

Measuring early career outcomes in D.C.

Chelsea Coffin & Julie Rubin | November 17, 2021



D.C. POLICY CENTER

Education Policy Initiative

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Since 2017, the D.C. Policy Center's Education Policy Initiative has brought objective analyses to education conversations in the District of Columbia. Throughout our work, we highlight inequities in education, and how these tie into other areas such as housing and workforce policies. We seek to bring new data and information to help improve outcomes for D.C.'s students, especially those who are furthest from opportunity.

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Summary

D.C.'s public and public charter school students spend fifteen years—from pre-kindergarten to grade 12—preparing for what comes next: college and their careers. While the city monitors key outcomes such as high school graduation rates and enrollment in postsecondary degree programs, we know very little about the early career outcomes for D.C.'s public school alumni. The best available information indicates that the majority of D.C.'s alumni do not complete a postsecondary degree, and that those who stay in the city as young adults earn about half the income of their peers who moved to the city. Understanding more about District graduates' experiences in early career could inform practices and investments to support current students and future graduates on a path to success.

Tracking early career outcomes of D.C.'s former public school students is difficult, especially in D.C. given its small geographic area, a dispersed alumni population, and small public postsecondary system compared to other states. This means that improving data on early career outcomes would require commitment and resources, but these investments would create important knowledge to help pinpoint what types of opportunities students have after their K-12 and postsecondary education, and any workforce training. It can also help policymakers better understand what types of barriers to achieving successful early career outcomes exist in the labor market for former public school students. Ultimately, this information can help change practices across public schools, postsecondary institutions, and workforce development programs, with the aim of maximizing future success for D.C.'s youth.

This report presents a blueprint of how the District of Columbia can collect more information about the early career outcomes of former public school students. First, it takes stock of what D.C. government and public high schools already do to gather information on early career outcomes, finding that D.C. systematically collects a lot of information on all students while they are in school, but only some schools have been able to dedicate the additional time and resources to follow alumni after graduation through postsecondary education, and information on income or employment are rare aside from surveys. Second, it presents three alternative paths through which other jurisdictions have undertaken this difficult task: making better linkages between existing administrative data, connecting state level data to national datasets, or conducting periodic surveys. Last, the paper offers considerations for how D.C. could pursue a longitudinal postsecondary and workforce data system.

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Chapter 1.

The importance of tracking early career outcomes

D.C.'s public schools,¹ serving students from pre-kindergarten through grade 12, strive to prepare students to succeed as young adults through college and in the workplace.² Despite this ambitious goal guiding the education system, very little is known about the employment or income of D.C.'s former students.

The best available data indicate that out of every 100 ninth graders, 14 will complete postsecondary within six years,³ and that those born in D.C. and living here as young adults can expect to earn \$31,658 a year⁴ (well below D.C.'s living wage for an individual with one dependent of \$80,000 per

year).⁵ During the pandemic, D.C.'s high school students have faced more extreme challenges than younger students, which could lead to a more difficult road ahead in their pursuit of postsecondary education and careers.⁶

What are early career outcomes?

For this report, the term “early career outcomes” refers to the employment, income, and educational attainment (including degrees, certificates, and credentials) of D.C.'s former public and public charter school students and graduates. Ideally, these outcomes would be available for D.C.'s alumni not just for their first professional experiences but also as they progress in their careers during their twenties and thirties, as their first job may not indicate their future earning potential.

Figure 1. Outcomes for D.C. residents, by place of birth

In a job market where over half of jobs (58%) require a postsecondary degree, there are stark differences between longtime D.C. residents and newcomers when they are young adults.



Source: American Community Survey (ACS), 2019. "2015-2019 ACS 5-year PUMS." Available at [census.gov](https://www.census.gov)
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Data also highlight stark differences between longtime D.C. residents and newcomers—including those who move into the city early in their careers—suggesting that D.C. imports most of its degreed talent, instead of growing local talent that can compete for jobs in the city. In a job market where over half of jobs (58 percent) require a postsecondary degree,⁷ 26 percent of D.C. residents aged 18 to 34 who were born here (and likely attended D.C.’s public schools) have a postsecondary degree, compared to 70 percent of those who moved here. This gap in educational attainment has

implications for income. Between the ages of 18 and 34, the average income for D.C. residents who were born in the city is \$31,658, compared to \$58,547 for those who moved to the District.

D.C.’s small footprint, transient population,⁸ and small public postsecondary system with only one public university mean that former public school students often attend postsecondary institutions or get a job somewhere else in the region or the country. This makes it particularly difficult to gather information on early career outcomes of former high school students because once they leave,

How about adult learners?

This report focuses on tracking the early career outcomes for D.C.'s public school students who have been enrolled in pre-kindergarten through grade 12. In addition to these students, 5 percent of D.C.'s public school students are learners in adult programs, mostly at public charter schools. It is vital to track outcomes for this group as well, and there are currently different systems in place to do so. Some adult-serving schools are required to follow up with participants for accountability purposes. There are also mechanisms in certain programs that link income data for adult learners after they complete or move on. In addition to discussing ways that D.C. could find out more, this report also presents examples of how adult-serving schools collect data and includes these systems in its considerations.

they are not captured in more accessible, local data sources. While challenging, tracking the early career outcomes of D.C.'s youth is important from an education and workforce perspective. Data on alumni's income, employment status, the industry in which they are employed, and any postsecondary or workforce training completion would inform practice at PK-12 schools. It would also give postsecondary institutions and employers a better understanding of young adults' paths and the local talent pipeline.

It is difficult for many of D.C.'s high school alumni who do not complete a postsecondary degree to unlock opportunities that lead to high skill, high wage jobs in a local job market where many opportunities require postsecondary degrees. Creating a system that tracks early career outcomes

is a worthy investment toward improvement: Having better access to the data could help D.C.'s schools deliver more equitable education and labor market outcomes for its residents. Student-level data on early career outcomes could help D.C. identify the factors that influence success and help D.C. government agencies to adopt more effective programs and approaches. Monitoring these data over time can help track the city's performance in supporting young adults in getting high wage jobs with strong future earning potentials.

This report presents a blueprint for how the District of Columbia can collect more information about the early career outcomes of former public school students. It takes stock of D.C.'s current efforts in collecting information on early career outcomes, examines common methods for tracking early career outcomes across other jurisdictions, and suggests ways that D.C. could strengthen its capacity to find out more about what ultimately works for high school alumni.

Chapter 2.

D.C.'s current efforts to gather information on early career outcomes for former high school students

In its simplest form, a system that tracks early career outcomes is one that combines information on education and work in order to make inferences about how former public school students fare in the workforce.

In D.C., the Office of the State Superintendent of Education (OSSE) already maintains a Statewide Longitudinal Data System (SLDS) that houses student-level data, but data tracked in this system become thin when students graduate or otherwise leave the public school system. The city received two federal grants to create and build out an SLDS

that would track progress at the individual student level. The first grant in 2007 focused on building a data warehouse and bringing together student-level data, including information on the transition from high school to postsecondary education, by establishing a unique student identifier for K-12 students.⁹ The second grant in 2012 concentrated on creating a P-20W system that would incorporate workforce and postsecondary programs to answer questions around persistence, length of time to complete, need for developmental classes, transfer rates, and rates of completion or transition to the workforce.¹⁰ However, the system is still incomplete: a March 2021 Office of the DC Auditor (ODCA) report, *Measuring What Matters: More and Better Data Needed to Improve D.C. Public Schools*, found that more data are needed to effectively measure if

D.C.'s public schools and recent efforts to improve the system are succeeding, including in the postsecondary and workforce space.

This section highlights D.C.'s current efforts to centrally gather information on early career outcomes. It reviews existing data and desired information in three areas: high school students' college and career readiness, postsecondary enrollment and outcomes, and workforce outcomes. The D.C. Policy Center developed a list

of ideal indicators in each area that a data system would capture based on two sources. The first is a desk review of systems that successfully track early career outcomes across the country including in Kentucky and Maryland. The second source is a survey of high schools in D.C. on the information about their alumni they currently have and use, as well as information they would like to have. Finally, this section highlights efforts at the LEA (Local Education Agency)¹¹ level that could be scaled.

D.C. Policy Center LEA survey overview

To find out more about what high schools are doing, the D.C. Policy Center asked LEAs (Local Education Agencies) serving high school students in D.C. to complete a survey which inquired about the information they have, use, and would like to have about their alumni. LEAs reported having the most information related to students while they are still in high school, but progressively less access to data as students transition to postsecondary education and careers. Seven LEAs responded (five serving traditional high school grades), representing schools that served 76 percent of public high school students in D.C. during the 2020-21 school year.

Tables in the following sections provide the landscape of data that is currently available, and rely on findings from this survey when referring to LEAs. Each data point is categorized into one of four availability metrics:

- **Available at the city-wide level for all D.C. students** refers to data that is available centrally for all students either through OSSE or directly from all five responding LEAs;
- **Available for most students only at the LEA level** refers to data that at least three of five LEAs reported as available for all students;
- **Available for at least some students only at the LEA level** refers to data that at least three of five LEAs reported as available for at least some students; and
- **Generally not available, including LEA level** refers to data that fewer than three of five LEAs reported as available.

2A. High school, college, and career readiness

While students are in high school, D.C. generally has information centrally available on student

characteristics (aside from social security numbers), the school experience, and college and career readiness data that is necessary to fulfill state and federal reporting requirements (see Table 1).

Table 1. What does D.C. know about students while they are still in high school?

	Topic	Data	Availability
Level: High school	Student characteristics	Schools attended	Available at city-wide level for all D.C. students
		Demographics, including students with disability or English learner status	Available at city-wide level for all D.C. students
		Social security number	Generally not available, including LEA level
	School experience	High school graduation	Available at city-wide level for all D.C. students
		Courses completed	Available for most students only at LEA level
		Grade point average (GPA)	Available for most students only at LEA level
		Disciplinary records	Available at city-wide level for all D.C. students
		Attendance	Available at city-wide level for all D.C. students
		Extracurricular activities	Available for most students only at LEA level
	College and career readiness	Academic achievement (PARCC, SAT, AP)	Available at city-wide level for all D.C. students
		FAFSA completion status	Available at city-wide level for all D.C. students
		Early participation in postsecondary (dual enrollment or certifications completed)*	Available for at least some students only at LEA
		Work experience (internships, apprenticeships, employment, work-based learning)	Generally not available, including LEA level
		Developing a plan for after high school (postsecondary planning)	Available for most students only at LEA level

*OSSE collects certifications and dual enrollment for select students.

Student characteristics

While D.C. students are in high school, OSSE has centrally available information in the Statewide Longitudinal Education Data (SLED) database about student demographics (including students with disabilities, at-risk status, and English learner status), and schools attended in recent years.

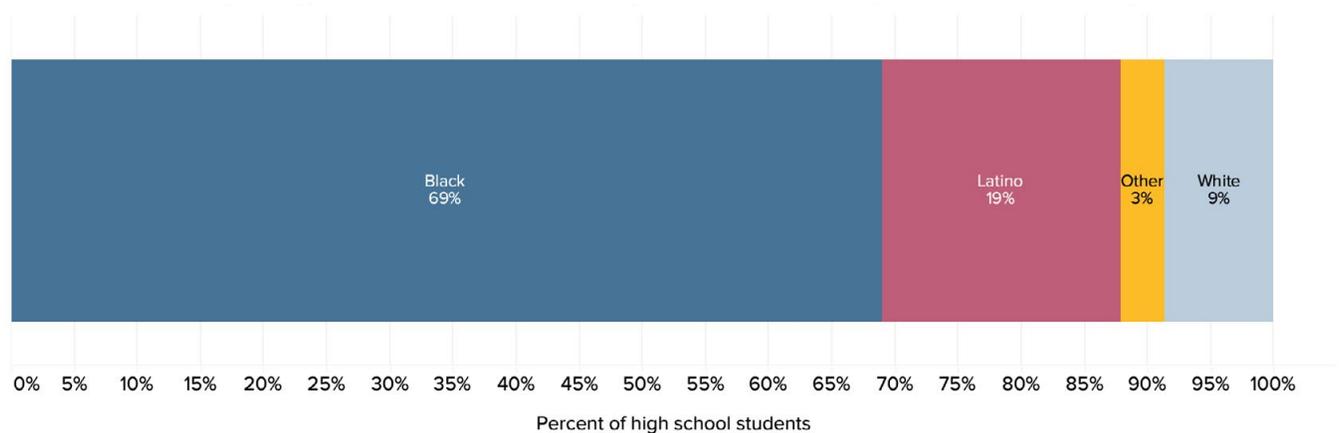
In the 2020-21 school year, there were 18,981 high school students enrolled in District of Columbia Public Schools (DCPS) and public charter schools. 88 percent of high school students were students of color.

