



**NEW SKILLS FOR YOUTH**

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# **PHASE 2 YEAR 3 EVALUATION REPORT**

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OCTOBER 2019

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JPMORGAN CHASE & CO.



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# EXECUTIVE SUMMARY

Funded by JPMorgan Chase, New Skills for Youth (NSFY) seeks to increase the number of high school students completing high-quality career pathways and pursuing postsecondary opportunities leading to high-skill, high-demand careers. To reach this goal, state education and workforce agencies, postsecondary institutions, and employers have worked collectively to increase their capacity to support pathways programs. Following a 6-month planning period in 2016, the 10 NSFY states—Delaware, Kentucky, Louisiana, Massachusetts, Nevada, Ohio, Oklahoma, Rhode Island, Tennessee, and Wisconsin—received grants of \$1.95 million each through a competitive application process. The states also receive technical assistance and coaching from the NSFY Project Team, which includes the Council of Chief State School Officers, Advance CTE, and Education Strategy Group.

RTI International, NSFY's third-party evaluator, is reviewing the initiative's effects on the development and growth of career pathways in the 10 states. Building on the findings of the prior two annual evaluation reports, this report documents how states have continued to build capacity to support pathways at the state level and facilitate local implementation of high-quality pathways. In tandem with the Year 3 report, RTI also produced *State Data Capacity to Measure Career Pathways-Related Indicators: Findings from the New Skills for Youth Initiative*, an in-depth review of the capacity of state education data systems to provide data on career pathways-related indicators.

## State-Level Capacity for Supporting Career Pathways

Since the beginning of the grant, NSFY state teams have increased their capacity to support high-quality pathways through activities that include:

### **New and improved strategies for employer engagement**

States have created new infrastructure and processes for using labor market information and employer input to align career pathways with state economic priorities. States work with business and industry task forces, statewide industry councils, and intermediaries who connect employers and schools for work-based learning opportunities.

### **Statewide pathways-related activities**

NSFY states have instituted activities reflecting their vision for pathways development and promoting rigorous, high-quality pathways statewide. These include new and revised model pathways in fields

aligned with high-skill, high-demand occupations, new types of pathways programs, expanded opportunities for work-based learning, and enhanced support for career advising.

### **Strategies for increasing equity in pathways access and completion**

NSFY states have introduced new policies, initiatives, and local support to promote equity in pathways access and completion. These efforts include improved systems for monitoring the participation of student subgroups in pathways; the inclusion of equity criteria in state pathway models; and technical assistance and professional development for pathways instructors and staff.

# Connecting State Capacity and Local Pathways Implementation

In the context of education systems characterized by strong local control, states increasingly have focused on strategies to support local pathways implementation:

## Incentives for pathways expansion

NSFY states are providing incentives for expanding career pathways by including pathways and pathway-related indicators in state accountability systems and graduation requirements; offering funds to districts for student pathway participation, particularly in high-skill, high-demand fields; revising pathway course and program standards; and introducing systems for certifying or endorsing pathways quality.

## Support for local implementation

State-developed resources to guide local pathways work range from consultations with advisors and experts to statewide pathways meetings and communities of practice, toolkits and guides, professional development activities, and implementation grants. This support is intended to facilitate local adoption of state pathways and encourage local innovation in pathways development and implementation.

## Opportunities and Next Steps

States have opportunities to strengthen their pathways work in final months of the grant by deepening their commitment to local implementation and continuing to focus on the opportunities noted in the Year 2 report:

### Data capacity to report on career pathways

States can continue to improve their data-collection capacity for pathways-related indicators beyond the reporting required for compliance with federal legislation. Enhanced data systems would track career pathways experiences beyond career and technical education programs; include measures of student participation, experiences, completion, and outcomes for all pathways-related indicators; ensure data quality; and facilitate links among different data systems.

### Postsecondary and workforce systems connections

States describe local progress in connecting pathways with postsecondary and workforce systems, including developing and expanding articulated pathways, dual credit opportunities, and apprenticeship programs. While postsecondary and workforce institutions also participate in NSFY state-level activities, local connections are challenging to scale statewide because of differences across regional or local secondary, postsecondary, and workforce service areas, perceived competition for students, and the relatively limited role of statewide postsecondary education entities in setting institutional policy.

### Strategies and resources for sustaining NSFY activities

States continue to identify resources and strategies for continuing pathways work beyond the grant, including passing supportive legislation; strengthening and formalizing cross-agency partnerships; uniting various state pathways initiatives; marketing pathways; and identifying new funding sources. States noted a particular need to sustain employer engagement, despite having established formal state-level mechanisms for involving employers in pathways development and review.

### Greater statewide focus on equity strategies

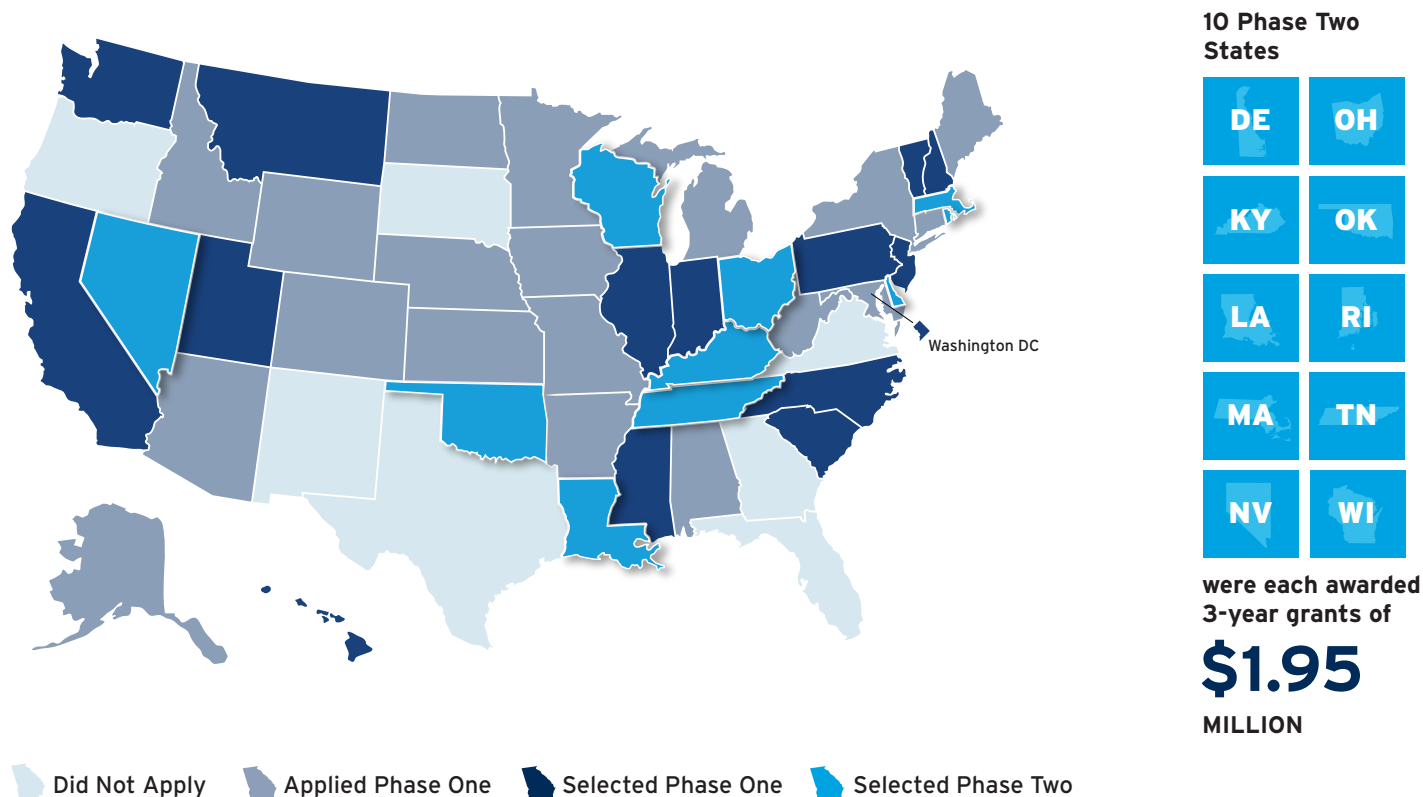
NSFY states have worked to address equity gaps at both state and district levels, but many states have yet to develop a coordinated statewide approach that takes both within-school and between-school inequities into account. States can also expand their focus to other potential inequities, such as differences among urban and rural student access to pathways and across student subgroups.

# INTRODUCTION

New Skills for Youth (NSFY) seeks to increase the number of high school students completing high-quality career pathways and pursuing postsecondary opportunities leading to high-skill, high-demand (HSHD) careers. To reach this goal, NSFY focuses on building the capacity of state education systems to offer career pathways in partnership with other state agencies, school districts, postsecondary institutions, and employers. Following a 6-month planning period, the 10 NSFY states—Delaware, Kentucky, Louisiana, Massachusetts, Nevada, Ohio, Oklahoma, Rhode Island, Tennessee, and Wisconsin—were awarded grants of \$1.95 million each in January 2017 through a competitive application process (Exhibit 1). In addition to grant funds supplied by JPMorgan Chase, participating states receive technical assistance and coaching from the NSFY Project Team, which includes the Council of Chief State School Officers, Advance CTE, and Education Strategy Group.

