Workforce success relies on transparent postsecondary data

A federal student-level data network would enable students to make informed education and career decisions.

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Employers are demanding higher skilled and better educated workers.[1] Yet employer sentiment and the high default rate on student loans suggests a mismatch between the programs students are completing and the work they are able to find.

Although the issue is complex, prospective students and employers would benefit from better information on the outcomes of specific postsecondary programs. In particular, they should know the employment and earnings prospects of program completers.

There is already a considerable amount of data available to state and federal agencies, but the systems are not in place to bring the data together in ways that are useful for the public, policymakers, and researchers. Creating a federal student–level data network (SLDN) would enable the government to report on the employment and wage outcomes of postsecondary students nationwide and allow for the creation of online data tools that include indicators on employment and earnings, so students could compare programs within and across institutions to make more informed decisions about their education and careers.

Current data systems don't tell the whole story

To report on trends in postsecondary education, the U.S. Department of Education (ED) mostly relies on surveys of postsecondary institutions for its Integrated Postsecondary Education Data System (IPEDS). The information does not include employment and earnings outcomes.

ED also oversees the production of the College Scorecard, which incorporates annual earnings data gathered from the U.S. Department of the Treasury,[3] but these data are limited to federally aided students, and ED does not report the results for individual programs of study or majors, only for institutions as a whole. The downloadable data and online tools on the CollegeScorecard.ED.gov website provide visitors with a look at the median earnings of students who received federal aid who attended each institution. Going a step farther, a recent proposal for reauthorizing the Higher Education Act, the "Promoting Real Opportunity, Success, and Prosperity through Education Reform" (PROSPER) Act of 2017, would produce online information on outcomes for individual programs of study, but still, the data would draw only from students who received federal aid.

AMERICANS OWE OVER

$1.5 TRILLION

IN STUDENT LOANS.[2]

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**WORKFORCE DATA QUALITY CAMPAIGN**

Relying on data from federally aided students can provide earnings outcomes on about 70 percent of postsecondary students nationwide.[4] Although this percentage may seem high, in some places the figure is much lower. Community college students receive federal financial aid at a far lower rate than their counterparts at four-year institutions. For example, in California's Community College System, only about 20-25 percent of students receive such aid.[5] This means someone considering schools in California will see only about a fourth of California's students reflected in the data on earnings outcomes.

Missing information on the employment and earnings outcomes of individual programs of study is a critical gap in the College Scorecard. For economic returns, "what students study is often more important than where they study it," according to Mark Schneider in "Majors Matter: Differences in Wages Over Time in Texas."[6]

Another drawback of the College Scorecard is the reporting of students' subsequent earnings without differentiating between those who earned a credential and those who did not. In addition, if students continue their education as