School experience

In the D.C. School Report Card, OSSE reports high school graduation rates within four and five years of beginning high school, attendance rates, and discipline rates (suspensions and expulsions) by school (student-level data is available to support the calculation of these metrics).

D.C. has started to analyze the linkages between graduation and other academic information: For schools that chose to participate, the Office of the Deputy Mayor for Education (DME)'s Grad Pathway project compared high school graduation to credits earned, to show that an estimated 25 percent of D.C.'s high school students are already off track to graduate by the end of grade 9.¹² While this one-time study is promising, it is challenging to collect and analyze this level of data district-wide in part due to differences in curricula, course names, and grade point averages (GPA).

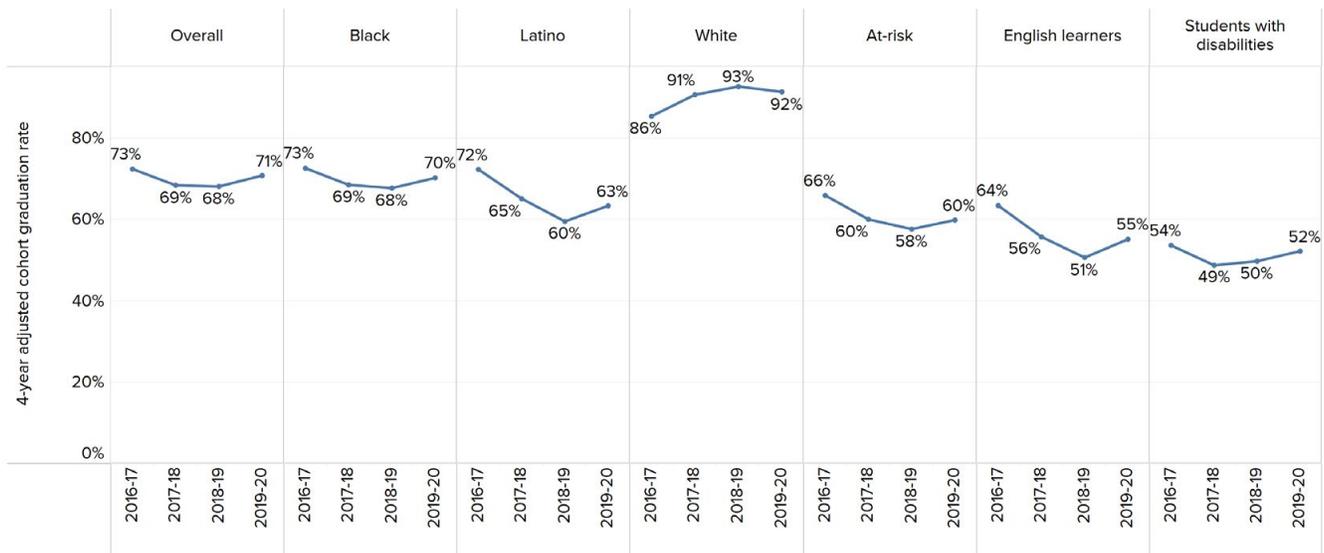
Figure 2. Race and ethnicity of high school students in D.C.'s public schools during the 2020-21 school year



Office of the Deputy Mayor for Education. 2019. "Public School Enrollment by Race and Ethnicity." EdScape. Available at: <https://edscape.dc.gov/page/pop-and-students-public-school-enrollment-by-race-and-ethnicity>
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Figure 3. Graduation rate by student group from school year 2016-17 to 2019-20



Source: Office of the State Superintendent of Education (OSSE), 2020. "High School Graduation Rates." Available at: osse.dc.gov/service/high-school-graduation-rates-0.
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Between school years 2018-19 and 2019-20, the overall graduation rate increased from 68.2 percent to 70.9 percent, reversing a downward trend.¹³

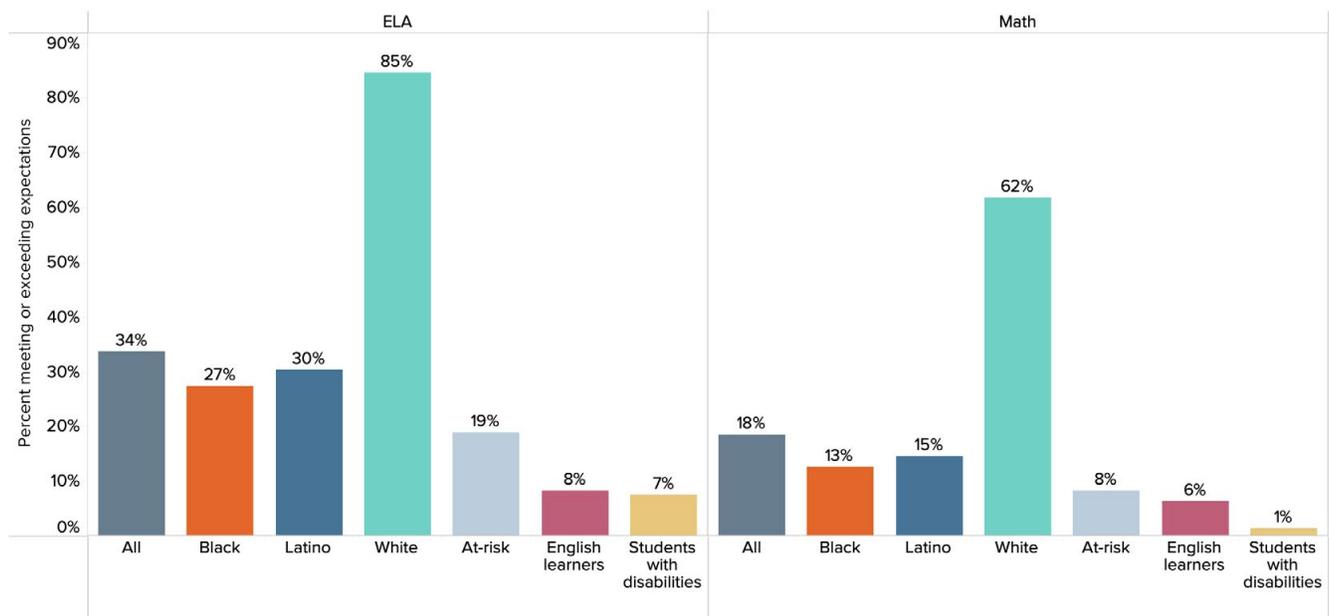
College and career readiness

D.C. currently publicly reports on college and career readiness in high schools, largely measured by academic achievement. The D.C. School Report Card includes results from the state assessment (Partnership for the Assessment of Readiness for College and Careers, or PARCC),¹⁴ outcomes on the SAT, and a school-level summary of Advanced Placement (AP) or International Baccalaureate (IB)

engagement.¹⁵ Federal data are also available on Free Application for Financial Aid (FAFSA) completion¹⁶ for D.C.'s public high school students and Perkins-funded Career and Technical Education (CTE) high school participation and performance.¹⁷

In 2018-19, 34 percent of high school students¹⁸ who were assessed met or exceeded expectations—the standard for being ready for college or career—in English Language Arts (ELA) and 18 percent reached this bar in Math (including Algebra II, Geometry, and Integrated Math II subjects).¹⁹

Figure 4. PARCC scores for students in grades 9-12 in school year 2018-19



Source: Office of the State Superintendent of Education (OSSE). "2019 DC Statewide Assessment Results". Available at: osse.dc.gov.
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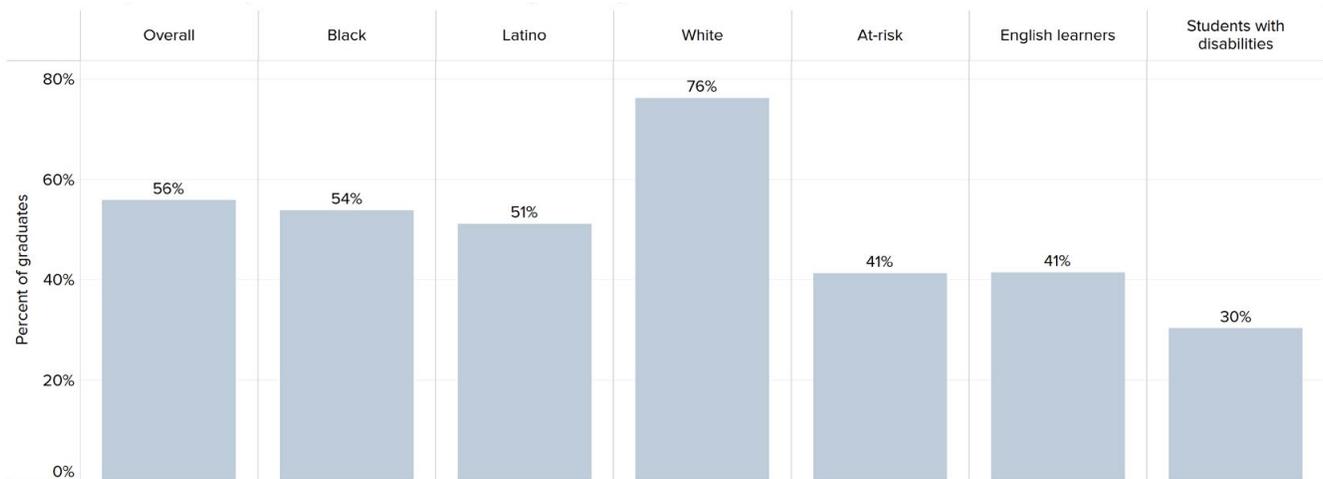
While academic achievement measures can be collected centrally, many other indicators of college and career readiness are not captured in this way. D.C. doesn't centrally track work experience during high school, postsecondary planning, or early participation in postsecondary.²⁰ Additional information is available, however, in the School Quality Reports for public charter schools, including PSAT performance (measuring readiness for college, usually in 10th or 11th grade), college acceptance rate, incorporating dual enrollment rates, and CTE certification rate.²¹ When surveyed, most LEAs reported having additional information on the high school experience (extracurricular data) and connections to the workforce (work-based learning,

part-time job status) although they reported having that information only for some, but not all, students.

2B. Postsecondary enrollment and outcomes

Regularly available District-wide information on the transition to college or career is limited to enrollment in postsecondary within six months of graduation, from the National Student Clearinghouse.²² D.C. does publish additional data including enrollment by type of institution and completion rates within six years for the estimated 58 percent of public high school graduates who are also recipients of the DC Tuition Assistance Grant (DCTAG) attending postsecondary institutions.²³

Figure 5. Enrollment in postsecondary within six months of graduation for 2018-19 high school graduates



Source: Office of the State Superintendent of Education (OSSE), 2020. "2020 DC School Report Card Data." Available at: osse.dc.gov/page/dc-school-report-card-resource-library.
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In 2018-19, 56 percent of graduating high school seniors continued to postsecondary within six months of graduation).²⁴

Information isn't available centrally on progress metrics for all D.C. alumni aside from initial postsecondary enrollment—D.C. doesn't track and publish the number of alumni who continue over the years (retention); eventually complete a degree; or earn any other credential. It is even harder to get a sense of the educational or career path that alumni take when they start postsecondary, how many institutions they attend, or whether they are attending as full-time or part-time students. Further, there isn't currently a way to find out more about academic details, supports that alumni receive, and workforce preparation activities they engage in while they are in postsecondary.

Given the absence of system-wide data, many high school LEAs try to learn more about postsecondary outcomes of their own former students. All surveyed LEAs reported having data on postsecondary enrollment six months after high school graduation, postsecondary retention, starting age, number of institutions attended, and full- or part-time status. Larger LEAs also had data about former students' academic activity (completion rate, degree earned, major, courses completed, grade point average), extracurricular activities, financial circumstances (student loans, Pell grant recipients), and workforce preparation activities (work-study participation, and internships). While these data points were available in some cases, they were not systematically collected and generally not available for all former students at any one LEA. Further, LEAs reported that data are not always stored centrally, making analysis to inform practice difficult.

While much of the postsecondary data that LEAs have come from the National Student

Clearinghouse, LEAs reported that they also collect information either directly through alumni surveys or from alumni who participate in postsecondary coaching programs offered by the LEA. Some LEAs require alumni to opt-in to a coaching program to stay connected to the alumni network. Other LEAs reach out to all students via an alumni counselor.

Because this kind of outreach requires strong relationships and resource commitments from the LEA, it shows that there is a high level of demand for information on postsecondary degree experiences.