## EXHIBIT 1

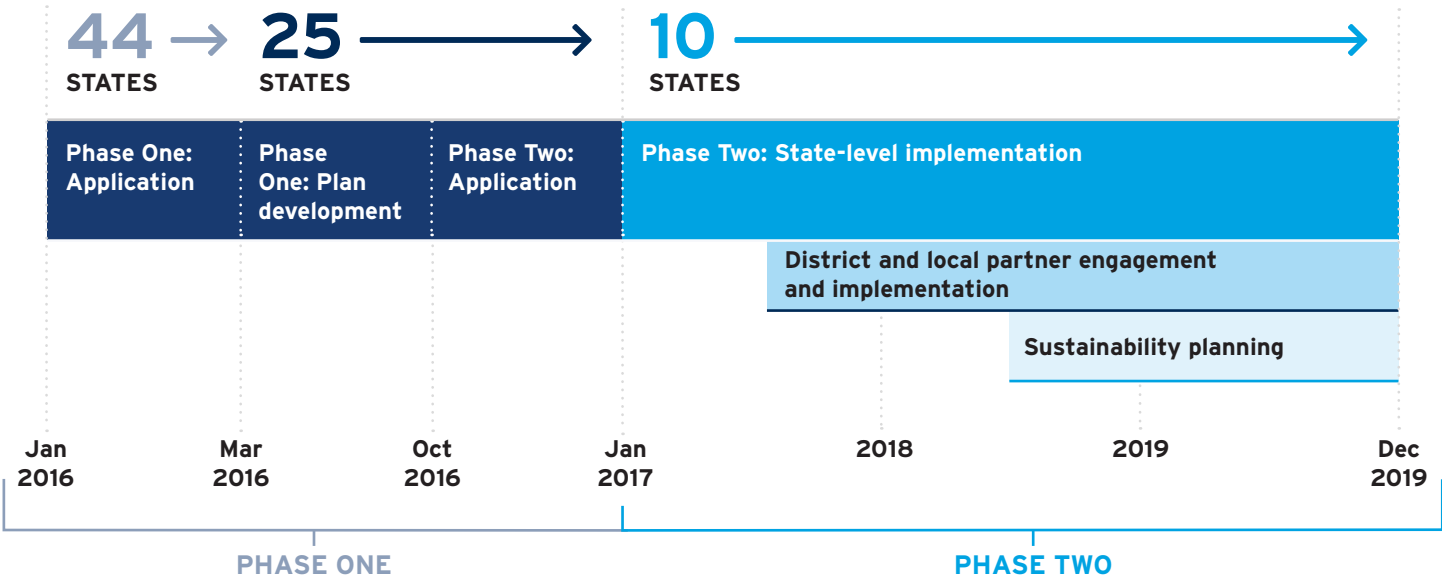
### NSFY initiative states



By design, the states selected for NSFY were at different levels of developing career pathways. The states have taken varied approaches to developing and expanding pathways, but their NSFY work has followed similar phases (Exhibit 2). During the first year of phase two (2017), most state cross-agency and stakeholder NSFY teams focused primarily on state-level planning and systems building. Once these systems were initiated, nearly all of the teams began to shift their focus to local engagement and implementation. During the grant’s final two years, states upped their support for local pathways implementation and sustainability planning.

**EXHIBIT 2**

**NSFY Initiative timeline**



The NSFY evaluation, conducted by RTI International, explores how and to what extent the grantee states are meeting the initiative’s goals (Exhibit 3). This report is the third annual evaluation report, covering state NSFY activities from January 2017 to June 2019, with a focus on statewide activities not covered in prior reports and state support for district-level implementation. The information and findings presented in this report are based on data collected by the evaluation team through site visits, interviews, and document reviews. The report also presents findings from an analysis of quantitative data on career pathways students from the NSFY states’ education data systems. (Details on the data used in this report are provided in Appendix A).

## EXHIBIT 3

### NSFY objectives and evaluation research questions



#### DEMAND-DRIVEN AND EMPLOYER-LED PROCESSES:

How are NSFY states using employer-driven processes and labor market data to align their career pathways with high-skill, high-wage, high-demand industries?



#### SCALED PATHWAYS CULMINATING IN CREDENTIALS:

How are states working with local districts to scale up high-quality career pathways?



#### RIGOR AND QUALITY IN CAREER PATHWAYS FOR ALL:

How are states using policies and funding mechanisms to improve the quality and rigor of career pathways, particularly for underserved students?



#### ALIGNMENT OF STATE AND FEDERAL FUNDING STREAMS:

How are states combining funding from multiple sources to deliver career-focused programs to all students?



#### CAREER-FOCUSED ACCOUNTABILITY SYSTEMS:

How are states integrating career-focused indicators in state accountability systems and improving the quality of career readiness data?



#### CROSS-INSTITUTIONAL ALIGNMENT:

How are states connecting career pathways programs to postsecondary opportunities?

The report was developed in tandem with *State Data Capacity to Measure Career Pathways-Related Indicators: Findings from the New Skills for Youth Initiative*, an in-depth review of the capacity of state education data systems to provide data on student participation in and completion of career pathways and pathway components. In 2020, the final evaluation report will summarize state NSFY activities through the end of the grant and assess the initiative's overall impact on career pathways development, focusing on the local level.



# DEMAND-DRIVEN AND EMPLOYER-LED PROCESSES

NSFY prioritizes the development of career pathways aligned with HSHD occupations identified using labor market data and formal processes for soliciting employer input. As part of their NSFY work, states instituted new systems to elicit employer input at key points of pathways development, including the identification of industry-recognized credentials (IRCs) that signal student readiness to meet critical workforce needs. NSFY state teams have observed that unfilled job openings, particularly in highly-skilled and well-paid jobs in fields such as healthcare and advanced manufacturing, have increased employers' willingness to partner with the education system. Despite growing employer interest and the development of new strategies for involving employers in career pathways design and delivery, state and local educators have experienced challenges with expanding and sustaining employer engagement.

## High-Value Industry-Recognized Credentials

The Year 2 evaluation report described how states are using labor market information and employer input to identify HSHD occupations and prioritize career pathways in those fields. This year, states have continued to engage employers by increasing efforts to refine the criteria and processes to identify the IRCs most valued by employers in regional and state labor markets (Exhibit 4). In some states, including Kentucky, Louisiana, Nevada, and Rhode Island, business and industry involvement in credential review and approval is required by recently passed state laws.

States submitted data on the attainment of IRCs aligned to HSHD occupations for NSFY, but upgrades to state data on IRCs are still pending in many states. As a result, only four states could provide robust data for all three reporting years. These data provide a partial view of how student attainment rates have changed over the grant period. Among the four states, attainment of IRCs aligned to HSHD occupations

### EXHIBIT 4

#### State strategies for involving employers in credential review and approval



Include **business and industry leaders in committees** charged with IRC review and approval



**Collect and analyze market information** to identify workforce needs and IRCs used in hiring decisions



**Identify credentials** that signal knowledge and skills needed for entry-level employment within targeted occupations



**Champion the value of students** earning pathway-aligned IRCs among education decision makers



**Help educators** align IRCs with curriculum content

grew from the 2015–16 to 2017–18 academic years by 10 percentage points in Louisiana and by 3 percentage points in each of the other states (Exhibit 5).

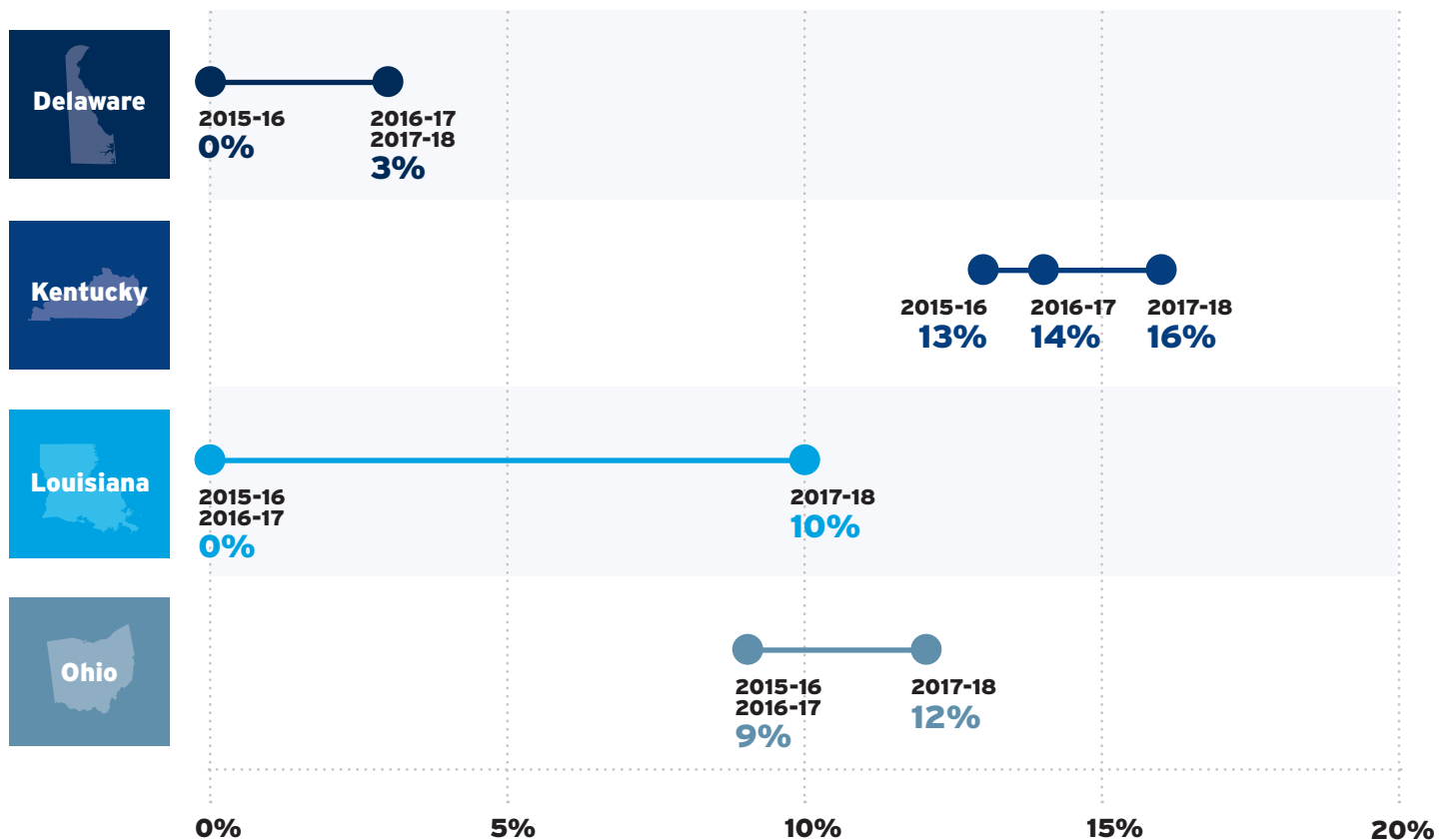
Several factors could account for increased IRC attainment, but the growth shown in Exhibit 5 is consistent with state efforts to promote credential attainment. The increase in Louisiana, for example, coincided with the first full year of implementation of the state’s career pathways initiative, Jump Start, which requires IRC attainment for pathway completion.

