

March 2014

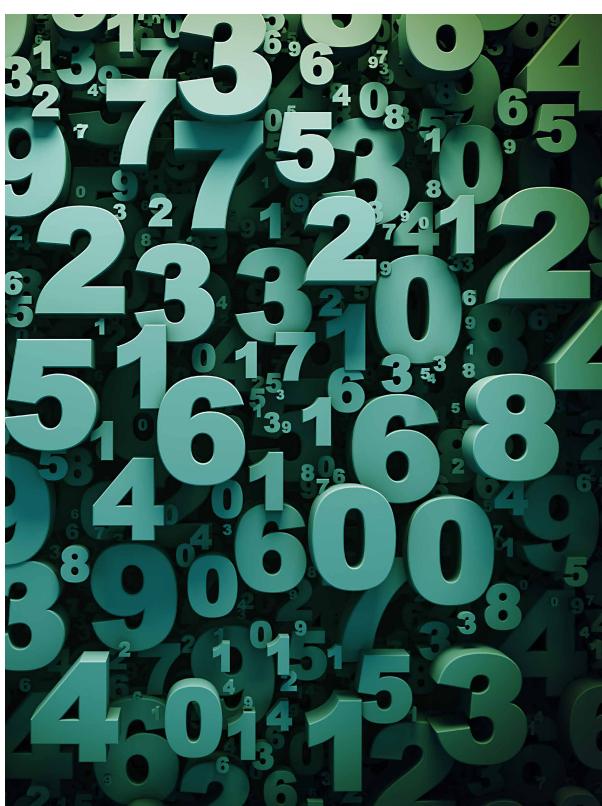
A REPORT BY Institute for Higher Education Policy

SUPPORTED BY The Bill & Melinda Gates Foundation

Access and Success Accountability Diversity Finance Global Impact

Mapping the Postsecondary Data Domain: Problems and Possibilities Technical Report

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This paper is a product of the Reimagining Aid Design and Delivery (RADD) Simplification and Transparency Consortium, funded by the Bill & Melinda Gates Foundation. Under this consortium, seven organizations joined together to explore ways to simplify the college admissions and financial aid process to make it simpler and more transparent. This paper represents the Institute for Higher Education Policy's (IHEP's) research and recommendations. While collaborations with the consortium informed this paper, an organization's participation in the consortium does not necessarily signal full endorsement of this content. Consortium partners include: Center for Law and Social Policy, the College Board, Institute for Higher Education Policy, National College Access Network, New America, the U.S. Chamber of Commerce Foundation, and Young Invincibles.

Acknowledgements

This report is the product of hard work and thoughtful contributions from a number of individuals and organizations. We would like to thank the Institute for Higher Education Policy (IHEP) staff who helped in this effort, including Michelle Asha Cooper, president; Melissa Moreland, research analyst; and Eunkyoung Park, former research analyst. We also thank Tia T. Gordon at TTG+PARTNERS for her communication efforts, Paula Amann for her editorial expertise, and Matthew Reed and Jessica Thompson from The Institute for College Access and Success (TICAS) for their thoughtful feedback on the report's content. We especially thank the Reimagining Aid Design and Delivery (RADD) Simplification and Transparency members, all of whom have been strong partners throughout this project. Finally, we are grateful for the Gates Foundation's support of the RADD project and, in particular, this research on postsecondary data. Although many have contributed their thoughts and feedback throughout the production of this report, the research and recommendations presented here are those of the authors alone.

Are the Data Available to Answer the Core Questions about Postsecondary Education?

To the lay person, the core measures described in this technical report's accompanying paper, *Mapping the Postsecondary Data Domain,* may seem like basic information that should already be available about our nation's institutions of higher education. However, mapping these core measures against key national data sets, including the Integrated Postsecondary Education Data System (IPEDS) and the National Student Loan Data System (NSLDS), shows that while some of the data points are available, many are missing or insufficient. This technical report summarizes the data availability for each of the core measures and describes the limitations of existing data points, which need to be addressed. To provide students, families, policymakers, and institutions with the information they need, we must strengthen our postsecondary data systems to fill in the gaping holes in our higher education data infrastructure.

As mentioned, the postsecondary community is considering a number of solutions for addressing our national data needs. This report outlines one such solution: Amending existing national databases. Some of the holes we identify can be filled with only minor modifications to IPEDS or the addition of an IPEDS data point. In other cases, missing data points can be generated from existing federal data sets to limit additional reporting burden on institutions. In addition to summarizing data availability, **TABLES 1, 3, 4**, and **5** also outline recommendations for using our existing data infrastructure to collect the missing or insufficient data elements in ways that could produce accurate and usable information.

The recommendations presented here focus on gathering information using existing databases, while attempting to balance the reporting pressures placed on institutions. To the extent possible, institutional reporting burden should be minimized by eliminating duplication, streamlining collections, and prioritizing key data points. While outside the scope of this paper, revamping the nation's postsecondary data systems on a larger scale could create a privacy-protected student unit record data system (SURDS) that would likely reduce institutional reporting burden further and facilitate collection and reporting of the types of data described here—and more. For more information on the issues surrounding a SURDS, see New America's forthcoming paper.

ACCESS: Which students are attending which colleges?

IPEDS data on college enrollments are fairly comprehensive. Data are available in some form by enrollment status (first-time or transfer), attendance pattern (full-time or part-time), degreeseeking status, race/ethnicity, gender, age, financial aid category, and, beginning in 2014–15, by military status. **TABLE 1** details the availability and limitations of the core enrollment diversity measures, and proposes improvements that would make the enrollment surveys even more useful and robust than they currently are in IPEDS.

While **TABLE 1** includes a number of recommendations, one key improvement that could provide a more complete picture of enrollment diversity could be accomplished by either duplicating or shifting disaggregates from the Fall Enrollment Survey to the 12-Month Enrollment Survey. Shifting the disaggregation will help manage reporting burden, while duplicating it will provide a richer set of data and maintain the ability to track trends over time. Currently, IPEDS reports both fall enrollment and 12-month enrollment counts. Fall enrollments can be cut in a variety of ways, including race/ethnicity, gender, age, degree/certificate-seeking status, attendance status, and enrollment status, while 12-month headcount enrollments are available only by race/ethnicity, gender, and an undergraduate/graduate distinction.