DCPS and KIPP DC PCS (the public charter LEA with the largest high school enrollment) stand out

Table 2. What D.C. knows about alumni’s postsecondary experiences

	Topic	Data	Availability
Level: Postsecondary	Progress	Postsecondary enrollment six months after graduation	Available at city-wide level for all D.C. students
		Retention after first year	Available for most students only at LEA level
		Completion rate within six years of high school graduation	Available for at least some students only at LEA level
		Path (starting age, number of institutions attended, full or part time status)	Available for at least some students only at LEA level
		Credentials earned	Generally not available, including LEA level
	Academics	Degree earned	Available for at least some students only at LEA level
		Institution attended	Available for most students only at LEA level
		Major	Available for at least some students only at LEA level
		Courses completed	Available for at least some students only at LEA level
		Grade point average (GPA)	Available for at least some students only at LEA level
		Extracurricular activities	Available for at least some students only at LEA level
	Supports	Student loans	Available for at least some students only at LEA level
		Pell Grant recipient	Available for at least some students only at LEA level
	Workforce preparation	Access to career supports	Generally not available, including LEA level
		Work-study participation	Available for at least some students only at LEA level
		Internships	Generally not available, including LEA level

as two examples²⁵ that put in a lot of effort to find out what happens to alumni. DCPS has created the DCPS Persists program to assist former students who attend college. KIPP provides the KIPP Forward program with similar goals.

DCPS Persists

DCPS Persists supports students through their college journey by matching students to coaches who will help them through various challenges that come up during their college years.²⁶ In addition to targeted coaching, one of the main goals of the program is to create a database to “identify barriers to and through college, track college persistence and performance trends.”²⁷ The program uses data from the National Student Clearinghouse and Naviance²⁸ to create a postsecondary resource for current students (The Guide).²⁹ The resource shows where DCPS graduates tend to do well, which colleges could be a good fit for them, what financial needs they would have, and what resources they may need to leverage when making their

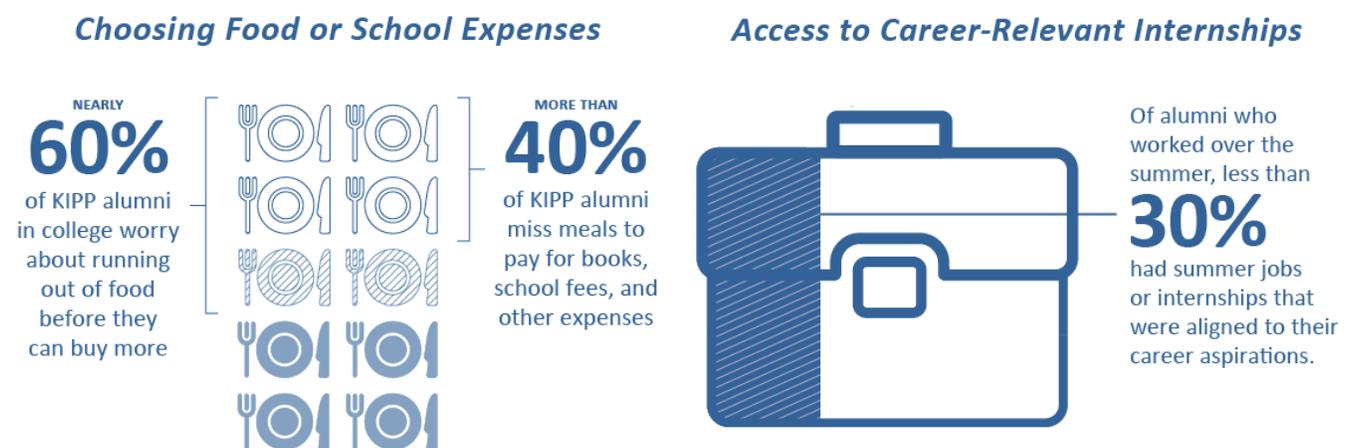
decisions.³⁰ This resource is still in early stages of implementation, and DCPS Persists hopes to collect more data that will better inform curriculum and interventions to promote postsecondary attendance and success.³¹

KIPP Forward

KIPP Forward, formerly KIPP Through College & Career, assists students as they transition to college prep high schools, including KIPP DC’s two high schools; to and through college education and training; and onto their first career.³² KIPP DC has been supporting alumni since 2004. The program has evolved to not only include direct advisor support, but also scholarships, book awards, career stipends, and mental health supports. Advisors connect with alumni and use a detailed benchmark system to offer guidance as students pursue their passion, purpose, and plans, whether those plans are going to college or straight into the workforce.

In conjunction with college and career initiatives, KIPP Foundation has run a yearly alumni survey,

Figure 6. Outcomes from KIPP’s 2017 Alumni Survey



Source: KIPP Alumni Survey – Overview of Key Findings 2017

with findings first published in 2017. The survey was first distributed to alumni via email and text but is now sent exclusively through email.³³ In 2017, 10,000 alumni received survey requests nationally, and responses were received from 3,000 former students. The survey covers topics related to postsecondary completion as well as whether summer jobs or internships are career-aligned; whether alumni attending predominantly white institutions (PWIs) feel they are negatively judged based on their race; fears associated with food insecurity; and financial obligations such as whether alumni send money home to their families.³⁴ In addition to the survey, KIPP continues to expand its data-sharing agreements with colleges, which began in 2013. Data from both the survey and data-sharing agreements are used to inform service coordination and best practices.³⁵

In sum, postsecondary data are available for many LEAs through the National Student Clearinghouse and alumni surveys. However, D.C. as a system, doesn't make information on postsecondary outcomes publicly available for all students, and at the LEA level, there are methodological challenges with all self-reported data. Making information available district-wide would help systematically analyze how D.C.'s former students prioritize postsecondary education and training as they become young adults.

2C. Workforce

At present, D.C. is not able to track high school students in their early careers. Therefore, the city and its public high schools lack the data to understand what types of supports current high school students and alumni need to be successful as they launch their careers and aim to attain high wage, high skill jobs.

Many research databases link student information to wage data using social security numbers. D.C. does not ask for or collect students' social security numbers in order to maintain a welcoming environment for undocumented students who may not have one. This presents complications for linking to workforce outcomes. Other systems have circumvented this problem by using a combination of birth dates and names.

Perhaps because of challenges related to centralized collection, LEAs reported having the least amount of data on their former students' employment outcomes, but they are trying. Three of the five surveyed LEAs reported having access to employment indicators such as employment status, part-time versus full-time, industry, occupation, and employer through surveys and alumni outreach. LEAs reported only having information for some alumni and in no instance did they have information for all or even a sizeable portion of alumni.

Even fewer LEAs reported having information on alumni related to their personal and financial well-being. Only two of the five LEAs surveyed reported having some information related to work training, day-to-day activities, short- and long-term goals, and access to mentors or support systems. No LEAs reported having any information related to alumni's ability to save money, and only one LEA reported having information for some alumni on their ability to pay for unexpected expenses.

LEAs may not have as much data on alumni's workforce outcomes, but there is a clear, expressed interest to access more. Most LEAs reported that they would be interested in having access to information related to financial security. Information on career goals and outcomes is even harder for LEAs to collect, but most reported that they would find this information useful to support students as

Table 3. What does D.C. know about alumni’s workforce experiences?

	Topic	Data	Availability
Level: Workforce	Employment	Employment status*	Available for at least some students only at LEA level
		Part-time vs. full-time status	Available for at least some students only at LEA level
		City/state where the former student is working	Available for at least some students only at LEA level
		Industry	Available for at least some students only at LEA level
		Occupation	Available for at least some students only at LEA level
		Employer	Generally not available, including LEA level
		Military employment	Available for at least some students only at LEA level
	Financial wellbeing	Income	Generally not available, including LEA level
		Amount of debt	Generally not available, including LEA level
		Ability to save money	Generally not available, including LEA level
		Ability to pay for unexpected expenses	Generally not available, including LEA level
	Career path	Work training	Generally not available, including LEA level
		Short-term and/or long-term goals	Generally not available, including LEA level
		Greatest challenges the former student has faced since high school	Available for at least some students only at LEA level
		Access to a mentor or other support systems	Generally not available, including LEA level

*OSSE collects this for Perkins reporting for CTE students who provide a social security number.

they make plans for career, as well as supporting alumni currently in the workforce.

Amidst the difficulty that LEAs have gathering information on income and employment after graduation, there are some promising starts to collecting data on workforce outcomes through unemployment wage data and preliminary surveys of alumni networks.

Unemployment insurance wage data as a potential source in D.C.

States that track income for high school alumni often use the wage data that employers report to state-administered unemployment insurance programs as one of their sources.³⁶ Since the unemployment tax and benefits are based on

quarterly earnings of employees, employers are required to submit data on individual employees and their earnings in each quarter. These data cover most of the labor force aside from self-employed workers. It is also more difficult to access information on military and federal civilian employment, which would present a challenge given that these are two major employers in the area where D.C. alumni could work.

D.C. is also party to the new State Wage Interchange System (SWIS), with the Department of Employment Services (DOES), OSSE, and Department of Disability Services (DDS) all taking part. SWIS allows states to exchange interstate quarterly wage records with other participating states to satisfy performance reporting requirements of the Workforce Innovation and Opportunity Act (WIOA) and the Carl D. Perkins Vocational and Technical Education Act of 2006. These data are available only for participants in workforce training programs and career and technical education programs (including some high school students, but not all), and include wage and employer information. SWIS is in the early stages of implementation. The D.C. WIOA state plan indicates that OSSE intends to take advantage of SWIS data-sharing agreement more broadly in 2020 through 2024.³⁷ In a highly mobile and transient area like D.C., the use of other state data in SWIS would be essential to see a full picture.

Early efforts to survey alumni in D.C.

In addition to school-based surveys, larger scale alumni surveys can provide valuable qualitative feedback on early career outcomes. CityWorks DC, in collaboration with Bain & Company, surveyed approximately 1,200 DC alumni of public, public charter, and adult charter schools.³⁸ Most of the respondents (62 percent) were ages 24 to 28.

Almost the entire sample (95 percent) graduated from a D.C. high school or GED program, and more than half had completed either a bachelor's degree, associate's degree, credential, or certificate program. Respondents reported their postsecondary experiences, employment, average income, and education debt. The survey also asked about alumni's general financial stability and whether alumni were "career fulfilled" or "optimistic."

Results from the survey reveal that many of the District's youth are not yet satisfied with their early career outcomes, whether it be earnings, education, or type of employment. While alumni who completed a postsecondary program had better early career outcomes in terms of employment and average earnings than alumni with just high school credentials, there was a broad range of incomes for all degree levels. Variation in incomes appears to be highly correlated with access to career services. Across all degree types, alumni who had access to career assets including work-based learning like internships and apprenticeships, career exposure, career counseling, and employer connections had significantly better outcomes in terms of annual wages, feeling of financial stability, satisfaction, and optimism about the future.

Building out this survey for all alumni would be a heavy lift but could provide a holistic view of qualitative information around alumni's experiences after graduation through early career should they choose to respond.

Chapter 3.

Successful methods and models for tracking early career outcomes —

This section highlights promising methods and models for tracking early career outcomes from across the country. It discusses strengths and weaknesses of each model and elaborates on implementation requirements specific to each.

3A. Statewide Longitudinal Database Systems (SLDSs)

SLDSs systematically link high school students' information from education agencies with outcomes data from postsecondary networks and workforce agencies (especially administrative wage data reported for the unemployment insurance programs).

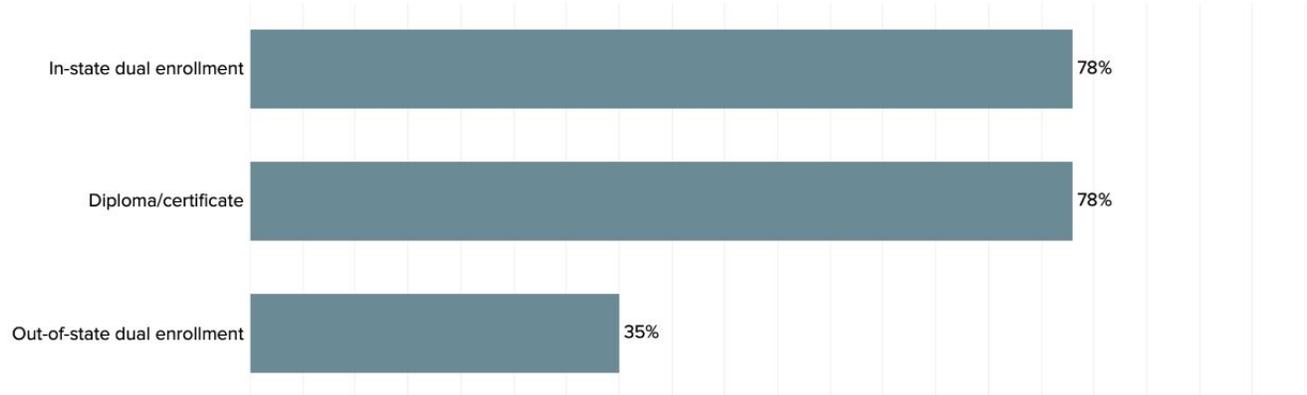
Often, a separate, independent state agency manages these data linkages when they connect to workforce data; answers research questions involving student-level data from more than one source; or creates public-facing dashboards. Data are generally limited to alumni who remain in-state for postsecondary education and career. This process usually requires legislation and data-sharing agreements between government agencies, as well as access to students' social security numbers. Kentucky Center for Statistics (KYSTATS) and Maryland Longitudinal Data System Center (MLDSC) are strong examples of this method.

