversify representation in statewide target industries**, with almost 50% of program participants identifying as Black or African American and 40% of program participants identifying as female – both significant increases over existing gender and racial diversity ratios in target industries.

## CASE STUDY

# Diversifying the Talent Pipeline Through Customized Wraparound Services



**Project:** MACNY - Callahan Management Training Center Inc. - Real-Life Rosies™

**Region:** Mohawk Valley

**Target Industry:** Advanced Manufacturing

Manufacturing has long been held up as an industry that can provide good jobs for workers without college degrees, a reality that continues today. However, the industry has traditionally been male-dominated and, despite efforts to recruit women, new approaches are needed to diversify the workforce. The Real-Life Rosies™ program, run by the Manufacturers Association of Central New York (MACNY) and in partnership with Mohawk Valley Community College and Working Solutions, evokes a time when that reality shifted, as women entered the workforce in unprecedented numbers during World War II, symbolized by “Rosie the Riveter.”

The Real-Life Rosies™ program is a direct entry pre-apprenticeship program providing training and wraparound services to women interested in advanced manufacturing careers, with a focus on refugee populations. Participants explore careers across the industry while also learning technical skills, workplace safety, and “power skills” (often referred to as “soft skills”) like communication and job readiness. The program aims to build an all-female cohort to ensure that participants have their support network during training and once they secure full-time jobs. MACNY and its partners provide extensive wraparound services tailored to the needs of the population it serves - for example, noting the uptick in participants for whom English was a second language, the program pivoted to offer certified translation services. Many participants lacked the specialized apparel required for manufacturing floors, so the program began offering clothing services to provide steel toed boots and other safety equipment.

Launched in May 2023, the program has had 35 graduates to date, many of whom have been placed in roles at local manufacturers, including

Indium Corporation, Semikron Danfoss, and Giotto Enterprises, and some entered formal apprenticeship programs. New jobs in advanced manufacturing have been on the rise in the Mohawk Valley, seeing a 23% increase from 2021 to 2022. MACNY’s commitment to furthering gender equity will ensure that more and more of these new jobs will be filled by women. Creating a diversified talent pipeline in the industry, this program models the OSWD approach – providing employer-driven training with customized wraparound services that serve the needs of the target population.

### Key Metrics:

- 35 women graduates from pre-apprenticeship training
- 47% of participants are English Language Learners



Participants of MACNY’s Real-Life Rosies™ program.



## HEALTH CARE WORKFORCE INVESTMENT

All New Yorkers should have access to safe, affordable, and high-quality health care. The COVID-19 pandemic taxed an already strained health care system, exacerbating disparities and systemic health care delivery issues. New programs and funding will strengthen the pipeline of diverse medical professionals and support individuals looking to enter and grow in the health care and direct care fields.

*DOH and SUNY operate five grant programs with a total budget of \$222.6 million.*

### Diversity in Medicine (DOH)

Diversity in medicine is critical to equitable health care. A diverse physician workforce reduces healthcare disparities and improves outcomes, but barriers prevent many individuals who have experienced adversity from becoming doctors. The Diversity in Medicine Program, started in 1991, provides a pipeline for students who have demonstrated resilience in overcoming adversity to enter medical school. The program, which has graduated more than 600 practicing physicians and encompasses 19 programs, is administered by the Associated Medical Schools of New York (AMSNY), a consortium of 17 public and private medical schools throughout New York State.

The cornerstone of the program is the 12-month post-baccalaureate program, available to students who meet certain demographic criteria and have not received acceptance to medical school. Students are referred by a participating medical school and receive formal mentoring, advising, and tailored curricula. Students who successfully complete the program are guaranteed acceptance by the referring medical school.

New York State has made critical investments in this program - \$3.6 million - representing a historic investment by the State in pathways for students who have faced significant barriers to attending medical school and an improvement in healthcare outcomes for all New Yorkers. This State investment was leveraged to secure a \$1 million matching grant from the Mother Cabrini Health Foundation, which primarily supports the Diversity in Medicine Scholarship. Additionally, many of the participating schools contribute in-kind support through a variety of mechanisms. For example, the Jacobs School of Medicine at the University of Buffalo waived tuition for the 25-30 students enrolled in the Diversity in Medicine post-baccalaureate program.

**Status:** Launched. State investment has enabled AMSNY to expand the number of students enrolled in its post-baccalaureate programs and increase stipend support for participants.

**Program Outcomes to Date:** In FY23 this program

- Trained 52 students to prepare them for post-baccalaureate programs, with 59 students expected in FY24.
- Supported five postbaccalaureate programs, including Jacobs School of Medicine and Biomedical Sciences at the University of Buffalo, New York Medical College, Norton College of Medicine at SUNY Upstate Medical University, Renaissance School of Medicine at Stony Brook University, and SUNY Downstate Health Sciences University (a first-time participant).
- Expanded five programs through a new RFP process, including Bronx Community Health Leaders, Bridges to Medicine, Mentoring in Medicine, Growing the URIM Bridge, and AIM-HI, with an expansion to 10 new programs in FY24.
- Provided 30 scholarship awards of \$42,000 each, totaling over \$775,000. In FY24, this is expected to expand to 33 awards totaling \$1 million.

### Caregiver Flexibility for Direct Care Workers (DOH)

Long-term care workers often face barriers that prevent them from moving between caregiving roles, making it difficult for direct care workers to take new jobs and for care facilities to fill openings. This initiative will facilitate the creation of a model for training “universal” long-term care workers who can move across caregiving roles, ensuring that long-term care providers experiencing workforce shortages can identify and deploy trained workers in a timely and efficient manner. This \$78 million program will comprise three funding opportunities: Direct Caregiver Training Centers; Direct Caregiver Support Hubs; and a Stackable Credential Curriculum that would allow a trainee to receive approval and certification to work as a Personal Care Aide, a Home Health Aide, and/or a Certified Nurse Aide.

**Status:** Anticipated launch in 2024.

## Financial Burden for Health Care Workers (DOH)

Through this \$94 million program, DOH will provide direct financial support for the education of healthcare professionals, provided they work in New York State for a specified period after obtaining their credentials. The plan will offer free tuition, cover instructional costs for high-demand health occupations, and provide stipends to make up for lost income while in school, including a \$15 million allocation for a healthcare workers scholarship. It will also provide wraparound services such as childcare and transportation support to eliminate obstacles that make it difficult for New Yorkers to obtain training required for health care professions.

**Status:** Anticipated launch in 2024.

## Training Capacity Expansion for Statewide Institutions (DOH)

New York's medical institutions often lack the training capacity to prepare the next generation of health care professionals as they focus on delivering immediate care to New Yorkers. To support a steady pipeline of high-quality healthcare workers, DOH will make investments to increase the training capacity of medical institutions. This \$45 million initiative will identify and fund a range of projects to advance this goal, which may include establishing new training programs, developing innovative training approaches and techniques, and providing compensation for workers to train full-time support staff and in doing so expand overall training capacity.