While the fall enrollment data are disaggregated more thoroughly, the 12-month headcount enrollment actually provides a more complete picture of enrollment at the institution, because it captures students who enroll at times other than the fall—a measure that grows increasingly important in an era of 21st-century students. The undercounting of students in the Fall Enrollment Survey is particularly problematic in community colleges and for-profits, which often admit and enroll new students throughout the calendar year. For instance in 2011–12, the 12-month enrollments at public community colleges include 3.6 million more students than the fall enrollment counts (10.6 million versus 7.0 million), and at four-year for-profit institutions, 12-month enrollments are 1.6 times higher than fall counts (2.1 million versus 1.3 million).¹

To obtain a more complete and accurate picture of student enrollment, the 12-Month Enrollment Survey—rather than the Fall Enrollment Survey—should add disaggregates for at least age, enrollment status, attendance pattern, and degreeseeking status. To create an even more thorough and informative snapshot of college attendance patterns, a truly comprehensive data system also would disaggregate enrollment on other key factors, such as dependency status (for example, independent or dependent), disability status, language proficiency, and parental education. At this time, however, **TABLE 1** focuses on a core subset of access-related measures, which were identified based on our review of the major higher education data initiatives that have developed over the last five to 10 years, such as Complete College America, Achieving the Dream, and Access to Success.

COMPLETION: How many—and which—students succeed in college?

While a solid base of data is available on student success through IPEDS' retention and graduation rates, several important

¹ Institute for Higher Education Policy analysis of 2011–12 IPEDS 12-month and fall enrollment data.

Access: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?	How can the data be collected?	
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)
	Diversity	: Per	centage of freshman class and percentage of	of un	dergraduates by:
ACCESS: Which students attend which colleges?	Enrollment Status (first-time, transfer)		In IPEDS, fall enrollments (but not 12-month enrollments) are disaggregated by first-time/ transfer status. These data are now available descriptively about the student body, not as disaggregates for student outcomes. New IPEDS outcome measures will report comple- tion by first-time and transfer status, but with limitations (see BOX 1).		Amend IPEDS: Disaggre- gate in 12-Month Enroll- ment Survey instead of Fall Enrollment Survey. Disaggregate student outcomes by enrollment status at entry in GRS.
to know the demographic profile of the student body. <i>Institutions</i> need to know which students they are serving to	Attendance pattern (full-time, part-time)		In IPEDS, fall enrollments (but not 12-month enrollments) are disaggregated by full- and part-time status. These data are now available descriptively about the student body, not as disaggregates for student outcomes. New IPEDS outcome measures will report comple- tion by full-time and part-time status, but with limitations (see BOX 1).		Amend IPEDS: Disaggre- gate in 12-Month Enrollment Survey instead of Fall Enrollment Survey. Disaggregate student outcomes by attendance status at entry in GRS.
increase access as well as target support to key populations. <i>Policymakers</i> need to know which institutions provide sufficient access to a diverse array of students.	Degree-Seeking Status		IPEDS disaggregates fall (but not 12-month) enrollments by degree/certificate-seeking, non-degree/certificate-seeking, and degree/ certificate-seeking status unknown. It does not disaggregate degree-seeking students from certificate-seeking students. The GRS cohort disaggregates bachelor's-seeking students from other degree/certificate-seeking students, but does not disaggregate associate's degree from certificate-seeking students.		Amend IPEDS: Separate bachelor's degree, associate's degree, and certificate-seeking students in 12-Month Enrollment Survey. Disaggregate student outcomes by bachelor's, associate's, or certificate- seeking status at entry in GRS.
	Income or Financial Aid Category		IPEDS Student Financial Aid (SFA) component now reports the percentage of first-time, full-time freshmen and the percentage of all undergradu- ates receiving Pell grants, but not the percentage of those receiving Subsidized Stafford Ioans and no Pell grants or the percentage receiving neither Subsidized Stafford Ioans nor Pell grants. The Pell grants data are available descriptively about the student body, but not as disaggre- gates for student outcomes. Income and financial aid category are also available from NSLDS, and potentially could be linked to outcomes, but for Title IV recipients only.		Amend IPEDS: Add catego- ries for Subsidized Stafford, non-Pell grant recipients and those receiving neither Subsidized Stafford Ioans nor Pell grants to the SFA Survey. Disaggregate student outcomes by financial aid category at entry in GRS.

TABLE 1 CONT'D

Access: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?	How can the data be collected?	
What questions need answers? will answer these question		Yes	Yes Partially available or needs improvement		(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)
	Diversity	: Per	centage of freshman class and percentage of	of un	dergraduates by:
	Race/Ethnicity	X			Already available
	Gender	X			Already available
ACCESS: Which students attend which colleges? Consumers need to know the demographic profile of the	Age		IPEDS fall enrollments (but not 12-month enrollments) are disaggregated by age categories (under 18, 18–19, 20–21, 22–24, 25–29, 30–34, 35–39, 40–49, 50–64, 65+, age unknown). These data are available descrip- tively about the student body, but not available as disaggregates for student outcomes.		Amend IPEDS: Disaggre- gate in 12-Month Enrollment Survey instead of Fall Enrollment Survey.
student body. <i>Institutions</i> need to know which students they are serving to increase access as well as target support to key populations. <i>Policymakers</i> need to know which institutions provide sufficient	Major or Program of Study		IPEDS includes degrees awarded in each program, but not the number or percentage of students enrolled in the program. Outcomes (such as completion rates) by program also not available.		Explore adding to IPEDS.
	Military Status or Military Benefits Receipt		Beginning in 2014–15, IPEDS will include the number of undergraduate and graduate students receiving Post-9/11 GI Bill benefits and the number receiving Department of Defense (DoD) Tuition Assistance. These data will not disaggre- gate members of the military from family members receiving the benefits, nor disaggre- gate student outcomes by benefit receipt.		<u>Amend IPEDS:</u> Disaggre- gate GI Bill and DoD TA recipients by whether the student is a member of the military or a family member of someone in the military and by undergraduate and graduate status.
access to a diverse array of students.	Level of Academic Preparation		No central source provides information on high school course taking or remedial placement/ course taking. IPEDS includes 25 th - and 75 th -percentile SAT/ACT scores, but data are missing for many open access institutions, where remediation is most prevalent.		Add to IPEDS: Add measure for the percentage of entering freshmen and entering transfers who place into developmental education courses.

pieces of data on progression and completion are missing from current collections (see TABLE 3). Progression measures can provide crucial insights into student momentum, offering earlier indicators of student success than backward-looking completion measures.² Currently, IPEDS includes first-year retention rates only, with no data on other useful progress measures like gateway course completion rates, Satisfactory Academic Progress (SAP) rates, and credits or time to credential. We recommend adding these data points to IPEDS to signal their importance in measuring student progress and to inform consumers and policymakers about how long it takes to attain a credential-and what roadblocks (such as developmental education or academic progress) may stand in the way. This information can be particularly useful for institutions struggling to identify barriers to success and strategies for improvement using graduation rate data alone. With the exception of SAP, each of these progression indicators are currently being collected and reported by dozens of states and hundreds of public institutions through initiatives such as Complete College America and Achieving the Dream.