Data that most states collect

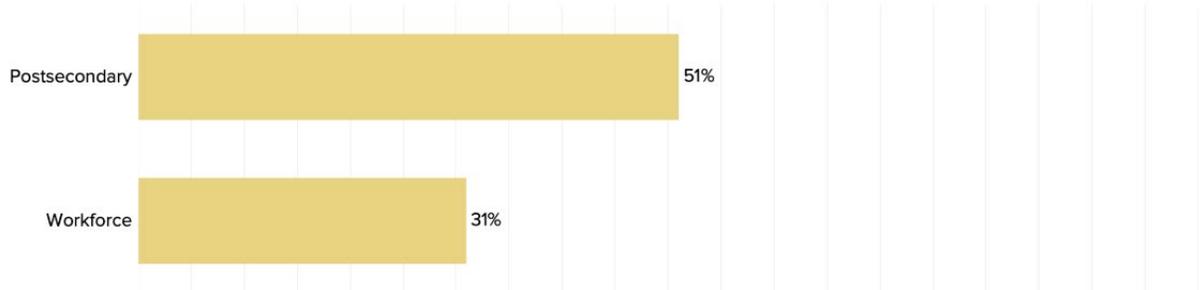
Almost all states and territories, including D.C., have an SLDS that captures data on students in high school, and many include additional information to capture the transition to college or career. The majority of SLDSs report on early postsecondary experiences (in-state dual enrollment and diploma/

Figure 7. Data commonly collected by SLDSs across the country, 2018

Percentage of states and territories with select early career outcomes data included in K-12 SLDS (operational)



Percentage of states and territories with other sector data linked to K-12 data (operational)



Source: Bloom-Weltman, J., Honey, R., Meholick, S., & Fetro, M. 2021. "Profile of State Data Capacity in 2018: Statewide Longitudinal Data Systems (SLDS) Survey Descriptive Statistics." National Center for Education Statistics at Institute of Education Sciences (IES). Available at: <https://nces.ed.gov/pubs2021/2021126.pdf>

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certificate achievement) in their K-12 data, but just half currently collect data to capture postsecondary education data, and about a third do so for workforce information (see Figure 7).³⁹

The most common method used to automate these data linkages is a centralized data system model⁴⁰ (in 41 percent of states and territories), where all participating agencies upload their data to a single, centrally located data warehouse that uses common data standards to store them for use.⁴¹ Data dictionaries or alignment to the Common Education Data Standards (CEDS) across all these sources is critical for any analysis.⁴² Potential data sources for SLDSs include state agencies (such as departments of education, tax, employment, and

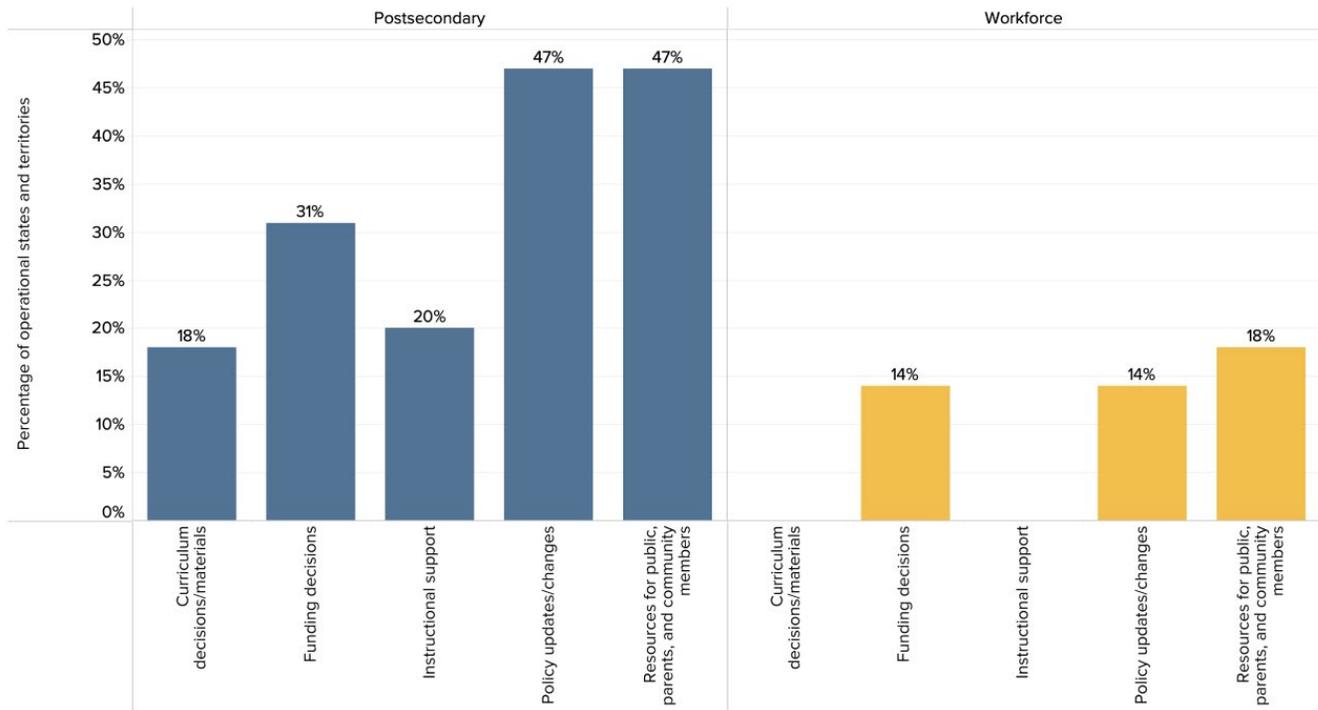
human services) as well as in-state postsecondary institutions. Postsecondary enrollment, credits earned, enrollment intensity (full-time or part-time), and remediation courses are examples of data points that high-quality SLDSs include.⁴³ On the workforce side, employment, salary, and industry information are often included, and more specific data points could present occupation codes.⁴⁴

Spotlight: Kentucky Center for Statistics (KYSTATS)

Kentucky's KYSTATS is one example of a P-20W+ (capturing outcomes from preschool through high school, college, and the workforce) SLDS with strong linkages between high school, postsecondary, and

Figure 8. How states and territories use operational postsecondary and workforce data

Percentage of states and territories with operational postsecondary, workforce, and Perkins CTE sector data, according to data use



Bloom-Weltman, J., Honey, R., Meholick, S., & Fetro, M. 2021. "Profile of State Data Capacity in 2018: Statewide Longitudinal Data Systems (SLDS) Survey Descriptive Statistics." National Center for Education Statistics at Institute of Education Sciences (IES). Available at: <https://nces.ed.gov/pubs2021/2021126.pdf>

Note: The workforce sector did not have data linked with curriculum decisions/materials or instructional support usages.

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workforce data. KYSTATS is an independent state agency created through legislation⁴⁵ with a research agenda formed every two years, and it collects and integrates data from partner agencies and programs in a centralized system. This allows KYSTATS to produce public feedback reports on postsecondary, career and technical education, high school, and teacher preparation as well as topics like future skills and work ready communities—with the ultimate goal of informing decisions for policymakers, agencies, and the general public.⁴⁶ A user-friendly dashboard provides information on outcomes across the state (see Figure 9).

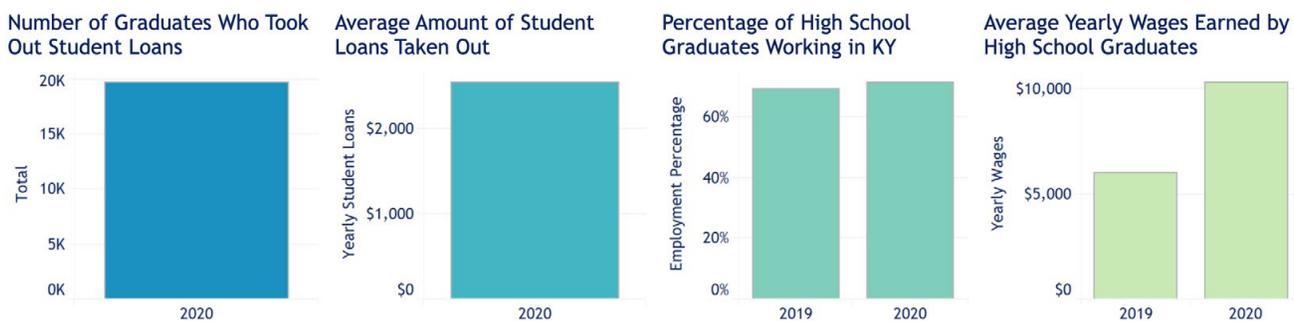
KYSTATS uses data from the Kentucky Longitudinal Data System (KLDS), with data sources including

Currently, states with operational postsecondary and workforce data systems (not including D.C.) are more likely to use postsecondary data to inform policies than workforce data. Policy updates/changes and resources for the public are more common uses for data compared to instructional support, funding decisions, and curriculum decisions.

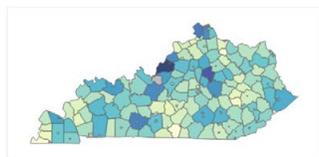
the Department of Education, the Council on Postsecondary Education, the Higher Education Assistance Authority, unemployment insurance, tax returns, and publicly available data from the Kentucky school report card and the United States Department of Education. The data universe includes students at K-12 public schools, those attending public or private in-state universities (as well as postsecondary

in four nearby states with a Coleridge partnership—see the Spotlight below for more information), and those currently working in Kentucky. Social security numbers are provided solely for matching purposes from high school records, and then records are de-identified after being given a unique identifier. In addition to social security number availability, these connections are possible in part because

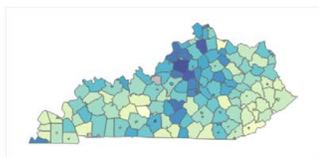
Figure 9. Employment outcomes for high school graduates in Kentucky



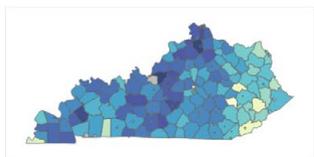
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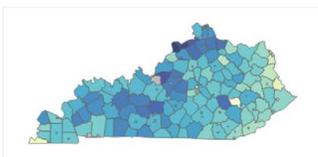
The number of high school graduates that have taken out a student loan since graduation to attend a postsecondary institution. These numbers do not include students who only took out private loans, credit card debt, or had loans taken out by parents.



The average amount of student loans taken out since graduation to attend a postsecondary institution in Kentucky. These numbers do not include private loans, credit cards, or loans taken out by parents.



The percentage of high school graduates employed in Kentucky who worked across state lines or those who are self-employed are excluded.

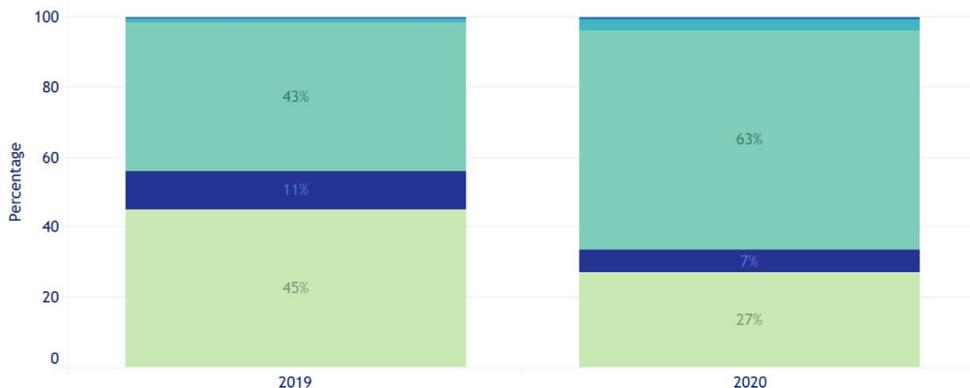


The mean 2020 yearly wages earned by high school graduates who reported earned income in Kentucky through Unemployment Insurance.

Educational Attainment

Educational Attainment for high school graduates of the selected year cohort as it changes year over year.

- Bachelor or Higher
- Associate
- Certificate/Diploma
- Some College
- CTE
- High School



Source: KYSTATS. 2021. *High School Feedback Report*. Available at: https://kystats.ky.gov/Reports/Tableau/HSFR_INT_2021

Kentucky has a strong public postsecondary network and because many high school alumni remain in Kentucky as they enter the workforce.