As employers have expanded their role in credential review and approval during NSFY, states are developing and refining incentives and requirements that ensure

students attain IRCs identified by employers as having labor market value - especially since credentials of lower market value may be easier for students to acquire. Incentives for high-value IRC attainment include awarding districts more points for high-value IRCs in state accountability systems, offering districts financial incentives or compensation for credential costs, and requiring or emphasizing high-value IRCs in graduation requirements. The Department of Education in Louisiana, for example, found that a higher-than-expected proportion of the IRCs earned during the first year of Jump Start had relatively low labor market value. As a result, the department is currently revising its incentives to promote IRCs aligned with the highest-rated jobs in the state’s occupational rating system.

## EXHIBIT 5

### Change in the percentage of students earning at least one IRC aligned with an HSHD occupation during high school



Note: See Appendix A for detailed information on state exclusions. Generally, states are not shown because they were unable to provide complete data for the three reporting phases or because the credential data provided did not reflect third-party IRCs aligned to HSHD occupations.

# Building State Capacity for Employer Engagement

NSFY states also developed strategies to facilitate employer engagement more broadly and refined systems to solicit employer input on workforce needs, convene employers within industry sectors, recruit and sustain employer champions and intermediaries, and coordinate employer connections for districts and schools (Exhibit 6). These efforts evolved in response to lessons learned, as states encountered challenges in working with industry that required different approaches than originally planned. For example, employers reported receiving numerous requests for their involvement and input from within and outside

education systems, and state teams noted that district staff often lack the skills and time needed to recruit employers and coordinate their involvement effectively. Employers also said that they did not always know how to start working with schools or how to sustain their engagement when education staff changed, objectives and tasks were not clearly defined, and demands on their time became too much. In response, states have collaborated with existing industry organizations to lessen the burden on individual employers, and provided for the hiring of employer engagement specialists at the district level.

## EXHIBIT 6

### NSFY strategies for employer engagement at the state level

#### STRATEGY

**Business and industry task forces:** cross-industry employer groups that help educators review labor market information and prioritize pathways development in HSHD sectors

#### EXAMPLE

The **Kentucky** business and industry task force prioritizes industry sectors for pathways development, links sectors to pathways, and advises on credential selection.

#### LESSONS LEARNED

Clear criteria (including data sources and standards for evidence) for designating occupations as HSHD can lessen the risk that industry input will reflect the needs of select employers rather than the needs of an industry or region as a whole.

#### STRATEGY

**Statewide industry councils:** industry-specific employer groups that identify workforce gaps and the skills and credentials that applicants need

#### EXAMPLE

The **Ohio** state team collaborates with industry councils to develop career pathways aligned to the state's nine priority sectors. The councils provide input on hiring priorities, including the competencies required for various jobs.

#### LESSONS LEARNED

Leveraging existing industry associations is quicker and less burdensome for educators and employers than creating new industry organizations.

State education agencies and their partners likewise have found that powerful employers in the state could use their influence to control which industries, occupations, and career pathways were prioritized in state policy and funding rules as they attempted to align pathways to workforce needs. State and regional staff have found that establishing objective and transparent criteria for setting pathway priorities, based on rigorous analyses of labor market information, to be helpful for ensuring that the results reflect broader industry interests.

### STRATEGY

#### Employer champions and advocates for pathways:

employer representatives working at the state and regional levels to promote the state's vision for career pathways and work-based learning

### EXAMPLE

Tennessee plans to identify regional employer-education partnerships to encourage other employers to consider high schoolers in their hiring pipeline, set expectations for high-quality work-based activities, and address employers' concerns about work-based learning.

### LESSONS LEARNED

When seeking industry advocates for pathways programs, states recommend:

- Tapping employers with a demonstrated commitment to education;
- Spreading requests across employers;
- Clearly communicating expectations and requests; and
- Being mindful of employers' time.

### STRATEGY

#### Education and employer intermediaries and coordinators:

individuals or organizations developed or chosen by a state agency to coordinate employer engagement across districts

### EXAMPLE

Rhode Island selected a non-profit workforce development organization, Skills for Rhode Island's Future, to connect students and employers for work-based learning and to oversee the summer internship program – 162 students completed the internship program in summer 2018.

### LESSONS LEARNED

- Managing employer relationships at the state and regional level reduces the burden on districts and establishes consistent policies and a stable point-of-contact for employers.
- State and regional employer engagement efforts should coordinate with districts that have strong existing employer relationships to avoid being perceived as competition.

# INCENTIVIZING CAREER PATHWAYS QUALITY AND RIGOR

Beyond states' efforts to align career pathways to workforce needs, NSFY state teams also have launched and strengthened statewide activities promoting quality in career pathways. NSFY state teams emphasize the need for strategies for scaling up high-quality career pathways in the context of education systems characterized by strong local control. Competition between local education agencies, initiative fatigue, and difficulties in communicating the difference between new career pathways and established CTE programs can undermine local engagement and state efforts to expand promising programs. As a result, although two states have developed processes for closing local pathways lacking rigor and alignment with workforce needs, most have focused on providing incentives for offering high-quality pathways, either by upgrading existing pathways or introducing new ones.

NSFY states are encouraging and incentivizing the expansion of career pathways while promoting quality through CTE program approval processes, accountability systems, and program standards. In many states, definitions of quality and rigor are built into state pathways models monitored by state education agencies through program approval or designation processes. Most states use a mix of strategies to promote program quality (Exhibit 7). For example, Kentucky has integrated pathways into state graduation requirements, giving students the option to focus on building high-level industry-specific skills by substituting pathway-relevant courses for some academic coursework. Kentucky also added measures to its state accountability system to assess students' career readiness, including IRC attainment, CTE end-of-program assessments, and apprenticeship completion.

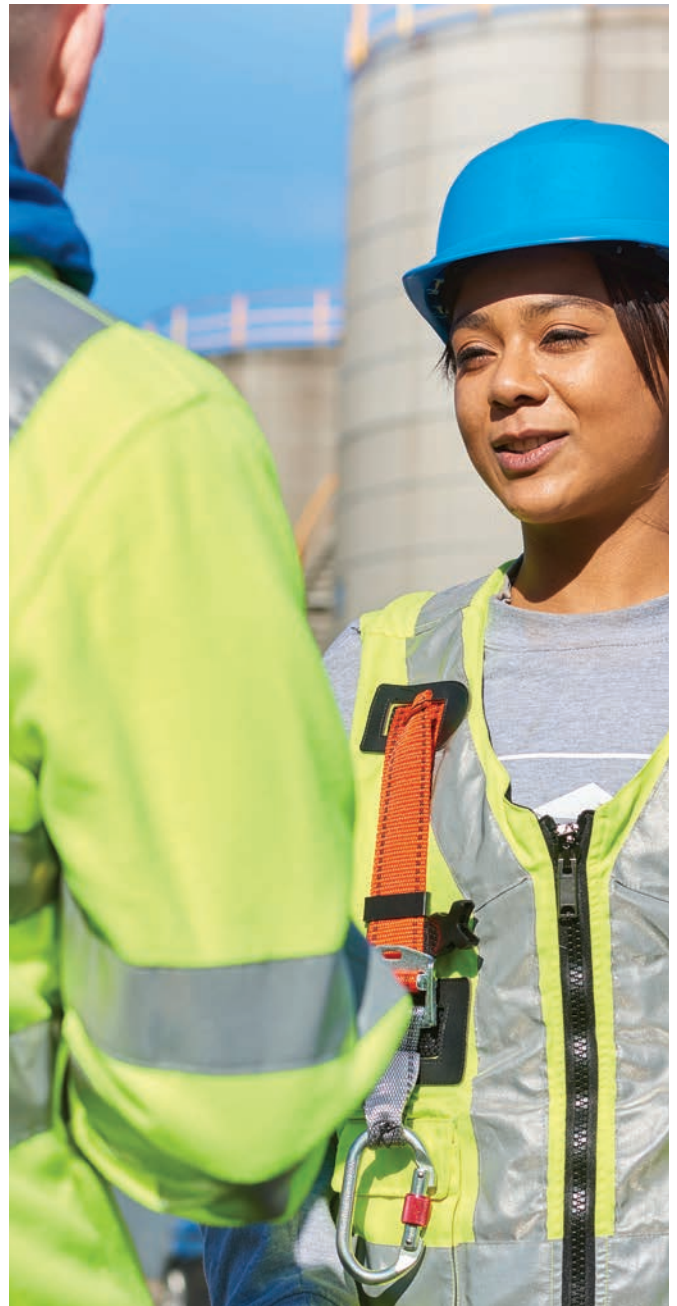




EXHIBIT 7


State strategies to promote local adoption of high-quality pathways aligned with HSHD industries



**ACCOUNTABILITY**

Incorporating career readiness indicators into state accountability systems to reward schools for student involvement in certain types of pathways and career readiness experiences

DE	OH
KY	OK
LA	RI
MA	TN
NV	



**GRADUATION REQUIREMENTS**

Revising graduation requirements to recognize pathways completion, including pathway components associated with labor market alignment, such as IRC attainment and work-based learning participation

KY
LA
NV
OH



**FUNDING INCENTIVES**

Aligning funding systems with state priority industries to incentivize pathway development in these areas, such as by limiting state resources to pathway programs in HSHD industries

KY
LA
RI
NV



**COURSE AND PROGRAM STANDARDS**

Revising state CTE program and course standards to incorporate employer input and align with labor market requirements

KY
OH
RI
NV



**PATHWAY CERTIFICATIONS AND ENDORSEMENTS**

Developing award and endorsement systems for promoting high-quality local pathways, such as by certifying pathways meeting state criteria

MA
TN
WI

# Promoting Equity in Access to and Completion of Career Pathways

The NSFY states are implementing efforts to increase equity in pathways access and completion. States began their equity work by examining the type and extent of inequities in career pathways as part of the planning process in Phase One. This background work revealed equity gaps in HSHD pathways participation

and completion that states have prioritized during their NSFY pathways work in Phase Two (Exhibit 8). Seven states set specific state-level equity priorities, and five states are addressing district-determined equity priorities. Two NSFY states have programs addressing equity priorities at both state and district levels.

