



# ACCOUNTING FOR SUCCESS:

A Blueprint for Measuring the Performance of New York State's Workforce Development System

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INVEST IN  
SKILLS NY

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## ABOUT THIS BLUEPRINT

In 2018, Invest in Skills NY led a successful advocacy effort that resulted in an unprecedented state investment in the workforce development system. Specifically, Governor Cuomo and the state legislature committed to spend \$175 million on strengthening the state's job training and employment services. These resources are managed by a new state-level entity, the New York State (NYS) Office of Workforce Development.

To support the Office of Workforce Development, Invest in Skills NY released its first policy blueprint in December 2018. The brief, entitled *Leveraging Opportunity, Meeting Demand: A Blueprint for Building New York State's Workforce Development System*, outlines a path forward for a thriving workforce development system. It makes three core recommendations:

- 1. Empower leadership** by restructuring the State Workforce Development Board to set statewide goals and to develop a plan for the state's workforce development system.
- 2. Build a career pathways system** by charging government agencies with collaboratively developing an integrated workforce development system through the creation of a mechanism to fund activities across the continuum of workforce development and through support for continuous improvement and innovation.
- 3. Build a 21st-century data infrastructure** for New York State, which includes developing a regionally organized labor market information tool, a single and centrally managed set of outcome metrics for all programs and agencies, and a strategy to evaluate programs periodically to improve practice.

The present brief, *Accounting for Success: A Blueprint for Measuring the Performance of New York State's Workforce Development System*, focuses on the third recommendation: build a 21st-century data infrastructure. A unified postsecondary and workforce data system is indispensable for connecting labor supply with labor demand. This need is even more urgent in light of the unprecedented shift in the labor market due to the global COVID-19 pandemic, which has left many New Yorkers unemployed and in need of reskilling. Unfortunately, because New York's workforce development system lacks a comprehensive approach to data, the state's ability to adequately respond to pandemic-induced changes in the labor market is limited.

Ideally, such a data system collects and maintains detailed, high-quality information from a range of stakeholders on education, job training, and employment services; connects performance, programmatic, and participant data across agencies; manages data longitudinally over time; tracks and clearly reports on outcomes; and is user friendly to a variety of stakeholders (including employers, jobseekers, and policymakers) interested in understanding performance and progress in the postsecondary education and workforce development sectors.<sup>1</sup> Best practices from other states across the country reveal integrated data systems that help users (including policymakers, workforce training providers, employers, and jobseekers) answer a range of questions related to job training and employment.<sup>2</sup> Currently, New York's workforce development system is unable to answer many such questions, including these four:

1. How many state residents are currently participating in an education or job training program?
2. How effective are these programs in helping people access employment and better wages immediately and over time?
3. What is the wage progression for industry-recognized credentials across the state?
4. What employment skills are most important from region to region to help New York overcome the economic fallout resulting from the COVID-19 pandemic?

This brief explores the gaps in New York State's current efforts to capture performance outcomes and trends in workforce development, showcases the best practices of other states that have successfully built comprehensive workforce and postsecondary data systems, and provides guidance to New York policymakers on how to catch up to other states in developing a data-driven workforce development system that can inform investment and programmatic strategies.

*A comprehensive data system for workforce development effectively tracks program outcomes using a set of shared performance indicators and makes information available to stakeholders in a timely manner. In doing so, it facilitates more targeted public investments, provider accountability, and connections between the state's workforce talent pipeline and employers and economic developers. With executive-level leadership now in place in New York State, \$175 million ready to invest, and a request from employers for a more skilled workforce, New York needs a statewide data system now more than ever.*

## OVERVIEW OF RECOMMENDATIONS AND NEXT STEPS

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**Recommendation 1: Commit state resources and direct state agencies, in collaboration with local stakeholders (e.g., employers, workforce training providers, and colleges), to build and sustain a comprehensive data system through a transparent and accountable process.**

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### Next Steps:

- ✓ Use the Workforce Development Quality Campaign's roadmap to develop a plan to address each of the system's main elements: a shared vision; cross-agency governance; data sharing; data analysis; capacity building; and privacy and security.
- ✓ Establish a leadership infrastructure through a repurposed State Workforce Development Board charged with ensuring collaborative and supportive governance based on a shared vision of success for state agency partners and local workforce training providers.
- ✓ If needed, adopt new legislation that allocates resources and facilitates data sharing and aligns technological infrastructure across agencies, and that ensures the system's accountability to the public.

**Recommendation 2: Adopt a set of common performance metrics to be used across workforce development programs and funding streams.**

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### Next Steps:

- ✓ In conjunction with local stakeholders, decide on a comprehensive set of data points to be included in the statewide data system (see table 3 for specific recommendations) that can help the state set workforce and postsecondary goals and measure its progress against those goals.
- ✓ Develop a "data dictionary" defining key terms for data collection and measurement that can be used across agencies and programs, such the NYS Department of Labor, Access VR, NYS Education Department, the State and City Universities of New York, and others.
- ✓ Integrate labor market information into the performance management system to provide a single data source for users.

## Recommendation 3: Build and test the technical elements of the data system.

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### Next Steps:

- ✓ Execute the steps to building a data system presented in section 3 of this brief, seeking financial resources and technical assistance from the US Department of Labor and other federal sources.
- ✓ Develop end-user support for agencies and providers to ensure that they are able to fully participate in the data system.

## Recommendation 4: Integrate the State University of New York (SUNY) and the City University of New York (CUNY) into the statewide data system to better capture workforce outcomes of the state's public higher education system.

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### Next Steps:

- ✓ Map the existing performance data systems currently used by SUNY and CUNY in order to integrate them into a comprehensive statewide system.
- ✓ Charge CUNY and SUNY leadership with ensuring uniformity across data on non-degree programs and non-credit instructional activities (NCIA), including inputs (enrollment and registration), outputs (completions), and outcomes (credentials earned, further education pursued, and employment and earnings).
- ✓ Make data on non-degree programs and NCIA courses available in real time, allowing students to make more informed decisions and employers to have up-to-date information on the local talent pipeline.

## Recommendation 5: Make data available and user friendly to state and local government agencies, workforce training providers, legislators, employers, and the general public to ensure that it is used to support strong workforce outcomes.