Spotlight: Tracking and using early career outcomes data in Maryland

The Maryland Longitudinal Data System (MLDS) Center gathers data about student performance to improve schools in Maryland and inform decision making in education. To access and collect data, MLDS partners with the Maryland Higher Education Commission, the Maryland State Department of Education, Maryland Department of Labor, and Maryland Department of Juvenile Services. MLDS is state-funded and partners with the University of Maryland for research analysis services.⁴⁷ MLDS generates original research at the intersection of education and workforce data centered around their research agenda which includes: K-12 readiness, postsecondary readiness and access, postsecondary completion, and workforce outcomes.⁴⁸ The research agenda is set by the MLDS Governing Board and outputs aim to inform state policymakers, educators, administrators, business leaders, students, and parents with an emphasis on the transition period from education into the workforce.⁴⁹

Baltimore City Public Schools (BCPS) has worked with the Baltimore Education Research Consortium (BERC) to use data gathered by MLDS to feed back into BCPS' decision making and policy design. One example of this collaboration is a study of outcomes for the class of 2009 spearheaded by Baltimore's Promise,⁵⁰ a coalition formed in 2012 to support and improve outcomes for Baltimore City's youth through research and policy advocacy, which partnered with BERC and the Institute for Education Policy at Johns Hopkins University in 2017. Data was collected from Baltimore City Public Schools and the Maryland Longitudinal Data System and included two- and four-year college enrollment, college

completion, workforce decisions, and median earnings. The report identified that 25 percent of students are "opportunity youth," defined as those who do not enroll in college or enter the workforce in the semester after graduating high school.⁵¹ From these findings, BCPS reorganized and expanded CTE programs to reach students at schools across the city and to increase equity in access, as well as reevaluated which programs were offered and subsequent career opportunities associated with those programs.

BCPS also used these findings to provide support for its Grads2Careers program that connects BCPS graduates to high-quality and in-demand workforce skills programs. Grads2Careers funds 400 to 500 training slots for high school graduates in recognized occupational skills training programs.⁵² Job opportunities and occupational programs specifically center sectors that are in-demand and can lead to higher paying jobs. In this case, data on alumni earnings and job sectors were instrumental in guiding the program's approach to CTE opportunities and trainings.

3B. Linking to national or interstate data sources

In addition to connecting local data sources, some states and systems periodically link to external data sources including National Student Clearinghouse for postsecondary outcomes; unemployment insurance and other inter-state data exchanges for wage data; or federal data (like the U.S. Census) to access a variety of outcomes. These linkages provide access to early career outcomes information on alumni even if they leave the state. This process usually requires data-sharing agreements and access to students' social security numbers. This method could be used more easily by a single agency to gain additional information on high school alumni,

but some data sources like Census may be limited to aggregate information (no student-level data). Coleridge Initiative, Opportunity Insights, and Western Interstate Commission for Higher Education (WICHE) are examples of how others have brought together external data to find out more about local outcomes.

National Student Clearinghouse

The National Student Clearinghouse is the most prominent source of information on the transition to postsecondary education, including how many high school graduates enroll in college, whether they persist and graduate, how long it takes for them to get their degrees, and what colleges they attend (for example, showing in- and out-of-state, two- or four-year, public, or private). It also presents an opportunity to learn more about industry-based credentials earned. National Student Clearinghouse can provide this information to districts for a fee, matching on students' names, birthdates, most recent school attended, and other information as available.⁵³

Accessing federal sources

Federal sources provide a rich set of data on workforce and other outcomes beyond postsecondary completion. Initiatives like the Administrative Data Research Facility allow researchers with an approved proposal and a certain security clearance to gain access to federal datasets at a secure lab for onsite analysis.⁵⁴ This would mean using the American Community Survey or Decennial Census for demographics and educational attainment data, for example, and the Longitudinal Employer-Household Dynamics (LEHD) for unemployment insurance earnings data across all partner states including D.C.⁵⁵ Students' social security numbers would be required to match across these datasets, and only aggregate information would be provided (no individual data would leave the facility).⁵⁶

Spotlight: University of Texas

The University of Texas links to U.S. Census Bureau labor data to provide information on a range (median, 25th percentile, 75th percentile) of incomes for graduates one, five, and ten years after graduation. These outcomes are also available for every program offered on the University of Texas's 14 campuses. To do this, the University of Texas transmits enrollment data with social security numbers to the U.S. Census Bureau, where each record is de-identified and assigned a new, alternative identification number that is used when working with the data.⁵⁷ The University of Texas uses this information on earnings during counseling to help students understand how career and program choice decisions may impact them financially.

Spotlight: Opportunity Insights

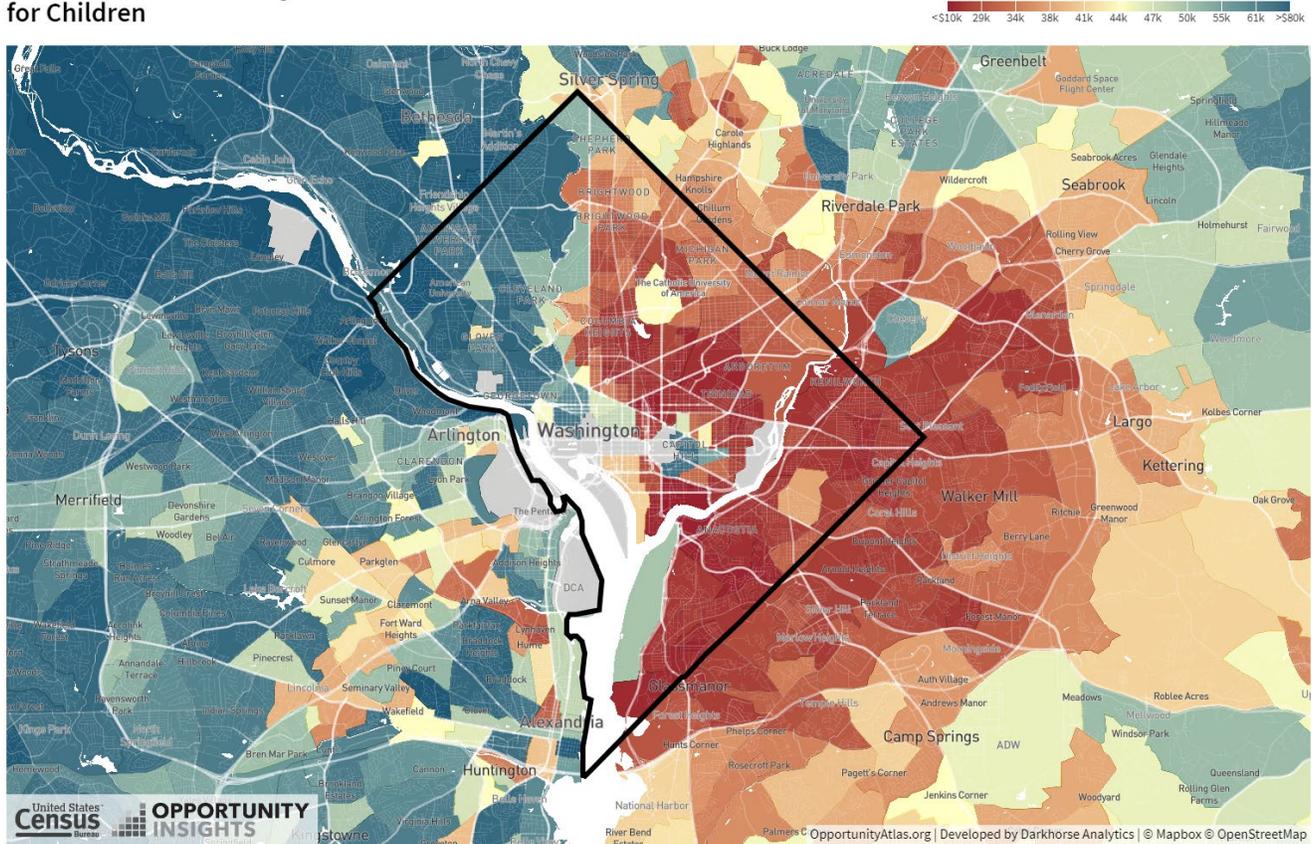
Opportunity Insights, based at Harvard University, uses federal datasets to show trends in upward mobility across the country. Its Opportunity Atlas project shows in which neighborhoods in America children are most likely to rise out of poverty, creating a sample of 20.5 million Americans born between 1978-1983 who are in their mid-thirties today linked to the Census tracts where they lived through age 23. The project links data from two Decennial Census years, 10 years of American Community Survey data, and federal income tax returns for over 20 years.⁵⁸ Using these sources, it estimates household income at age 35, employment status, educational attainment, but also other data points including marriage, children, and incarceration. It then compares these outcomes to parents' income, race and ethnicity, and other characteristics (see Figure 10).

Interstate data exchanges

Some states also set up data exchanges in their region or across the country to share certain information. States with fully established SLDSs lose track of alumni if they move across a border. An interstate data exchange allows states to follow alumni

Figure 10: Household income at age 35 for children who grew up in D.C.

Household Income at Age 35 for Children



Source: Opportunity Insights and the U.S. Census Bureau. 2021. The Opportunity Atlas. Available at: <https://www.opportunityatlas.org/>

across state lines and flexibly share employment data in a safe way with the states that make the most sense for them. Especially in areas with transient populations, regional data-sharing allows states to have a fuller dataset and better plan for student migration, and to anticipate needs in the workforce and postsecondary spaces. This often requires a high degree of trust and collaboration between participating states, in addition to the technical side of having data systems talk to each other and ensuring data privacy.⁵⁹

Maryland and Virginia could be good sources of early career outcomes data for D.C. Looking at young adults ages 18 to 34 who were born in D.C., an estimated 23 percent still live in the District, 38

percent live in Maryland, 10 percent live in Virginia, and 29 percent live in other states.⁶⁰ The Maryland Longitudinal Data System Center (MLDSC) collects key data points in a centralized system on high school, postsecondary, and workforce⁶¹ and conducts a robust analysis of data gaps to indicate which are planned to be filled, are actively in progress, require legislative changes, or are not a priority at this time. The Virginia Longitudinal Data System (VLDS) is a federated system across participating agencies, which means that agency data remain under agency control instead of in a centralized data warehouse.⁶² VLDS provides authorized researchers with secure access to data records that are merged across

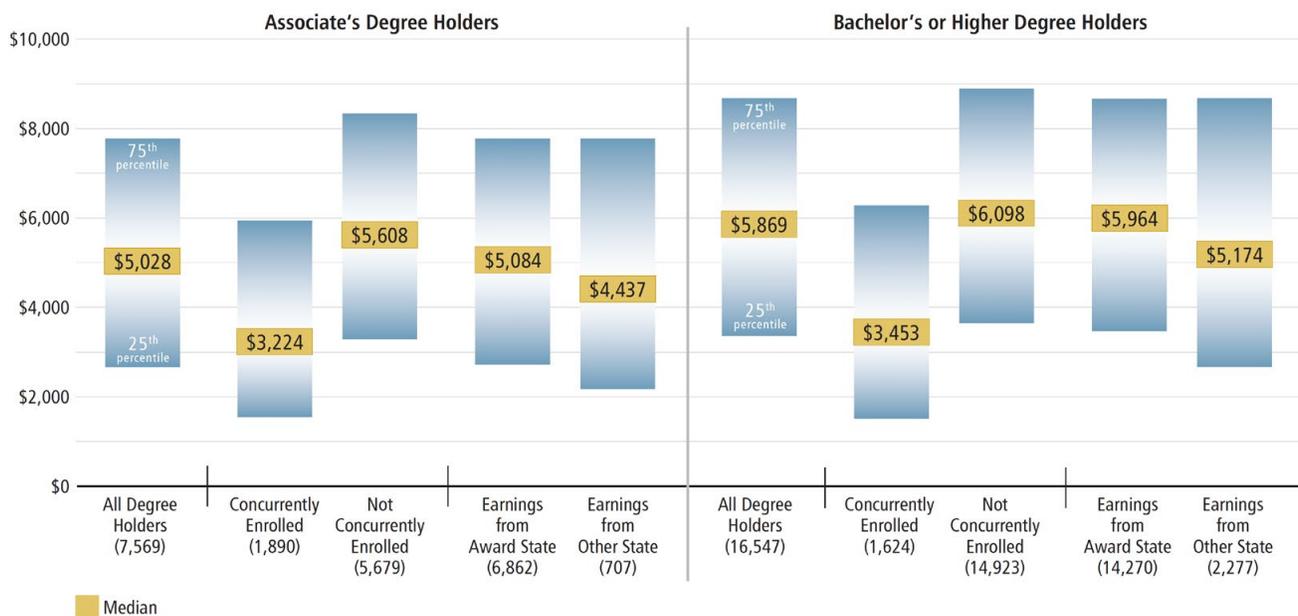
multiple agency datasets, and produces reports on academic achievement, TANF participants and wage, high school to college transition, and college students receiving SNAP benefits.⁶³

Spotlight: WICHE

The Western Interstate Commission for Higher Education (WICHE) is a coalition of 16 states and territories, that supports policymaking informed by data. WICHE develops various programs aimed at developing a regional education network, conducting research to promote more equitable education and employment outcomes, and supporting attainment in higher education especially for marginalized communities. WICHE also produces multistate data and research campaigns that allow students and families, policymakers and legislators, and institutions of higher education to make more informed decisions regarding outcomes, training, programming, and economic development. The interstate approach

reduces the number of data points lost due to moves across state lines through the Multistate Longitudinal Data Exchange (MLDE) on education and employment outcomes, which has already been successfully piloted in Hawaii, Idaho, Minnesota, North Dakota, Oregon, and Washington. State officials can request data from the interstate directory to find matched individuals (encrypted for privacy) and apply the data to determine implications for a state’s policies and practices. During the initial pilot, participating states received additional information on former students that had previously been missing. For example, Idaho gained employment information for 22 percent of its degree earners with valid social security numbers, and after adding in information for subsequent education, like graduate school, the state learned the educational outcomes for an additional 17 percent of students.⁶⁴ As a result, states were better able to examine student pathways through education and the workforce.