**Status:** Launched. DOH opened a Solicitation of Interest in March 2023 and has received more than 200 applications. DOH is currently working with potential awardees on contract terms and award amounts which will be forthcoming when finalized.

## Pre-Medical Opportunities (SUNY)

This \$2 million program provides academic support, mentoring, career guidance, clinical exposure, and application support to Educational Opportunity Program (EOP) students seeking to pursue careers in medicine. The goal of the program is to increase the number of students from underrepresented communities and economically disadvantaged backgrounds who successfully enter careers in medicine. This is a program in partnership with SUNY's Office of Opportunity Programs and its medical universities – University at Buffalo, Downstate Health Sciences University, College of Optometry, Stony Brook University, and Upstate Medical University.

Since its launch in 2021, 57 students have taken part in three cohorts in summer enrichment programs at one of SUNY's medical schools: Upstate Medical University College of Medicine in Central New York (2021), Stony Brook University School of Medicine on Long Island (2022), and Downstate Health Sciences University College of Medicine in Brooklyn, NY (2023). There are no matching funds for this program.

**Status:** Launched. This funding allows SUNY to expand academic and other supports for students in the program, and in future years it will expand the number of students able to participate.

**Program Outcomes to Date:** In total, since the program's launch, Pre-Medical Opportunities has

- Supported 57 students since its launch through the summer enrichment program, with 23 students in 2021, 20 in 2022, and 14 enrolled in 2023. Graduates included two students entering medical school, and six students pursuing graduate school in a related field.
- Mentored by 22 SUNY-medical students, paired with students one-to-one to support participants' academic needs.
- Launched at Downstate Health Sciences University College of Medicine in June 2023 and included 4-week summer enrichments. Each student received a \$5,000 award to assist with non-tuition related expenses and mentorship with a current medical student. There are 14 students from NYC (Bronx, Queens, Brooklyn), Southern Tier, Western New York, Long Island, Central NY, and Mid-Hudson.

## EDUCATION WORKFORCE INVESTMENT

State officials estimate that the state will need more than 180,000 new teachers in the next decade – meanwhile enrollment in New York's teacher education programs has been declining since 2009. This funding is meant to respond to the critical teacher shortage – seeking to recruit, prepare, and increase teacher retention to bolster the education workforce.

*DOL and SUNY operate three grant programs with a total budget of \$96 million.*

### Empire State Teacher Residency Program (DOL)

The Empire State Teacher Residency Program provides matching funds for local school districts to create one- or two-year residency programs for graduate-level teacher candidates. This \$60 million program provides teacher participants in residency programs reduced or free tuition, including books and fees, mentoring, and a stipend to cover living expenses. DOL partners with SUNY, CUNY, and private colleges in this effort.

**Status:** Launched. DOL released a Request for Proposals in April 2023. Proposals were due June 2023, and DOL announced \$15.7 million in the first round of awards. With additional awards made in December, the DOL program now totals over \$24.6 million to 17 awardees.

**Program Outcomes to Date:** Programs are set to begin in 2024 and will

- Provide over 980 teachers from across the state with residencies.
- Support schools and regions across the state. There is no leveraged match.

Grantee	Region Supported	Award
<b>Albany City School District</b>	Capital Region	\$150,000
<b>Buffalo City School District</b>	Western NY	\$600,000
<b>Cayuga-Onondaga BOCES</b>	Central NY	\$442,930
<b>Chatham Central School District</b>	Capital Region	\$30,000
<b>Clarkstown Central School District</b>	Mid-Hudson	\$120,000
<b>Eastern Suffolk BOCES</b>	Long Island	\$4,590,000
<b>Erie 1 BOCES</b>	Western NY	\$3,120,000
<b>Monroe 2 Orleans BOCES</b>	Finger Lakes	\$3,600,000
<b>New York City</b>	New York City	\$12,000,000
<b>Niagara Falls City School District</b>	Western NY	\$740,600
<b>Rochester City School District</b>	Finger Lakes	\$1,160,000
<b>Rockland BOCES</b>	Mid-Hudson	\$300,000
<b>Syracuse City School District</b>	Central NY	\$1,500,000
<b>Utica City School District</b>	Mohawk Valley	\$300,000
<b>Ulster BOCES</b>	Mid-Hudson	\$269,595
<b>West Hempstead Union Free School District</b>	Long Island	\$300,000
<b>Warrensburg Central School District</b>	Capital Region	\$52,000



## Alternative Teacher Certification Program (SUNY)

Alternative certification programs are a pathway to the teaching profession that can help reduce time and cost barriers for candidates interested in a teaching career. This \$20 million will be allocated via competitive grants to expand existing programs or to develop and implement new high-quality, research-based, master's-level alternative certification programs. Priority will be given to programs partnering with high-needs school districts and those focusing on shortage areas identified by NYSED. This program is open to higher education institutions throughout New York State.

**Status:** Launched. SUNY released a Request for Proposals in August 2023. Proposals were due in November 2023, with awards expected to be announced in early 2024.

## Upskilling Paraprofessional Program (SUNY)

Teaching assistants and paraprofessionals can be an essential part of the teacher pipeline given their prior classroom experience and strong connections to the communities they serve. This \$16 million will be allocated via competitive grants to expand existing programs or to develop and implement new programs that recruit and support teaching assistants and/or paraprofessionals in obtaining teacher certification through a registered baccalaureate-level teacher education program. Priority will be given to programs partnering with high-needs school districts and those focusing on shortage areas identified by NYSED. This program is open to public colleges and universities throughout the state.

**Status:** Launched. SUNY released a Request for Proposals in August 2023. Proposals were due in November 2023, with awards expected to be announced in early 2024.

## EXPANDING OPPORTUNITIES FOR SUNY AND CUNY STUDENTS

SUNY and CUNY colleges have an integral role to play in ensuring that their graduates can compete for in-demand jobs and have the requisite skills to succeed on day one of their careers. To this end, both public school systems have increased their investment in apprenticeship and internship programs, through which SUNY and CUNY students can apply their classroom learnings in hands-on and real-world settings – a strategy which promotes student job placement outcomes. SUNY and CUNY will expand these offerings, including programs in occupations in high demand across the state, such as mental health professions.

*CUNY and SUNY operate six grant programs with a total budget of \$35 million.*

## CUNY Apprenticeships (CUNY)

CUNY Apprenticeships – a \$4 million program – is a coordinated effort to embed pre-apprenticeships with local companies within Applied Associates of Sciences (AAS) degree programs, granting participating student degree credits for time spent in the workplace as a pre-apprentice. AAS degree programs are designed to be terminal degrees with direct off-ramps to employment, and include technology, health care, and business pathways. CUNY is well-positioned to leverage resources at its community and comprehensive colleges to expand apprenticeships in emerging, in-demand industries and occupations that can help create stable, professional careers for the university's students.