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### Next Steps:

- ✓ Ensure that the statewide data system is an external-facing tool that can be tailored to policymakers, agencies, workforce training providers, jobseekers, employers, and others.
- ✓ Incorporate data visualization and disaggregation—which make information more understandable and straightforward for users—as key elements of the system.
- ✓ Ensure that the system's employer interface includes relevant data on the talent pipeline and allows employers to contribute data on needs and projections.

# CHALLENGES AND OPPORTUNITIES

## The Challenge

New York’s workforce development system, which serves millions of New Yorkers each year, is massive and housed across dozens of programs, agencies, and funding streams. From large-scale institutions such as SUNY and CUNY to local initiatives funded through the federal Workforce Innovation and Opportunity Act (WIOA), the ultimate goal of most of the state’s programs is to improve residents’ job skills and employment outcomes.

Table 1 presents more than 40 workforce programs and funding streams currently being implemented in New York, demonstrating just how different the language, criteria, and indicators are both across and within agencies. Although each program has its own goals, they all share skills attainment and employment as a core focus and would therefore benefit from a common foundational data framework.

<b>TABLE 1. Budget and funding comparison of workforce programs in New York</b>		
<b>Adult education funding</b>	<b>NYS agency</b>	<b>2020–2021 executive budget</b>
Adult literacy education	Education Department	\$6,293,000
Adult basic education (Welfare Education Program)	Education Department	\$1,843,000
Employment preparation education	Education Department	\$96,000,000
WIOA Title II	Education Department	\$48,704,000
<b>SUBTOTAL ADULT ED FUNDING</b>		<b>\$152,840,000</b>
<b>Workforce development funding (job training, workforce services, career and tech education, employment services)</b>	<b>NYS agency</b>	<b>2020–2021 executive budget</b>
WIOA statewide services to adults, dislocated workers, and youth, and rapid response activities	Department of Labor	\$147,616,000
Pay for Success contingency fund	Division of Budget	\$69,000,000
Miscellaneous services and expenses related to administration of WIOA	Department of Labor	\$35,000,000
Self-Employment Assistance Program operated by small business development centers or entrepreneurial assistance programs	Department of Labor	\$2,570,000
Unemployment insurance occupational training fund	Department of Labor	\$26,500,000
Senior community services for older Americans	Office for the Aging	\$9,000,000
Temporary Assistance for Needy Families workforce training and employment programs	Office of Temporary and Disability Assistance	\$0
Summer youth employment	Office of Temporary and Disability Assistance	\$45,000,000
Career Pathways Program	Office of Temporary and Disability Assistance	\$0
Employment support for individuals with HIV/AIDS	Office of Temporary and Disability Assistance	\$1,161,000
Displaced Homemaker Program	Department of Labor	\$0
Chamber of commerce and community organization workforce activities	Department of Labor	\$0
AFL-CIO Workforce Development Institute funding	Department of Labor	\$0
Consortium for Worker Education	Education Department	\$0
Training and employment services	Department of Corrections and Community Supervision	\$1,029,000

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Vocational training	Department of Corrections and Community Supervision	\$0
Reentry programs	Department of Corrections and Community Supervision	\$0
Community supervision employment programs	Division of Criminal Justice Services	\$13,819,000
Corrections employment services	Department of Corrections and Community Supervision	\$9,000,000
Office of New Americans	Department of State	\$6,640,000
Health workforce retraining	Department of Health	\$9,000,000
Direct care worker recruitment and retention	Department of Health	\$11,500,000
YouthBuild–Newburgh	Department of Labor	\$0
Brooklyn Chamber of Commerce	Department of Labor	\$0
Solar Energy Consortium	Department of Labor	\$0
Manufacturers Association of Central NY	Department of Labor	\$0
Rochester Tooling and Machining Institute	Department of Labor	\$0
North American logging training at Paul Smith	Department of Labor	\$0
Jubilee Homes–Syracuse	Department of Labor	\$0
Office of Adult and Career Education Services	Department of Labor	\$0
NYS Pipe Trades Association solar thermal technology training pilot programs	Department of Labor	\$0
Summer Youth Employment Program–Rochester	Department of Labor	\$0
Hope Program	Department of Labor	\$0
Here to Here Program	Department of Labor	\$0
LaGuardia Community College	Department of Labor	\$0
Pre-apprenticeship programs at Construction Training Centers of NY	Department of Labor	\$0
Hillside Works	Education Department	\$490,000
Entertainment Diversity Job Training Development Fund	Empire State Development	\$2,000,000
Environmental justice job training	Department of Environmental Conservation	\$7,000,000
<b>SUBTOTAL WORKFORCE FUNDING</b>		<b>\$396,325,000</b>
<b>College access and workforce services in higher education</b>	<b>NYS agency</b>	<b>2020–2021 executive budget</b>
Next Generation Job Linkage Program	CUNY & SUNY	\$5,000,000
State financial assistance for community college contract courses and workforce development	CUNY & SUNY	\$3,600,000
Foster youth college transition support	Education Department	\$6,000,000
Early college high schools and P-TECH support	Education Department	\$27,842,000
Financial aid for educationally and economically disadvantaged individuals	CUNY & SUNY	\$0
CUNY Accelerated Study in Associates Program	CUNY	\$0
Language immersion programs	CUNY	\$0
Apprentice programs	CUNY & SUNY	\$5,000,000
STEP/CSTEP programs	CUNY & SUNY	\$27,793,070
Higher Education Opportunity Program	Education Department	\$35,526,920
Resources and capacity building for career centers at community colleges in coordination with NYS Department of Labor	CUNY & SUNY	\$0
Community schools grants to increase partnerships outside of the college to support students	CUNY & SUNY	\$0
Family empowerment and child care on campus	n/a	\$0
Expansion of child care at CUNY and SUNY	CUNY & SUNY	\$1,814,100
<b>SUBTOTAL COLLEGE</b>		<b>\$112,576,090</b>

Source: New York Association of Training and Employment Professionals



However, the manner in which programmatic performance is collected, measured, and reported varies widely. This decentralized approach makes it nearly impossible to understand the collective impact of investment in workforce development across state agencies and local workforce training providers. This fragmentation can lead to waste and duplication in the delivery of programs and services.

All of the aforementioned programs serve the same target population—but they each utilize a unique data collection system and require different intake information and performance data. Additionally, many local agencies that administer programs through contracts or subcontracts utilize their own internal or

proprietary databases to align the variety of data collection and performance management tracking required by their various contracts for workforce services. Ultimately, this means that New York State's ability to understand who is receiving workforce services, how effective those services are, and how those services can be expanded is very limited.