Figure 11. WICHE: Quarterly earnings approximately 10-12 months after award conferred, students who completed degree by December 2010, by degree level (median, 25th, and 75th percentile) earnings in actual dollars



Source: Bransberger, P. 2014. *A Glimpse Beyond State Lines: Student Outcomes from WICHE's Multistate Longitudinal Data Exchange Pilot Project*. WICHE. Available at: https://www.wiche.edu/wp-content/uploads/2018/10/MLDE_GlimpseBeyond.pdf

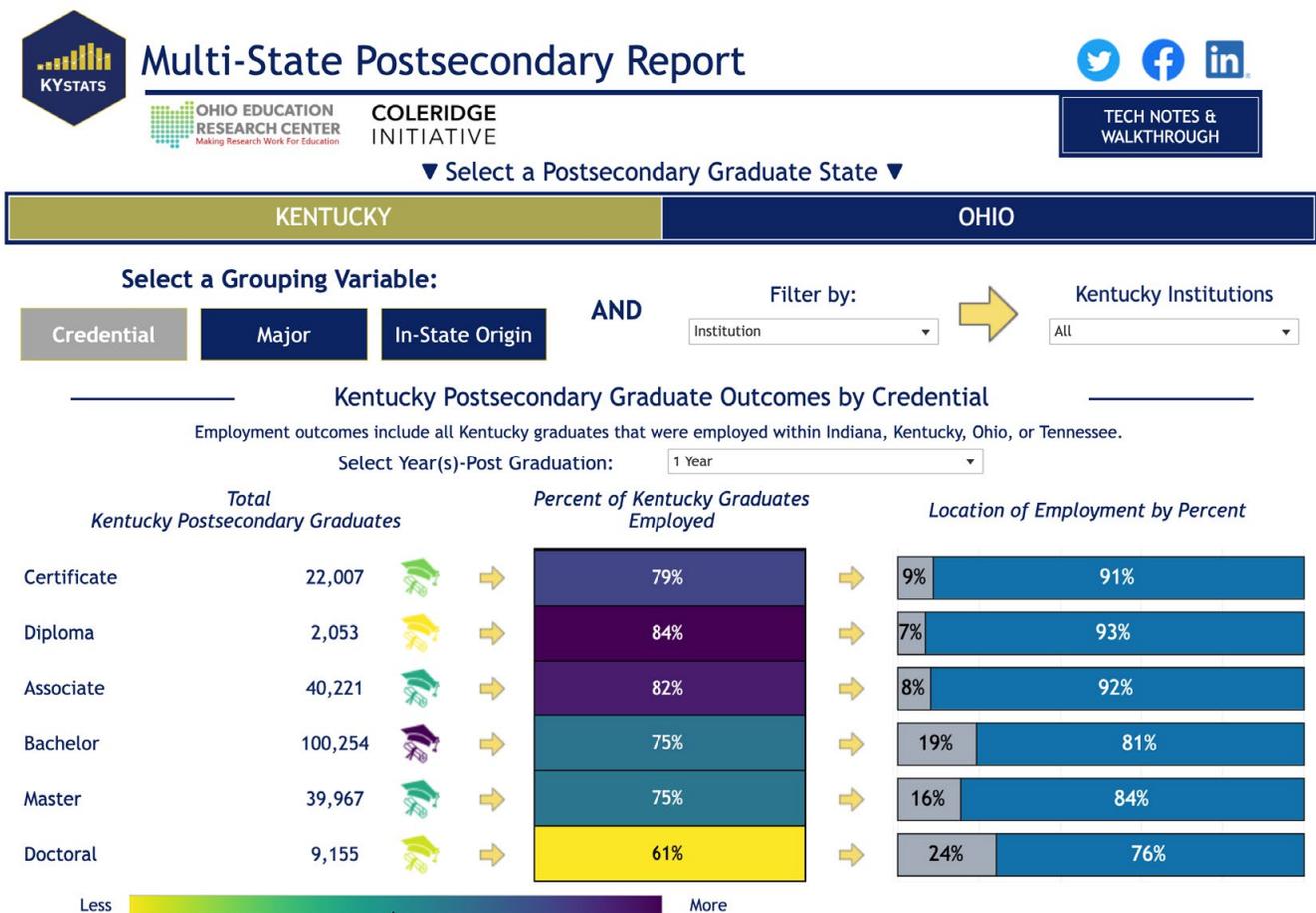
Spotlight: Coleridge Initiative

The Coleridge Initiative is a nonprofit organization founded at New York University built around using data to inform decision-making. Current collaborative partners include federal and state government agencies, universities, nonprofits, and private companies. One flagship offering of Coleridge is access to the Administrative Data Research Facility (ADRF), which is a secure platform established by the U.S. Census Bureau to promote collaboration between government agencies, university partners, and organizations for evidence-based policy. ADRF contains over 100 confidential government datasets from 50 different agencies, as well as accompanying

metadata. Additionally, Coleridge develops technologies to access data securely and provides training on how to harness and apply modern data skills to serve society.⁶⁵

As part of these training and collaboration efforts, KYSTATS was able to partner with three neighboring states (Indiana, Ohio, and Tennessee) to examine employment and wages outcomes for graduates living in nearby states.⁶⁶ One result is the Multi-State Postsecondary Report (MSPSR), which was developed by KYSTATS along with the Kentucky Council on Postsecondary Education, the Ohio Education Research Center, and the Coleridge Institute. The

Figure 12. KYSTATS and Ohio Education Research Center Multi-State Postsecondary Report (Coleridge Initiative)



Source: KYSTATS. 2021. *Multi-State Postsecondary Report*. Available at: https://kystats.ky.gov/Reports/Tableau/2021_MSPSR

MSPSR was designed to consolidate data on college graduates' job placement. Previously, data on graduates were limited to those who stayed in-state after graduating but the MSPSR addresses this gap by consolidating information on alumni if they move to Kentucky, Indiana, Ohio, or Tennessee. The MSPSR allows partner organizations such as universities to better analyze their job placement successes and make changes to curriculum or support services.⁶⁷

3C. Surveys

Some districts use surveys to ask alumni about their outcomes. This method is more common to find out about smaller groups of students at a school district or postsecondary institution. A survey can ask alumni to self-report their income or educational attainment as well as qualitative information about their career and school experiences. Data from a survey may be biased toward students who are easier to find (and who may have access to greater opportunities) and requires a lot of resources and effort to implement. This process generally requires approval for survey questions and alumni contact information. Some schools in D.C. already survey their own alumni, including those who do so because of WIOA funding. Additionally, the National Center for Education Statistics (NCES) also conducts high school surveys. Either NCES or WIOA approaches could be adapted for D.C.

National Center for Education Statistics (NCES) federal surveys

Surveys from the National Center for Education Statistics are generally representative at the national level and link to other data (such as transcripts). For example, the High School Longitudinal Study of 2009 followed a nationally-representative sample of more than 23,000 9th graders from 944 schools from 2009 through 2016 during high school and postsecondary years, with periodic follow-up surveys and updates after the base survey in 2009, as well as

postsecondary transcripts in 2017-18. Parents, math and science teachers, school administrators, and school counselors were also surveyed. During high school, data included results from a new student assessment in algebraic skills, reasoning, problem solving for 9th and 11th grades, as well as transcripts. Postsecondary data collection in 2015 examined postsecondary experiences and participants' choices, educational attainment, and experiences in adulthood.⁶⁸

WIOA and Perkins reporting

Recipients of WIOA or Perkins funding are federally required to collect data and submit reports on current and former students. Programs generally contact those who graduated or exit individually (by phone, text, or email) for up to a year after last engagement. Local Perkins program partners submit data to state partners on performance indicators including students' four-year graduation rate, academic proficiency, program quality, postsecondary placement, earned postsecondary credential, and non-traditional program concentration.⁶⁹ WIOA program partners in D.C. report to OSSE through both the Literacy Adult and Community Education System (LACES) and a central data portal, the D.C. Data Vault.⁷⁰ Reporting to the data vault allows partners to coordinate intake and referrals so service participants can access services through several different partners—this tool is not currently oriented for public display.

Chapter 4.

Considerations for next steps in D.C. to measure early career outcomes

To inform this report, the D.C. Policy Center team met with over 15 experts and practitioners across the country, seven local education agencies and postsecondary stakeholders, and heard from seven high school LEAs through a survey and conversations about their needs.

This review showed that D.C. gathers a lot of information about high school students while they are still in school, but then mostly loses track of them at the city level after graduation or enrollment in postsecondary. Following former

students is especially challenging in D.C. given its transient population, small geographic area, and small public postsecondary system. As some high school LEAs put in a tremendous amount of effort to reach out to alumni in order to provide supports and improve their approaches, it suggests that more information would be helpful. There are also examples of how other systems across the country have designed systems to track the early career outcomes of their high school alumni, which have implications for how D.C. could find out more.

These considerations take stock of others' successes and adapt them to the local context.

1. Establish guiding principles for tracking early career outcomes in D.C.

The jurisdictions that do this well have a strong sense of what they are trying to accomplish,

starting with the big picture questions that they are looking to answer, and a clear feedback loop to inform practice and policy. This means that D.C. could first identify desired outcomes for its public high school alumni, and then use these desired outcomes to guide the full scope of its tracking program. A more thorough round of engagement with education agencies, postsecondary institutions and training programs that enroll a large share of D.C.'s alumni, and workforce stakeholders would be helpful to learn the data they have, the data they use to inform decisions, and the data they would like to have. High schools and alumni could provide a different perspective on what matters to them and how they define success, as well. This engagement could evaluate demand for early career outcomes information, start to form consensus on the right data to collect, identify the questions D.C. wants to answer, and examine how these answers could shift practice.