**Status:** Launched in early 2023, this program supports 10 CUNY colleges that are engaged in pre-apprenticeship development as part of their AAS program redesign efforts. Building on apprenticeship work that began previously in partnership with the New York City Jobs CEO Council, the 10 colleges are in different stages of implementation. Some pre-apprenticeships took place in academic year 2023, while others are launching in academic year 2024.

**Program Outcomes to Date:** On a small scale, integration of pre-apprenticeships has already shown early signs of success in improving job outcomes for AAS graduates, with 88% of students participating in pre-apprenticeships during Spring 2023 being hired following their pre-apprenticeship experience.

The funding for apprenticeships is building on the \$700,000 CUNY has allocated for general redesign of AAS programs to better incorporate pre-apprenticeships, approximately \$70,000 per campus. These funds are from the State's \$40 million allocation to CUNY for the Strategic Investments Initiative and are not included in the table below.

Grantee	Region Supported	Award
<b>Borough of Manhattan Community College</b>	New York County	\$160,000
<b>Bronx Community College</b>	Bronx County	\$159,973
<b>College of Staten Island</b>	Richmond County	\$160,782
<b>Guttman Community College</b>	New York County	\$159,548
<b>Hostos Community College</b>	Bronx County	\$159,968
<b>Kingsborough Community College</b>	Kings County	\$159,883
<b>LaGuardia Community College</b>	Queens County	\$159,857
<b>Medgar Evers College</b>	Kings County	\$159,957
<b>New York City College of Technology</b>	Kings County	\$159,998
<b>Queensborough Community College</b>	Queens County	\$158,628

## CUNY Internships (CUNY)

Through this \$8 million program, CUNY is expanding its paid internship and career development programs to provide students with exposure and access to various industries to propel them into careers post-graduation. The CUNY Spring Forward program places students in their first two years of college into part-time paid internships during the academic year in a range of fields including technology, health care, marketing, and communications. The program provides paid work experience in the students' field of study while allowing students to explore career options before it becomes too late to pivot to a different course of study if they decide that career path is not for them. The CUNY Internship to Employment program places recent graduates and seniors in paid full-time internships with NYC small businesses seeking to fill vacant positions. At the end of the internship, participating businesses can onboard the intern as an employee and receive a wage subsidy for the first five months of employment. The program simultaneously de-risks the talent search and onboarding process for small businesses while giving graduates an opportunity to get their foot in the door of their desired industry.

**Status:** Launched in February 2023, with the first cohort ending in June 2023. Given the success of the program, this program will continue in FY24.

### Program Outcomes to Date:

- CUNY Spring Forward trained 649 students with 201 business partners, graduating 599 students.
  - 64% of these students were female, and 85% identified as people of color.
- CUNY Internship to Employment trained 101 students with 58 business partners.
  - 40 individuals were hired into full-time employment from CUNY Internship to Employment
  - CUNY's Internship to Employment also leveraged a \$1,322,000 match.

## CUNY Mental Health Training (CUNY)

CUNY will train students to become qualified mental health professionals who will work with individuals in need of prevention, treatment, and recovery services due to behavioral and mental health conditions. The CUNY Mental Health Training program will incentivize minority and multilingual students enrolled at 19 CUNY campuses to enter in or continue paths of study that will prepare them for the mental health field. Three programs will be supported through this \$2 million investment:

1. Internships at Mental Health Facilities, which supports undergraduate and graduate students in mental health-related degree programs through a paid internship;

2. Diversity Mental Health Scholarships, which provides additional funding to support graduate students from underrepresented backgrounds to complete their clinical and related research experiences required for degrees; and
3. Innovations in Training Modalities, which supports innovations such as enhanced use of simulation and AI technology which will enhance clinical and field training experience.

**Status:** Pending

## SUNY Apprenticeships (SUNY)

This \$6 million initiative will help expand a highly skilled workforce through registered apprenticeship and pre-apprenticeship programs in all industry sectors beyond construction. Through employer incentives, preparing SUNY students to enter apprenticeships, registered apprenticeship supports programs and business outreach. SUNY and NYSDOL aim to maximize access for participants in high demand, competitive wage occupations throughout New York, while growing engagement of employer and campus partners.

**Status:** Pending

## SUNY Internships (SUNY)

Internships are a type of applied learning which has been shown to have a high impact on student success and completion; however, many barriers exist which can prevent student participation in these learning experiences. The \$12 million will be allocated to support students in internship opportunities as well as in overcoming barriers including childcare, transportation, tuition support for summer internships, stipends for students with unpaid internships, and development of prior learning assessments which can help students apply current employment to achieving college-level credit. As part of this initiative, the Governor announced the Climate Corps Internship Program, which will offer paid applied-learning opportunities for SUNY students at state agencies with environmental and sustainability missions. In the first year, up to 40 students will be selected for immersive, real-life work experiences for compensation and college credit in research and policy at SUNY and state agencies.

**Status:** Pending

## SUNY Mental Health Training (SUNY)

SUNY will offer enhanced opportunities for campuses to bolster current mental health training and development programs for students, faculty, and staff. The \$3 million in additional programming will provide educational opportunities for students who are interested in pursuing careers in the mental health sector.

**Status:** Anticipated launch in 2024.

## ADVANCING WORKFORCE SKILLS FOR ALL ABILITIES

New York seeks to empower all residents, including workers with disabilities, to contribute their strengths and develop the skills needed to succeed in one's desired career. Expanding funding for training programs will help make New York State a model for the employment of workers with disabilities.

*OPWDD and OMH operate three grant programs with a total budget of \$10.92 million.*

## Individuals with Intellectual and Developmental Disabilities (I/DD) Program (OPWDD)

The Individuals with Intellectual Development Disabilities (I/DD) Program provides skills training to increase an individual's marketable employment. State investment currently support two programs, including the \$2.82 million investment in the Career-Specific Vocational Training for I/DD provides training for people with intellectual and developmental disabilities who are seeking competitive employment in a specific career field. Designed to meet the demands of today's employers, participants learn career-specific skills in industries including custodial, office skills, food service, hospitality, and retail. The program includes in-class training and job readiness skills, and trainees participate in community vocational experiences.



**Status:** Launched. Career-Specific Vocational Training for I/DD made its first awards in August 2023, funding eight programs across the state.

**Program Outcomes to Date:** The I/DD program has had 106 participants, with 59 graduates to date, with classes still ongoing. Grantees have reported 59 new business partners supporting the program via curriculum development and experiential learning, and 14 new businesses hiring class graduates.

All participants receive career planning and community vocational experiences at local businesses to reinforce classroom learning and gain experiential knowledge about the industry. These parallel services are funded through Medicaid Waiver Home and Community Based Services (HCBS) such as community based prevocational services, Pathway to Employment or the Employment Training Program. It is estimated that the career planning services and community vocational experiences outside of the classroom sessions averaged 50 hours per person for 59 graduates with an estimated total of \$149,889 in matching funds. These figures are averaged based on the varied rates for each service and activity.