While only minimal data are available on progression, quite a bit of information is available on completion. However, these existing data suffer from a series of oft-lamented—yet highly fixable—limitations. Graduation rates offer the most notable example of a necessary data point in need of improvement. The IPEDS graduation rate includes only first-time, full-time degree/certificate-seeking undergraduates and reports the proportion of those students who graduate within 100 percent, 150 percent, and 200 percent of time. These calculations omit part-time and transfer students, fail to account for upward transfers from community colleges as "successes," and do not distinguish between associate and certificate completers.

Overall, about half (47 percent) of entering students are captured by the current first-time, full-time Graduation Rate Survey (GRS), but only 7 percent of institutions nationwide have a GRS cohort that includes less than 25 percent of entering students. In other words, only a small proportion of institutions have an entering class that is grossly underrepresented by the GRS cohort. Some sectors have far greater GRS coverage than others because students tend to enter these institutions as first-time, full-time students. For example, in fall 2011, 60 percent of students entering public and private nonprofit four-year institutions were captured in IPEDS graduation rates, while only about one-third of students at public community colleges and four-year, for-profit institutions were included (33 percent and 30 percent, respectively).³

The U.S. Department of Education has proposed new outcome measures, scheduled to be implemented in the 2015–16 collection cycle, that attempt to capture outcomes information on more students, including part-time and transfer students. While these new data will provide information on the outcomes of more students, they will not align or be comparable with the existing graduation-rate data because they differ in terms of completion time frame and disaggregation of students by credential sought, race/ethnicity, and gender. They also will not produce the data necessary to sufficiently answer basic student progress and completion questions like the following:

- How many students transfer from a particular community college to a four-year institution?
- What is the graduation rate of bachelor's-seeking students who enter an institution as transfers?
- What proportion of first-time, part-time community college students graduate within two, three, four, or five years?

² Jeremy Offenstein, Colleen Moore, and Nancy Shulock. "Advancing By Degrees: A Framework for Increasing College Completion" (Washington, D.C.: The Education Trust, 2010). Retrieved from: http://www.edtrust.org/sites/edtrust.org/files/publications/files/AdvbyDegrees_0.pdf.

³ Institute for Higher Education Policy calculations using IPEDS 2011 Graduation Rate Survey.

Much of the higher education community believes "part-time and transfer student graduation rates are coming."⁴ However, we expect there to be considerable dissatisfaction when the limitations of these new data are more widely known. We recommend that IPEDS be amended to align the new outcome measures with the existing Graduation Rate Survey (GRS) and retention rates. Not only will this alignment result in more usable data, but it also will reduce burden on institutions by streamlining the collection and reporting process through parallel definitions and methodologies (such as cohort development and tracking). Again, national initiatives such as Complete College America, Access to Success, and others are already collecting these data from states and institutions all across the country.

The National Student Clearinghouse (NSC) also includes more comprehensive data on college completion, but institutions must pay a fee to participate in the Clearinghouse, and the data are not public. While these completion data conceivably could be obtained from the NSC, IPEDS has broader coverage and already is taking steps to enhance the collection of outcomes data. Instead of relying on a private entity, we recommend improving the outcome measures to incorporate these data into IPEDS. (For more information on the outcome measures, what they will and will not accomplish, and how they could be adjusted to be most useful and least burdensome, see sidebar, "New IPEDS Outcome Measures: Not A Complete Graduation-Rate Solution.")

It would be ideal if all of the progression and completion measures were available disaggregated by all the enrollment measures identified in the core set. However, as long as institution-level IPEDS surveys remain the primary data collection mechanism in higher education, it likely would be too burden-

some to collect all of those permutations. Therefore, we minimally recommend that IPEDS begin collecting better information on the success of students from different socioeconomic backgrounds to measure how well institutions serve low- and moderate-income students, in particular. Under current law, institutions are required to disclose the graduation rates of Pell grant recipients, subsidized Stafford loan recipients who do not receive Pell grants, and students who receive neither Pell grants nor subsidized Stafford loans.⁵ Many institutions also have reported these data voluntarily to U.S. News and World Report or as part of their "Commitments to Action" solicited by President Obama.6 However, since data are not reported to IPEDS, they cannot be evaluated comprehensively for all institutions, and research has indicated that only a guarter of sampled institutions complied with the disclosure requirement when asked.7 Because institutions already are required to collect and disclose this information, we recommend incorporating it into the Graduation Rate Survey (GRS) as a disaggregate in the same manner as the race/ethnicity and gender disaggregates. While NSLDS is potentially an option for collecting and reporting graduation rates for Title IV recipients, it is not possible to compare those rates with non-recipients or identify first-time students using that data set, limiting its utility as a result.

⁴ As part of the research for this paper, IHEP convened a series of meetings on postsecondary data with experts in the higher education community. Many participants in these conversations expressed the sentiment that "part-time and transfer student graduation rates are coming."

⁵ "Information Required to Be Disclosed Under the Higher Education Act of 1965: Suggestions for Dissemination," National Postsecondary Education Cooperative, October 28, 2009, pages A-24. http://nces.ed.gov/pubs2010/2010831rev.pdf.