2. Better connect local and national data sources.

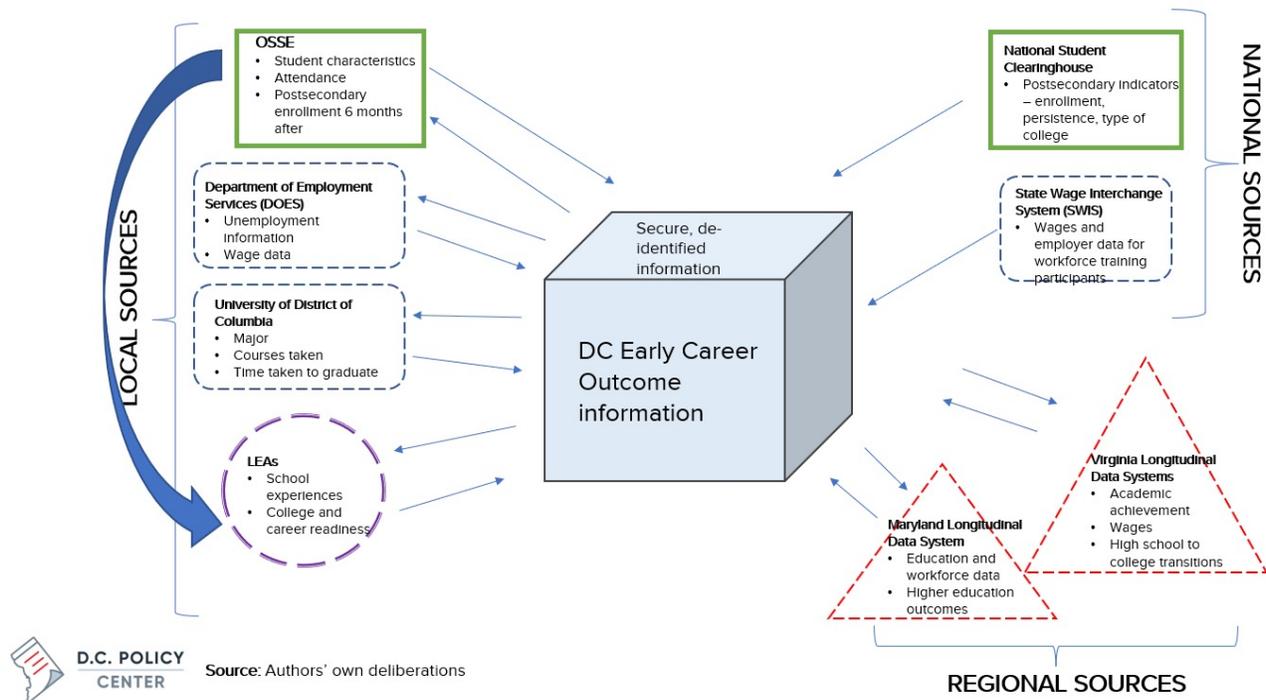
Collecting information on early career outcomes requires bringing data together from systems inside and outside the pre-kindergarten to grade 12 space. The data could come from state agencies, like OSSE in D.C., but also state employment agencies like DOES for wage data, for example. Basic indicators on postsecondary could be reported from the National Student Clearinghouse—but universities and training programs with a significant proportion of D.C.'s high school alumni may be able to provide more detailed information on courses or path through school, for example, over time. In the long term, some systems are also able to connect to data from human services or criminal justice for a more holistic picture of outcomes.

Some local data sources could be adapted to provide information that will allow D.C. to both track outcomes and inform practice. This could mean expanding high school indicators available in SLED, for example, to include courses, credits, and grades, or a disengagement early warning system as now required by the FY22 Budget Support Act. It could also mean adapting the unemployment insurance wage database to provide regular information on high school students, in addition to the current participants in workforce training programs.

Beyond local data, D.C. could connect to national sources to find out more, especially about alumni who attend postsecondary outside of the University of the District of Columbia (UDC); alumni who eventually move out of D.C.; or alumni who are employed outside its boundaries. D.C. already connects to the National Student Clearinghouse data, but this could mean regularly publishing outcomes at the state level to track how alumni fare and adding these data to the central SLED database. Wages for those who live outside of D.C. could come from the new SWIS data exchange that OSSE is a party to, with some adjustments to allow for data collection on high school alumni in addition to adult workforce training participants. Connecting to other sources would require storing data securely with encryption for the matching process, and then removing all identifying information (name, social security number) and replacing with a new identification number.

Some of these data sources (see Figure 13) are farther along on being linked to a central system, indicated with solid lines in the graphic below. Others with dashed lines would require a new data-sharing agreement, or a new way to match students.

Figure 13. Potential data sources contributing information on D.C.'s early career outcomes



3. Determine ownership and governance for education and workforce data systems.

Commonly, states create a separate government entity to bring together data from disparate sources. This type of entity is usually governed by a board that includes representatives from PK-12, higher education, and workforce departments as well as universities, the workforce communities, and high schools. It could be created by legislation⁷¹ to specify which data will be collected, how privacy will be protected, who will be on the board, what kind of data summaries will be produced, and how funding will work. In other places, this agency also negotiates data-sharing agreements with key partners,⁷² that outline, among many things, whether the data will be stored centrally or in a federated system where agencies keep their own data aside from specific requests. D.C. could figure out if this

is the way forward or if it could be housed within an existing entity, like OSSE.

4. Build capacity among practitioners in K12, postsecondary, and workforce programs to use data.

Data on early career outcomes can be used not only to monitor progress and inform practice, but also to motivate change. Limited data suggest that D.C.'s high school alumni living in the area are earning half of what their newcomer counterparts do. Having more specific data could galvanize change. But in order to do so, stakeholders must know how to use it. High schools could receive capacity building to train staff on how to interpret the data to inform their practices, from college and career counseling to work opportunities during high school to supports after high school. The DC

Education Research Collaborative,⁷³ a research-practice partnership newly formed in D.C., could also help to analyze the data, and answer specific questions over time—but it is not the right place to oversee data collection and use especially given the existing data-sharing arrangement with OSSE.

5. Plan for continuous improvements.

D.C. could also consider longer-range solutions after the local data are better connected to each other and to national sources. This could involve working with Maryland or Virginia to find out richer information about alumni who move close by. Opportunities like the Coleridge Initiative and

regional data networks, especially those forming on the east coast, could support these efforts.

D.C. could also consider conducting a periodic alumni survey, which would be expensive and biased toward those likely to be connected to high schools and likely more successful—but would allow D.C. to get more qualitative information around career goals and what helped alumni ultimately succeed.

Appendix: D.C.'s current data availability compared with possible administrative data

This appendix looks at current availability of data in D.C., and what administrative or other data could be added.

Appendix table 1. What does D.C. know about alumni's PK-12 experiences, and what could be possible with more investments?

Topic	Data	Current availability in D.C.	Expected availability in administrative data	Potential source in D.C.
Student characteristics	Schools attended	Available for all D.C. students	Available	OSSE
	Demographics, including students with disability or English learner status	Available for all D.C. students	Available	OSSE
	Social security number	Generally not available, including LEA level	Not available	Potentially from administrative data with new agreements in place
School experience	High school graduation	Available for all D.C. students	Available	OSSE
	Courses completed	Available for most students at LEA level	Not available	LEAs
	Grade point average (GPA)	Available for most students at LEA level	Not available	LEAs
	Disciplinary records	Available for all D.C. students	Available	OSSE
	Attendance	Available for all D.C. students	Available	OSSE
	Extracurricular activities	Available for most students at LEA level	Not available	Would require new data collection/survey
College and career readiness	Academic achievement (PARCC, SAT, AP)	Available for all D.C. students	Available	OSSE
	FAFSA completion status	Available for all D.C. students	Available	State database with federally reported information
	Early participation in postsecondary (dual enrollment or certificates completed)*	Available for at least some students at LEA level	Potentially available	LEAs
	Work experience (internships, apprenticeships, employment, work-based learning)	Generally not available, including LEA level	Not available	Would require new data collection/survey
	Developing a plan for after high school (postsecondary planning)	Available for most students at LEA level	Not available	Would require new data collection/survey

Appendix table 2. What does D.C. know about alumni’s postsecondary experiences, and what could be possible with more investments?

Topic	Data	Current availability in D.C.	Expected availability in administrative data	Potential source in D.C.
Progress	Postsecondary enrollment six months after graduation	Available city-wide for all D.C. students	Available	National Student Clearinghouse
	Retention	Available for most students only at LEA level	Available	National Student Clearinghouse
	Completion rate within six years of high school graduation	Available for at least some students only at LEA level	Available	National Student Clearinghouse
	Path (starting age, number of institutions attended, full or part time status)	Available for at least some students only at LEA level	Available	Could be inferred from National Student Clearinghouse data—enrollment begin and end dates, class level, 2-year/4-year college; college sequence
	Credentials earned	Generally not available, including LEA level	Not available	Explore availability of local administrative data
Academics	Degree earned	Available for at least some students only at LEA level	Available	National Student Clearinghouse
	Institution attended	Available for most students only at LEA level	Available	National Student Clearinghouse
	Major	Available for at least some students only at LEA level	Available	National Student Clearinghouse, available depending on reporting institution. May also require a survey.
	Courses completed	Available for at least some students only at LEA level	Not available	May require a connection to universities to collect information via a data-sharing agreement or student survey
	Grade point average (GPA)	Available for at least some students only at LEA level	Not available	May require a connection to universities to collect information via a data-sharing agreement or student survey
	Extracurricular activities	Available for at least some students only at LEA level	Not available	May require a connection to universities to collect information via a student survey
Supports	Student loans	Available for at least some students only at LEA level	Not available	FAFSA reports application volume, Title IV participation, default rates, and loan forgiveness. Specific information on loans may require a survey.
	Pell Grant recipient	Available for at least some students only at LEA level	Not available	National Student Clearinghouse disaggregates by Pell status. Specific information may require a survey.
Workforce preparation	Access to career supports	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Work-study participation	Available for at least some students only at LEA level	Not available	Would require additional data collection via a survey
	Internships	Generally not available, including LEA level	Not available	Would require additional data collection via a survey

Appendix table 3. What does D.C. know about alumni’s workforce experiences, and what could be possible with more investments?

Topic	Data	Current availability in D.C.	Expected availability in administrative data	Potential source in D.C.
Employment	Employment status	Available for at least some students only at LEA level	Not immediately available	Available in administrative data
	Part-time vs. full-time status	Available for at least some students only at LEA level	Not available	Would require additional data collection via a survey
	City/state where the former student is working	Available for at least some students only at LEA level	Not immediately available	Potentially available in administrative data
	Industry	Available for at least some students only at LEA level	Not immediately available	Potentially available in administrative data
	Occupation	Available for at least some students only at LEA level	Not available	Would require additional data collection via a survey
	Employer	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Military employment	Available for at least some students only at LEA level	Not available	Would require additional data collection via a survey
Financial wellbeing	Income	Generally not available, including LEA level	Available	Would require additional data collection via a survey
	Amount of debt	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Ability to save money	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Ability to pay for unexpected expenses	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
Career path	Work training	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Short-term and/or long-term goals	Generally not available, including LEA level	Not available	Would require additional data collection via a survey
	Greatest challenges the former student has faced since high school	Available for at least some students only at LEA level	Not available	Would require additional data collection via a survey
	Access to a mentor or other support systems	Generally not available, including LEA level	Not available	Would require additional data collection via a survey

Endnotes

¹ In this report, D.C.'s public schools refer to both District of Columbia Public Schools (DCPS) and public charter schools.

² DCPS and the DC Public Charter School Board (DC PCSB) state readiness for college and career as a goal in their performance frameworks. DCPS's strategic plan, A Capital Commitment, seeks to double the percent of students who are college and career ready, for example. DC PCSB's Performance Management Framework (PMF) includes college and career readiness metrics on the SAT, college acceptance rates, and participation in college and career offerings during high school.

³ Coffin, C. and Meghjani, T. 2020. Transition to College or Career for the District's High School Students. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/student-transition-college-career/>

⁴ Coffin, C. and Meghjani, T. 2020. Transition to College or Career for the District's High School Students. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/student-transition-college-career/>

⁵ Glasmeier, Amy K. 2020. Living Wage Calculator. Massachusetts Institute of Technology. Available at: <https://livingwage.mit.edu/>

⁶ D.C. Policy Center. 2021. State of D.C. Schools, 2019-20. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/state-of-dc-schools-19-20/>

⁷ Coffin, C. and Meghjani, T. 2020. Transition to College or Career for the District's High School Students. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/student-transition-college-career/>

⁸ Taylor, Y.S. 2015. Who stays in the District? Who leaves? Preliminary findings from DC tax filers from 2004. Office of Revenue Analysis, Office of the Chief Financial Officer, Government of the District of Columbia. Available at: <https://cfo.dc.gov/sites/default/files/dc/sites/ocfo/publication/attachments/Family%20Structure%20Web%20Paper.pdf>

⁹ Other data required by the COMPETES Act that served as guidance for this 2007 round of grants included student-level enrollment, demographic, and program participation

information; yearly test records of individual students; a teacher identifier system with the ability to match teachers to students; student-level transcript information, including information on courses completed and grades earned; and student-level college readiness test scores, among other elements. In postsecondary education, this act required data that provided information on the transition from high school to postsecondary education and other information to address preparation for success in postsecondary education. For more information, see: https://nces.ed.gov/forum/ldsguide/book1/app_e.asp

¹⁰ Office of the State Superintendent of Education (OSSE). 2011. "Application for Grants Under the Statewide Longitudinal Data Systems (SLDS) – District of Columbia." U.S. Department of Education. Available at: <https://nces.ed.gov/programs/slids/pdf/DistrictofColumbia2012.pdf>

¹¹ LEAs are individual school districts. In D.C., there are 68 LEAs, including District of Columbia Public Schools (DCPS) and 67 public charter LEAs that function as independently run nonprofit organizations.

¹² Office of the Deputy Mayor for Education (DME). 2014. District of Columbia: Graduation Pathways Project Summary. Available at: https://dme.dc.gov/sites/default/files/dc/sites/dme/publication/attachments/DME_GradPathways_FinalReport_20140924_vF.pdf

¹³ Meghjani, T. 2021. Outcomes for high school students during the pandemic. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/high-school-students-pandemic/>

¹⁴ D.C.'s state assessment, Partnership for Assessment of Readiness for College and Careers (PARCC), intended to measure the knowledge and skills ultimately needed to succeed in college and careers, has been suspended for the past two years during the COVID-19 pandemic.