<b>Grantee</b>	<b>Region Supported</b>	<b>Award (multi-year funding)</b>
<b>Access: Supports for Living, Inc.</b>	Hudson Valley	\$1,378,141.98
<b>AccessCNY, Inc.</b>	Central NY	\$1,880,515.80
<b>Community Services for Every1, Inc.</b>	Western NY	\$2,226,591.56
<b>Family Residence and Essential Enterprises, Inc.</b>	Long Island	\$326,870.40
<b>Family Residence and Essential Enterprises, Inc.</b>	Long Island	\$326,295.40
<b>Jawonio, Inc.</b>	Hudson Valley	\$1,637,483.00
<b>NYSARC. Inc. NYC Chapter</b>	New York City	\$2,889,933.17
<b>Upstate Cerebral Palsy, Inc.</b>	Central NY	\$2,277,075.00

Additional funding allocated to OPWDD in FY24 will support three additional programs that are set to launch in 2024-25:

**New York State as a Model Employer Project** – Increase the number of people with disabilities in the State government workforce. State agencies will work to remove systemic barriers to employment opportunities, and training for State employees will be developed to assist them in becoming natural supports on the job for people with disabilities as well as for other coworkers.

**Business Model and Culture Change for Voluntary Provider Executive Leadership Teams** – Forums and trainings designed to increase the number of OPWDD voluntary provider agencies that offer the full continuum of day, vocational, and employment services so that they can seamlessly provide clients with high-quality services.

**Training for Day Habilitation and Direct Care Staff in Employment and Vocational Services** – Train the OPWDD service system on the full continuum of employment services available to the population served. This training will demonstrate how staff can empower people to successfully meet their goal of competitive employment, reduce dependence on site-based programs, and offer more community engagement activities. The training will include how to deliver person-centered services and job-readiness training.

## Personalized Recovery Oriented Services (OMH)

The Personalized Recovery Oriented Services (PROS) program is a comprehensive recovery-focused model that integrates rehabilitation, treatment, and support, assisting individuals to manage their symptoms in the competitive workplace. Managed by OMH, individuals work on living independently, building natural support, finding and keeping a job, and reaching higher levels of education. There are four major components to the program - community rehabilitation and support, intensive rehabilitation, ongoing rehabilitation and support, and clinical treatment. PROS programs are located throughout the state and include a wide range of wraparound services including career coaching, post-completion support, financial counseling, resume prep, tools and program materials, legal services, food assistance, childcare and more. Through the State's \$8.1 million allocation, PROS will fully fund an Employment Specialist/Counselor position within each PROS program to provide evidence-based supported employment (individual placement and support) and work directly with employers in the community to identify and create new opportunities for adults with serious mental illness. OMH also added two regional employment coordinators to act as a liaison between supported employment providers and other State agencies that support employment initiatives, including NYSED Adult Career and Continued Education Services Vocational Rehabilitation (ACCES-VR) and DOL.

**Status:** Launched. Since January 2023, all 78 existing PROS programs have received enhanced State aid for funding employment services.

**Program Outcomes to Date:** 463 participants have received employment support since funding enhancement was initiated in 2023.

OMH will continue utilizing the \$2.8 million investment to support employment outcomes for PROS participants. The additional \$2.5 million allocated in FY24 is being invested in a Managed Care Technical Assistance Contract, a Psychiatric Rehabilitation Symposium, and related staffing.

**Psychiatric Rehabilitation Symposium** – \$2.3 million has been allocated to the Curriculum and Resource Development Initiative which will organize curriculum and resource development, training, and technical assistance for NYS OMH providers related to ongoing initiatives promoting psychiatric rehabilitation practices. The intent is to ensure adult psychiatric rehabilitation programs have access to evidence-based curricula and resources necessary to support service delivery. This will include curricula that support individuals with school and work-related goals. PROS practitioners and other psychiatric rehabilitation staff statewide will have access to these curricula and will receive training in evidence-informed approaches including Wellness Recovery Action Planning, cognitive remediation, and trauma/resiliency education. OMH issued a Solicitation of Interest for this funding in October 2023, has evaluated all letters of interest, and has selected the McSilver Institute for Poverty Policy and Research at NYU Silver School of Social Work as the only qualified vendor. OMH is currently in the process of contracting with NYU and expects that this initiative will begin in Spring 2024.

**Managed Care Technical Assistance Contract** – Funding has been used to hire Mental Health Program Specialists, as well as a training symposium for Assertive Community Treatment (ACT) staff.

# Early Insights & Looking Ahead

OSWD brings a strategic approach to New York's workforce development system – one that prioritizes employer partnerships, good jobs in growing industries, and the needs of historically marginalized New Yorkers. As part of this approach, one of OSWD's primary roles is to track the success of State-funded programs and distill lessons that can be applied to a broader statewide workforce development approach. Building a new model for workforce development requires continual iteration, and OSWD is committed to implementing and sharing lessons learned. While most funding programs referenced in this report are still in their early stages, OSWD has begun to catalog initial insights from program design and early program metrics to guide its future work.

**Grant flexibility allows awardees to design and implement more successful programs.** While upholding rigorous standards for selection, grant reporting, and evaluation, OSWD has designed its programs to be flexible and encourage creativity. Awardees can dedicate funding to a wide variety of uses – staffing, curriculum development, wraparound services, stipends, etc. – and make pivots in how they allocate funding as on-the-ground circumstances dictate. This has allowed grantees to adapt to changing industry circumstances, respond to employer demand, and ensure maximum impact.

For example, SUNY Oswego's Instructor Bootcamp – a train-the-trainer model to help prepare the next generation of instructors in manufacturing and related industries – was initially designed to serve people who had never held an instructor role. Program staff realized there was significant interest from existing workplace managers who played a training role but had never received formal training and were interested in enhancing their skills. SUNY Oswego modified its program requirements to accommodate this demand and has received overwhelming positive feedback from both participants and employers.

In another case, the Callahan Management Training Center, a subsidiary of MACNY, recognized that many prospective trainees procure transportation and childcare services through personal networks rather than from established companies, and so offered program participants small stipends to reimburse family members or friends who provided reliable rides or childcare. The program also reimbursed taxi and rideshare services, recognizing that not all participants had access to transit or their own vehicle. At a relatively low cost, these stipends with low administrative burdens will help participants meaningfully increase their earning potential.

OSWD will continue to learn from grantees, providing flexibility and seeking opportunities to streamline offerings.

**State support can bolster and scale local efforts around industry-aligned workforce training.** Since launching in October 2022, OSWD's grant programs have drawn over 250 applications from nearly 150 workforce training organizations in every region of the state. This outpouring of interest confirms the need for the existing network of providers to commit to inclusive, industry-aligned training, as well as ways that State support can amplify local efforts to drive impact.