## EXHIBIT 8

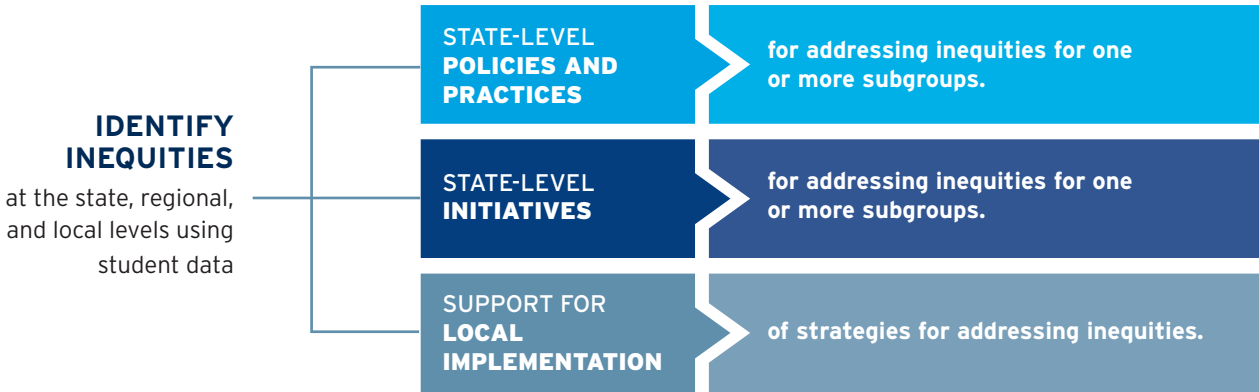
### Focus on subgroup equity across states

PRIORITY LEVEL	SUBGROUP OF FOCUS	STATES
State-determined priorities	Students with disabilities	Delaware, Louisiana
	Students of color	Nevada, Wisconsin
	School location (urban, rural)	Kentucky, Louisiana, Nevada, Ohio, Oklahoma
District-determined priorities	Any	Delaware, Massachusetts, Rhode Island, Tennessee, Wisconsin

As states expanded high-quality pathways, they linked expansion with equity goals at both state and local levels, using three approaches to promote and support equitable access that parallel the approaches that states have used to promote career pathways expansion: new state policies, state-led initiatives, and support for district-led equity work (Exhibit 9).

## EXHIBIT 9

### Overview of NSFY state approaches for promoting equity in pathways access



NSFY states have created a variety of state policies, activities, and local support to promote equity in pathways access and completion (Exhibit 10). State teams noted that increasing equity will require support to schools and districts to recognize and monitor equity issues; incentives to address equity during local pathways implementation; and funds and technical assistance to encourage innovation and engagement.

In contrast to pathways initiatives, which predate NSFY in some states, most of the pathways-related equity strategies have been developing during the grant, and equity programs are still in the pilot phase. As a result, it is too early to observe any changes in equity gaps related to pathways participation or completion in the quantitative indicator data that states are tracking for NSFY.

**EXHIBIT 10**

**Strategies to improve equity in career pathways participation and completion across states**

**STATE-LEVEL POLICIES AND PRACTICES**

**STRATEGY**

**Introduction of monitoring systems to track career pathways enrollment and completion by subgroup**

**EXAMPLE**

In **Ohio**, applications for CTE program funds will be required to include plans for ensuring equitable access to career pathways. To help districts prepare for this shift, Ohio is partnering with a technical assistance provider to create GIS maps of pathways and schools to identify physical barriers to pathways participation, such as distance or major highways.

**LESSONS LEARNED**

States can share simplified data with districts to help them identify and understand barriers to access and hold them accountable for addressing equity gaps through program approval and other monitoring processes.

**STRATEGY**

**Inclusion of equity criteria in state pathway models**

**EXAMPLE**

**Massachusetts** districts seeking the state's High Quality College and Career Pathways designation must eliminate barriers to pathway access through tuition-free participation, open enrollment without regard for past academic achievement or GPA, and student support. Districts also must develop a plan to promote equitable outcomes.

**LESSONS LEARNED**

Including equity criteria in certification or endorsement applications helps ensure that schools and districts integrate equity planning into pathways implementation.

## STATE-LEVEL INITIATIVES

### STRATEGY

**Equity grant programs**

#### EXAMPLE

**Rhode Island** created competitive Innovation and Equity grants for districts to increase equity in HSHD pathways for the subgroups of their choosing, using evidence-based action plans.

#### LESSONS LEARNED

Competitive grant programs for districts can increase statewide awareness of equity issues involving career pathways and spur innovation.

### STRATEGY

**Developing pathway models that promote equity**

#### EXAMPLE

**Louisiana** is developing a statewide pathway model that removes barriers to pathway components such as dual enrollment and work-based learning for students with disabilities.

#### LESSONS LEARNED

Statewide models for equity require cross-sector partnerships, including outreach to private foundations or associations, for development and sustainability.

## SUPPORT FOR LOCAL IMPLEMENTATION

### STRATEGY

**Professional development for staff**

#### EXAMPLE

**Wisconsin's** state education agency offers implicit bias training to district and school staff.

#### LESSONS LEARNED

While many strategies focus on systematic changes in funding and technical assistance to increase equity, states also can make progress on a local level through local staff training connected to broader statewide equity strategies.

### STRATEGY

**Technical assistance for instructors and other district staff**

#### EXAMPLE

**Delaware** contracted with the National Alliance for Partnerships in Equity to pilot a 2-year framework for districts to identify barriers to pathways access for students with disabilities; conduct root-cause analyses; select and pilot evidence-based strategies to increase access; and evaluate the effects of those strategies.

#### LESSONS LEARNED

Instructors with industry experience who enter the classroom through alternative certification lack formal teacher training and are therefore ill-equipped to work with students with disabilities. On-site professional development is needed to address this equity issue.

## Scaling Up High-Quality Career Pathways

Since the NSFY initiative began, all of the Phase Two states have experienced an increase in the number of students participating in HSHD career pathways, which most states operationalize as CTE programs that are aligned to HSHD occupations. Exhibit 11 shows grade 9 to 12 students' participation in career pathways aligned to HSHD fields over time and by state. The data highlight both states' different starting points in pathways development at the beginning of NSFY and change over time. Participation rates increased in all states by an average of 4 percentage points. Participation changed most over the 3 years examined in Delaware (15 percent) and least in Ohio and Wisconsin (1 percent each).

Several factors account for the differences in overall pathways participation across states. First, two

states (Delaware and Louisiana) restricted data to new pathways models closely aligned with the NSFY definition of a high-quality career pathway. Data for the other states reflect student participation in CTE programs more broadly, which the states are enhancing through policies and other support to augment program quality and rigor. States also are working to increase the number of students engaging in pathway-aligned work-based learning and dual credit.

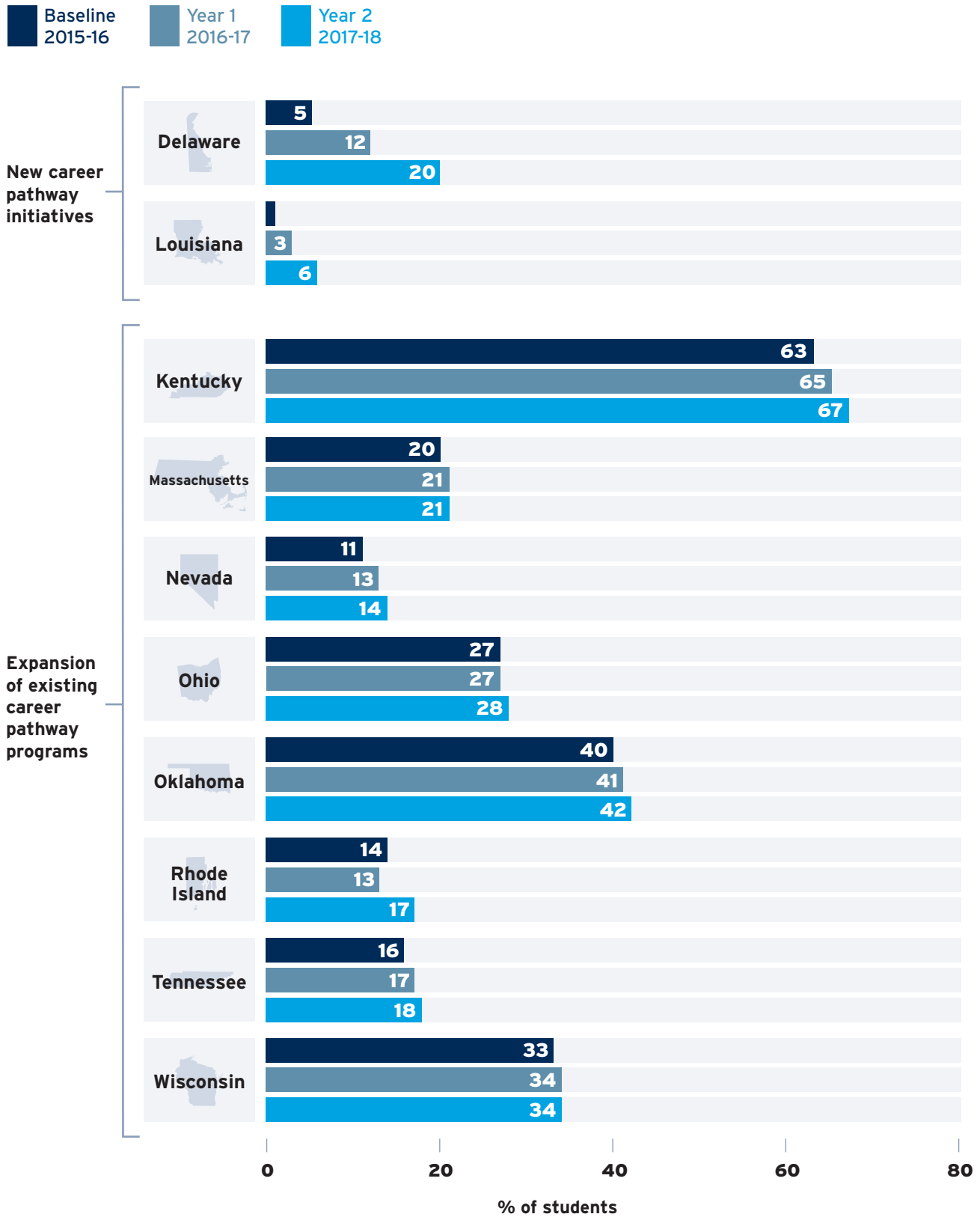
The cross-state differences in participation also reflect differences in state criteria for identifying HSHD occupations and linking HSHD occupations to career pathways. The number of pathways designated as aligned to HSHD sectors ranges from fewer than 20 in Wisconsin to more than 100 in Kentucky and Oklahoma.