⁶ Robert Morse and Diane Tolis, "Measuring Colleges' Success Graduation Low-Income Students, Measuring Colleges' Success Graduating Students with Subsidized Stafford Loans, Measuring Colleges' Success Graduating Students with Higher-Income Students," 2013 and 2014. http:// www.usnews.com/education/blogs/college-rankings-blog/2013/10/17/measuring-colleges-success-graduating-low-income-students, http://www.usnews.com/education/blogs/college-rankingsblog/2013/11/21/measuring-colleges-success-graduating-students-with-subsidized-stafford-loans, http://www.usnews.com/education/blogs/college-rankings-blog/2014/01/30/measuring-colleges-success-graduating-higher-income-students; Commitments to Action. (2014). Executive Office of the President. http://www.whitehouse.gov/sites/default/files/docs/college_ opportunity_commitments_report.pdf.

⁷ Kevin Carey and Andrew P. Kelly, "The Truth Behind Higher Education Disclosure Laws" (Washington, D.C.: Education Sector, 2011), 4. Retrieved from: http://www.educationsector.org/sites/ default/files/publications/HigherEdDisclosure_RELEASE.pdf.

BOX 1. New IPEDS Outcome Measures: Not A Complete Graduation-Rate Solution

In the 2015–16 IPEDS data collection year, institutions are scheduled to begin reporting on the status of the 2007 entering cohort based on new outcome measures. Through these measures, institutions will report on completion, transfer, and continued enrollment after six and eight years for full-time, part-time, firsttime, and non-first time students (see **TABLE 2**). Though these outcome measures will provide more data on the progression and success of more students, they are likely to cause confusion because they will not be analogous to graduation rates already reported through the Graduation Rate Survey (GRS). This alignment in reporting is essential to create usable, understandable data, and to reduce complexity and reporting burden.

More specifically, the new measures will not disaggregate outcomes by credential type as does the GRS. Rather, bachelor's-seeking, associate-seeking and certificate-seeking students will be reported together, which could result in confusing information, especially at institutions that offer a rich mix of credential types. And while institutions will report transfer-out as an outcome, all transfers will be grouped together rather than separating upward (two-year to fouryear) and lateral (two-year to two-year) transfers, limiting the usefulness of the information for all interested parties.

Furthermore, while the GRS tracks student outcomes for 100 percent, 150 percent, and 200 percent of time, the new outcome measures will track outcomes for six years and eight years, regardless of program length. For four-year institutions, six years are equivalent to 150 percent of time and eight years are equivalent to 200 percent, but two-year and less-than-two year institutions will not benefit from this alignment. Because of these various discrepancies in definitions and specifications, institutions will need to make calculations for the outcomes measures and the GRS components separately, increasing burden and complexity; and the results will not fully align.

Though the outcome measures are a positive step toward providing quality progress and completion data, they should—at a minimum—disaggregate the outcomes by credential type and transfer type and align the time frames with the GRS. Promoting this alignment will help reduce burden, create more usable data, and possibly even allow for additional disaggregations such as race/ethnicity and gender.

TABLE 2

New IPEDS Outcome Measures for 2007 Cohort

	Number of students who received an award by August 31, 2013	Number of students who received an award by August 31, 2015	Students who Number still enrolled at institution	did not receive Number who subse- quently enrolled at another institution	an award by A Number of students whose subsequent enrollment status is unknown	ugust 31, 2015 Total number who did not receive an award	Total of students who received award and students who did not receive award
			First-Time	Entering			
Full-time							
Part-time							
	·		Non-First-Ti	me Entering			
Full-time							
Part-time							

Source: Department of Education, New Proposed IPEDS Outcome Measures Component, 2015–16. Retrieved from: www.regulations.gov/#!documentDetail;D=ED-2013-ICCD-0128-0003

Completion: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?	How can the data be collected?			
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)		
	Progression Measures: Disaggregated at least by the first five, but ideally by all access measures in TABLE 1						
COMPLETION: How many—and which—students succeed in college? Consumers need	Gateway Course Completion Rate (disaggregated by remedial status)			×	Add to IPEDS: Add measure for percentage of develop- mental students who successfully pass college- level course in remedial subject area.		
to know their chances of timely completion, as well as meeting	Retention Rate		IPEDS first-year retention rates are available disaggregated by full- and part-time status only.		Amend IPEDS: Align with GRS and disaggregate by first five access measures.		
key benchmarks of success along the way.	Satisfactory Academic Progress Rate			×	Add to IPEDS or add flag to NSLDS to allow rate to be calculated.		
Policymakers need to know how successful institutions are with student popula-	Credits to Credential			×	Add to IPEDS: Add a measure in the Completions Survey disaggregated by degree type.		
tions of public interest and how many credentials institutions contribute to the economy.	Time to Credential		Time to credential could be calculated for federal aid recipients using NSLDS, with limitations (for example, if students did not receive aid in their first term).		Add to IPEDS: Add a measure in the Completions Survey disaggregated by degree type (bachelor's, associate's, and certificate).		
<i>Institutions</i> need to know which		Com	pletion Measures: Disaggregated at least by but ideally by all access measures in TAE				
students are progressing through their courses of study (and how well) to target instruction and support.	Completion Rate		For "other degree/certificate-seeking students" (non-bachelor's-seeking), IPEDS collects completion of a program of less than two years or a program of two but less than four years. These data do not clearly indicate whether the student completed an associate's degree or certificate, nor do they align with the degrees-conferred data in the Comple- tions Survey. The new outcome measures will not distinguish between credential levels (such as bachelor's degree associate's degree, or certificate).		Amend IPEDS: Align new outcome measures with GRS specifications, including disaggregating students based on the credential sought (such as a bachelor's degree, associate's degree or certifi- cate) and measuring progress after 100 percent, 150 percent, and 200 percent of time. Also, disaggregate by income or financial aid category.		