College Scorecard

The U.S. Department of Education's College Scorecard has been a step in the right direction to provide researchers and prospective students with downloadable data and an easy-to-use dashboard showing postsecondary earnings information across the country. However, these earnings apply to the institution level, and only include data from students who receive federal aid.
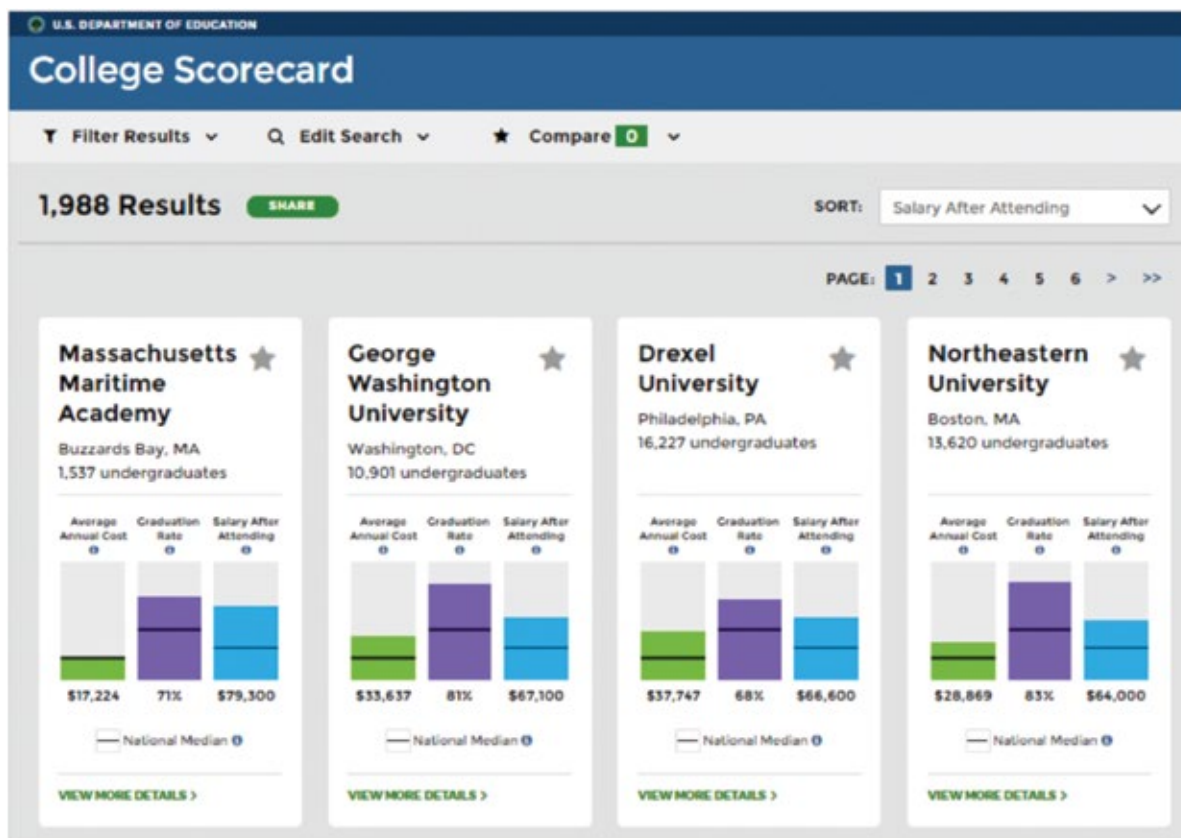
Homeland Security and Law Enforcement and Firefighting, Snapshots July 3, 2018, https://collegescorecard.ed.gov/

The U.S. Department of Education's College Scorecard provides an easy to use online tool that shows important information such as average annual cost of attendance and median earnings after school. Although the College Scorecard offers visitors the option of selecting different programs at institutions across the country, such as programs in Homeland Security and Law Enforcement and Firefighting (shown above), or in Business and Marketing, the scorecard does not yet disaggregate the figures by program. Instead, the indicators reflect data for the institution as a whole. The median earnings and graduation rates appear the same no matter what program is selected at the same institution. Eventually, the College Scorecard might show program-level information, but for now, the listing of a school in a user's search results for a particular program simply means that the school offers that program.

> Producing wage data on all students provides better information not only for prospective students, but more accurately represents outcomes.

a transfer student from a community college, a graduate student, or a student in a professional program, the subsequent education does not show up as having contributed to the resultant earnings. The reported earnings include students who continued on and those who did not.

Why not rely on state systems?

Many states have longitudinal data systems that connect postsecondary data with state quarterly Unemployment Insurance (UI) wage data for research and accountability. This is a valuable method because these administrative data capture about 80 percent of the workforce.[7] However, state UI wage records do not include military personnel, those who go out of state to work, work for the federal government, or are self-employed. Moreover, the majority of states lack any quality consumer reports that show median wages of postsecondary degrees by program.[8]

A number of states, such as North Carolina and Minnesota, have managed to produce graduate outcome tools that include data on wages by program level. Although these online tools are very useful for helping prospective students plan for their studies and careers, often these types of state systems miss the employment outcomes of students who find work in other states because they rely only on state UI wage records. (Some states do form agreements with other states to fill in some gaps on out of state students, but doing so requires multiple steps.)[9] While the percentage of missing workers is relatively small on the average, it can be large for states with many other states nearby and varies by program, institutions, and level of education. In addition, the absence of these data might make the wage outcomes of some programs look lower because graduates who leave their states might be doing so for higher paying jobs. Therefore, producing wage data on all students provides better information not only for prospective students, but more accurately represents outcomes.[10] In addition, without a national system on earnings outcomes, the country also lacks a way to make sound comparisons between states.

Producing better information

If the federal government had an SLDN, then it could account for the outcomes of almost all postsecondary students. Doing so could address issues such as program completion for transfer and non-transfer students, and outcomes for students who do not receive federal financial aid. Moreover, an SLDN could include key demographic information that could, for example, indicate whether historically underserved populations are making progress from postsecondary education to work. This information would serve researchers, policymakers, and prospective students, educators, and even businesses by providing comprehensive information for better decision making across the country.

The prospect of more comprehensive data should motivate the proponents of evidence-based policymaking and those who want to ensure that federal investments are producing successful outcomes. Researchers would benefit from having comparable information between those federally aided groups of students and those who do not receive similar aid. Whether researchers want to understand how transfer students are comparing with students who attended and graduated from the same institution and their earnings later in life, or perform an equity evaluation of programs in multiple states serving people from different backgrounds, a student-level data network would help answer numerous questions important for research and policymaking.[11]

How would a student-level data network work?

An SLDN would allow ED's statistical agency, the National Center for Education Statistics (NCES), to securely match several essential data points on postsecondary students to produce aggregated information on postsecondary and workforce outcomes, as well as information disaggregated for key demographic groups.

IPEDS collects a multitude of data from institutions via surveys. The purpose of an SLDN, like that proposed in the College Transparency Act of 2017,[12] should include as one of its priorities the replacement of the student survey components of IPEDS. Postsecondary institutions would instead submit certain student-level information to NCES for an SLDN, data that institutions already collect, such as whether the student is attending a postsecondary institution for the first time or is transferring from another institution, credential level sought, program of study, full-or part-time status, and credit accumulation and completion. Student data should also include race/ethnicity, sex, age, military or veteran status, disability status, and whether the student has received grants or loans from the institution. Individual student data, however, would not be released to the public.

After receiving the student level data, NCES would then match the student's information with that held at other federal agencies. For example, NCES could request data matches with the Department of the Treasury on earnings of the self-employed, and connect with data held by the U.S. Census Bureau's Longitudinal Employer Household Dynamics program to obtain information on wages from state unemployment insurance agency quarterly data. Although those are examples of potential options for collecting this information, such an approach would offer much wider coverage of earnings than current systems when used in conjunction with an SLDN.

DATA POSTSECONDARY INSTITUTIONS WOULD SUBMIT TO NCES FOR AN SLDN		
· First-time or transfer student	· Credit accumulation and completion	· Institutional grants and loans
· Credential level sought	· Full-time or part-time status	· Military or veteran status
· Program of study	· Race/ethnicity, sex, age intervals	· Disability status

Adapted from "College Transparency Act FAQs," WDQC Fact Sheet, February 1, 2018, https://www.nationalskillscoalition.org/resources/publications/file/CTA-FAQs-fin-1.pdf

FEDERAL AGENCY DATA FOR A STUDENT LEVEL DATA NETWORK

If institutions submit basic student-level data to NCES, then it could securely match that data with administrative data from other agencies to produce comprehensive reports over time.

AGENCY	INFORMATION PRODUCED FROM CONNECTING DATA
Office of Federal Student Aid, Department of Education National Student Loan Data System; Central Processing System; Common Origination and Disbursement System; Postsecondary Education Participants System.	• Reveal equity gaps in loan requests and receipt, and progress toward repayment. • Show outcomes for students who receive Pell grants and federal student loans, including progress and successful pay-off and completion. • Answer questions about student debt and loan repayment.
Department of the Treasury IRS earnings, W-2 and self-employment tax data; 1098T tuition statement.	Annual employment and wage outcomes nationwide for all taxpayers, including federal employees, military, and self-employed; financial investments made by students to provide more clarity about net price of postsecondary education.
Department of Veterans Affairs Data from application/receipt of GI Bill and other education benefits for veterans and/or their family members to whom benefits are assigned.	Progress and outcomes of GI Bill recipient groups at particular institutions.
Social Security Administration W-2 and self-employment tax data.	Annual employment and wage outcomes nationwide for all taxpayers, including federal employees, military, and self-employed.
Department of Defense Recruiter forms on those entering military and Tuition Assistance Program data for active duty military members.	Progress and outcomes of members of the military receiving tuition assistance, and evaluate educational opportunities for service members.
Census Bureau, Department of Commerce Data from Longitudinal Employer Household Dynamics (LEHD) program.	Quarterly employment and wage information from almost all states. Shows employment and wages by industry.

Adapted from "College Transparency Act: Connecting Data to Understand Student Success," WDQC Fact Sheet, March 1, 2018, https://www.nationalskillscoalition.org/resources/publications/file/CTA_AgencyLinkagesFactsheet-final.pdf

What would the public see?

Prospective students and their families are unsure what choices they should make in an economy that seems strong, but is also changing faster than ever. The provision of information from an SLDN should allow consumers in all states to see all institutions eligible to serve students receiving federal financial aid, and the range of degrees and credentials they offer, along with information broken down by program and key demographic groups, so the public can make meaningful comparisons.

Indicators on a consumer dashboard should include employment rates, median earnings, and completion/graduation rates. Of great importance for prospective students figuring out how to adapt and thrive in today's economy are indicators that show measures of student costs, loan repayment and default rates, and further education rates. Further education rates in particular are important for showing the value of programs whose purpose is to prepare students for the next level of education, such as academic transfer programs at community colleges.

In addition to a dashboard, aggregate data would be available for download, similar to the College Scorecard, so state agencies and researchers could use the data for analysis.

INFORMATION PROVIDED IN A DASHBOARD FOR THE PUBLIC

• Admission selectivity and enrollment • Federal grant and loan recipient status • Retention and persistence rates • Transfer and completion/graduation rates	• Measures of student costs • Employment rates and median earnings • Loan repayment and default rates • Further education rates

Excerpt from "College Transparency Act FAQs," WDQC Fact Sheet, February 1, 2018, https://www.nationalskillscoalition.org/resources/publications/file/CTA-FAQs-fin-1.pdf

For the SLDN to remain true to its purpose, it should be used to help students and other education and workforce stakeholders, and not directly harm them.

Managing privacy and security

An SLDN, like that proposed in the College Transparency Act of 2017,[13] would collect only the minimum amount of information necessary to fulfill the purposes of the network. An SLDN would conduct matches of these data and produce aggregated information that would not reveal the identity of individuals. Data on small groups of students would also not be revealed as it might lead to re-identifying students or revealing personally identifiable information.

NCES, which would oversee the SLDN, is one of the thirteen U.S. federal statistical agencies, all of which must follow strict protocols to maintain privacy and security. NCES has an excellent record on privacy and security — following National Institute of Standards and Technology (NIST) guidelines, and the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), which ensure that private, individual level data are not divulged, and that the information provided to the public cannot reveal or indicate the individual-level data that were used to produce the information.

Other applicable rules include: the Family Educational Rights and Privacy Act (FERPA), Fair Information Practice Principles (FIPPs), the Gramm-Leach-Bliley Act (GLBA), and the Federal Information Security Management Act of 2002

(FISMA). Details of the final SLDN legislation will need to align with all of these privacy and security laws.

Moreover, a federal SLDN should include practical rules that would limit the risk of security breaches and loss of data. For example, the College Transparency Act (CTA) stipulates that the creation of the network "does not result in the creation of a single federal database at the Department of Education that maintains the information reported across other federal agencies."[14] The legislation also stipulates specific penalties for unlawful willful disclosure of personally identifiable information.[15]

Managing other concerns

For the SLDN to remain true to its purpose, it should be used to help students and other education and workforce stakeholders, and not directly harm them. Whether an SLDN becomes a reality under CTA or under other legislation, ensuring that personally identifiable information for these statistical purposes are not used as part of law enforcement or other personally targeted actions, will be critical for building trust around the network. The CTA, for example, specifically prohibits using information from the network for the purposes of law enforcement or the denial of government benefits.[16]

To be sure, the network would produce powerful information on postsecondary and workforce trends. However, the SLDN should not be used to create a government ranking of schools. Postsecondary institutions represented in the network would vary in resources and purpose, and a ranking system might create unintended consequences that would harm both institutions and students. The current version of the CTA also includes this stipulation.

Conclusion: taking action to empower decision makers

Online tools, like the College Scorecard, lack information on programs of study and non-federally aided students. State systems sometimes provide similar scorecards with more detail on program earnings, but are usually restricted to students who find jobs within the same state. The country needs a comprehensive network to show the anticipated earnings of students who complete postsecondary programs nationwide.

As part of reauthorizing the Higher Education Act, Congress should pass legislation that would create an SLDN.

The SLDN should securely bring together data while maintaining strict privacy protocols – an endeavor that should be led by NCES. Congress and the President should ensure that NCES has the authority to match these data in its secure, privacy-protected environment, and produce a public, online dashboard that would display key indicators such as employment rates and median earnings by program. The portal would also have downloadable aggregate data for analysis.

To make a data network like this a reality, Congress will need to overturn the ban on a federal student-level data system that was adopted as part of the Higher Education Opportunity Act of 2008. This ban faces growing opposition from student and policy advocates. Over 130 national organizations and associations, including organizations representing postsecondary institutions, have called for overturning the ban and creating an SLDN, like that envisioned in the CTA.[17]

Education is the most important investment both for a person's future, and the nation's economy. Americans need the information to make the decisions that they see as right for themselves, and an SLDN would go a long way in helping them to make those decisions.

Endnotes

1 For discussions on employer demand for more skilled and educated workers, see for example: Joseph B. Fuller and Manjari Raman, "Dismissed by Degrees: How Degree Inflation is Undermining U.S. Competitiveness and Hurting America's Middle Class," Harvard Business School, Accenture, and Grads of Life, October 2017, https://www.hbs.edu/managing-the-future-of-work/Documents/dismissed-by-degrees.pdf; and Board of Governors of the Federal Reserve System, "A Perspective from Main Street: Long-Term Unemployment," December 2012, especially pp. 3-5, https://www.federalreserve.gov/consumerscommunities/files/Workforce_errata_final2.pdf.

2 Federal Reserve Bank of St. Louis, Board of Governors of the U.S. Federal Reserve System, information updated May 7, 2018, https://fred.stlouisfed.org/series/SLOAS.

3 Earnings data from the Treasury is produced annually, whereas state UI wage records produce information on a quarterly or more frequent basis – and more frequent wage reporting can be desirable for shorter term programs. However, the Treasury data includes self-employed earnings, whereas state UI records do not. U.S. Department of Education, "Data Documentation," College Scorecard, https://collegescorecard.ed.gov/assets/FullDataDocumentation.pdf.

4 Executive Office of the President of the United States, "Using Federal Data to Measure and Improve the Performance of U.S. Institutions of Higher Education," September 2015, updated January 2017, pp. 25-26, https://collegescorecard.ed.gov/assets/UsingFederalDataToMeasureAndImprovePerformance.pdf

5 Paco Martorell and Elizabeth Friedmann, "Money Left on the Table: An Analysis of Pell Grant Receipt Among Financially Eligible Community College Students in California," *Wheelhouse Research Brief*, Volume 3, No. 3, April 2018, https://education.ucdavis.edu/sites/main/files/ucdavis_wheelhouse_research_brief_vol3no3_online_1.pdf.

6 Mark Schneider, "Majors Matter: Differences in Wages Over Time in Texas," College Measures, 2016.

7 Rachel Zinn, Workforce Data Quality Campaign, "Classroom to Career: Leveraging Employment Data to Measure Labor Market Outcomes," Postsecondary Data Collaborative paper series on *Envisioning the National Postsecondary Data Infrastructure in the 21st Century*, Institute for Higher Education Policy, May 2016, p. 6, https://www.nationalskillscoalition.org/resources/publications/file/LeveragingEmploymentData.pdf.

8 "Mastering the Blueprint: State Progress on Workforce Data," Workforce Data Quality Campaign, November 2016, p. 6, https://www.nationalskillscoalition.org/resources/publications/file/NSCWDBlueprintFINAL.pdf.

9 For an example of a successful data sharing initiative that shows postsecondary earnings across a number of states, visit the website of the Western Interstate Commission for Higher Education's Multistate Longitudinal Data Exchange project, https://www.wiche.edu/longitudinalDataExchange.

10 For more background on the value of cross-state wage data, see Michelle Massie, "Crossing Boundaries: Regional Data Sharing to Study Worker Mobility," Workforce Data Quality Campaign, December 2014, https://www.nationalskillscoalition.org/resources/publications/file/WDQCcrossingboundaries-webversion-final.pdf.

11 For an extensive analysis of how an SLDN would improve postsecondary information, see Amanda Janice Roberson, Jamey Rorison, and Mamie Voight, "A Blueprint for Better Information: Recommendations for a Federal Postsecondary Student-Level Data Network," October 2017, http://www.ihep.org/sites/default/files/uploads/docs/pubs/a_blueprint_for_better_information_ihep.pdf.

12 College Transparency Act of 2017, in U.S. Senate: https://www.congress.gov/bill/115th-congress/senate-bill/1121; and U.S. House of Representatives: https://www.congress.gov/bill/115th-congress/house-bill/2434.

13 Ibid.

14 Ibid.

15 Ibid.

16 Ibid.

17 See the statement and list of signatory organizations on the website of the Postsecondary Data Collaborative, "Postsecondary Data Collaborative and Workforce Data Quality Campaign Applaud Bipartisan, Bicameral College Transparency Act," last updated October 31, 2017, http://www.ihep.org/press/opinions-and-statements/postsecondary-data-collaborative-and-workforce-data-quality-campaign

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