**In a 50-state comparison of workforce development data systems, New York fared poorly both in terms of data collection by individual agencies and as a comprehensive system. Virtually none of New York State's data could be disaggregated by age, gender, race, or other key criteria.**

In a 50-state comparison of data systems, New York fared poorly both in terms of data collection by individual agencies and as a comprehensive system, and virtually none of New York State's data tracking workforce development training and skill development could be disaggregated by age, gender, race, or other key criteria.<sup>3</sup> This is particularly troubling given the racial and gender disparities in education and employment that the workforce system could help remedy. This is no small matter: it is estimated that the national economy could be

\$2.5 trillion larger per annum if racial income gaps were eliminated.<sup>4</sup> For young adult New Yorkers, the statewide

unemployment rate before COVID-19 was 20.7% for those aged 16 to 19 and 11.6% for those aged 20 to 24,<sup>5</sup> a troubling trend in the wrong direction that reinforces the need for more targeted investments to better support rising generations preparing for the future of work.

The funding landscape has also posed historical challenges for New York. Prior to 2018—when Governor Cuomo announced his commitment to launch the Workforce Development Initiative and invest \$175 million—New York State was suffering from flat or declining federal and state investments in workforce development, which eroded the system infrastructure over time and put New York at a competitive disadvantage.

With new state investment and a new Office of Workforce Development to coordinate the effort, the time to invest in a fully integrated workforce development data system is now. The need for such a data system is especially timely considering the economic downturn brought on by the global COVID-19 pandemic, which has left many New Yorkers unemployed and without a path forward.

Despite small one-off pilots in previous years, the state has never tried to develop a truly integrated workforce development system that connects the dozens of agencies, programs, and funding streams

through a shared data-driven approach. Other states have figured out how to braid together their workforce development strategies and measure their outcomes to inform future investments. For example, in Texas, data from programs funded by WIOA and by Temporary Assistance for Needy Families is administered by the same agency in part to ensure aligned performance indicators, data sharing, and seamless programming for clients. To develop a more integrated approach toward linking labor supply with labor demand, New York’s first step should be to develop a 21st-century data infrastructure that can measure and track progress against a set of statewide goals.

**Measuring the Problem**

As management expert Peter Drucker has said, “What gets measured gets managed.” If the state wishes to strategically invest its limited resources to ensure that education, job training, and employment programs align with its economic development investments, it needs to know what is working and what is not. The simplest measure of success for workforce development is employment outcomes. Table 2 showcases the complex—and often inefficient—ways that different programs across different agencies measure employment. As the table demonstrates, we are unable to answer the basic question of *How many New Yorkers gain and keep a job due to their participation in education, job training, or employment programs under New York’s workforce development system?*

**New York is unable to answer the basic question of *How many residents gain and keep a job due to their participation in education, job training, or employment programs under New York’s workforce development system?***

TABLE 2. Different programs’ different ways of measuring employment outcomes			
<p><b>The NYS Department of Labor’s</b> WIOA-funded <i>Adult, Dislocated Worker and Youth</i> program and its <i>Wagner-Peyser</i> program measure 2nd- and 4th-quarter employment rates after participants’ program exit.</p>	<p><b>The Office of Children and Family Services</b> of the Division of Juvenile Justice and Opportunities for Youth’s <i>Workforce Development Demonstration Project</i> measures the percentage of program graduates who are placed in paid jobs.</p>	<p><b>The Office of Temporary and Disability Assistance’s</b> <i>Career Pathways III</i> measures participants’ employment for 60 days and then again 120 days following their exit from the program.</p>	<p><b>The NYS Education Department’s</b> <i>AccessVR Work-Try-Out / On-the-Job Training</i> tracks participant employment on a monthly basis, as well as in a final report if a participant is retained with their employer.</p>
<p><b>Source:</b> New York State Department of Labor, “Workforce Development System Technical Advisory #18-6.2” (September 17, 2018), <a href="https://www.labor.ny.gov/workforcenypartners/ta/ta18-6.2.pdf">https://www.labor.ny.gov/workforcenypartners/ta/ta18-6.2.pdf</a></p>	<p><b>Source:</b> New York State Office of Children and Family Services, “Request for Proposals: Workforce Development Demonstration Project” (November 19, 2018), p. 20, <a href="https://ocfs.ny.gov/main/contracts/funding/RFP2018-22/RFP2018-22-AMENDED-12-18-18.pdf">https://ocfs.ny.gov/main/contracts/funding/RFP2018-22/RFP2018-22-AMENDED-12-18-18.pdf</a></p>	<p><b>Source:</b> New York State Office of Temporary and Disability Assistance, “Request for Proposals: Career Pathways III Program” (August 15, 2018), <a href="https://otda.ny.gov/contracts/2018/CPIII/18-CPIII-RFP.pdf">https://otda.ny.gov/contracts/2018/CPIII/18-CPIII-RFP.pdf</a></p>	<p><b>Source:</b> New York State Education Department, “1375.40 Work-Try-Out (WTO) / On-The-Job Training (OJT) Policy” (October 2018), <a href="http://www.acces.nysed.gov/vr/137540-work-try-out-wto-job-training-ojt-policy">http://www.acces.nysed.gov/vr/137540-work-try-out-wto-job-training-ojt-policy</a></p>

The variability in how workforce development programs measure employment makes it impossible to conduct a cross-program, system-wide analysis of the results that are critical to developing strategy and making investment decisions. This is particularly true for the state lawmakers charged with developing the state’s budget or economic developers considering investment in any given region across the state. The Office of Temporary and Disability Assistance, for example, submits an annual report to the legislature that includes information on the number of participants in agency-led training and educational activities, including vocational education, job skills training, and postsecondary school. However, this report does not provide lawmakers with any sense of how these programs translate into employment and wage earnings, which are two critical outcomes of job training and workforce development. As a result, lawmakers are left with limited knowledge to make important policy decisions.<sup>6</sup>

Given the sizable amount of funds that New York’s workforce programs derive from the federal government, a potential starting point could be the adoption of WIOA performance indicators (see table 3) across all workforce development initiatives.<sup>7</sup> Many of these indicators are already aligned with other relevant federal funding streams, including the Strengthening Career and Technical Education for the 21st Century Act and the Individuals with Disabilities Education Act.<sup>8</sup> Importantly, an ideal data system would collect the same data points for all program participants, regardless of the funding stream.