**EXHIBIT 11**

**Change in participation in career pathways aligned to HSHD sectors, 2015-16 to 2017-18**



Note: See Appendix A for detailed information on state exclusions. Massachusetts data exclude enrollments for the two new HQCCP programs developed during NSFY, for which data will first be available for the 2018-19 academic year.

# Local Implementation Support

In addition to pathway-related incentives and requirements, states are providing support to districts engaged in pathways development and implementation. These supports include access to advisors and experts, convenings, resources, professional development for instructors and staff, and short-term grants to fund implementation activities (Exhibit 12). States have an interest in providing support because it encourages consistency and rigor in pathways design and implementation and helps overcome reluctance among some educators to change existing pathways.

District staff likewise value support because state examples, models, and templates help them interpret new policies and save time and resources. According to NSFY state team members, providing this support need not be cumbersome; existing communities and networks, such as counselor associations, already have resources that states can tailor for local use. At the time this report was prepared, many states were just starting to offer resources for local use; the impact of this support on local practices and lessons learned will be explored in the final report.

## EXHIBIT 12

### State support for local career pathways implementation

#### SUPPORT

**Advisors and experts:**  
specialists who can help scale up pathways and pathway components

**Meetings and communities of practice:**  
opportunities for pathways stakeholders to collaborate on problems and share resources

**Toolkits and resources:**  
how-to guides and resources to facilitate district adoption of state model pathways and pathway components

#### EXAMPLE

Through the PrepareRI Ambassador program, **Rhode Island** has engaged career education leaders to advise the initiative and work with districts to implement activities aligned with ambassadors' areas of expertise. The ambassadors include district and school leaders, teachers, researchers, and community organization representatives, who meet monthly as a cohort and receive a stipend and access to professional development for their participation.

**Massachusetts** is partnering with the state school counselor association to offer an annual series of three meetings to provide professional development to cohorts of high school staff on the state's new college and career advising standards. The training intentionally includes administrative and instructional staff and encourages the development of cross-district connections and communities of practice to address common challenges in implementing the new standards.

The **Oklahoma** Department of Education launched a business and education partnership toolkit in 2019. The toolkit is intended to help schools and districts build connections with regional businesses and increase work-based learning opportunities for students. It includes an employability skills rubric and assessment, sample partnership agreements and other templates, and an employer guide to work-based learning.

## SUPPORT

**Professional development:** training to support district staff involved in pathway design and implementation

**Implementation grants:** technical assistance and grant funds to districts developing and implementing new pathways, including piloting pathway models and components

## EXAMPLE

**Louisiana's** CTE Leadership Academy is an intensive summer training program that helps CTE administrators from Louisiana and other states learn about career pathways policy and best practices for implementation.

Using NSFY funds, **Tennessee** awards annual mini-grants to districts for career pathways expansion. In the first year, 19 schools and districts received small infusions of funds (ranging from \$1000-\$25,000) to support projects related to work-based learning, equitable access, rural and distressed counties, and career advisement. In Year 2, the state shifted to awarding 6 larger grants of up to \$100,000 each to sustain pathways work in similar topic areas that will continue after grant funds end.

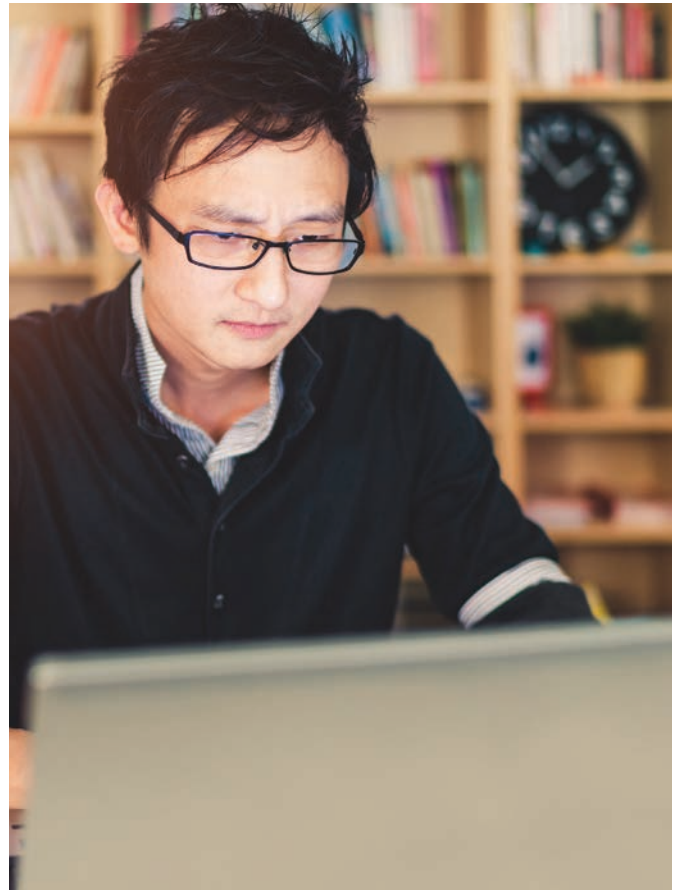


# PATHWAYS TO POSTSECONDARY OPPORTUNITIES

To prepare students for postsecondary options, NSFY states have engaged postsecondary partners to articulate secondary and postsecondary pathways programs, build opportunities for secondary students to earn early postsecondary credit, and address barriers to students' secondary-to-postsecondary transitions. Although statewide initiatives and policies have driven the expansion of many pathways components, such as IRCs and work-based learning, in the NSFY states, this has been less true for connecting secondary and postsecondary programs. Many postsecondary articulation and dual enrollment opportunities developed through NSFY are based on connections between districts and their local postsecondary partners, rather than statewide agreements, which can be challenging to develop because of the autonomy of postsecondary institutions. States have faced similar challenges in linking secondary career pathways to apprenticeships, as local partnerships between district and workforce offices commonly drive apprenticeship opportunities and can help avoid the perception of competition between workforce and education systems.

All NSFY states expanded opportunities for pathways students to earn early postsecondary credit, by connecting existing state dual credit programs to pathways, addressing barriers to access, and connecting pathways across education levels. Tennessee's dual enrollment grant program, for example, pays the full cost of tuition and fees for a student's first two dual enrollment courses at a community college, and the new state certification program for pathways requires certified pathways to include options for students to participate in eight different early postsecondary options. In Kentucky, secondary and postsecondary agency partners successfully petitioned to repeal an accreditation policy requiring separate classes for students taking the same course for high school only and for dual credit. This policy change will make it easier

for schools to offer dual credit courses, potentially increasing student access. Delaware is piloting high school courses to help students with low scores on college placement exams prepare for college work. Massachusetts includes tutoring and other support in its Early College Pathway to avoid limiting participation to students with strong academic backgrounds. Finally, at least seven states have established articulated K-16 pathways. Delaware, Massachusetts, and Louisiana have established statewide pathways in partnership with postsecondary institutions, so that college coursework is an integral part of the pathway experience (Exhibit 13).



## EXHIBIT 13

### Examples of postsecondary connections in state pathways models



DE

#### TYPE

#### PATHWAYS OFFERED IN PARTNERSHIP WITH 2-YEAR COLLEGES

#### EXAMPLE

The postsecondary partner in **Delaware**, the Delaware Technical Community College (Delaware Tech), is working with secondary institutions to provide advanced pathways entailing on-campus instruction and work-based learning. The new advanced manufacturing pathway includes 600 hours of instruction and hands-on experience in Delaware Tech's labs; a 200-hour paid internship; the opportunity to earn national certifications; and up to 13 college credits. A similar pathway for patient care technicians will be available in 2019-20.



MA

#### TYPE

#### PATHWAYS PROGRAMS EMPHASIZING EARLY COLLEGE CREDIT ATTAINMENT

#### EXAMPLE

**Massachusetts'** HQCCP Innovation Pathways include a 4-course sequence with 2 college level courses. In the HQCCP Early College Pathway, students earn a minimum of 12 postsecondary credits through dual enrollment courses offered in partnership with a local college. All new early college pathways must have a memorandum of understanding (MOU) in place with an institution of higher education.