Initial applications for OSWD's grant programs revealed that, while some high-capacity workforce organizations and certain regions of the state were well plugged into ESD's funding opportunities and able to quickly put together a competitive application, others lacked awareness of the program or needed



Centerstate trainees/ Credit: Lockheed Martin



support to craft projects that met OSWD's goals for employer engagement, quality jobs, and inclusive training. Through hands-on technical assistance and a series of presentations to workforce and industry leaders, OSWD helped spread awareness of the grant opportunities and generated successful applications. Since OSWD's in-person regional convening on Long Island in July 2023, for example, OSWD has funded four additional programs in the region with awards totaling \$4.9 million.

In other cases, OSWD has identified through its application process existing workforce training programs that are aligned with OSWD's strategic vision, have demonstrated impact, and have the potential to reach many more New Yorkers, but currently operate in only one region or industry. One such example is Per Scholas, which is leveraging an OSWD grant to expand its proven tech training program to two new communities in New York City and exploring an expansion to other regions of the state. Additional programs are also exploring opportunities to partner with providers in other regions to replicate their model – for example, MACNY is in conversations with partners to scale its Real-Life Rosies™ program, geared toward female trainees in manufacturing.

OSWD will continue to support programs with the potential to scale and will foster connections across the state to share lessons and models, ensuring that the more than 12,000 New Yorkers who will be trained through grants to date grow into a much larger number in the years ahead.

**Partnerships are important for offering robust wraparound services, to increase trainee participation and retention.** OSWD is committed to funding wraparound services, which fill a critical gap in the workforce development ecosystem and can especially increase participation and retention rates of trainees. Many potential trainees must weigh the long-term benefits of training programs against the immediate cost of stepping away from paid positions or caregiver duties. Providing targeted wraparound services can reduce or eliminate that tradeoff, enabling full participation from trainees who would otherwise face barriers to engagement.

Workforce trainers are successfully partnering with organizations that are already skilled at providing case management or more in-depth services, allowing each program to leverage the others' strength. Consider Per Scholas' recent expansion of its successful tech training programs beyond its flagship Bronx and Brooklyn locations. Instead of investing in new brick-and-mortar training facilities, the organization partnered with community-based organizations that had excess space, already had relationships with residents in need of training, and already provided wraparound services. Similarly, RochesterWorks is partnering with the Young Adult Manufacturing Training Employment Program (YAMTEP) to offer robust case management and support services alongside workforce programming in its ROCSEEDS program. RochesterWorks complements this skill-based learning with its Youth Navigator program, which helps young adults manage aspects of life that can often serve as a barrier to work. ROCSEEDS focuses in part on justice-involved youth, and these comprehensive support services are customized to support this population.

OSWD will continue to encourage partnerships that strengthen the local and statewide workforce development ecosystem and will support programs that provide comprehensive wraparound services tailored to target populations.

## *Looking Ahead*

**Entering its second full year, OSWD is energized to grow its successful workforce programs and launch new initiatives across the state. Grant programs across sister agencies will continue to launch, and OSWD will work with agencies to collect and analyze data to inform future policies and programs. OSWD is proud to be spearheading a new model of workforce development and looks forward to continued iteration and improvement in the new year.**

# Appendix

# Acknowledgements

Empire State Development's Office of Strategic Workforce Development (OSWD) developed this report in close coordination with the Office of the Governor and with support from other State agencies, including the Department of Labor (DOL), the State University of New York (SUNY), the City University of New York (CUNY), the Department of Health (DOH), the Office of People With Developmental Disabilities (OPWDD), and the Office of Mental Health (OMH). OSWD's strategic approach builds on many years of research and advocacy by workforce stakeholders inside and outside of government. We are also grateful to the grantees that gave their time and energy to inform the Office's initial insights and provide content for this report, including CenterState CEO, CNY Works, MACNY, the North Country Chamber of Commerce, Per Scholas, Reel Works, RochesterWorks, and SUNY Oswego. OSWD enlisted the support of HR&A Advisors, an economic development advisory organization, to develop this report.



# OSWD Grantee Data

## REQUIRED METRICS BY ROUND

	Round 1	Round 2	Round 3	Round 4	Total
<b>Projects</b>	8	14	16	14	52
<b>Amount Awarded</b>	\$5,494,765	\$7,166,660	\$9,890,153	\$12,799,345	\$35,350,923
<b>Estimated Trainees</b>	2,839	3,709	2,427	3,464	12,511
<b>Business Partner Letters of Support*</b>	51	63	71	77	262
<b>Leveraged Match</b>	\$4,480,261	\$4,620,159	\$4,731,760	\$24,559,648	\$38,391,828
<b>Participation Rate (if available)**</b>	97%	94%	n/a	n/a	96%

\* The number of letters of support from business partners only reflects a sample of the number of business partners who are actively engaged in projects.

\*\* Participation rate reflects the percentage of trainees who are either actively enrolled in a program or have completed the program. Many funded projects are still in early stages of launching, so not all programs have participation data.

## GRANTS BY TYPE AND ROUND

Type	Round 1		Round 2		Round 3		Round 4		Total	
	Projects	Awards	Projects	Awards	Projects	Awards	Projects	Awards	Projects	Awards
<b>P4P – Operating Grant</b>	6	\$3,955,765	10	\$4,369,675	13	\$9,008,703	8	\$5,025,648	37	\$22,359,791
<b>P4P – Capacity Building</b>	1	\$264,000	3	\$1,151,000	0	\$0	0	\$0	4	\$1,415,000
<b>Capital Grant</b>	1	\$1,275,000	1	\$1,645,985	3	\$881,450	6	\$7,773,697	11	\$11,576,132
<b>Total</b>	8	\$5,494,765	14	\$7,166,660	16	\$9,890,153	14	\$12,799,345	52	\$35,350,923