**TABLE 3. WIOA performance indicators**

Indicator	Definition
<b>Employment rate – 2nd and 4th quarters after program exit</b>	Percentage of participants who are in unsubsidized employment during the 2nd or 4th quarters after exiting the program
<b>Youth education and employment rate – 2nd quarter after program exit</b>	Percentage of youth program participants (ages 14–24) who are in education or training activities or in unsubsidized employment during the 2nd quarter after exiting the program
<b>Median earnings – 2nd quarter after program exit</b>	Median earnings of participants who are in unsubsidized employment during the 2nd quarter after exiting the program
<b>Credential attainment during program or within 1 year after exit</b>	Percentage of participants enrolled in an education or training program who attain a recognized postsecondary credential or a secondary school diploma (or its recognized equivalent)
<b>Measurable skill gains</b>	Percentage of program participants who, during a program year, are in an education or training program that leads to a recognized postsecondary credential or employment and who are achieving measurable skill gains (defined as documented academic, technical, occupational, or other forms of progress) toward such a credential or employment
<b>Effectiveness in serving employers</b>	Retention (percentage of participants who exit and are employed with the same employer in the 2nd and 4th quarters after exit); repeat business customers (percentage of repeat employers using agency services within the previous three years); and employer penetration rate (percentage of employers using agency services out of all employers in the state)

Source: *Federal Register*, vol. 81, no. 161 (August 19, 2016), <https://www.govinfo.gov/content/pkg/FR-2016-08-19/pdf/2016-15977.pdf>

The state’s recent commitment to invest \$175 million and its new Office of Workforce Development present a historic opportunity to shift from “business as usual” to a new era of collaboration and coordination. But while this investment is a welcome and much-needed change, without the necessary data infrastructure and shared set of performance indicators, it will be difficult to understand its impact. One example of a missed opportunity can be found in the state’s apprenticeship programs operated in partnership with SUNY and CUNY. These programs are also part of the state’s Workforce Development Initiative and are facilitated through the Consolidated Funding Application. Given that the apprenticeship programs and the new Consolidated Funding Application are relatively new developments, a shared set of performance indicators should have been established from the start.

**TABLE 4. SUNY and CUNY: Different measurement approaches for the same apprenticeship program**

SUNY measures the following:	CUNY measures the following:
<ol style="list-style-type: none"> <li>1. Number of registered apprentices</li> <li>2. Number of pre-apprentices</li> <li>3. Number of first-time employers offering apprenticeships</li> <li>4. Number of new employers included on SUNY Apprenticeship Program applications</li> <li>5. Number of employers newly approved by NYS Department of Labor working with SUNY Apprenticeship Program</li> </ol>	<ol style="list-style-type: none"> <li>1. Number of students in registered apprenticeship programs</li> <li>2. Number of students in pre-apprenticeship programs</li> <li>3. Number of employers receiving CUNY Apprenticeship Program funds</li> <li>4. Number of employers offering apprenticeships to students</li> <li>5. Number of employers whose apprenticeship became a “registered apprenticeship” because of their partnership with CUNY</li> </ol>

**Source:** New York State, “Workforce Development Initiative Consolidated Funding Application 2019 Program Guidelines: (February 2020), pp. 4, 11, <https://workforcedevelopment.ny.gov/sites/default/files/2020-02/WorkforceDevelopmentInitiativeProgramGuidelines.pdf>

To make matters more complicated, most state agencies have their own technological platforms for collecting and managing data. Table 5 provides a few examples of how different agencies use different technological platforms to capture and analyze data. It also shows how one agency (the NYS Education Department) uses two different systems. Thus, one challenge to developing an integrated data system will be to reconcile the differences between these systems and develop a fully connected approach for measuring and tracking progress across the workforce development system.

**TABLE 5. A snapshot of the different technological platforms used in New York State’s workforce development system**

The NYS Education Department’s ACCES-VR uses the <i>Case Management System</i>	The NYS Education Department uses <i>ASISTS</i> for adult literacy programs	The NYS Department of Labor uses the <i>One-Stop Operating System</i> for WIOA-funded programs	The Office of Temporary and Disability Assistance uses the <i>Welfare Reporting and Tracking System</i>
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**Source:** New York State Education Department, “Designing the Future of Vocational Rehabilitation,” <http://www.acces.nysed.gov/designing-future-vocational-rehabilitation>

**Source:** Adult Student Information System and Technical Support, <https://www.asists.com/login.aspx>

**Source:** America’s One Stop Operating System, [http://www.ososinfo.org/docs/pub/brochure\\_2006.pdf](http://www.ososinfo.org/docs/pub/brochure_2006.pdf)

**Source:** New York State Office of Temporary and Disability Assistance, 2019 Statistical Report on the Operations of New York State Public Assistance Programs (2019), <https://otda.ny.gov/resources/legislative-report/2019-Legislative-Report.pdf>

In order to achieve a data-driven workforce system, the state needs to apply a uniform metric across its different programs. This will facilitate a clearer understanding of systemic gaps, capture the efficacy of public investments, and demonstrate a value proposition for economic development and employers. Given the rapid changes to the economy and workforce as technology evolves, together with the transformation in the nature of employment as a result of COVID-19, timely data is the only way for workforce and education stakeholders to continue to deliver meaningful programs and services that yield positive employment outcomes. Today, as the state grapples with the impact of a global pandemic and a looming unemployment crisis, understanding what is effective in upskilling and re-employing New Yorkers is even more critical.

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## From Challenge to Opportunity

Fortunately, New York can learn from other states that have taken on the task of streamlining their workforce development data management systems. States such as Michigan, Minnesota, Texas, and Washington are now relying on such systems to prioritize programs and interventions with a strong return on investment, to innovatively respond to changing needs, to scale up effective interventions, and to improve the practices of struggling programs. Their data systems allow them to easily see and compare hiring rates, earnings increases, rates of credential acquisition, and long-term cost-effectiveness.