LA

#### TYPE

#### PATHWAYS PROGRAMS ALIGNED WITH BACHELOR'S DEGREE PROGRAMS

#### EXAMPLE

**Louisiana** rolled out the Louisiana State University (LSU) STEM Certification Pathways Program in 2018-19. Participating students can earn IRCs, certificates of course completion, or dual credit. The pre-engineering pathway, introduced in 2017-18, currently enrolls more than 1,500 students in 30 schools. LSU plans to pilot additional pathways in Digital Media and Emergent Design (2018-19), Computational Thinking and Computer Science (2019-20), and Biomedical Sciences (2020-21). The state department of education also has partnered with Xavier University to develop a pharmacy pathway available in 2019-2020.



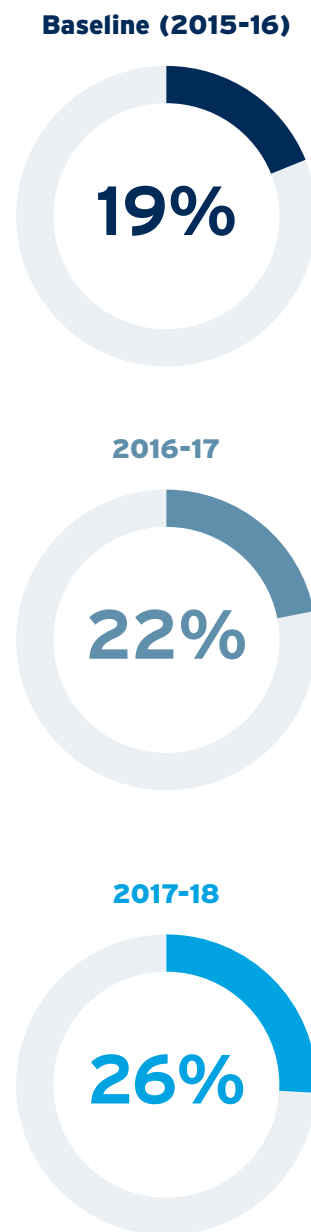
NSFY requires grantee states to report dual credit (high school and college) attainment rates among all high school students. As with IRC attainment, states are working actively to expand and improve the quality of data on dual credit attainment. Five NSFY states had the capacity to provide three years of high-quality data on dual credit attainment (Delaware, Kentucky, Louisiana, Ohio, and Tennessee); reporting capacity for this indicator in the remaining states is still in development. Among the states analyzed, the percentage of students earning dual credit increased from the 2015-16 baseline to 2017-18 increasing, on average, by 7 percent (Exhibit 14).

The increase in dual credit attainment rates is consistent with efforts to expand early credit earning opportunities in career pathways. State data shown in Exhibit 14 are not limited to career pathway students, however, and states were not required to indicate whether the dual credit earned by pathways students aligns with their pathway field. Several states are in the process of facilitating alignment between dual credit and career pathways, as Massachusetts has done with its new early college career pathways and by exploring options for tracking how early college credit and pathway fields align.



#### EXHIBIT 14

#### Percentage of high school students earning dual credit in five NSFY states



Note: See Appendix A for detailed information on state exclusions. States not analyzed were unable to provide complete data for the three reporting years; the reported data were of low quality; or data were limited to a subset of high school students.



**“ As more people understand what the vision is and what this can mean for our state, it will result in a mindset change: that this isn't just something we're doing for high school students to get them ready for college. This is something that is going to grow our economy, and it's going to help our citizens as a whole. ”**

- NSFY State Team Member, Oklahoma

# Building Pathways to Apprenticeship

Apprenticeships combine high-quality career training with on-the-job experience and postsecondary instruction, making them a natural fit for students completing secondary career pathways. At least five NSFY states have created new apprenticeship programs or connected students with existing programs under the grant, while others have addressed policy and administrative barriers to apprenticeship expansion (Exhibit 15). Key NSFY apprenticeship activities include tracking apprenticeship completion as a measure of college and career readiness in Kentucky; passing state legislation in Oklahoma to establish an apprenticeship office in the state's workforce development agency and a state registration system to track apprenticeship completion more effectively; and leveraging federal grants to expand apprenticeship programs in Rhode Island and Tennessee.

## EXHIBIT 15

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### Connecting apprenticeships to pathways

#### STRATEGY

**Delaware** is engaging business and industry councils to identify employers willing to sponsor apprenticeship programs.



#### INITIAL RESULTS

Expanded apprenticeships from the trades and teaching pathways to the culinary and hospitality management pathway. State agencies also launched a pre-apprenticeship program for registered apprenticeships in early 2019 and connected the program with secondary career pathways.

**Kentucky** is conducting outreach campaigns to recruit students and employers for apprenticeship programs.



Participation in the Tech Ready Apprenticeships for Careers in Kentucky (TRACK) program increased by 150 percent in the past year.

**Nevada** leveraged federal grants to hire an employer engagement specialist and a statewide youth apprenticeship and work-based learning navigator.



The Governor's Office of Workforce Innovation has developed plans for youth apprenticeships combining CTE and workplace instruction.

**Ohio** established state criteria for approving apprenticeships and coordinating apprenticeship marketing across the state departments of education and job and family services to connect pathways students to high-quality pre-apprenticeship programs.



Over the last 4 years, the state has increased the number of pre-apprenticeship programs from 41 to several hundred.



## STRATEGY

**Oklahoma** is increasing apprenticeships through legislation and policy.

**Tennessee** awarded mini-grants to districts and schools to facilitate new industry-education partnerships to establish new apprenticeship programs and leverage federal apprenticeship grant funds.

**Wisconsin** is integrating youth apprenticeships in regional career pathways maps that illustrate regional needs and assets, including work-based learning experiences, dual credit opportunities, and district course offerings.

## INITIAL RESULTS

Oklahoma created an office of Work-Based Learning and Apprenticeship at the state Office of Workforce Development and passed legislation to develop a state registration process for apprenticeships.

Tennessee conducted a statewide listening tour to identify education and industry apprenticeship needs and established a new apprenticeship program in Jackson-Madison County in partnership with Stanley Black & Decker.

Apprenticeships are now an integrated component of new career pathways developed in each of the state's participating regions.



# SUSTAINABILITY

The technical capacities and resources developed by states through NSFY will help support the continued development of career pathways after the grant period ends in December 2019. State pathway models and toolkits, for example, will continue to guide pathways implementation, and the inclusion of pathways in state graduation requirements will encourage student participation. Sustaining career pathways after the grant, however, will also require maintaining stakeholder engagement and securing the funds needed to continue efforts started through NSFY. Nearly all state NSFY

teams anticipate challenges in sustaining at least some of the NSFY activities after the grant period, particularly if changes in political leadership or economic conditions weaken support among state leadership and employers.

To support their work after the grant, some states already have identified or secured state and federal education resources (or, less commonly, funds from non-education or private organizations), to sustain pathway activities initiated under NSFY, and others are in the process of doing so. These efforts supplement

## EXHIBIT 16

### Sustaining pathways in NSFY states

#### SUSTAINABILITY SUPPORT LEGISLATION AND POLICIES



#### EXAMPLES

The Year 2 evaluation report described 23 pieces of career pathways-related legislation introduced and passed in the NSFY states between January 2017 and June 2018. In the past year, some states have continued to use legislation, as well as policies, to support pathways and ensure their sustainability, including:

- Massachusetts, which introduced legislation to direct the Office of Labor and Workforce Development to create a list of state-recognized IRCs and compensate districts for students who earn IRCs on the list.
- Kentucky, which passed new graduation requirements allowing students to qualify for high school graduation by demonstrating career readiness with IRCs and CTE dual credit coursework.

#### SUSTAINABILITY SUPPORT RETAINING STATE-LEVEL CAPACITY



#### EXAMPLES

- The Oklahoma Department of Education has created an office of college and career readiness with staff dedicated to sustaining NSFY activities, including the new statewide college and career advising program.
- The Tennessee Department of Labor and Workforce Development and Department of Economic and Community Development restructured their regional boundaries to match those of Department of Education regions, making it easier for regional agency staff to collaborate on pathways activities.



broader state goals to increase K-12 funding, including support for career readiness initiatives. Policy makers in Louisiana, for example, are considering increases to the state school funding formula, with some proposals recommending even higher increases for CTE programs. Although the consideration of career readiness in state budget discussions is promising, the time needed for negotiations and budgeting cycles may mean that funding decisions are made after the grant period ends. Kentucky, for example, has convened a legislative task force to review the state's CTE funding process in

advance of the next state budget season in 2020.

In addition to securing funding, states aim to sustain NSFY activities by codifying processes and expectations in legislation and policy, maintaining staff to continue working on pathways priorities, and linking NSFY work to other enduring initiatives. Exhibit 16 identifies the strategies states are pursuing to continue NSFY-related work after funding ends and offers examples of each strategy among the NSFY states.

### **SUSTAINABILITY SUPPORT COORDINATION OF PATHWAY AND CAREER READINESS INITIATIVES AND STAKEHOLDERS**



#### **EXAMPLES**

- State teams have united various pathways efforts into single efforts, such as Ohio's Success Bound brand or Rhode Island's PrepareRI initiative, to raise the statewide profile of pathways and partner organizations' contributions.
- States have instituted marketing campaigns, with the support of outside experts, to assist with outreach to students and parents, such as Louisiana's pilot project with Edge Factor to communicate pathways benefits to parents and community stakeholders.

### **SUSTAINABILITY SUPPORT NEW AND NON-EDUCATION FUNDING SOURCES**



#### **EXAMPLES**

- Delaware secured a grant from Bloomberg Philanthropies to expand work-based learning and is partnering with the Delaware Department of Labor to connect Delaware Pathways programs with *Workforce Innovation and Opportunity Act*-funded programs for in- and out-of-school youth and provide career support services to at-risk youth.
- The Louisiana state team worked with the state workforce commission to secure pre-employment transition services funds (from the *Workforce Innovation and Opportunity Act*) to adapt Jump Start career pathways for students with disabilities.
- States have explored apprenticeship programs as another source of funds to support career pathways, particularly for work-based learning.

# CONCLUSIONS: CHANGES IN STATE CAPACITY TO PROMOTE CAREER READINESS

NSFY state teams have developed career pathways in political and economic environments that they largely characterize as supportive of their efforts. Employers' challenges in finding qualified job applicants in many fields have increased their willingness to work with educators to develop talent pipelines, including at the high school and middle school levels. Similarly, state needs for educated workforces prepared for employment in high-tech industries have spurred science, technology, engineering, and math (STEM) and college completion efforts aligned with the NSFY goals. States currently are developing plans to implement the *Strengthening Career and Technical Education for the 21st Century Act (Perkins V)*, which passed in July 2018. In contrast to *Perkins IV*, the new legislation places a greater emphasis on work-based learning, equity, and postsecondary connections, all of which have been a focus of state NSFY activities.

Along with the supportive context in which NSFY was implemented, state team members pointed to specific ways that NSFY itself raised the profile and legitimacy of career pathways in the eyes of policy makers and other stakeholders, thereby attracting support and resources. In states with relatively few education resources, grant funds supported pathways-related activities and innovations that stakeholders felt would not have been feasible otherwise. The teams described how NSFY has advanced and accelerated pathways development in their states by:

## **Catalyzing state partnerships**

States describe NSFY as expanding and strengthening existing career pathways and CTE systems by facilitating coordination and alignment across state agencies and other key cross-sector members. Though state education agencies had worked with their NSFY

partners in the past, they credit the initiative with deepening partnerships, promoting collaboration, and raising awareness of each agency's priorities, resources, and challenges.

## **Enhancing state-level pathways resources**

NSFY has enhanced state capacity to develop and implement high-quality career pathways by establishing processes and structures for the state-level coordination of employer engagement, engaging and training agency staff, and developing tools and resources to scale up pathways programs statewide.

## **Raising the profile of career pathways**

NSFY funding allowed states to market career pathways and engage key stakeholders, including political leaders, educators, employers, community organizations, parents, and students. Several state teams noted that having a major U.S. employer as the funding source provided additional political leverage when advocating for pathways. Team members felt that JPMorgan Chase's involvement may serve as indicator of the programs' value and induce state leaders (and other employers) to lend their support, particularly in states with large numbers of JPMorgan Chase employees.

## **Supporting local pathways implementation and innovation**

Through NSFY, states have developed processes and programs to support pathways design and delivery, including new delivery models, endorsements to signify pathways quality, and pilots to test and refine pathways or their components, including strategies to support students with disabilities, English language learners, and other student populations.

### Fostering connections to apprenticeships and postsecondary education

State initiatives to support the earning of college credit in high school predate NSFY, but state teams noted that NSFY expanded the development of pathway-aligned early college credit options. With the current national policy interest in apprenticeships, states have begun to explore how these programs can be connected to career pathways through youth and pre-apprenticeship programs.

### Expanding data collection capacity

As noted in the Year 2 Evaluation Report and the companion report *State Data Capacity to Measure Career Pathways-Related Indicators: Findings from the New Skills for Youth Initiative*, NSFY has spurred state efforts to collect data on students' career readiness and career pathways outcomes. Some of these changes are in response to new state legislation and initiatives to expand student access to high-quality career pathways. Other data system changes are the result of years of planning and piloting that was fast-tracked for NSFY, such as the integration of separate CTE data systems with other K-12 data.

The final NSFY evaluation report will provide additional information on the lasting contributions of NSFY and opportunities to continue working towards its goals, using data from the final year of implementation.



**“ Pathways Wisconsin is something other regions and industry sectors want to be a part of now. We will not have a hard time selling this; we would have a hard time stopping it. ”**

- NSFY State Team Member





# APPENDIX A: METHODOLOGY

This appendix summarizes RTI's data collection strategies for the NSFY Phase 2 evaluation through June 2019. Analysis of data and materials collected during the initiative's final 6 months will be part of the final evaluation report in June 2020, which will also present evaluation findings from the initiative's start in early 2017 through December 2019. The first sections of this appendix summarize RTI's collection and analysis of qualitative data for the project, followed by a detailed description of quantitative data collected from the participating states' longitudinal data systems for the NSFY key indicators.

# Site Visit Interviews & Observations

RTI visited each of the 10 Phase 2 states between October 2018 and January 2019 to interview state-level NSFY stakeholders, visit local education agencies involved in NSFY, and attend stakeholder meetings, when feasible. Interviews addressed changes in state-level career pathway policies and programming, implementation progress, and perceived effects of NSFY. Evaluation staff tailored interview guides for each state using information from previous site visits and recommendations gleaned from interviews with states' NSFY coaches. Exhibit A1-1 provides additional information on site visit data collection topics, research questions, and subtopics.

## EXHIBIT A1-1

### Site visit data collection topics, research questions, and subtopics

TOPIC & RESEARCH QUESTION	SUBTOPICS
<p>State-level policy and programming</p> <p><i>How did NSFY impact state-level partners' capacity to implement and support career pathways?</i></p>	<ul style="list-style-type: none"> <li>• Changes to staff and stakeholders involved in NSFY</li> <li>• Partnerships with workforce agencies, higher education, and economic development/industry systems and organizations</li> <li>• Alignment of career pathways to HSHD sectors</li> <li>• Changes to state policy related to career pathways</li> <li>• Incentives for offering high-quality career pathways in priority sectors</li> <li>• Efforts to improve equity in career pathway access, participation, and outcomes</li> <li>• Changes to accountability and data systems</li> <li>• Influence of contextual factors, like political change</li> </ul>
<p>Implementation progress</p> <p><i>What progress did states make with respect to expanding access and participation in high-quality career pathways, in accordance with the initiative's objectives?</i></p>	<ul style="list-style-type: none"> <li>• Evidence of local implementation</li> <li>• Efforts to engage key stakeholders, including local education agencies, employers, postsecondary partners, community members, parents, and students</li> <li>• Components of high-quality career pathways, including advising, IRCs, and work-based learning</li> </ul>
<p>Effects of NSFY</p> <p><i>According to key stakeholders, how had NSFY teams been most successful? Faced the greatest challenges? Why?</i></p>	<ul style="list-style-type: none"> <li>• Perceived progress toward state and initiative goals</li> <li>• Difficulties encountered during implementation</li> <li>• Lessons learned</li> <li>• Promising and innovative practices in career pathway development</li> </ul>



Exhibit A1-2 describes the site visit interview participants. RTI identified suitable interviewees from updated NSFY team member lists and in consultation with state team leads. State-level interview participants included state education agency staff and postsecondary partners, and workforce agency staff and other partners. Local education agency interview participants included district administrators, school administrators, CTE and work-based learning coordinators, career pathway teachers, guidance counselors and other advisors, and local community and employer partners. RTI targeted local education agencies for data collection using knowledge of local implementation activities from previous rounds of data collection and recommendations from state leads.

## EXHIBIT A1-2

### Site visit interview participants

PARTICIPANT TYPE	DE	KY	LA	MA	NV	OH	OK	RI	TN	WI	TOTAL BY CATEGORY
<b>STATE-LEVEL PARTICIPANTS</b>											
State education agency staff	2	5	2	8	4	4	11	5	10	4	55
State data specialists	3	1	3	1		1					9
Workforce agency staff	1	1	2	1	2	1	1	2	1	3	15
Postsecondary partners	3	2	1	3	2	3	2	2	1	7	26
Other state agency staff	1				2						3
Business & industry representatives	2						1	2			5
Other partners	3	1	2				1	3	2	5	17
<b>LOCAL-LEVEL PARTICIPANTS</b>											
District administrators	1	1	2	7	3	4	2	1		2	23
School administrators	1	3	3		1	1	3	1	2		15
CTE & work-based learning coordinators	3		2		2	1		1	1	1	11
Career pathway teachers	4	3	2	3	6	2	2	2	1	1	26
Guidance counselors & advisors	2		3	1	1	1		1		1	10
Local community & employer partners		2		4		3	1	2	4	5	21
<b>Total per state</b>	<b>26</b>	<b>19</b>	<b>22</b>	<b>28</b>	<b>23</b>	<b>21</b>	<b>24</b>	<b>22</b>	<b>22</b>	<b>29</b>	<b>236</b>

Two RTI researchers conducted each visit. Most interviews took between 30 minutes and 1 hour, and all were audio recorded with permission from the participants. Following each site visit, RTI arranged for interview recordings to be professionally transcribed. Site visit evaluation team members then used NVivo qualitative analysis software to code the transcripts by topic using a standardized codebook with construct definitions and instructions, helping to ensure consistency across the site visit teams.

Site visit teams used the coded data to prepare site visit memos for each state, highlighting key activities, accomplishments, strategies, and plans using common memo templates aligned to NSFY objectives. Site visit memos also included a section describing local implementation based on team visits to districts and schools. NSFY state team leads reviewed the memos to ensure their accuracy and completeness before the documents were finalized.

## NSFY Documentation

Exhibit A1-3 lists documentation containing information on NSFY implementation that RTI reviewed and analyzed for this report. Documentation amount and content varied across states. RTI combined information from the documentation with site visit data when preparing this report.

### EXHIBIT A1-3

#### NSFY documentation

TYPE	FREQUENCY	CONTENT AND RELEVANCE
State documents	Baseline	<ul style="list-style-type: none"> <li>• State presentations, newsletters, and other materials reflecting implementation progress</li> <li>• Materials from local education agencies reflecting local career pathway practices</li> </ul>
2019 NSFY snapshots	Year 1	<ul style="list-style-type: none"> <li>• State legal and policy contexts</li> <li>• Highlights of implementation activities</li> <li>• Strategic priorities to date and moving forward</li> </ul>
2019 NSFY state profiles	Year 2	<ul style="list-style-type: none"> <li>• Review of state work by NSFY objective</li> <li>• Summary of project spending</li> </ul>
Non-NSFY resources	Continuously monitored	<ul style="list-style-type: none"> <li>• Local, state, and national media reports related to NSFY work, with topics including improved graduation rates, the launch of new pathways, and pathway grant awards</li> </ul>

## Cross-state Qualitative Analysis

RTI arrived at the findings presented in this report by triangulating and synthesizing information from the site visits and NSFY documentation. Evaluation staff first met to informally brainstorm key findings from Year 3 after completing the site visits and reviewing documentation. Staff then divided the report into broad topic areas and carefully reviewed state-level data in NVivo code reports, site visit memos, and NSFY documents. Staff collaborated to develop the draft report, using internal reviews to identify data gaps and develop a cohesive narrative. The NSFY Project Team, Phase 2 state team leads, and JPMorgan Chase reviewed drafts for accuracy and relevance before RTI finalized the report.



# NSFY Key Indicator Data

As a condition of receiving grant funds, NSFY states were required to provide data on five key indicators reflective of students’ career pathways access, participation, completion, and related outcomes (Exhibit A1). RTI prepared detailed data submission instructions and then reviewed the submissions for inconsistencies and gaps.

**EXHIBIT A1**

**NSFY Key indicators**

INDICATOR	DESCRIPTION
Indicator 1a: Career pathways access*	The number of students, disaggregated by subgroup, with access to high-quality career pathways that span secondary and postsecondary levels, offer focused career guidance and advisement, blend rigorous core academic and career technical instruction, include high-quality work-based learning experiences, and culminate in postsecondary or industry credentials with labor market value. Students could access such pathways through their high school, a CTE center, or other course delivery system.
Indicator 1b: Career pathways participation*	The number of grade 9-12 students, disaggregated by subgroup, who completed one or more courses in a career pathway by the end of the academic year (AY).
Indicator 2: Career pathways completion*	The number students, disaggregated by subgroup, who completed one or more secondary career pathways by the end of their fourth year of high school.
Indicator 3: Dual credit attainment	The number of students, disaggregated by subgroup, who earned high school and college credit for at least one dual or concurrent enrollment course by the end of their fourth year of high school.
Indicator 4: Industry-recognized credential (IRC) attainment*	The number of students, disaggregated by subgroup, who earned at least one IRC by the end of their fourth year of high school.
Indicator 5a: Postsecondary enrollment	The number of high school graduates who enrolled in postsecondary education or training programs within 6 months of high school graduation.
Indicator 5b: Employment*	The number of high school graduates who obtained employment within 6 months of high school graduation.

\*For this indicator, states also provided restricted to HSHD sectors.

As of spring 2019, NSFY states had provided three reports of NSFY Key Indicator data (Exhibit A2). The data mostly correspond to three consecutive academic years: 2015-2016, 2016-2017, and 2017-2018. Data for Indicator 5 reflect student outcomes following graduation and thus lag by one AY.

**EXHIBIT A2**

**NSFY Key indicator reporting phases**

DATA WAVE	REPORTING PERIOD
Baseline	Indicator 1: AY 2015-2016 Indicators 2-4: fall 2012 9 <sup>th</sup> grade cohort Indicator 5: 2014-15 graduates
Year 1	Indicator 1: AY 2016-2017 Indicators 2-4: fall 2013 9 <sup>th</sup> grade cohort Indicator 5: 2015-16 graduates
Year 2	Indicator 1: AY 2017-2018 Indicators 2-4: fall 2014 9 <sup>th</sup> grade cohort Indicator 5: 2016-17 graduates

The report *New Skills for Youth Career Pathways/Readiness Indicator Findings* documents the strengths and limitations of state data systems in supplying data on college and career readiness using the NSFY key indicators and related measures. As the report indicates, most NSFY states’ data systems cannot currently provide data on high-quality career pathways in accordance with the NSFY indicator definitions. Seven states are using state-approved CTE programs of study, as defined by *Perkins IV*, as a proxy for career pathways. The exceptions are:

- Louisiana, which reported access to the state’s recently implemented Jump Start programs;
- Delaware, which used programs of study for non-HSHD pathways and Delaware Pathways for HSHD; and
- Massachusetts, which is implementing new pathway designations not currently reflected in their data systems.

Although the career pathways data do not reflect all elements of a high-quality career pathway as specified by NSFY, they provide an overview of student access to and engagement in CTE programs, which serve as a foundation for pathways development.

In addition to states’ inability to operationalize career pathways as prescribed, states faced other challenges in providing key indicator data. In some cases, state data systems did not capture the information requested. In other cases, states flagged their data as low quality or not comparable to data provided by other states. Finally, some states provided data that was not comparable over time, precluding trend analysis.

Exhibit A3 summarizes Year 2 data submissions from each state for each indicator, noting data inconsistencies and limitations.

## EXHIBIT A3

### Year 2 NSFY indicator data reporting summary

State	Indicator 1a: Career Pathways Access	Indicator 1b: Career Pathways Participation	Indicator 2: Career Pathways Completion	Indicator 3: Dual Credit Attainment	Indicator 4: IRC Attainment	Indicator 5a: Post-secondary Enrollment	Indicator 5b: Employment
<b>DE</b>	CP for HSHD only	CP for HSHD only	CP for HSHD only	–	AY, CTE	–	Def for HSHD only
<b>KY</b>	–	–	–	–	CTE for HSHD only	Def	Q
<b>LA</b>	CP	CP	CP	Def	CTE for HSHD only	–	No data
<b>MA</b>	HSHD	HSHD	HSHD	Def, Q, T	HSHD	–	HSHD
<b>NV</b>	–	–	–	No data	CTE, Def	No data	CTE, HSHD
<b>OH</b>	–	–	–	–	–	No data	CTE
<b>OK</b>	–	–	AY, S	AY, Def, S	AY, CTE	Def, S	CTE, Q, T
<b>RI</b>	–	–	–	Q, T	CTE, Q, T	–	–
<b>TN</b>	–	–	T	Def	CTE, Q, T	–	Q
<b>WI</b>	HSHD	AY, HSHD	AY, T	AY, CTE, T	AY, CTE, Def, T	–	CTE

#### Key:

- **AY:** State did not provide numerator or denominator data for the requested cohort, grades, or academic year.
- **CP:** Data reported reflect a more stringent definition for career pathways than used in other states; LA restricted reporting to Jump Start programs, and DE used programs of study for non-HSHD reporting and Delaware Pathways for HSHD reporting.
- **CTE:** Data limited to CTE students (relevant only for Indicators 3-5b); includes use of *Perkins* follow-up survey employment data for Indicator 5b.
- **No data:** No data reported for the indicator.
- **No HSHD:** When requested, the state was unable to provide HSHD counts.
- **Q:** Data are inaccurate, low quality, or inconsistent; includes Indicator 5b education/employment database match rates <75 percent.
- **S:** States were asked to disaggregate data by gender, race, ethnicity, income, English proficiency, and disability status, but could not provide data for each subgroup requested.
- **T:** Year 2 data are not comparable to baseline or Year 1 data, or data were not provided in earlier reporting phases.
- **Def:** State operationalized the indicator differently than requested in ways not captured by other data flags; includes dual or concurrent enrollment without assurance of secondary and postsecondary credit attainment for Indicator 3 and use of non-National Student Clearinghouse data for Indicator 5a.



This report features data on three of the NSFY indicators: participation in career pathways aligned to HSHD sectors (Indicator 1b; Exhibit 11), dual credit attainment (Indicator 3; Exhibit 14), and attainment of IRCs aligned to HSHD sectors (Indicator 4, Exhibit 5). It does not include data on access (Indicator 1a) because most states reported that more than 90 percent of students had access to career pathways according to state policy or school offerings, but they lacked data on key barriers to access manifested at the local level, such as physical barriers, administrative barriers, or school

capacity issues. This report also excludes data on postsecondary enrollment and employment (Indicators 5a and 5b, respectively), because the NSFY state implementation timelines do not allow for observation of pathways-related differences in these outcomes at this time.

Exhibit A4 provides a detailed rationale for state exclusions from figures in the main body of the report.

**EXHIBIT A4**

**States excluded from report figures**

EXHIBIT	INDICATOR	STATES EXCLUDED & RATIONALE
11	1b: Career pathways participation (HSHD sectors)	<ul style="list-style-type: none"> <li>• <b>MA:</b> Unable to distinguish between career pathways aligned to HSHD sectors and those not aligned.</li> </ul>
14	3: Dual credit attainment	<ul style="list-style-type: none"> <li>• <b>MA:</b> Reported that state data were low quality and unreliable.</li> <li>• <b>NV:</b> Did not provide data for Year 1 or Year 2.</li> <li>• <b>OK:</b> Did not provide data for Year 2.</li> <li>• <b>RI:</b> Restricted data to dual credit attained in AY 2015-2016 and later, so data are not comparable across phases.</li> <li>• <b>WI:</b> Provided data limited to grade 11 and 12 CTE students.</li> </ul>
5	4: IRC attainment (HSHD sectors)	<ul style="list-style-type: none"> <li>• <b>MA:</b> Unable to distinguish between IRCs aligned to HSHD sectors and those not aligned.</li> <li>• <b>NV:</b> Provided data on the Nevada Certificate of Skill Attainment, not third-party IRCs.</li> <li>• <b>OK:</b> Did not provide data for Year 1.</li> <li>• <b>RI:</b> Restricted data to IRCs attained in AY 2014-2015 and later, so data are not comparable across phases.</li> <li>• <b>TN:</b> Did not provide data for baseline or Year 1.</li> <li>• <b>WI:</b> Provided data on participation in a certified learning methodology among grade 11 and 12 students, not attainment of third-party IRCs.</li> </ul>

## **NEW SKILLS FOR YOUTH**

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