## OSWD AWARDS

Round	Grantee	Project Name	Region	Award Amount	Target Industries Served
1	Buffalo Niagara Partnership*	Employ Buffalo Niagara	Western NY	\$105,746	Advanced Manufacturing and Materials, Construction
1	Callahan Management Training*	Diversifying the Advanced Manufacturing Workforce	Central NY, Mohawk Valley	\$996,377	Advanced Manufacturing and Materials
1	CenterState CEO	High-Tech Careers Bridge Program	Central NY	\$1,000,000	Software and Digital Media, Advanced Manufacturing and Materials
1	CenterState CEO*	Syracuse Build Program	Central NY	\$264,000	Construction
1	Cornell University*	Dairy Processing Bootcamp	Central NY, Finger Lakes, North Country, Southern Tier, Western NY	\$400,742	Regional Target Industry
1	Reel Stories*	Career Development Project	New York City	\$453,900	Film and TV Production and Post-Production
1	Rochester Institute of Technology	Promoting Choice: Alternative Pathways to Work and Economic Mobility	Finger Lakes	\$999,000	Advanced Manufacturing and Materials, Construction
1	St. Nicks Alliance	Throop Corners Development Project	New York City	\$1,275,000	Construction, Software and Digital Media
2	Brooklyn Workforce Innovation*	"Made in NY" Production Assistant Training Program	New York City	\$201,000	Film and TV Production and Post-Production
2	Center for Employment Opportunities (CEO)*	New York City Pathways to Employment	New York City	\$193,735	Construction
2	Center for Employment Opportunities (CEO)*	Buffalo Pathways to Employment	Western NY	\$168,750	Construction
2	CenterState CEO*	Syracuse Surge	Central NY	\$128,000	Advanced Manufacturing and Materials, Software and Digital Media
2	Clarkson University	Advancing Industry with Micro-credentials (AIM)	North Country	\$729,000	Advanced Manufacturing and Materials, Construction, Cleantech and Renewable Energy
2	Mohawk Valley Community College	Fast Track	Mohawk Valley	\$976,000	Advanced Manufacturing and Materials, Construction
2	North Country Chamber of Commerce*	Welding Training	North Country	\$125,000	Construction, Advanced Manufacturing and Materials
2	Per Scholas*	New York Tech Training Program	New York City	\$822,000	Software and Digital Media
2	Questar III BOCES	Welding and Metal Fabrication Expansion	Capital Region	\$1,645,985	Construction
2	RochesterWorks*	ROC SEEDS	Finger Lakes	\$862,000	Advanced Manufacturing and Materials
2	Social Enterprise and Training Center (SEAT)	Build Up Young Filmmakers	Capital Region	\$638,827	Film and TV Production and Post-Production
2	SUNY Cobleskill*	Dairy Processing Bootcamp	Mohawk Valley	\$86,400	Regional Target Industry
2	SUNY Oswego*	Instructor Bootcamp	Central NY	\$340,963	Advanced Manufacturing and Materials, Construction, Cleantech and Renewable Energy
2	United Way of Long Island*	Power Up Wind, Solar & Renewables	Long Island	\$249,000	Cleantech and Renewable Energy
3	Andromeda Community Initiative*	Construction Careers Pathway	New York City	\$838,705	Advanced Manufacturing and Materials
3	BCAT	Building the Tech Workforce Ecosystem	Western NY	\$750,000	Software and Digital Media
3	CaHill Resources	aQuiRe Construction Academy	Western NY, Central NY, Southern Tier	\$751,211	Construction, Cleantech and Renewable Energy
3	CanCode Communities	Trainee Services Expansion	Capital Region, Mohawk Valley, New York City, Finger Lakes	\$678,027	Electronics and Optics, Photonics, and Imaging (OPI)
3	CNY Works, Inc.	Syracuse Build Pathways to Apprenticeship	Central NY	\$1,000,000	Construction
3	Goodwill Industries of Western NY	Goodskills Career Builder	Western NY	\$862,500	Advanced Manufacturing and Materials, Software and Digital Media

\* This organization has provided data on their project "completion and demographic data" on page 45.

Round	Grantee	Project Name	Region	Award Amount	Target Industries Served
3	Jamestown Community College	Expansion of Industrial Maintenance Technician and Machining Programs	Western NY	\$362,500	Advanced Manufacturing and Materials
3	Jamestown Community College	Development of New Tech and Manufacturing Certificate Pathways	Western NY	\$168,950	Advanced Manufacturing and Materials
3	Jamestown Community College	Development of New Tech and Manufacturing Certificate Pathways	Western NY	\$860,100	Advanced Manufacturing and Materials, Software and Digital Media
3	Jamestown Community College	Expansion of Industrial Maintenance Technician and Machining Programs	Western NY	\$177,590	Advanced Manufacturing and Materials
3	LaGuardia Community College	Clean Energy Careers	New York City	\$350,000	Cleantech and Renewable Energy
3	MESA Charter High School	Alumni Lab Training Center	New York City	\$667,790	Software and Digital Media
3	Monroe 2 BOCES*	Electrical Careers Expansion	Finger Lakes	\$700,000	Advanced Manufacturing and Materials
3	St. Nicks Alliance	Data Analytics Tech Training 2023	New York City	\$700,000	Software and Digital Media
3	Trocaire College	Jump Start Plus	Western NY	\$753,200	Software and Digital Media
3	Youth Action Programs and Homes	Next Gen Digital Workforce	New York City	\$269,580	Electronics and Optics, Photonics, and Imaging (OPI)
4	Assembly House 150	SACRA Strategic Workforce Training	Western NY	\$242,893	Construction, Cleantech and Renewable Energy
4	Erie 1 BOCES	Comprehensive Skilled Trades and Advanced Manufacturing Lab	Western NY	\$146,695	Advanced Manufacturing and Materials
4	ICD Institute for Career Development	ICD OSWD Grant Application - BRT Operating Resubmission	New York City	\$179,685	Construction
4	Long Island Educational Opportunity Center	Mobile Welding Lab	Long Island	\$504,002	Construction
4	Northland	Utility of the Future and Clean Energy Training	Western NY	\$1,000,000	Advanced Manufacturing and Materials, Cleantech and Renewable Energy
4	Northland	2023 OSWD Capital Grant	Western NY	\$1,373,000	Advanced Manufacturing and Materials, Cleantech and Renewable Energy
4	Pursuit Transformation Company	2023 OSWD Capital Grant	New York City	\$1,500,000	Software and Digital Media
4	Pursuit Transformation Company	2023 OSWD P4P Operating Grant	New York City	\$1,000,000	Software and Digital Media
4	Rockland Community College	Hudson Valley Industrial Maintenance Mechanic Career Pathways	Mid-hudson	\$933,412	Advanced Manufacturing and Materials
4	Suffolk County Community College	P4P Advanced Manufacturing Training on Long Island	Long Island	\$399,435	Advanced Manufacturing and Materials
4	Suffolk County Department of Labor Licensing Consumer Affairs	Brentwood Center Capital Grant	Long Island	\$3,000,000	Advanced Manufacturing and Materials
4	Suffolk County Department of Labor Licensing Consumer Affairs	Pay for Performance Operating Grant	Long Island	\$1,000,000	Advanced Manufacturing and Materials
4	SUNY Alfred State College of Technology	Microcredentialing Options to Enhance WNY Workforce - CAPITAL	Western NY	\$1,250,000	Construction, Cleantech and Renewable Energy
4	SUNY Alfred State College of Technology	Microcredentialing Options to Enhance WNY Workforce - OPERATING	Western NY	\$270,223	Construction, Cleantech and Renewable Energy

\* This organization has provided data on their project "completion and demographic data" on page 45.



## COMPLETION AND DEMOGRAPHIC DATA

Of the 52 projects that OSWD has funded, 17 projects have enrolled trainees and provided data on participants. The remaining programs are still in planning phase.