New York can also look to several home-grown examples of data coordination that are present throughout the state. Federal WIOA performance metrics guide programs across the NYS Department of Labor, NYS Education Department, and NYS Commission for the Blind. WIOA-funded program performance is available quarterly,<sup>9</sup> and higher education enrollments are available annually.<sup>10</sup> Additionally, the state has created the NYS Employment Services System, which offers a single source of employment data collection and supports, with a focus on individuals with disabilities across seven state agencies. Policymakers should learn from these efforts as they define a shared vision and definition of success for education, job training, and employment programs, thereby empowering the state's workforce development system to reap stronger results.

## STRATEGIES FOR BUILDING A STATEWIDE DATA SYSTEM

Invest in Skills NY offers five recommendations to help guide the state in building a comprehensive system for collecting and analyzing data on workforce development:

- 1** Commit state resources and direct state agencies, in collaboration with local stakeholders (e.g., employers, workforce training providers, and colleges), to build and sustain a comprehensive data system through a transparent and accountable process.
- 2** Adopt a set of common performance metrics to be used across workforce development programs and funding streams.
- 3** Build and test the technical elements of the data system.
- 4** Integrate SUNY and CUNY into the statewide data system to better capture workforce outcomes of the state's public higher education system.
- 5** Make data available and user friendly to state and local government agencies, workforce training providers, legislators, employers, and the general public to ensure that it is used to support strong workforce outcomes.

This section describes each recommendation and presents lessons learned from other states, perspectives from workforce leaders across New York State, and promising practices to be considered for implementation.

### RECOMMENDATION 1

**Commit state resources and direct state agencies, in collaboration with local stakeholders (e.g., employers, workforce training providers, and colleges), to build and sustain a comprehensive data system through a transparent and accountable process.**

Prior to building the data system itself, it is imperative to build buy-in and ensure accountability by establishing a clear idea of the purpose and intended outcomes of the data system, how the data will be analyzed and reported, and what the roles of each stakeholder (including agency staff, employers, training providers, colleges, and others) will be.<sup>11</sup> According to the Workforce Data Quality Campaign, strong state-level data systems accomplish this first step of the process by addressing a number of core elements: a shared vision; cross-agency governance; data sharing; data analysis; capacity building; and privacy and security.<sup>12</sup>

According to the Workforce Data Quality Campaign, strong state-level data systems accomplish this first step of the process by addressing a number of core elements: a shared vision; cross-agency governance; data sharing; data analysis; capacity building; and privacy and security.

Cross-agency collaboration is central to several states' strategies. In Kentucky, each agency supplying data sits on a governance board that sets the research agenda for how data are used. Similarly, Minnesota uses a steering committee to gather all agencies involved in workforce programming and to align their data collection efforts, which has resulted in a detailed report card outlining performance across agencies.<sup>13</sup> Virginia, meanwhile, has found that data protection is a significant concern for governmental and nongovernmental partners alike and has created a method by which data are de-identified before they leave the firewalls of each agency.<sup>14</sup>

Other states have utilized legislative solutions to address data alignment and state agency coordination. In Oregon, the state legislature wrote into law the explicit responsibility of the Employment Department to oversee a statewide workforce and labor market information system; to provide foundational workforce data in support of state and local employment, training, education, and job creation programs; and to produce workforce and labor market information and economic analysis to help match labor supply with demand.<sup>15</sup> In Kentucky, in addition to coordinated governance, the legislature mandated the creation of an Office for Education and Workforce Statistics and specifically identified the government agencies required to provide data. It also listed the new office's specific tasks, among them ensuring data integrity, linking education and workforce data to inform policy, conducting research, and evaluating program effectiveness.<sup>16</sup> Some states have also passed legislation focusing on specific data-related elements. In 2018, Maryland passed a law that required not only certificate data from higher education partners but also licensing and certification data from industry certifiers receiving state funding.<sup>17</sup>

New York's recent commitment to invest \$175 million in workforce development makes reference to investing in data collection.<sup>18</sup> Regardless of whether additional legislation is needed to move a data system forward, lessons from other states provide a helpful starting point for outlining the system's parameters, securing buy-in from relevant stakeholders, and addressing important issues around data confidentiality. Whether through practices that build ownership or through policy and legislation, New York State must install a strong mandate and accountability structure to ensure that agencies not only populate the system with data but also do so in a way that is reliable, thorough, and timely.

### Next Steps for New York State:

- ✓ Use the Workforce Development Quality Campaign's roadmap to develop a plan to address each of the system's main elements: a shared vision; cross-agency governance; data sharing; data analysis; capacity building; and privacy and security.
- ✓ Establish a leadership infrastructure through a repurposed State Workforce Board charged with ensuring collaborative and supportive governance based on a shared vision of success for state agency partners and local workforce training providers.
- ✓ If needed, adopt new legislation that facilitates data sharing and aligns technological infrastructure across agencies, and that ensures the system's accountability to the public.

**RECOMMENDATION 2**

**Adopt a set of common performance metrics to be used across workforce development programs and funding streams.**

In order to effectively track outcomes, a statewide data system must start with common metrics that will be used across all programs. For example, common metrics and shared data are the backbone of the Kansas Career Navigator, a public dashboard that helps individuals choose career and training paths; advertises workforce providers; and synthesizes labor market information.<sup>19</sup> This information is presented by county, which allows state residents to make informed decisions about career pathways based on the jobs that are in demand in their communities.

In addition to systematically adopting the indicators established by WIOA, New York should consider utilizing additional data points that, while not applicable across all programs, help capture the full scope and impact of the state’s workforce system. These additional data points include data on performance metrics for specific segments of the workforce development field (e.g., career and technical education programs) and data that can be used to better analyze performance (e.g., wage records and labor market information), as well as information on customer satisfaction levels, which would consider the voices of the system’s jobseekers and businesses in terms of their experiences with workforce programs and services. Table 6 outlines the questions that the New York State’s workforce development data dashboard should be able to answer across the entire system, regardless of program, agency, funding stream, or location.

<b>TABLE 6. Ideal workforce development dashboard for New York State</b>	
<b>Elements to measure across the system</b>	<b>Questions the system should answer</b>
<b>Career readiness in high school and college</b>	What career development opportunities are offered to students, and how many students benefit from each activity? What is the immediate impact on students’ postsecondary pathway? What is the long-term impact on their employment and earnings?
<b>Workforce training and skills development</b>	What training and credentials are offered? What skills are developed? What are the pathways?
<b>Employment and career success</b>	What are the immediate employment placement and long-term employment retention outcomes of workforce training and skills development programs?
<b>Earnings and wage progression</b>	What are the wages and earnings of participants immediately and over time?
<b>Social services and post-placement support</b>	What wraparound support services are offered and needed to support the success of clients? How many people need and access these services?
<b>Employer/industry engagement and usage</b>	How do employers engage with the workforce development system? Do employers find value in the system, and are they willing to pay into it?
<b>Client demographics</b>	Who (race, ethnicity, age, location, educational attainment, literacy level, income, public benefit usage, etc.) uses the workforce development system and how often?



**Next Steps for New York State:**

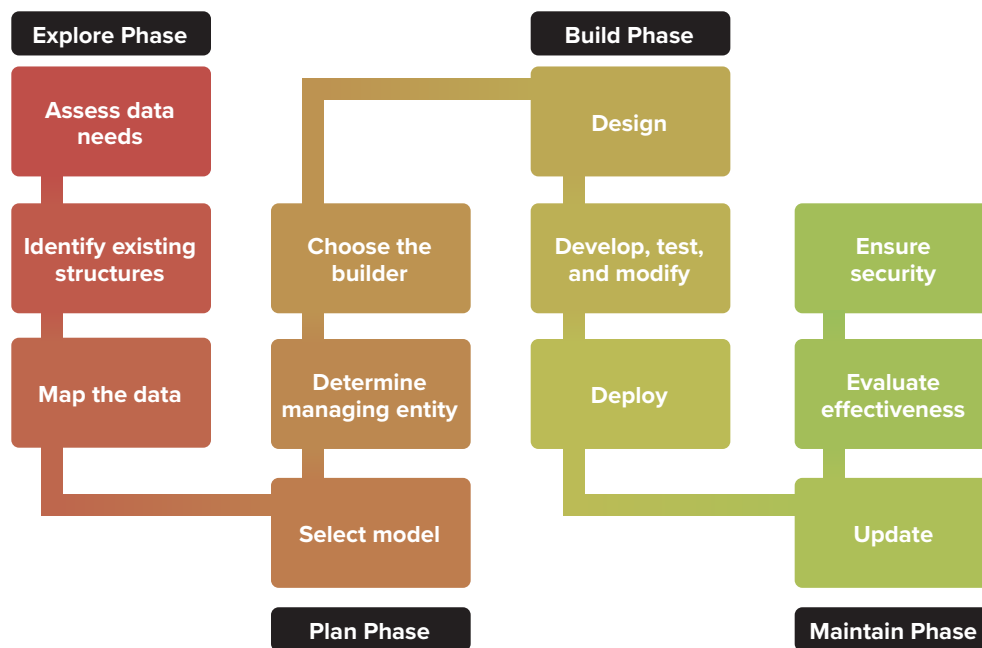
- ✓ In conjunction with local stakeholders, decide on a comprehensive set of data points to be included in the statewide data system that can help the state set workforce and postsecondary goals and measure its progress against those goals.
- ✓ Develop a “data dictionary” defining key terms for data collection that can be used across agencies and programs, such as the NYS Department of Labor, Access VR, NYS Education Department, SUNY, CUNY, and others.
- ✓ Integrate labor market information into the performance management system to provide a single data source for users.

**RECOMMENDATION 3**

**Build and test the technical elements of the data system.**

Following the development of performance measures is the design and development of the data system. Social Policy Research Associates offers a helpful diagram (see figure 1) to guide the steps involved in rolling out a statewide data system.<sup>20</sup> Beyond coding and building a web-based platform, this process includes (1) an in-depth exploration phase to map existing resources and gaps; (2) a planning phase through which participating agencies create a governance structure and establish a plan for sharing and securing data; (3) a design phase during which users test and provide feedback on the system; and (4) a maintenance phase that includes continuous improvement processes and methods to evaluate the system’s effectiveness.

**FIGURE 1. The four phases of designing a statewide data system**



This discussion would be incomplete without acknowledging the cost involved in creating an effective statewide data system. In a review of the costs incurred by four states (Maryland, Nevada, Utah, and Virginia), the National Skills Coalition found that states' spending on system development ranged from \$2.5 million to \$7.5 million, with average annual maintenance costs of \$1.2 million.<sup>21</sup> Cost determinants for system development include preexisting technological infrastructure, vendor versus in-house development, and the quality of existing data. Meanwhile, annual operating costs are determined by factors such as the frequency of data requests, the complexity of analysis conducted, and hosting and software fees. Needless to say, workforce agencies in these four states serve far fewer clients than do New York's workforce agencies, and it is likely that New York would require a larger investment to account for the state's size and funding complexity. In addition to cash expenditures, the state will need staff tasked with developing and maintaining the system, providing technical assistance to agencies and providers in order to foster their full participation, and supporting inter-agency collaboration.

Fortunately, in addition to utilizing existing resources that support multiple-agency data systems, New York can access federal funding to defray the costs of development. The state should position itself for a subsequent round of funding from the US Department of Labor's Workforce Data Quality Initiative, which provides grants of up to \$2 million for system development.<sup>22</sup> These grants also provide technical assistance and peer learning opportunities (such as federal coaches and cross-state convenings).<sup>23</sup>

### Next Steps for New York State:

- ✓ Execute the steps to building a data system outlined above, seeking financial resources and technical assistance from the US Department of Labor and other federal sources.
- ✓ Develop end-user support for agencies and providers to ensure that they are able to fully participate in the data system.

### RECOMMENDATION 3

## Integrate SUNY and CUNY into the statewide data system to better capture workforce outcomes of the state's higher education system.

With 64 campuses across New York and 25 in New York City, SUNY and CUNY serve more than 600,000 students in credit-bearing courses and nearly 1 million students through continuing education and community outreach programs.<sup>24</sup> One out of every three New Yorkers with a college degree is a SUNY alumnus/a, and there is a SUNY campus within 30 miles of nearly every state resident.<sup>25</sup> CUNY alone has conferred more than 1.3 million degrees in the past 45 years.<sup>26</sup> SUNY and CUNY have a combined budget of approximately \$15 billion, of which one can argue some or all supports the state's economic development and workforce development strategy.<sup>27</sup> SUNY and CUNY data—including total enrollment by campus and demographic group and the annual number of degrees and certificates granted—are reflected in the state's data.ny.gov database.<sup>28</sup>

This is not the state's first attempt to better align the postsecondary system with labor market outcomes. Over the course of five years (2010–2015), New York State engaged in an effort to establish a P-20 longitudinal data system under the Race to the Top initiative, spending over \$19 million in federal grant funding to explore a postsecondary longitudinal data system, unified tracking and performance

measures, and coordination across state agencies that offer workforce, health, and social services. Furthermore, in 2019, SUNY launched *gradwages*, an interactive dashboard showing graduates' salaries, which supports data collection efforts for the state's Job Linkage Program.<sup>29</sup> Before embarking on a unified workforce data system, policymakers should explore and understand the progress that has already been made under these initiatives.

While information about postsecondary degree outcomes has improved, data on non-degree programs and continuing education are not as consistent or readily available. For SUNY, data on NCIA is managed by SUNY's Office of Institutional Research and Data Analytics and made publicly available.<sup>30</sup> This data set includes information on registrations, activities (individual offerings), and industries served. In 2017–18, for example, there were 2.2 million NCIA registrations, including 69,000 related to industry licenses and certifications. Approximately 70% of all registrations were concentrated in three

sectors: agriculture and animal care, child care, and medicine and health. For CUNY, each campus submits a Form A report that captures similar registration and instructional hours data.<sup>31</sup> The most recent data available from 2016–17 indicate that there were 268,000 continuing education registrations—a significant number of people served for whom the state is unable to adequately capture and analyze employment outcomes. Neither SUNY's nor CUNY's data sets capture outcomes such as changes in wages or employment after completing a degree or earning a certificate.

Neither SUNY's nor CUNY's data sets capture outcomes such as changes in wages or employment after completing a degree or earning a certificate.

While these data provide a strong start, they are presented with a time lag and are not available in the same place. SUNY and CUNY campuses use a wide variety of data systems (e.g., Banner, Campus CE, and Continuing Education Registration System) that are often supplemented by spreadsheets and campus-specific databases, meaning that NCIA data is inconsistently defined and monitored. Moreover, it is impossible to draw connections between NCIA registrations and education and employment outcomes. Moving forward, the state should consider following the steps outlined by the National Skills Coalition for measuring non-degree credential attainment—this would allow it to make data more useful to campuses and the central SUNY and CUNY systems, as well as to policymakers deciding how to invest limited resources for continuing education programs and to employers seeking information on local talent pipelines.<sup>32</sup> These steps include selecting which credential types will be included and which agency will track them; collecting and sharing data across agencies; using the outcome data to identify which credentials have a positive impact; and continuously making adjustments while working toward a goal.

## Next Steps for New York State:

- ✓ Map the existing performance data systems currently used by SUNY and CUNY in order to integrate them into a comprehensive statewide data system.
- ✓ Charge CUNY and SUNY leadership with ensuring uniformity across data on non-degree programs and NCIA, including inputs (enrollment and registration), outputs (completions), and outcomes (credentials earned, further education pursued, and employment and earnings).
- ✓ Make data on non-degree programs and NCIA courses available in real time, allowing students to make more informed decisions and employers to have up-to-date information on the local talent pipeline.

**RECOMMENDATION 5**

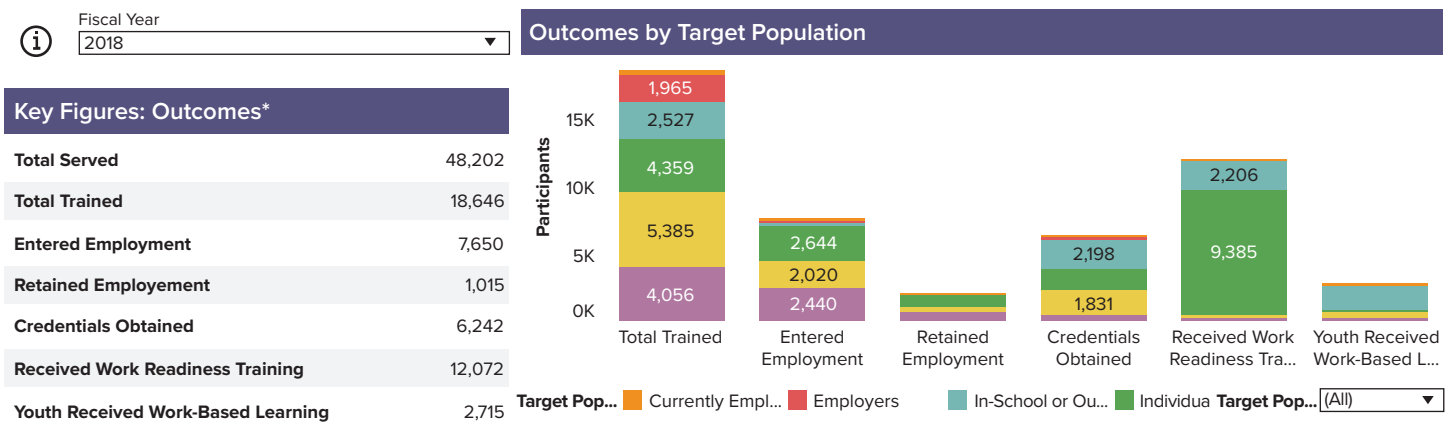
**Make data available and user friendly to state and local government agencies, workforce training providers, legislators, employers, and the general public to ensure that it is used to support strong workforce outcomes.**

Data collection is one thing; accessing and using the data is another. For the statewide data system to serve as a catalyst for improving employment outcomes, the state must consider ways to maximize transparency and accountability, as well as understand end-users’ needs for performance management.

The Rhode Island Governor’s Workforce Board provides an exemplar of a comprehensive dashboard that describes expenditures and outcomes across the state’s workforce programs.<sup>33</sup> The dashboard, available to the general public, includes labor market information, earnings by industry, expenditures and outcomes by program, and data disaggregated by race, ethnicity, and age. It also includes definitions of terms that are often used differently by various agencies to enable users to accurately interpret the data.

**Data collection is one thing; accessing and using the data is another.**

**FIGURE 2. A snapshot of Rhode Island’s data dashboard**



Source: EmployRI, <https://www.employri.org/vosnet/Default.aspx>

Similarly, Minnesota has a highly accessible and centralized data system that houses workforce, educational, and labor market information that can be used by policymakers and workforce training providers to inform their work and program design.<sup>34</sup> As seen in figure 3, Minnesota's publicly available dashboard is also organized by goals, which allows lawmakers, employers, jobseekers, and others to track and measure progress against those goals. As noted in Invest in Skills NY's policy paper *Leveraging Opportunity, Meeting Demand: A Blueprint for Building New York State's Workforce Development System*, New York lacks a set of clear goals to drive investment and strategy.

**FIGURE 3. A snapshot of Minnesota's data dashboard**

**Goal 1:** Reduce educational, skills training and employment disparities based on race, disability, disconnected youth or gender.

Program:   
 Region:   
 Year:

Use the dropdown boxes to select a WIOA Program, Region, and Year. Filter outcomes by Disability and Gender below. Hover over the measures, graphs and circles for more information.

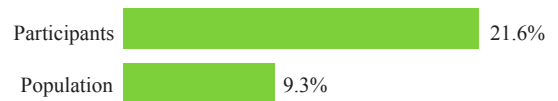
**Program Info**

Compared to the general working -age population,

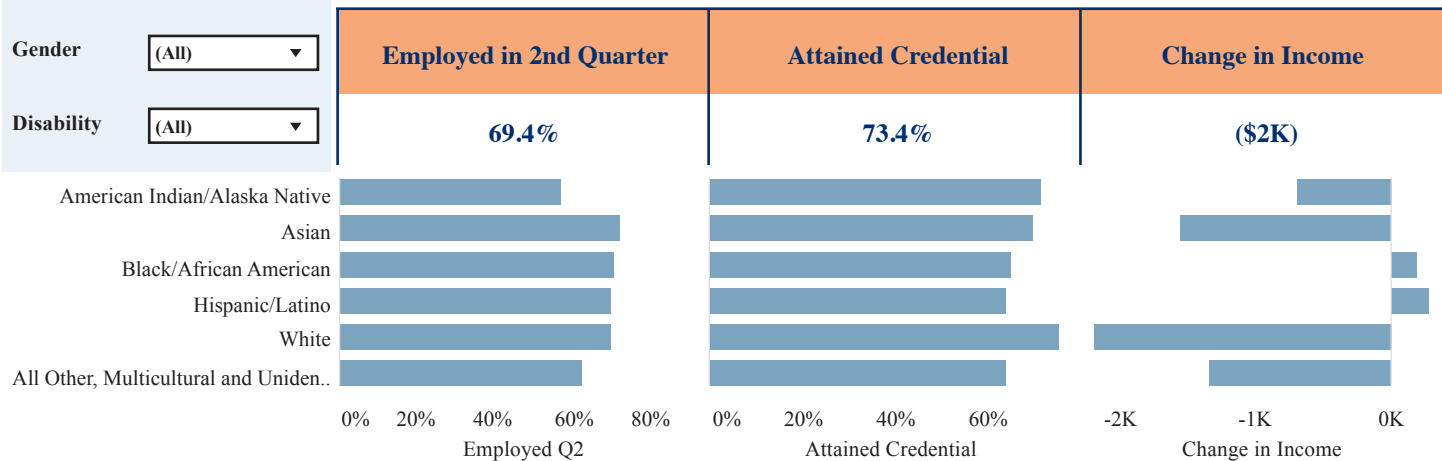
**How many participants are from communities of color?**



**How many report a disability?**



**Participant Outcomes**



Note: Data for groups of fewer than 5 participants are suppressed or grouped into an "Unidentified" region.

Last updated: September 9, 2019



Source: Minnesota Department of Employment and Economic Development, "Workforce Innovation and Opportunity Act (WIOA) State Plan Dashboard," <https://mn.gov/deed/about/what-we-do/agency-results/perform-measures/wioa>

By making its workforce data public, New York could equip stakeholders with the information they need to make more informed decisions. For example:

- Policymakers and agency leaders would be able to monitor programs and invest in models and providers with strong outcomes. The data system has the potential to offer an immediate return on investment if it is used to drive decisions about workforce spending, diverting funds away from less effective programs or toward programs that achieve strong outcomes for fewer dollars. It would also enable more precise investments by allowing decision makers to see which programs and services work best for different jobseekers (e.g., young adults, rural residents, and persons with special needs).

- Counties and cities would be able to make more informed decisions about how to support their communities based on employer demand, program results, and what works in their region.

- Individuals would be able to learn more about education and career pathways, thus making better choices about how to spend their time. Ideally, the system would have a specific interface for the general public that makes data clear and filterable according to area of interest

- Employers and economic developers would be able to understand the skills of a region and better develop their own talent development strategy.

Although all the stakeholders listed above are critical, employers are a key constituency for the statewide data system. Though a data system alone is not enough to connect jobseekers and employers, there are significant opportunities in using data to bring the employment sector and the workforce development sector into alignment. For example, California's Los Angeles County Center for a Competitive Workforce gathers data from businesses to understand their needs and works with them to develop community college courses and job training programs. This ensures that college programs are relevant, are tied to job availability, and can connect diverse student bodies to employers.<sup>35</sup> Meanwhile, Montana's statewide system uses its data system to analyze workforce supply and demand to determine if its higher education system is producing enough graduates in the right fields and to inform the creation of new programs.<sup>36</sup> Massachusetts and Washington both conduct employer surveys to identify skills gaps and credential needs from employers' perspectives.<sup>37</sup> In New York, such a survey could help workforce leaders better understand job projections and how employers use the workforce system, particularly in light of automation, the rise of freelancing, and other employment trends.

## Next Steps for New York State:

- ✓ Ensure that the statewide data system is an external-facing tool that can be tailored to policymakers, agencies, workforce training providers, jobseekers, employers, and others.
- ✓ Incorporate data visualization and disaggregation—which make information more understandable and straightforward for users—as key elements of the system.
- ✓ Ensure that the system's employer interface includes relevant data on the talent pipeline and allows employers to contribute data on needs and projections.

## CONCLUSION

This blueprint aims to guide New York State policymakers in their development of a statewide data system to support positive employment outcomes for all New Yorkers. While the urgent need may be bound by the reality of constraints brought on by a global pandemic, a number of other states have proven that building such a system is not only possible but immensely worthwhile. Given the unprecedented nature of Governor Cuomo's investment in workforce development, the time to develop a robust statewide data system is now.

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