TABLE 3 CONT'D

Completion: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?		How can the data be collected?
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)
		Com	pletion Measures: Disaggregated at least by but ideally by all access measures in TAB		
COMPLETION: How many—and which—students succeed in college? Consumers need to know their chances of timely completion, as well as meeting key benchmarks of success along the way.	Transfer Rate		Only institutions with a transfer mission are required to report transfer-out data, and other institutions can report it voluntarily. The new IPEDS outcome measures will include a transfer-out rate for all institutions, but that transfer-out rate will not align with the GRS graduation rate and will not be disaggregated by level of receiving institution (upward, lateral, or downward transfer).		Amend IPEDS: Align new outcome measures with GRS specifications, including disaggregating students based on credential sought and measuring progress after 100 percent, 150 percent, and 200 percent of time. Also, disaggregate transfer-out by level of receiving institution. And disaggregate by income or financial aid category.
Policymakers need to know how successful institutions are with student popula- tions of public interest and how many credentials institutions contribute to the economy.	Continued Enrollment Rate		IPEDS includes a still enrolled after 150 percent rate for less-than-two-year institutions and a still enrolled after 200 percent of time rate for all institutions. The new IPEDS outcome measures will measure whether students are still enrolled after six and eight years, but will not align with the GRS outcomes as noted.		Amend IPEDS: Align new outcome measures with GRS specifications, including disaggregating students based on creden- tial sought and measuring progress after 100 percent, 150 percent, and 200 percent of time. Also, disaggregate by income or financial aid category.
<i>Institutions</i> need to know which students are progressing through their courses of study (and how well) to target instruction and support.	Degrees and Certificates Awarded	×			<u>Amend IPEDS:</u> Disaggre- gate by income or financial aid category at any time.

With existing data collection procedures, completion data can most readily be disaggregated by enrollment status, attendance pattern, degree-seeking status, race/ethnicity, and income or financial aid category, but with more robust data systems, data also could be disaggregated by other characteristics such as age, major/program, military or veteran status, and level of academic preparation. Under a student unit record system, additional disaggregates also could include variables like dependency status (such as independent or dependent), disability status, language proficiency, and parental education.

COST: How much do students invest in college, especially through debt?

Multi-Year Cost Data: Existing data provide a useful picture of the tuition and fees, cost of attendance, and net price that students will face their freshmen year (see **TABLE 4**). However, they are left guessing about how much they will pay in subsequent years and how much debt they should expect to accumulate throughout their college career. We recommend amending IPEDS to include cost information-tuition and fees, cost of attendance, and net price-not just for freshmen, but also for continuing students and transfer students. After all, college is at least a two- or four-year investment for the vast majority of students, so families need access to more than one year of data. Of equal importance, cost for subsequent years is crucial for policymakers, especially if federal or state policy is to tie strings to measures of college cost. If sticks or carrots are associated with existing cost measures that only account for first-year costs, institutions could be incented to keep costs low for the first year, but raise them substantially in subsequent years, making it difficult for students to plan their finances across the course of their program.

Net-Price Data: The Higher Education Opportunity Act of 2008 required that institutions report net price data to IPEDS. These data, which represent what students pay for college *after* grant and scholarship awards, can put the sticker price in context and provide a more realistic estimate of what college costs. However, the existing net price data suffer from two major limitations:

- 1. The average net price data are available only for students who receive grants or scholarships, downwardly biasing the results by omitting students who are paying full sticker price. Other IPEDS data do allow for calculating net price for all students. However, the most readily available net price data point is the average for only grant recipients, possibly confusing consumers who may not recognize this nuance. We recommend that NCES calculate and report two net price figures using existing data—one for only grant/scholarship recipients and one for students regardless of aid receipt. This change would not require any additional reporting by institutions.
- 2. The net price data by income only include students who receive Title IV financial aid, producing results that have

fairly high coverage for low-income students, but far less coverage for more moderate and high-income students, who are less likely to receive Title IV aid.8 It certainly is more difficult to obtain income information for students who do not receive Title IV aid, but several options exist for gathering these data. Some students fill out the FAFSA, but do not end up receiving Title IV aid, so institutions should be able to incorporate these non-Title IV recipients fairly seamlessly. For students who do not complete the FAFSA, institutions can survey students and families to collect income information. Survey data may be imperfect, but likely are sufficient to fill in data gaps. To capture students for whom institutions simply cannot obtain income information, we recommend that IPEDS add an "income unknown" category to the net price data, ensuring all students-regardless of income data availability—are captured.

Debt Data: Families and policymakers also require far better information on student debt than is currently available. The College Scorecard reports median borrowing using data from NSLDS. However, these cumulative debt figures include completers and non-completers, producing sometimes confounding results. An institution with high dropout rates and high costs can show a similar median debt number to a low-cost institution with high graduation rates simply because students are enrolled in the high-cost institution for a shorter period of time. To prevent the use of confusing information, we recommend requiring institutions to report cumulative debt data to IPEDS, disaggregated by completion status, level of degree/ certificate, income/financial aid category, and, ideally, race/ ethnicity. Contextual information on the percentage of students who borrow at an institution should accompany these cumulative debt data.

The demographic disaggregates and data on likelihood of borrowing are crucial to informing students about how much they likely will borrow and to informing policymakers and institutions about which students are being burdened most heavily with debt. For example, aggregate data show that African-American bachelor's degree recipients are far more likely than white, Hispanic, or Asian graduates to accumulate large debt loads (more than \$30,500) to pay for their education.⁹ Clear data at the institution level can help clarify and spotlight these inequities, taking the first step toward closing them. To ease reporting burden on institutions, NCES eventually may be able to derive these data from NSLDS using institutionally reported completion information, on which NCES recently issued additional

⁸ Mamie Lynch, Jennifer Engle, and José Luis Cruz. "Priced Out: How the Wrong Financial-Aid Policies Hurt Low-Income Students" (Washington:DC: The Education Trust, 2011). Retrieved from: http://www.edtrust.org/dc/publication/priced-out.

⁹ Sandy Baum and Patricia Steele, "Who Borrows Most? Bachelor's Degree Recipients with High Levels of Student Debt." (New York, N.Y.: The College Board, April 2010). Retrieved from: https:// advocacy.collegeboard.org/sites/default/files/Trends-Who-Borrows-Most-Brief.pdf. According to NPSAS data from 2007–08, 27 percent of Black bachelor's degree recipients borrowed \$30,500 or more, compared with 16 percent of White recipients, 14 percent of Hispanic recipients, and 9 percent of Asian recipients.