<b>Enrollments to Date</b>	848
<b>Completions to Date</b>	570
<b>Placements to Date</b>	169

Age Group	Number	Percentage
<b>Adult (25-54)</b>	546	64%
<b>Older Adults (55+)</b>	33	4%
<b>Youth (&lt;=24)</b>	269	32%

Veteran/Active Military	Number	Percentage
<b>Yes</b>	19	2%
<b>No</b>	829	98%

Gender	Number	Percentage
<b>Female</b>	302	36%
<b>Male</b>	519	61%
<b>Not Disclosed</b>	27	3%

Disability Status	Number	Percentage
<b>Disabled</b>	36	4%
<b>Not Disabled</b>	498	59%
<b>Not Disclosed</b>	314	37%

Hispanic or Latino	Number	Percentage
<b>Yes</b>	200	24%
<b>No</b>	549	65%
<b>Not Disclosed</b>	99	12%

Multiracial	Number	Percentage
<b>Yes</b>	141	17%
<b>No</b>	608	72%
<b>Not Disclosed</b>	99	12%

Racial Group	Number	Percentage
<b>Black (Alone)</b>	295	35%
<b>Black + Hispanic or Latino</b>	65	8%
<b>Total Black</b>	360	42%
<b>White (Alone)</b>	162	19%
<b>White + Hispanic or Latino</b>	37	4%
<b>Total White</b>	199	23%
<b>Asian/Pacific Islander (Alone)</b>	70	8%
<b>Hispanic or Latino (Alone)</b>	81	10%
<b>Not Disclosed</b>	99	12%
<b>Other Multiracial Combination</b>	39	5%

# Industry Analysis Methodology

Information contained in this report related to statewide target industries and overall New York State employment and labor force trends was developed by HR&A Advisors. HR&A used the data service Lightcast as well as U.S. Bureau of Labor Statistics (BLS) and New York State Department of Labor data to estimate the number and characteristics of jobs within each target industry as well as their associated wages, educational requirements, and demographics, and to track labor force trends. Lightcast (formerly known as EMSI and Burning Glass) is a leading national provider of employment data. Lightcast gathers and integrates labor market data from a wide array of sources, including the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) and Occupational Employment Statistics (OES), U.S. Bureau of Economic Analysis, O\*NET, U.S. Census Bureau American Community Survey (ACS) and County Business Patterns (CBP), and State Departments of Labor. Integrating data from multiple sources allows Lightcast to provide a broad accounting of employment that is unavailable from any one traditional source.

HR&A reported employment, demographic and wage information for sectors based on industry-level (NAICS) data. The North American Industry Classification System (NAICS) is a common industry classification system used by BLS. Due to a recent reclassification of the NAICS codes in 2022, HR&A Advisors redefined and updated the list of industries for each of the seven statewide target industries in conjunction with ESD for this report. This led to changes from OSWD’s Year One Progress Report, published in April 2022, in both the baseline data and future projections. This is mostly seen in the Tech & Media Industry analysis, which saw the most changes to its industry codes. The updated list of sectors included in each target industry definition is below.

NAICS	Description
<b>Advanced Manufacturing &amp; Materials</b>	
<b>3241</b>	Petroleum and Coal Products Manufacturing
<b>3251</b>	Basic Chemical Manufacturing
<b>3252</b>	Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing
<b>3253</b>	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
<b>3254</b>	Pharmaceutical and Medicine Manufacturing
<b>3255</b>	Paint, Coating, and Adhesive Manufacturing
<b>3256</b>	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
<b>3259</b>	Other Chemical Product and Preparation Manufacturing
<b>3261</b>	Plastics Product Manufacturing
<b>3262</b>	Rubber Product Manufacturing
<b>3271</b>	Clay Product and Refractory Manufacturing
<b>3272</b>	Glass and Glass Product Manufacturing
<b>3273</b>	Cement and Concrete Product Manufacturing
<b>3274</b>	Lime and Gypsum Product Manufacturing
<b>3279</b>	Other Nonmetallic Mineral Product Manufacturing
<b>3311</b>	Iron and Steel Mills and Ferroalloy Manufacturing
<b>3312</b>	Steel Product Manufacturing from Purchased Steel
<b>3313</b>	Alumina and Aluminum Production and Processing

<b>NAICS</b>	<b>Description</b>
<b>3314</b>	Nonferrous Metal (except Aluminum) Production and Processing
<b>3315</b>	Foundries
<b>3331</b>	Agriculture, Construction, and Mining Machinery Manufacturing
<b>3332</b>	Industrial Machinery Manufacturing
<b>3333</b>	Commercial and Service Industry Machinery Manufacturing
<b>3336</b>	Engine, Turbine, and Power Transmission Equipment Manufacturing
<b>3339</b>	Other General Purpose Machinery Manufacturing
<b>3341</b>	Computer and Peripheral Equipment Manufacturing
<b>3342</b>	Communications Equipment Manufacturing
<b>3343</b>	Audio and Video Equipment Manufacturing
<b>3344</b>	Semiconductor and Other Electronic Component Manufacturing
<b>3345</b>	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
<b>3346</b>	Manufacturing and Reproducing Magnetic and Optical Media
<b>3351</b>	Electric Lighting Equipment Manufacturing
<b>3352</b>	Household Appliance Manufacturing
<b>3353</b>	Electrical Equipment Manufacturing
<b>3359</b>	Other Electrical Equipment and Component Manufacturing
<b>3361</b>	Motor Vehicle Manufacturing
<b>3362</b>	Motor Vehicle Body and Trailer Manufacturing
<b>3363</b>	Motor Vehicle Parts Manufacturing
<b>3364</b>	Aerospace Product and Parts Manufacturing
<b>3365</b>	Railroad Rolling Stock Manufacturing
<b>3366</b>	Ship and Boat Building
<b>3369</b>	Other Transportation Equipment Manufacturing
<b>3391</b>	Medical Equipment and Supplies Manufacturing
<b>3399</b>	Other Miscellaneous Manufacturing
<b>Biotech and Life Sciences</b>	
<b>325411</b>	Medicinal and Botanical Manufacturing
<b>325412</b>	Pharmaceutical Preparation Manufacturing
<b>325413</b>	In-Vitro Diagnostic Substance Manufacturing
<b>325414</b>	Biological Product (except Diagnostic) Manufacturing
<b>334510</b>	Electromedical and Electrotherapeutic Apparatus Manufacturing
<b>334517</b>	Irradiation Apparatus Manufacturing