¹⁵ Office of the State Superintendent of Education (OSSE). 2021. DC School Report Card. Available at: <https://osse.dc.gov/dcschoolreportcard>

¹⁶ Federal Student Aid. 2021. FAFSA Completion Data Details. U.S. Department of Education. Available at: <https://studentaid.gov/data-center/student/application-volume/fafsa-completion-data>

¹⁷ Perkins Collaborative Resource Network. 2021. State Profiles: District of Columbia. U.S. Department of Education. Available at: <https://cte.ed.gov/profiles/district-of-columbia>

¹⁸ High school students primarily take this assessment in grade 10.

¹⁹ Office of the State Superintendent of Education (OSSE). 2019. 2019 DC Statewide Assessment Results. Available at: https://osse.dc.gov/sites/default/files/dc/sites/osse/page_content/attachments/2019%20Statewide%20ELA%20and%20Math%20Public%20Results.pdf

²⁰ OSSE tracks participation in internships associated with CTE programming and dual enrollment that is supported through the OSSE dual enrollment consortium, but these data points are not yet incorporated into the statewide longitudinal data system (SLED).

²¹ D.C. Public Charter School Board (DC PCSB). 2021. Performance Management Framework. Available at: <https://dcpcsb.org/performance-management-framework-pmf>

²² Coffin, C. and Meghjani, T. 2020. Transition to College or Career for the District's High School Students. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/student-transition-college-career/>

²³ Former D.C. students who are enrolled in postsecondary education at public institutions, Historically Black Colleges or Universities (HBCUs) and private colleges in the Washington, D.C. metropolitan area, are eligible to receive DCTAG funding. For more information, see Office of the State Superintendent of Education. 2018. DC Tuition Assistance Grant: List of Participating Institutions. Available at: https://osse.dc.gov/sites/default/files/dc/sites/osse/page_content/attachments/DCTAG%20Participating%20Institutions%202018-19.pdf

²⁴ Office of the State Superintendent of Education (OSSE). 2020. DC State Report Card Data. OSSE. Available at: <https://dcschoolreportcard.org/>

²⁵ Some elementary and middle school LEAs also offer examples of this work: DC Prep PCS serves students in pre-school through grade 8 and, through its PrepNext program, supports graduates through high school, college, and career with a focus on strong relationships and key data metrics toward ongoing secondary and post-secondary success.

²⁶ DCPS Persists. (n.d.). A Support Network for DCPS Alumni, To College and Beyond. Retrieved September 21, 2021, from DCPS Persists: <https://dcpspersists.org/about-dcps-persists/>

²⁷ District of Columbia Public Schools. (2020, June 3). DCPS Persists Partner Webinar. Retrieved from https://cdn.ymaws.com/www.ncan.org/resource/resmgr/blog/dcps_persists_webinar.pdf

²⁸ Naviance is a college and career readiness technology solution: <https://www.naviance.com/>

²⁹ District of Columbia Public Schools (DCPS). 2021. The Guide Resources. DCPS Goes to College. Available at: <https://dcpsgoestocollege.org/guide-resources/>

³⁰ Mathewson, T. G. (2017, June 8). DC Public Schools practices data-informed college advising. Retrieved from K-12 Dive: <https://www.k12dive.com/news/dc-public-schools-practices-data-informed-college-advising/444458/>

³¹ DeBaun, B. (2019, June 25). DC Public Schools Rolls Out Guide to Graduation, College, and Career. Retrieved from National College Attainment Network: <https://www.ncan.org/news/457915/DC-Public-Schools-Rolls-Out-Guide-to-Graduation-College-and-Career.htm>

³² KIPP Through College & Career. (n.d.). Quick Resources for Families. Retrieved September 21, 2021, from KIPP DC: Public Schools: <https://www.kippdc.org/kipp-through-college-careers/>

³³ KIPP. (2018). KIPP 2017 Alumni Survey Results . Retrieved from KIPP: <http://www.kipp.org/wp-content/uploads/2018/04/2017-Alumni-Survey-Results.pdf>

³⁴ KIPP. (2018). KIPP 2017 Alumni Survey Results . Retrieved from KIPP: <http://www.kipp.org/wp-content/uploads/2018/04/2017-Alumni-Survey-Results.pdf>

³⁵ KIPP. (2018). College Persistence Strategy Framework. Retrieved from KIPP: https://www.kipp.org/wp-content/uploads/2021/07/Persistence_Framework_7.19.18-FINAL.pdf

³⁶ Feldbaum, M. and Harmon, T. (n.d.) Using Unemployment Insurance Wage Data to Improve Program Employment Outcomes: A Technical Assistance Guide for Community and Technical Colleges.” National Science Foundation Advanced Technological Education Program Graduate Employment Outcomes Study. Available at: <https://www.achievingthedream.org/sites/default/files/resources/Using%20UI%20Wage%20Data.pdf>

³⁷ DC Workforce Investment Council (WIC). 2020 “District of Columbia Workforce Innovation and Opportunity Act (WIOA) Unified State Plan: July 2020-June 2024.” Available at: [https://dcworks.dc.gov/sites/default/files/dc/sites/dcworks/page_content/attachments/DRAFT%20-%20WIC%20DC%20WIOA%20Unified%20State%20Plan%202020-2024%20\(1\).pdf](https://dcworks.dc.gov/sites/default/files/dc/sites/dcworks/page_content/attachments/DRAFT%20-%20WIC%20DC%20WIOA%20Unified%20State%20Plan%202020-2024%20(1).pdf)

³⁸ Calma, E. 2021. D.C. high school alumni reflections on their early career outcomes. D.C. Policy Center. Available at: <https://www.dcpolicycenter.org/publications/early-career-brief/>

³⁹ Bloom-Weltman, J., Honey, R., Meholick, S., and Fetro, M. 2021. Profile of State Capacity in 2018: Statewide Longitudinal Data Systems (SLDS) Survey Descriptive Statistics. Institute of Education Sciences, National Center for Education Statistics, U.S. Department of Education. Available at: <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2021126>

⁴⁰ A federated data model is another common option, used by 18 percent of states and territories, where individual agencies maintain control over their own data and agree to share particular data upon request.

⁴¹ As defined in the publication: “Users can query the system to access the data that they have been authorized to view and use.”

⁴² In at least 20 percent of states and territories, a social security number is used to match data.

⁴³ Data Quality Campaign. 2014. “Roadmap for K-12 and Postsecondary Data Linkages.” Data for Action, Data Quality Campaign. Available at: <https://dataqualitycampaign.org/wp-content/uploads/2016/03/DQC-roadmap-k12-postsecondary-Data-link-June24.pdf>

⁴⁴ Institute of Education Sciences (IES). 2015. “SLDS Issue Brief: State Approaches to College and Career

Transitions.” National Center for Education Statistics. Available at: <https://slids.ed.gov/services/PDCService.svc/GetPDCDocumentFile?fileId=24160>

⁴⁵ Kentucky Center for Statistics (KYSTATS). 2021. “KYSTATS Statutes.” Available at: <https://kystats.ky.gov/>

⁴⁶ Kentucky Center for Statistics (KYSTATS). 2021. “Kentucky Center for Statistics: Uniting our data. Informing our Commonwealth.” Available at: <https://kystats.ky.gov/>

⁴⁷ Maryland.gov. (n.d.). Maryland Longitudinal Data System Center. Retrieved 2021, from <https://mldscenter.maryland.gov/>

⁴⁸ Maryland.gov. (n.d.). Maryland Longitudinal Data System Center. Retrieved 2021, from <https://mldscenter.maryland.gov/>

⁴⁹ Maryland.gov. (n.d.). Maryland Longitudinal Data System Center. Retrieved 2021, from <https://mldscenter.maryland.gov/>

⁵⁰ Baltimore’s Promise. (n.d.). Retrieved 2021, from Baltimore’s Promise: <https://www.baltimorespromise.org/>

⁵¹ Opportunity youth are defined as those “who do not enroll in college or enter the workforce in the semester after graduating college.

⁵² Grads2Careers. 2021. Connecting Baltimore City’s high school graduates to free job training, credentials, and a career path. Available at: <https://bmoreg2c.com/about/>

⁵³ In D.C., OSSE has access to some National Student Clearinghouse data, and publishes outcomes on enrollment in postsecondary within six and 12 months of high school graduation.

⁵⁴ McCourt School of Public Policy, Georgetown University. 2021. “Research Data Center.” Available at: <https://mccourt.georgetown.edu/research/research-data-center/>

⁵⁵ It is very rare to gain access to federal income tax data.

⁵⁶ The Georgetown University Research Data Center is a local lab with these services, and typically charges a fee of \$10,000 in addition to fees required to access the federal datasets.

⁵⁷ Bauer-Wolf, J. 2018. "A 'Workaround' to U.S. Ban on Student-Level Data." Inside Higher Ed. Available at: <https://www.insidehighered.com/news/2018/03/27/university-texas-system-releases-new-student-outcome-database>

⁵⁸ Opportunity Insights. (n.d.) "Constructing the Opportunity Atlas: Methodology." Opportunity Insights. Available at: https://opportunityinsights.org/wp-content/uploads/2018/10/Atlas_methods.pdf

⁵⁹ Prescott, B.T. and Lane, P. 2016. Fostering State-to-State Data Exchanges. NCHEMS and WICHE. Available at: <https://www.wiche.edu/wp-content/uploads/2020/06/Fostering-State-to-State-Data-Exchanges.pdf>

⁶⁰ Steven Ruggles, Sarah Flood, Sophia Foster, Ronald Goeken, Jose Pacas, Megan Schouweiler and Matthew Sobek. IPUMS USA: Version 11.0 American Community Survey Five-year Estimates (2015-2019). Minneapolis, MN: IPUMS, 2021. <https://doi.org/10.18128/D010.V11.0>

⁶¹ MLSDC has a full data inventory and analysis of data gaps available here: <https://mldscenter.maryland.gov/DataInventory.html#StudentData>

⁶² Participating agencies include the Virginia Department of Education (VDOE), the State Council of Higher Education for Virginia (SCHEV), the Virginia Employment Commission (VEC), the Virginia Department of Social Services (VDSS), the Virginia Community College System (VCCS), the Virginia Department for Aging and Rehabilitative Services (DARS), and Virginia Department of Health Professions (DHP).

⁶³ Virginia Longitudinal Data System (VLDS). 2021. "VLDS Reports." Available at: <https://vlids.virginia.gov/reports>

⁶⁴ Prescott, B. (2014). "Beyond Borders: Understanding the Development and Mobility of Human Capital in an Age of Data-Driven Accountability." WICHE. Available at: <https://files.eric.ed.gov/fulltext/ED557766.pdf>

⁶⁵ Coleridge Initiative. 2021. "Administrative Data Research Facility." Available at: <https://coleridgeinitiative.org/adrf/>

⁶⁶ KYSTATS. 2021. "Crossing State Lines: Postsecondary Employment Outcomes Outside KY." Kentucky Labor Force Update. Available at: https://kystats.ky.gov/Content/Reports/WP-LF_Update_January_2021.pdf?v=20210202043212

⁶⁷ Northern Kentucky Tribune. 2021. "First-of-its-kind analytics tool helps colleges eliminate blind spots in jobs, salaries, track success." Available at: <https://www.nkytribune.com/2021/03/first-of-its-kind-analytics-tool-helps-colleges-eliminate-blind-spots-in-jobs-salaries-track-success/>

⁶⁸ Institute of Education Sciences (IES). 2021. "High School Longitudinal Study of 2009 (HSL:09)." Available at: <https://nces.ed.gov/surveys/hsls09/>

⁶⁹ Perkins Collaborative Research Network. (n.d.). Indicators of Performance. Retrieved September 21, 2021, from U.S. Department of Education Office of Career, Technical, and Adult Education: <https://cte.ed.gov/accountability/core-indicators>

⁷⁰ District of Columbia Office of the State Superintendent of Education Adult and Family Education. (2019, August). DC Distance Education Policy for Workforce Innovation and Opportunity Act (WIOA), Title II Providers and Partners. Retrieved from https://osse.dc.gov/sites/default/files/dc/sites/osse/publication/attachments/_DC%20Distance%20Education%20Policy%20for%20WIOA%20Title%20II%20Providers%20and%20Partners%20-%20August%202019%20%28v.%201%29.pdf

⁷¹ See the law that created MLSDC: <https://codes.findlaw.com/md/education/md-code-educ-sect-24-703.html>

⁷² See a template from KYSTATS here: <https://kystats.ky.gov/Content/Data%20&%20Information%20Sharing%20Agreement%20and%20Exhibits%20Template.pdf>

⁷³ The D.C. Policy Center is a partner of the DC Education Research Collaborative.