Cost: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?	How can the data be collected?	
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)
			Cost and Debt Measures		
COST: How much do students invest in college? Consumers need to know how much they will pay and borrow to	Tuition and Fees		Tuition and fee data are reported in the IPEDS Institutional Characteristics (IC) Survey. In- state, in-district and out-of-state tuition and fees are reported for first-time, full-time undergraduates. Average tuition and fees are reported for all undergraduates. Tuition and fee data are not disaggregated for transfer or continuing students.		Amend IPEDS: Collect data for transfer and continuing students.
attend an institution. <i>Policymakers</i> need to know the cost and debt burden that	Cost of Attendance		In-state, in-district, and out-of-state cost of attendance are reported for first-time, full-time degree/certificate-seeking undergraduates by living status (such as on campus, off-campus with family, and off-campus not with family) in the IPEDS Institutional Characteristics Survey.		<u>Amend IPEDS:</u> Collect data for transfer and continuing students.
burden that students must undertake to access and succeed in college, which reflects on how institutions invest public dollars.	Net Price by Income		Average net price data are available for first-time, full-time undergraduates who receive grant or scholarship aid. Net price data are disaggregated by income bands for first-time, full-time undergraduates who receive Title IV aid. Both of these net-price data points omit students paying out-of-state tuition (at publics), transfer and continuing students, and students who do not receive financial aid (either Title IV or grants/scholarships).		Amend IPEDS: Collect data for transfer and continuing students and out-of-state students at public institutions. Collect net price by income for non-Title IV recipients, and calculate overall net price including non-grant/scholar- ship recipients.
impact of cost and debt on access and completion for students.	Cumulative Debt (disaggregated by loan type, income or financial aid category, and completion status, and ideally race/ ethnicity; also accompanied by the percentage who borrow).		The College Scorecard reports total federal loan debt (including Parent PLUS loans) among students leaving an institution, using NSLDS. It does not separate completers from non-completers, disaggregate by type of federal loan debt, include private loan debt, or report the percentage of students who borrow.		Link to other source: After the completion flag has been tested and verified, use NSLDS to disaggregate debt by income or financial aid category, completion status, and loan type. Add to IPEDS: Until NSLDS completion data are verified, report to IPEDS. Continue collecting the percentage of students who borrow in IPEDS. <u>Explore:</u> Options for institutions (or lenders) to collect/report data on cumulative private loan debt and percentage who borrow private loans.

guidance.¹⁰ Once the completion information has been retested and validated, it can be used to calculate cumulative debt data for completers, non-completers, and students in different financial aid categories. However, NSLDS does not include information on race/ethnicity, nor on private loans, so to paint a complete picture of student borrowing, institutions would need to continue reporting debt data to IPEDS or add those elements to NSLDS.

OUTCOMES: How do students fare after college?

Perhaps the area in which postsecondary information is most severely lacking is post-college outcomes (see TABLE 5). While we certainly need better data on college access, completion, and affordability, our current data systems provide at least some directional data on these topics. However, in the case of how students fare after college, students, policymakers, and institutions have broad access to only one institution-level data point: Cohort Default Rates (CDRs). While CDRs do provide useful information about how many students are facing severe difficulty in repaying their loans, they do not provide any indication of the success of non-defaulted students, including those who are delinquent without defaulting-about a quarter of all borrowers.¹¹ Further, no program-level outcome data are available since the gainful employment regulations were overturned in court. Program-level data are particularly important in measuring outcomes because research indicates that employment and earnings vary widely by field of study.¹² Since this technical report focuses primarily on the data that can be collected using existing data structures, we recognize that a full-scale shift to program-level data for all programs or schools likely would be too burdensome to implement under today's institution-level reporting scheme. Instead, program-level data would require a new student-level system, linkages with existing administrative data sets, or a combination of the two.

A variety of measures on student outcomes after college can provide a better understanding of how institutions add value. For instance, a reasonable expectation—for both students and policymakers—may be that college graduates earn at least minimum wage, 200 percent of the poverty level, and/or more than the amount that a high school graduate in the same field earns. This expectation may hold even more weight for students who borrowed to finance their education. In our current system, however, students cannot compare the expected earnings returns of different institutions or programs to identify which colleges will give them the best chance at a ticket to the middle class, especially in relation to expected debt levels. Institution or program-level data on earnings could be calculated using existing data sources, such as the Social Security Administration, Unemployment Insurance records used in conjunction with the Federal Employment Data Exchange System (FEDES), or the National Directory of New Hires. (For more information on these data systems and the advantages and disadvantages of each of them, see **BOX 2** and the Center for Law and Social Policy's forthcoming paper on employment and earnings data.)

In addition to basic data on post-college employment and earnings, key constituencies need to know whether students are able to repay their loans without undue burden. Measures such as repayment rates or repayment progress ratios can provide a sense of how students succeed at repaying their debts. Repayment rates measure the percentage of students, dollars, or institutional loan portfolio that is "in repayment," defined as having a decreasing balance over time. In a similar but more nuanced way, a repayment progress ratio measures the proportion of students on track to repay their loan in a set amount of time (for example, 10 years) to indicate whether students are earning sufficient income to make substantial progress in repaying their debt-regardless of their payment plan.13 Loan repayment measures, in conjunction with labor market outcome data can provide students, families, policymakers, and institutions with crucial information to inform decision-making and policy development.

Repayment rates are not calculated regularly and reported by the U.S. Department of Education; however the data to do so do exist in NSLDS, and the Education Department has calculated and released repayment rates several times as part of the gainful employment negotiated rulemakings. These data releases have calculated various definitions of repayment rates to model the impact of proposed regulations. In future iterations, we recommend that the Education Department consider disaggregating repayment rates by completion status as well as income or financial aid category while in college and, ideally, race/ethnicity to provide a more nuanced picture of how well an institution's graduates are doing in loan repayment. Race/ethnicity data are not available in NSLDS, but possibly could be added. Also, repayment rate definitions have not traditionally accounted for Parent PLUS or Perkins loan borrowing (or private borrowing, for that matter). As a result, repayment rate measures do not demonstrate the full amount of debt students or families incur and their ability to repay it. Perkins loans could and should be included in future repayment measures, but data on repayment of private loans are not readily available.¹⁴ There are pros and cons of incorporating Parent PLUS loans into repayment rates since the student does not take out these loans.

¹⁰ In 2012, NCES issued "important enrollment reporting reminders," noting that in a significant number of instances, the enrollment status reported to NSLDS by schools was inaccurate, especially with regard to graduation status." The guidance reminds schools of codes to use for students' enrollment statuses, such as "graduated" and "withdrawn." ("NSLDS Enrollment Reporting Process, Attachment to GEN-12-06," March 30, 2012, http://www.ifap.ed.gov/dpcletters/GEN1206.html).