<b>NAICS</b>	<b>Description</b>
<b>339112</b>	Surgical and Medical Instrument Manufacturing
<b>339113</b>	Surgical Appliance and Supplies Manufacturing
<b>339114</b>	Dental Equipment and Supplies Manufacturing
<b>339115</b>	Ophthalmic Goods Manufacturing
<b>339116</b>	Dental Laboratories
<b>541713</b>	Research and Development in Nanotechnology
<b>334516</b>	Analytical Laboratory Instrument Manufacturing
<b>541380</b>	Testing Laboratories and Services
<b>541714</b>	Research and Development in Biotechnology (except Nanobiotechnology)
<b>541715</b>	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
<b>621511</b>	Medical Laboratories
<b>621512</b>	Diagnostic Imaging Centers
<b>Cleantech and Renewable Energy</b>	
<b>221111</b>	Hydroelectric Power Generation
<b>221113</b>	Nuclear Electric Power Generation
<b>221114</b>	Solar Electric Power Generation
<b>221115</b>	Wind Electric Power Generation
<b>221116</b>	Geothermal Electric Power Generation
<b>221117</b>	Biomass Electric Power Generation
<b>221118</b>	Other Electric Power Generation
<b>221121</b>	Electric Bulk Power Transmission and Control
<b>221122</b>	Electric Power Distribution
<b>221330</b>	Steam and Air-Conditioning Supply
<b>238210</b>	Electrical Contractors and Other Wiring Installation Contractors
<b>325180</b>	Other Basic Inorganic Chemical Manufacturing
<b>332117</b>	Powder Metallurgy Part Manufacturing
<b>332119</b>	Metal Crown, Closure, and Other Metal Stamping (except Automotive)
<b>333414</b>	Heating Equipment (except Warm Air Furnaces) Manufacturing
<b>333415</b>	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
<b>333611</b>	Turbine and Turbine Generator Set Units Manufacturing
<b>335131</b>	Residential Electric Lighting Fixture Manufacturing
<b>335132</b>	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing



<b>NAICS</b>	<b>Description</b>
<b>335311</b>	Power, Distribution, and Specialty Transformer Manufacturing
<b>335312</b>	Motor and Generator Manufacturing
<b>335313</b>	Switchgear and Switchboard Apparatus Manufacturing
<b>335314</b>	Relay and Industrial Control Manufacturing
<b>335910</b>	Battery Manufacturing
<b>335931</b>	Current-Carrying Wiring Device Manufacturing
<b>335999</b>	All Other Miscellaneous Electrical Equipment and Component Manufacturing
<b>423690</b>	Other Electronic Parts and Equipment Merchant Wholesalers
<b>562920</b>	Materials Recovery Facilities
<b>Construction</b>	
<b>236115</b>	New Single-Family Housing Construction (except For-Sale Builders)
<b>236116</b>	New Multifamily Housing Construction (except For-Sale Builders)
<b>236117</b>	New Housing For-Sale Builders
<b>236118</b>	Residential Remodelers
<b>236210</b>	Industrial Building Construction
<b>236220</b>	Commercial and Institutional Building Construction
<b>237110</b>	Water and Sewer Line and Related Structures Construction
<b>237120</b>	Oil and Gas Pipeline and Related Structures Construction
<b>237130</b>	Power and Communication Line and Related Structures Construction
<b>237210</b>	Land Subdivision
<b>237310</b>	Highway, Street, and Bridge Construction
<b>237990</b>	Other Heavy and Civil Engineering Construction
<b>238110</b>	Poured Concrete Foundation and Structure Contractors
<b>238120</b>	Structural Steel and Precast Concrete Contractors
<b>238130</b>	Framing Contractors
<b>238140</b>	Masonry Contractors
<b>238150</b>	Glass and Glazing Contractors
<b>238160</b>	Roofing Contractors
<b>238170</b>	Siding Contractors
<b>238190</b>	Other Foundation, Structure, and Building Exterior Contractors
<b>238210</b>	Electrical Contractors and Other Wiring Installation Contractors
<b>238220</b>	Plumbing, Heating, and Air-Conditioning Contractors
<b>238290</b>	Other Building Equipment Contractors

<b>NAICS</b>	<b>Description</b>
<b>238310</b>	Drywall and Insulation Contractors
<b>238320</b>	Painting and Wall Covering Contractors
<b>238330</b>	Flooring Contractors
<b>238340</b>	Tile and Terrazzo Contractors
<b>238350</b>	Finish Carpentry Contractors
<b>238390</b>	Other Building Finishing Contractors
<b>238910</b>	Site Preparation Contractors
<b>238990</b>	All Other Specialty Trade Contractors
<b>Electronics and Optics, Photonics, and Imaging (OPI)</b>	
<b>325992</b>	Photographic Film, Paper, Plate, Chemical, and Copy Toner Manufacturing
<b>333310</b>	Commercial and Service Industry Machinery Manufacturing
<b>334111</b>	Electronic Computer Manufacturing
<b>334112</b>	Computer Storage Device Manufacturing
<b>334118</b>	Computer Terminal and Other Computer Peripheral Equipment Manufacturing
<b>334210</b>	Telephone Apparatus Manufacturing
<b>334220</b>	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
<b>334290</b>	Other Communications Equipment Manufacturing
<b>334310</b>	Audio and Video Equipment Manufacturing
<b>334412</b>	Bare Printed Circuit Board Manufacturing
<b>334413</b>	Semiconductor and Related Device Manufacturing
<b>334416</b>	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing
<b>334417</b>	Electronic Connector Manufacturing
<b>334418</b>	Printed Circuit Assembly (Electronic Assembly) Manufacturing
<b>334419</b>	Other Electronic Component Manufacturing
<b>335139</b>	Electric Lamp Bulb and Other Lighting Equipment Manufacturing
<b>541713</b>	Research and Development in Nanotechnology
<b>541715</b>	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
<b>Software and Digital Media</b>	
<b>513210</b>	Software Publishers
<b>517111</b>	Wired Telecommunications Carriers
<b>517112</b>	Wireless Telecommunications Carriers (except Satellite)
<b>517410</b>	Satellite Telecommunications

<b>NAICS</b>	<b>Description</b>
<b>517121</b>	Telecommunications Resellers
<b>517810</b>	All Other Telecommunications
<b>518210</b>	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services
<b>516210</b>	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers
<b>519210</b>	Libraries and Archives
<b>519290</b>	Web Search Portals and All Other Information Services
<b>541511</b>	Custom Computer Programming Services
<b>541512</b>	Computer Systems Design Services
<b>541513</b>	Computer Facilities Management Services
<b>541519</b>	Other Computer Related Services
<b>Film and TV Production and Post-Production</b>	
<b>512110</b>	Motion Picture and Video Production
<b>512120</b>	Motion Picture and Video Distribution
<b>512191</b>	Teleproduction and Other Postproduction Services
<b>512199</b>	Other Motion Picture and Video Industries
<b>512240</b>	Sound Recording Studios
<b>512290</b>	Other Sound Recording Industries
<b>711510</b>	Independent Artists, Writers, and Performers
<b>516120</b>	Television Broadcasting Stations
<b>516210</b>	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers