

State Workforce and Education Alignment Project (SWEAP) Phase Two Report

Introduction and History of SWEAP

Governors and state legislators wonder why employers continue to tell them that they cannot find skilled workers for open positions. These elected officials want to know why the state's schools, colleges, and training programs are not collectively solving industry skill gap challenges. But the reality is that most state officials typically have information about only a portion of their state's workforce education and training programs, and lack the data necessary to tell how programs are or are not aligning with each other, or aligning collectively with labor market demand.

Advocates for low-income students and workers also would like to see more state residents prepared for these open positions, many of which are middle-skill jobs that require some form of postsecondary training but not a bachelor's degree. But it is typically difficult to assess how many people have effectively moved through high school or adult basic skills instruction and onto postsecondary education and training programs, and to figure out why some people persist and succeed and others "leak out."

Each state has multiple programs that can help a diversity of students and workers prepare for middle-skill jobs. Most of these programs operate outside of the "traditional" K-12-to-university pipeline:

- Workforce Innovation and Opportunity Act (WIOA) Title I Programs for Adults, Dislocated Workers and Youth
- Adult Education (WIOA Title II)
- Employment Service (WIOA Title III)
- Vocational Rehabilitation (WIOA Title IV)
- Temporary Assistance for Needy Families (TANF) Employment and Training
- Supplemental Nutrition Assistance Program (SNAP) Employment and Training
- Secondary Career and Technical Education
- Community and Technical College Workforce Education and Training (Postsecondary Career and Technical Education)
- Apprenticeship
- Corrections Employment and Training
- Customized Training for Employers

Even though many of these programs work together to serve the same individuals and employers, information about them tends to be only program-specific. It is usually impossible, or at least very difficult, to compile or compare information across programs.

The State Workforce and Education Alignment Project (SWEAP), an initiative of the National Skills Coalition, is demonstrating how state policy leaders can use system-wide information about workforce education and training programs to better align programs with each other and with employers' skill needs. The goal is to create better cross-program information that allows state policy leaders to see how these programs can work together in their state, and how individuals can advance through these programs over time in the pursuit of postsecondary credentials and higher-paying employment.

What Data Tools Provide System-Wide Information?

SWEAP is helping states develop three types of data tools that can offer high-level, system-wide information useful for state policymakers. These tools are: dashboards, pathway evaluators, and supply and demand reports. Separately and more so together, these tools can inform policymakers about how their state's education and training programs are working together to close the skill gap.

- Dashboards display a small number of common metrics to report education and employment outcomes across workforce development programs. They answer policymaker questions: Do program participants earn credentials? Do they get jobs? How much do those jobs pay? State policymakers can use dashboards to identify programs that have strong outcomes and warrant expansion. They can also see which programs have weak outcomes and need improvement.
- Pathway Evaluators show how people use a range of education and training programs to earn credentials and move into jobs. They answer policymaker questions: Do people with different needs have access to the right programs? Are programs creating career pathways to middle-skill jobs? Which pathways work best for which people? With this information in hand, state policymakers can create career pathways that achieve the best employment and earnings outcomes for people with different skill needs.
- Supply and Demand Reports show how the supply of newly credentialed workers compares to the number of workers that employers demand. They answer policymaker questions: What occupations have skill gaps? Are workers being trained with the right skills for those jobs? How many more skilled workers do we need? State policymakers can use supply and demand reports to invest in training programs that will prepare more skilled workers for occupations that have a skill gap.

Impacting Policy

In addition to helping states develop these tools, SWEAP is also demonstrating how state policymakers can use the data tools to develop policies that better align workforce development. SWEAP is not about data for data's sake, but about using information to improve state workforce development policies, and ultimately educational and labor market outcomes for program participants.

Successes from SWEAP highlight several ways that policy leaders can actually use system-wide information about workforce development. For example:

- A new dashboard in California will measure the performance of the \$200 million Strong Workforce Program, designed to enhance community college career and technical education. The dashboard also will inform the allocation of performance-based funding for community colleges.
- Mississippi's pathway evaluator tools are essential to implement the state's vision for the WIOA system. Case managers will use information from the tools to develop cross-program "success plans," creating customized pathways to employment according to individual needs.
- In Ohio, a new supply and demand tool will facilitate conversations between business and higher education leaders about aligning postsecondary programs with labor market demand.
- Rhode Island's supply and demand tool has already informed the state's new higher education performance funding formula, which rewards institutions of higher education for increasing the number of graduates in high-demand, high-wage fields.

Project Steps

There have been two phases of SWEAP:

- During Phase One (January 2014 through April 2015), SWEAP established its suite of data tools and identified states with interest in developing and using those tools to guide policymaking.
- During Phase Two (May 2015 through March 2017), SWEAP worked with four states to develop and use data tools.

Phase One:

During its first phase, SWEAP published papers on dashboards, pathway evaluators, and supply and demand reports describing the tools and providing examples of how states have used them to develop workforce policies. SWEAP also developed fact sheets on each tool, and created a short animated film to explain in simple, compelling terms why policymakers should

take part in the project. Each of these products may be found at Nationalskillscoalition.org/sweap.

Phase One also brought together teams of policymakers from seven states to inform them about SWEAP and to set the stage for Phase Two. The first SWEAP State Leadership Forum in December 2014 was attended by policymakers from California, Indiana, Maryland, Mississippi, Ohio, Oregon, and Rhode Island, as well as representatives of philanthropic organizations. The seven states attending the Forum were selected based on geographic and political diversity, the capabilities of their data systems, and evidence of political interest in advancing public policy in this area. The state teams included governors' advisors, workforce agency leaders, higher education policymakers, and state legislators. This broad cross-section represents the key state leaders that are needed to successfully formulate, adopt, and implement state workforce and education policies.

Phase Two:

During the Second Phase of SWEAP, staff provided technical assistance to four states — California, Mississippi, Ohio, and Rhode Island — that received \$180,000 grants for tool development and use. SWEAP staff provided guidance on:

- Development and/or improvement of state dashboards, pathway evaluators, and supply-demand tools; and
- Facilitation of and participation in policy conversations with both administration and legislative leaders, as well as with other workforce and education stakeholders in the state.

SWEAP staff participated in launch meetings in each of the four states, introducing the project to gubernatorial staff, legislators and legislative staff, and workforce and education leaders. SWEAP staff also held meetings in three of the states with coalitions of advocates for skills training, informing them about the project and how they might use the information that the data tools will generate.

SWEAP was the catalyst for the first Mississippi Data Summit attended by over 200 individuals, including the Lieutenant Governor, the Speaker of the House, other legislators, heads of state agencies, and many other state officials, researchers, and stakeholders. SWEAP staff talked about the project and moderated a panel of legislative leaders discussing how they use data to inform policies.

In California, SWEAP staff participated in a legislative briefing on workforce data organized by the EDGE Coalition. In Ohio, SWEAP staff participated with Governor's staff, legislators, and agency heads in a press conference unveiling the state's SWEAP tool. The press conference was carried live on the web and generated stories in local publications, including Toledo Legal News.

SWEAP also held a second State Leadership Forum bringing together a similar cross-section of state leaders as attended the first Forum. The event provided an opportunity for each of the Phase Two states to share their SWEAP data tools and the tools' policy uses. Workforce and education officials from Maryland, Massachusetts, and Michigan also attended so that they might learn from the Phase Two states.

As part of sharing the lessons learned during Phase Two, NSC also conducted a webinar featuring Phase Two states presenting their data tools and explaining how the information from the tools is being used. The webinar attracted more than 400 registrants and generated questions from states about data access, industry partnerships, and multistate collaboration.

Finally, each of the four states wrote a report describing their data tools and policies, highlights from which are shared in the following pages. Links to the state reports may be found on the NSC website's SWEAP page at Nationalskillscoalition.org/sweap. The reports will be updated as states continue to make advances.

Data Tools

This section of the report summarizes each of the data tools developed by the four Phase Two states. At this time, many of the tools are still at the prototype stage, but they should be completed and on-line by the summer of 2017. For a fuller description of the tools, including images, the reader should turn to the state reports on NSC's website.¹

Dashboards

California

In 2014, California enacted Assembly Bill 2148, assigning the California Workforce Development Board the task of developing a dashboard for workforce training and education programs, including:

- Community college career technical education²;
- Employment Training Panel (California's customized training program for employers);
- WIOA Title I Programs for Adults, Dislocated Workers and Youth
- WIOA Title II (Adult Education);
- Trade Adjustment Act; and
- State apprenticeship programs.

¹ This section borrows language liberally from the four state SWEAP reports.

² This is the term in California for what other states frequently refer to as workforce education and training, or postsecondary career and technical education.

SWEAP assisted California's Workforce Board in developing the state's initial dashboard. The dashboard reports employment and earnings outcomes, and shows results by gender, race/ethnicity, veteran status, and industry of employment. Moving forward, the goal is to add additional programs and to add net impact results using statistical comparison groups. For example, the net impact data will show the median earnings for a program's participants compared to similar individuals who did not participate in the program.

California also is developing a dashboard specifically for the community colleges' Strong Workforce Program, a \$200 million initiative to enhance postsecondary career and technical education. For the dashboard, California is building on the college's existing LaunchBoard information system, adding functionality that will show college performance using the WIOA common metrics and additional measures. Results will be available by program, sector, college, and region, including historical trends, with breakdowns available by age, gender, and race/ethnicity.

Mississippi

Mississippi took advantage of SWEAP to build on the foundation of LifeTracks, the State Longitudinal Data System portal. LifeTracks already provided access to a variety of reports on PK-12 education, community colleges, and universities, including information on student demographics, educational progress, and education and workforce outcomes. Through SWEAP, LifeTracks is now able to report similar information for participants in non-credit workforce training programs. Outcome information includes employment rates, earnings, retention rates, subsequent education, and rate of continued participation in support services. The information can be broken down by cohort, geographic area, and funding source. The dashboard can also show trends over time. Outcomes are available for both completers and non-completers.

Rhode Island

Rhode Island is working to capture the performance of a large number of workforce programs in a single, user-friendly, web-based dashboard. To date, the vendor has developed the framework for the dashboard and has successfully linked to a WIOA performance data set. State officials have reviewed the design and requested modifications to the specific elements that will be included. Other programs will be added incrementally. Once the state's Real Jobs Rhode Island sectoral initiative is added, the vendor will work with a web designer to improve the 'look and feel' of the dashboard. The initial version of the dashboard is expected to be released in July 2017.

Pathway Evaluators

California

California is creating a dashboard of Adult Education with added functionality that will allow it to be used as a pathway evaluator for adult education students. The dashboard will show the results of Adult Education including continued education at community colleges. The tool will include data on: the size of adult education programs, student characteristics, progress measures, transitions within adult education programs and to community colleges, participation in developmental education once in community college, completion of adult education and community college programs, and employment and earnings. The data will be available by provider, consortium, and statewide.

As the state report explains, the tool will be able to sort the data in a variety of ways in order to evaluate pathways. For example, “users can see the most common courses that adult education students took after enrolling in community college and how long it took them to complete remedial coursework. They can also view differential employment and earnings outcomes for students who only enrolled in adult school, versus those who attended community colleges.”

Mississippi

As stated in their SWEAP report, “Mississippi is developing two tools through SWEAP that will allow users to examine pathways: the Career Pathway Analyzer and the Career Pathway Constructor. The Career Pathway Analyzer will provide state leaders the ability to determine effective pathways to fill particular needs in the labor market. The Career Pathway Constructor will allow policymakers and legislators to examine the efficacy of specific pathways.”

For the Career Pathway Analyzer, the user will define starting characteristics for a cohort such as demographics and prior education, and exit conditions such as target occupation and earnings. The user could query, for example, which pathways to advanced manufacturing employment result in the highest earnings and the tool will show multiple pathways in descending order of earnings. In another example, the Career Pathway Analyzer will be able to show the portion of a cohort that followed a specified pathway and their credential attainment.

The Career Pathway Constructor will enable users to design a custom pathway for a particular population and discover the actual outcomes for program participants with the selected characteristics who followed that pathway in the past. For example, the head of a veterans employment program could use the tool to help decide whether to invest in helping clients enter health professions through apprenticeships or certificate programs.

Rhode Island

Rhode Island will add features and data to its dashboard, creating functionality that SWEAP refers to as a pathway evaluator. The dashboard will be able to break information down by different demographic populations, including race, ethnicity, gender, prior education, and age.

Rhode Island intends to crosswalk the dashboard performance information with data from agencies such as Education, Human Services, Corrections, and the Division of Motor Vehicles. Doing so will allow the state to learn much more about program participants and their long-term outcomes. Officials will be able to ask and answer such questions as: “How do graduates from specific CTE programs do in the job market?” and “How much more likely is an individual to obtain or retain a job if their training included a work experience?”

Supply and Demand Reports

California

California’s supply and demand tool derives supply data from Integrated Postsecondary Education Data System (IPEDS) completer data. IPEDS includes data from postsecondary institutions that participate in a federal student financial aid program. In California, this includes community colleges, California State Universities, the University of California system, and private non-profit and for-profit schools. The demand data consists of the California Occupational Employment Projections. The tool shows the annualized total projected job openings and the number of completers from related postsecondary programs for any specified occupation, statewide or within a given region. If there is more than one type of program of study that prepares workers for a given occupation, the supply count includes multiple programs of study from the institutions.

The tool shows how the supply compares to demand and whether there is a potential workforce surplus or undersupply for a specified occupation. With further development, the tool is expected to become a web-based interactive tool.

Mississippi

The state’s supply and demand tool, which is still under development, will show the most recently available supply and demand data for the top occupations in Mississippi’s targeted sectors. The tool also will display historical data, showing trends over time. Since the demand data is based on estimates, only gaps of 5 percent or more between supply and demand will be reported.

In the beta version of the tool, demand is based on job openings data from Mississippi’s labor exchange system, Mississippi Works. Supply is currently a combination of community college graduates, secondary CTE graduates, and active job seekers in the labor exchange. The state SWEAP team indicates that a number of additional sources of supply and demand data are being considered for inclusion in the final tool. “Once this report is fully implemented, state leaders will be able to detect current and potential skill gaps in the labor market so they can

begin to formulate strategies to address those gaps. The tool can also be used to track long-term, real-world effects of policy changes.”

Ohio

The Ohio Workforce Supply Tool is designed to provide employers, higher education institutions, and job seekers with valuable information about Ohio’s talent supply in key occupations, including O*Net information describing the occupation’s skills, earnings, and employment. As described in the state’s SWEAP report:

The tool shows the number of graduates earning credentials and degrees that led to in-demand occupations. A user can select a particular occupation and region of the state and see which institutions provide programs preparing individuals for that occupation. The information can be broken down by four levels of postsecondary education—certificate, associate’s degree, bachelor’s degree, and master’s degree. The user can view the total numbers of individuals earning each type of credential in the region and the numbers supplied by each institution. For occupations that are supplied by more than one type of program the information is available for each program of study... The tool can also show the number of individuals who filed for unemployment claims in the last year and who identified the selected occupation as their occupation prior to unemployment. These are individuals who may be available to fill job openings for the occupation.

Ohio is currently completing a Workforce Supply-Demand comparison tool that will offer information on the relationship between the supply of completers and employer demand at the state and regional levels.

Rhode Island

As explained in Rhode Island’s SWEAP report:

Rhode Island created a supply and demand report for new workers that compares graduates in the most recent year available from IPEDS to the occupational projections published by the State’s Labor Market Information (LMI) Division. A custom 4 digit CIP to 6 digit SOC crosswalk developed jointly by the LMI division along with the Office of the Postsecondary Commissioner was used to create the report. This tool will be published yearly by the LMI office and will be distributed statewide and directly to all public high schools as a tool to guide students and their parents in their decision making regarding higher education. In addition the LMI office will work with the Office of Postsecondary Commissioner’s Office to communicate any major shifts in the labor supply and demand dynamic to policy makers.

Policy Leader Engagement

The SWEAP data tools are designed to produce data that state policy leaders—governors and legislators and their staff, top agency officials, members of governing and coordinating boards—can use to develop new policies or modify existing policies, or to make policy-level decisions regarding program implementation. The tools are designed with these audiences and purposes in mind. While, as described above, the tools can also produce data useful for the general public, employers, and program participants, they are not the primary audiences.

Given this focus, it was critical that policy leaders were engaged in SWEAP from the start. NSC required each state to demonstrate the commitment of policy leaders during the application phase. States were required to show that high-level leaders were interested in the project, dedicated to its success, and would be engaged throughout.

During the project, state policy leaders were involved in the development of the data tools to help ensure the tools were designed to meet their needs. Policy leaders took part from the initial SWEAP State Leadership Forum, to the state launch events introducing SWEAP to a wider set of officials, to ongoing meetings to review and approve the design of the tools, and to public events unveiling the tools to a wider audience. In addition to guiding the development of the tools, this engagement set the stage for the tools to become part of the policymaking process as other cabinet members, stakeholders, and staff witnessed leadership commitment to making data-driven decisions.

The following are some examples of policy leader engagement in the four states.

California

California policymakers' interest in data tools was demonstrated even before the start of SWEAP in the enactment of legislation. In particular, Assembly Bill 2148 in 2014 established the requirement that the California Workforce Board create a system-wide dashboard that would show credential attainment, employment, and earnings outcomes. Later in 2016, when the legislature appropriated \$200 million for the community college system's Strong Workforce Program, the legislature required that student outcomes be tracked using metrics aligned with the WIOA common measures, and that 17 percent of the funds be allocated based on performance results. Earlier in 2013, California passed Senate Bill 118 requiring that the state conduct a skills gap analysis. This helped to set the stage for the supply and demand tool.

These legislative actions demonstrated that state elected officials were keenly interested in information to better align workforce and education programs with the labor market. As project staff developed the SWEAP tools, they regularly kept the legislature informed of their progress and sought feedback. Agency leadership, particularly from the California Community Colleges Chancellor's Office and the California Workforce Development Board, were heavily engaged throughout SWEAP from the time of application through the development of the tools.

Mississippi

From the start, policy leaders were engaged in the Mississippi SWEAP initiative. For example, during the design phase, staff developing the data tools met with agency directors, the State Workforce Investment Board, and other key officials in Governor Phil Bryant's administration to discuss the new tools and the benefits they could provide to the state. SWEAP was the catalyst for Mississippi's inaugural data summit, "A Data-Driven State." The summit was attended by 200 individuals, including legislators, economic developers, and educators. Among the speakers were the Lieutenant Governor, the Speaker of the House, and the Governor's policy advisor for education and workforce development.

Ohio

Throughout the project, the Ohio Department of Higher Education developed a process to engage leaders from the Governor's Office of Workforce Transformation, General Assembly, and the business community. The Office of Workforce Transformation and General Assembly members' desire to offer a project with immediate business impact led Ohio to develop the supply tool first. Policy leaders from all the participating groups attended the SWEAP State Leadership Forums. Members of the General Assembly, and leaders of the Office of Workforce Transformation, the Department of Higher Education, and the Department of Jobs and Family Services spoke at the press conference rolling out the Supply Tool to the public.

Rhode Island

Newly elected Governor Gina Raimondo prioritized the creation of a data-driven, business led workforce development system, exemplified in her Real Jobs Rhode Island initiative to align workforce and education programs with employer skill needs. SWEAP was a good fit with the Governor's priority.

Agency leaders were involved in setting the direction of the dashboard as well as helping ensure their staff provided data the dashboard required. The legislature empowered the State Workforce Development Board with the authority to align career-related education programs with the needs of employers and develop tools to publically share performance information. Legislative staff were kept informed of the initiative and the Governor's staff facilitated interagency connections.

The Commissioner of Postsecondary Education was the primary policy leader interested in the development of the supply and demand tool. Staff developing the tool kept in close contact with the Commissioner's office to ensure it would be useful for guiding postsecondary investments.

Policy Uses

The goal of SWEAP is that policymakers use data from the tools to inform policies that better align workforce and education programs with employer skill needs. Although many of the states' SWEAP tools are still at the prototype stage, state leaders have identified ways that the data is or will be used to inform policies. Here are brief descriptions of the tools' policy applications.

California

The Strong Workforce Program Dashboard will be used to measure the performance of the new \$200 million Strong Workforce Program to enhance community college career and technical education, and will inform the allocation of the 17 percent of funding awarded based on performance.

The Adult Education dashboard will function as a pathway evaluator, tracking student progress from adult education to postsecondary institutions. This will help California to strengthen pathways between adult education and community colleges.

California's Workforce Development Board expects that the system-wide dashboard will help:

- Drive actionable decision making for better program and resource alignment;
- Provide user-friendly information for policymakers and legislators on California's human capital investments; and
- Award one million more industry-valued credentials over the next 10 years by enabling low-income Californians who face barriers to employment make better informed choices.

The state intends that the supply and demand tool will be used to identify skill gaps and guide investment decisions and program policies to help close the gaps.

Already, lessons learned during SWEAP helped to inform a Legislative Analyst report, "Improving Workforce Education and Training Data in California," that makes several major policy recommendations. The report recommends the creation of a state-wide data linking system and requirements for the use of common WIOA performance measures across programs. The report also recommends that: "The Legislature direct the CWDB [California Workforce Development Board] to develop a small number of standardized reports designed to communicate results clearly to policymakers, service providers, current and prospective program participants, and the public. We recommend the legislature annually review these reports as part of its budget and policy processes, taking program results into consideration when adjusting budgets and refining state laws."

Mississippi

Mississippi has identified several ways that the SWEAP data tools will be used to implement policies and plans, such as the state Combined Plan under WIOA.

In anticipation of developing pathway evaluators, Mississippi's Combined Plan adopted the objective that case managers will develop cross-program "success plans." Using resources from multiple programs, each individual will have a customized pathway to employment according to his or her needs. Mississippi also plans to use the pathway evaluators to identify credentials of value. In addition, Mississippi will use pathway evaluators and the supply and demand reports to enrich career guidance during K-12 education. Finally, it is likely that in the future policymakers will decide to use the dashboard to inform performance-based budgeting.

Ohio

Ohio higher education policy leaders will use the supply tool, and later the supply and demand tool, to assist them in planning investments. The supply tool provides a resource map of current educational capacity to supply new graduates from certificate to Master's degree programs for high demand fields. Before, higher education policy leaders lacked aggregated supply information from public institutions, and information that combined supply information from multiple programs of study that prepare workers for the same occupations. The supply and demand tool will enable policy leaders to identify where education capacity and employer demand are out of balance. Policy leaders will couple this information with other data on changes in technology and industries, in order to develop appropriate responses, which may include new investments. The tools also are expected to enrich conversations between employers and institutional leaders about aligning higher education with the needs of business.

Rhode Island

As Rhode Island continues to develop its dashboard, it will add pathway evaluator functionality. The state will use the information to help redeploy resources to high performing programs, and better identify populations that may be underserved. The information will increase the state's ability to guide resources to the largest growing industry sectors, in cooperation with the sector partnerships established through Real Jobs Rhode Island. The tool also will identify barriers to participant success, and help the state develop policies to address these barriers.

Rhode Island's supply and demand tool has already informed the state's new higher education performance funding formula, consistent with S 2392/ H 7428 signed into law in August 2016. The law calls for public institutions of higher education to increase the number of graduates in high-demand, high-wage fields. The supply-demand tool helped to inform which programs of study will be used in measuring institution performance. Baselines have been identified and targets set that must be achieved in order for institutions to receive additional funding.

Moving Forward

As indicated above, the four states are continuing to develop SWEAP data tools. The tools that are at prototype stage as of this writing will soon be completed and posted online. Over time, states intend to add programs to the dashboards and, in some cases, additional types of program outcomes. States also plan to add completers from additional programs (e.g., apprenticeship) to the supply side of supply and demand tools. As the states post their tools online and add more features, NSC will update the state reports on the NSC/SWEAP website. In addition, NSC will provide updates on how the four states use the data from the tools to inform policy. NSC will continue to provide some technical assistance to the states as they take advantage of the new data for policy development.

Workforce Data Quality Campaign (WDQC), a project of NSC, will help spread information about the SWEAP data tools to more states. For example, this spring WDQC is helping to set up a convening in Maryland on the SWEAP data tools. The convening will feature peer learning with one of the original SWEAP states, Mississippi. In addition to facilitating peer learning about the tools, WDQC will assist states in developing policies that authorize data sharing and tool development. For example, WDQC has provided such technical assistance in Massachusetts and Michigan, two of the other new states that attended the second SWEAP State Leadership Forum in November, 2016.

Conclusion

Much has already been accomplished. SWEAP has demonstrated how state policy leaders can use system-wide information about workforce education and training programs to better align programs with each other and with employers' skill needs. NSC and WDQC look forward to continuing this work in the original four SWEAP states and in other states across the country, in order to generate actionable data for workforce development.