¹¹ Alisa Cunningham and Gregory Kienzl."Delinquency: The Untold Story of Student Loan Borrowing." (Washington, DC: Institute for Higher Education Policy, 2011), 5. Retrieved from: http://www.ihep.org/assets/files/publications/a-f/delinquency-the_untold_story_final_ march_2011.pdf.

¹² Anthony Carnevale, Ban Cheah, and Jeff Strohl. "Hard Times: Not All College Degrees Are Created Equal" (Washington, DC: Georgetown Center on Education and the Workforce, 2012). Retrieved from: https://georgetown.app.box.com/s/og6p8y9x1yeacejk1ci0.

¹³The concept of a repayment progress ratio arose from discussions between IHEP and Mark Kantrowitz, senior vice president and publisher of Edvisors Network.

¹⁴ Private loans should be added to NSLDS. For more, see Student Debt and the Class of 2012 (2013). The Institute for College Access and Success. Retrieved from: http://projectonstudentdebt.org/files/pub/classof2012.pdf.

Outcomes: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?	How can the data be collected?	
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)
	Outcomes: Disagg		d at least by completion status and inco while in college) and ideally race/ethnic		financial aid category
OUTCOMES: How do students fare after college? Consumers need to understand the economic return on their credential to inform borrowing and enrollment decisions. Policymakers need to know which institu- tions prepare students to repay their loans and succeed in the workforce to protect consumers and the public investment.	Employment Rate (also Employment Retention Rate, Related Employ- ment Rate)		Employment data could be collected from Unemployment Insurance (UI) wage records in conjunction with the Federal Employment Data Exchange System (FEDES), National Directory of New Hires (NDNH), and the Social Security Administration (SSA). Data in one of these systems would need to be linked to records submitted by institutions of higher education or NSLDS for Title IV recipients only.		Link to other source: UI (with FEDES), NDNH, SSA
	Initial Median Earnings (also Subsequent Median Earnings, Earnings Change)		SSA calculated the mean/median earnings of program graduates as part of gainful employment. Earnings data also could be calculated from UI wage records and FEDES, NDNH, or SSA. Data in one of these systems would need to be linked to records submitted by institutions of higher education or NSLDS for Title IV recipients only.		Link to other source: UI (with FEDES), NDNH, SSA
Institutions need to calibrate courses and degree programs as well as support programs to student outcomes.	Cohort Default Rate		The U.S. Department of Education (ED) calculates cohort default rates using the National Student Loan Data System (NSLDS), but does not disaggregate the results by completion status, undergraduate or graduate borrowing, income or financial aid category, or race/ethnicity, nor does it calculate institution-level default rates beyond the three-year window.		Link to other source: NSLDS, but need to verify quality of completion flag to allow disaggregation. Also disaggregate by undergraduate/ graduate level, and income or financial aid category. Calculate over a longer time frame.

Outcomes: Data Availability and Recommendations for Improvement

	Which measures		Are the data available?		How can the data be collected?			
What questions need answers?	will answer these questions?	Yes	Partially available or needs improvement	No	(Already available, Amend IPEDS, Add to IPEDS, or Link to other data source)			
	Outcomes: Disaggregated at least by completion status and income or financial aid category (while in college) and ideally race/ethnicity							
OUTCOMES: How do students fare after college? Consumers need to understand the economic return on their credential to inform borrowing and enrollment decisions. Policymakers need to know which institu- tions prepare students to repay their loans and succeed in the workforce to protect consumers and the public investment. Institutions need to calibrate courses and degree programs as well as support programs to student outcomes.	Repayment Rate (or Progress Ratio)		ED has calculated repayment rates using NSLDS as part of gainful employment, but does not calculate and release them on a regular basis. ED has not disaggregated these rates by completion status, income or financial aid category, or race/ethnicity. Repayment progress ratio has not been calculated in the past, but could be calculated using NSLDS.		Link to other source: NSLDS, but need to verify quality of completion flag to allow for disaggregation. Also, disaggregate by income or financial aid category and include Perkins loans in the calculation.			
	Debt-to-Earnings Ratio		ED has calculated debt-to-income ratios through collaboration with SSA under gainful employment. These data were not disaggregated by completion status, income or financial aid cate- gory, or race/ethnicity, and they are not scheduled to be regularly reported.		Link to other source: Link NSLDS with UI (with FEDES), NDNH, or SSA for Title IV recipients.			
	Graduate School Enrollment Rate		Four-year institutions must disclose to students "the types of graduate and professional education in which graduatesenrolled," but not enrollment rates or scores on the graduate school entrance exam. NSLDS could be used to calculate graduate school enrollment, but only for Title IV recipients.		Add to IPEDS: Add a measure of graduate school enrollment, disaggre- gated by undergrad- uate income or financial aid category.			
	Learning Outcomes		No comprehensive data source reports data on student learning. However, a variety of efforts, including the Degree Qualifications Profile (DQP), Voluntary System of Account- ability (VSA), and Collegiate Learning Assessment (CLA), are underway to measure student learning.		Conduct further research: More research is needed to measure learning accurately and sufficiently. Research should begin with existing efforts, such as DQP, VSA, and CLA.			

BOX 2. Workforce Results Data

Data on employment and earnings for college completers (and non-completers) are in great demand, yet severely lacking. However, several workforce data systems exist and could provide valuable information if linked to education datasets. The Center for Law and Social Policy (CLASP), a key partner organization participating in the Reimagining Aid Design and Delivery (RADD) Consortium on Simplification and Transparency, has conducted a thorough review of existing data sets and how they can fill workforce data needs. The results of their research as part of the consortium are summarized here. **TABLE 6** identifies six metrics that CLASP recommends for measuring program-level employment and earnings outcomes. Employment outcomes can vary notably across different programs at the same institution, making it important to collect these data at the program level.

TABLE 6

Key Workforce Questions and Proposed Metrics

Workforce results: Key questions for students	Proposed metrics:
Employment: What are my prospects for employment following completion of this certificate or degree program? Employment in field: How likely is it that I will find employment in an occupation that is related to my field of study?	 Employment rate Employment retention rate Related employment rate
Earnings: What level of earnings can I expect following completion of this certificate or degree program? Earnings growth: What are my prospects for increased earnings following completion of this certificate or degree program?	 Initial median earnings Subsequent median earnings Percentage change in earnings

CLASP identified a variety of options for collecting and reporting these workforce data, including five major sources: Unemployment Insurance (UI) records, which could be used in conjunction with the Federal Employment Data Exchange System (FEDES); the National Directory of New Hires; the Social Security Administration (SSA); and the Longitudinal Employer-Household Dynamics (LEHD) program. Each source has different strengths, weaknesses, and capabilities, as outlined in **TABLES 7** and **8**. For example, the SSA counts federal employees and the self-employed—two groups omitted from UI records, but SSA data are only available annually, while UI data are available quarterly.

Though none of these data sources are fully exhaustive and each presents its own complexities and limitations, the most direct

approach to acquiring workforce data at the institution or program level is to link SSA earnings information with student-level data submitted to the U.S. Department of Education by all postsecondary institutions. The SSA already has participated in data matches with the National Student Loan Data System (NSLDS) which only includes federal financial aid recipients—to generate earnings information as part of gainful employment, indicating that such matches are technically feasible. A move toward a comprehensive student unit record system could provide more on the potential for a student unit record system, see New America Foundation's forthcoming paper.

BOX 2. Workforce Results Data CONT'D

TABLE 7

Workforce Results Data Sources and Metrics Potentially Supported

	Metrics Potentially Supported							
Data Source	Employment Rate	Employment Retention Rate	Related Employment Rate	Initial Median Earnings	Subsequent Median Earnings	Earnings Change		
UI wage data	Yes	Yes, for quarters	Yes, using industry codes ¹⁵	Yes, for quarters	Yes, for quarters	Yes, across quarters		
New Hire data	Yes	Yes, for quarters	Does not include industry codes	Yes, for quarters	Yes, for quarters	Yes, across quarters		
Social Security Administration (SSA) earnings data	Yes	Yes, for annual period	Does not include industry codes	Yes, for annual periods	Yes, for annual periods	Yes, across years		
Federal Employment Data Exchange System (FEDES)	Yes	Yes	Does not include industry codes	Yes, for annual periods	Yes, for annual periods	Yes, across years		
Longitudinal Employ- er-Household Dynamics (LEHD)	No	No	Does not include industry codes	Yes, for annual periods	LEHD can provid summary earning areas by industry breakdowns by g ethnicity, and edu	gs data for local , including jender, age,		

¹⁵ Industry codes do not necessarily identify an individual's occupation. For example, an employee working in the healthcare industry may be an accountant, a doctor, a receptionist, or any number of other occupations.

Data Sources for Employment and Earnings Results: Advantages and Disadvantages

Data Source	Advantages	Disadvantages
UI Wage Data	 Includes all workers covered by the Federal Unemployment Tax Act (FUTA); approximately 89 percent of the civilian labor force. Does not include the self-employed, military employees, federal civilians, postal employees, railroad employees, and a few others. Data are quarterly, which provides flexibility in creating employment and earnings metrics. Generally includes industry, which allows a metric for employment in an industry related to the field of study. 	 Does not include the self-employed, military employees, federal civilians, postal employees, railroad employees, and a few others. In most states does not include start date, hours worked, or occupation. Data are "owned" by states, so obtaining data from multiple states requires an additional data exchange process (such as Wage Record Inter- change System and Wage Record Interchange System 2). States vary substantially in access policies, and some have been very restrictive.¹⁶
National Directory of New Hire (NDNH) data ²³	 Includes all workers covered by UI, plus military and federal civilian employees. Data are quarterly, which provides flexibility in creating employment and earnings metrics. Includes UI claimant information (unemployed). 	 Does not include self-employed. Does not include hours worked, industry or occupation. Not permitted for use in calculating outcomes for postsecondary institutions.
Social Security Administration (SSA) earnings data	 Includes essentially all workers: Those covered by UI, and those exempt from UI, including federal civilian, military, and self-employed. Data are obtained from IRS and maintained centrally by SSA. 	 Data are annual only (for Master Earnings File). Currently matches are restricted to data for students submitted through the National Student Loan Data System (NSLDS). This is not an inherent limitation of the SSA data, but is a limitation of the availability of student data with SSNs. Data do not include industry or occupational codes.
Federal Employment Data Exchange System (FEDES)	• Includes military and federal civilian employees. ¹⁸	 Does not include self-employed. Pilot initiative providing federal employment data to 37 states and Washington, D.C. to help states meet reporting requirements¹⁹ Use of FEDES is restricted.²⁰
Longitudinal Employer- Household Dynamics (LEHD)	 Includes all workers covered by UI, plus military and federal civilian employees. Quarterly data. Provides useful information on the local labor market context, including employment and earnings by industry and by education, gender, ethnicity, age, firm size, and firm age. 	 Due to access restrictions, this is not a source of data on results for specific sets of students. Data do not include self-employed.

Source: Research and charts derived from Tim Harmon, "CLASP Workforce Results Data Briefing Memo," RADD Simplification and Transparency Consortium. (Washington, DC, Center for Law and Social Policy, 2013).

¹⁶ "Data for Action 2013," (Washington, DC: Data Quality Campaign), 13. Retrieved from: http://www. dataqualitycampaign.org/files/DataForAction2013.pdf. The Data Quality Campaign reports that 24 states have at least some kind of secure postsecondary-to-workforce data linkage. However, the breadth of postsecondary coverage and the match rates likely vary across states.

¹⁷ "The primary purpose of the NDNH is to assist state child support agencies in locating parents and enforcing child support orders; however, Congress has authorized specific state and federal agencies to receive information from the NDNH for authorized purposes." See "A Guide to the National Directory of New Hires." (Washington, D.C., Administration for Children and Families Office of Child Support Enforcement, July 2012).

¹⁸ United States Postal Service (USPS) employees were originally included but are not currently; negotiations are underway to resume matching for these workers. ¹⁹ The states participating in the most recent match were: Alabama, Alaska, Arkansas, Arizona, California, Colorado, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

²⁰ Currently use of FEDES is restricted to "Satisfying, or contributing to, Federal performance measurement and consumer report activities required by the United States Office of Management and Budget (OMB) or federal law or regulation, or satisfying, or contributing to, State performance measurement and reporting requirements authorized under state law or regulation."

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