Pell Access and Completion Series
Part IV: Working with Pell Grant Completion Data

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The final brief in a four-part series on Pell Access and Completion by TICAS senior fellow Dr. Nick Hillman.

INTRODUCTION

The first three [briefs](#) in this series examined Pell Grant access and completion rates at community colleges, public and non-profit universities, and for-profit institutions. Each brief used completion data from the U.S. Department of Education's College Scorecard to establish baseline trends that have received scant attention in academic and policy research literature. Improving outcomes for the nation's lowest-income students first requires better monitoring, documenting, and understanding of these trends. Additionally, improved data understanding can help identify colleges that have some of the highest (or fastest-growing) completion rates.

This series has highlighted information that is intended to help the academic and policy community identify what works and under what conditions when it comes to improving completion rates for students receiving Pell Grants, which can in turn help federal and state policymakers, along with college leaders, design effective programs and policies that close socioeconomic inequities in higher education.

To be useful as intended, it is critical to document the strengths, limitations, and overall quality of the underlying data sources and processes used to generate the briefs. This series of analyses used [College Scorecard](#) data, but it could have also relied on Pell Grant completion data from the U.S. Department of Education's Integrated Postsecondary Education Data System ([IPEDS](#)) Outcome Measures (OM) component. This brief will highlight the key differences between these distinct data sources to help users understand the trade-offs of each and to potentially discover strategies for improving both.

This brief starts with a general overview of the reporting process for Pell Grant completion rates for the College Scorecard and IPEDS OM component. It then reviews how the two sources handle main versus branch campus reporting, followed by a review of missing data, and concludes with a comparison of completion rates using both data sources.

Although we highlight tradeoffs between multiple data sources, the goal is to illustrate potential improvements to how data are collected and analyzed in the field, not to evaluate whether one source is "better" than another — a determination that is best made by the researcher and the questions they seek to answer.

MEASURING AND REPORTING COMPLETION RATES

College Scorecard

Two main strengths of the College Scorecard are its inclusion of historical completion records dating back to the early 2000s and its ability to track completion for transfer students. Its main limitation is that these data records are generated from a relatively unfamiliar data source: the National Student Loan Data System ([NSLDS](#)). Federal regulations require colleges participating in the federal Title IV financial aid programs (which includes disbursing Pell Grants) to conduct enrollment reporting throughout the year.[1] This reporting is done via NSLDS, where the U.S. Department of Education (ED) creates and then shares with each college an enrollment roster of students receiving federal financial aid. ED requires colleges to certify enrollment every 60 days, confirming to ED whether (and when) federally aided students were enrolled.[2] Colleges can do this reporting themselves or via a third-party contractor. The National Student Clearinghouse ([NSC](#)) is the primary contractor colleges use, covering "97% of all enrollments in Title IV, degree-granting institutions" in the U.S.[3] NSC conducts NSLDS enrollment reporting on behalf of participating colleges.[4]

The information reported to NSLDS is used for administering federal financial aid programs. For example, if a student is enrolled at least half-time in NSLDS, they are automatically granted in-school

deferment on their student loans.[5] NSLDS records also help determine which loan interest subsidies are available to borrowers.[6] These records are also used for confirming withdrawal dates used for return of federal Title IV funds.[7] Additionally, and central to this analysis, NSLDS records provide graduation information for students receiving federal Title IV financial aid.[8]

Prior to 2012-13, NSLDS only required colleges to report completion data for students borrowing federal Title IV student loans.[9] For example, if a student received a Pell Grant and a Title IV loan, then they would be included in the NSLDS enrollment report. However, if a student only received a Pell Grant (and not a Title IV loan), they would be excluded.[10] Since 2012-13, NSLDS completion rates have included all Pell Grant recipients, even if they did not borrow federal loans.[11] As a result, the quality of NSLDS-based completion rates reported in the College Scorecard have improved since 2012-13.

The NSLDS-based completion rates reported in College Scorecard counts any award (e.g., certificate, associate's degree, etc.) as a completion. These completion records are then tied to students' historical enrollment data to determine completion rates two, three, four, six, and eight years after students entered college. For example, the 2018-19 College Scorecard reporting year will include two-year completion rates for students who entered in 2016-17; three-year completion rates for those entering in 2015-16, and so on.[12] The College Scorecard reports whether the student earned their credential at their original or at a different college (i.e., transferred out).[13] However, the College Scorecard does not currently report completion rates by students' enrollment status (e.g., full-time versus part-time) or by their entry status (e.g., first-time versus transfer-in). The College Scorecard's most recent completion data are from the 2018-19 reporting year.

IPEDS

A main strength of IPEDS is that it allows researchers to disaggregate completions by credential (e.g., associate's, bachelor's, etc.), enrollment status (e.g., full-time vs. part-time), and entry type (e.g., first-year or not). In addition, for not tracking completion for students who transfer out, a main limitation is the relatively short time horizon IPEDS OM has been in operation. ED began reporting IPEDS graduation rates in 1997-98.[14] These graduation rates are reported for (and limited to) 100 percent (e.g., 4 years for a BA, 2 years for an AA), 150 percent (e.g., 6 years and 3 years), and 200 percent (8 years and 4 years) of the time since entry for first-time, full-time degree-seeking undergraduates.[15]

In the early 2010s, ED's Committee on Measures of Student Success and IPEDS Technical Review Panels helped develop the new IPEDS Outcome Measures (OM) component.[16] The new IPEDS OM component would complement the IPEDS graduation rate components by focusing on students who enrolled part-time and those who entered as transfer students.[17] Beginning in 2017-18, ED began collecting Pell Grant completion data in the IPEDS OM component.[18]

Since 2017-18, researchers could use IPEDS OM to examine completion rates for Pell Grant recipients and non-recipients disaggregated by first-time and non-first-time (i.e., transfer-in) status and full-time versus part-time enrollment. The IPEDS OM component also allows researchers to disaggregate completions by award status (e.g., certificate, associate's degree, bachelor's degree). Furthermore, the OM component disaggregates students by enrollment status, including whether students are still enrolled at the same institution, enrolled at a different institution, or unknown enrollment status.[19]

Through these new data elements, researchers can document that most students are "post-traditional," meaning they enroll part-time or transfer and would therefore be excluded from IPEDS graduation rates surveys.[20]

The IPEDS OM component is released once a year (typically in the fall) and is based on one cohort of students. For example, the forthcoming 2021-22 reporting cycle will provide outcome data on all students who originally entered in 2013-14.[21] The OM component follows cohorts four, six, and eight years after entry; however, it does not track outcomes for students who transfer and earn degrees at other colleges.

TABLE 1:

Summary of Completion Measures

	College Scorecard	IPEDS
Data collection process	NSLDS enrollment reports	Outcome Measures survey
Most recent reporting year	2018-19	2020-21
Most recent entry cohort	2016-17	2012-13
Years after entry	2, 3, 4, 6, 8	4, 6, 8
Disaggregated by credential?	No	Yes
Disaggregated by enrollment status?	No	Yes
Disaggregated by entry status?	No	Yes
Disaggregated by transfer-out?	Yes	No

MAIN AND BRANCH CAMPUS REPORTING

To participate in federal Title IV financial aid programs, colleges must enter into a Program Participation Agreement (PPA) with ED.[22] Under a PPA, colleges must comply with certain laws, regulations, and standards outlined in the agreement — including reporting data to IPEDS.[23] ED's Office of Postsecondary Education (OPE) assigns each college an eight-digit OPEID identification code according to which location holds the PPA. If a single university has several campuses, then the first six-digits of their OPEIDs would be the same. To differentiate the PPA holder (i.e., the "main" location) from the other locations (i.e., "branch" campuses), the last two digits are unique. For example, the main location will end with "00" while each branch campus would receive a unique two-digit suffix (e.g., "01" or "02" etc.).[24] For IPEDS reporting, the National Center for Education Statistics (NCES) assigns each institution covered under the PPA, the main and all branch campuses, a unique UNITID identification code. This code is unique for each campus and — unlike the OPEID — is not designed to record which institutions are main or branch locations.[25]

When analysts merge or compare institution-level data across multiple ED sources, they will need to handle issues that arise from data reported at the OPEID level versus data reported at the UNITID level.[26]

In the College Scorecard, Pell Grant completion rates are reported only at the "main" campus level (i.e., at the six-digit OPEID). But in IPEDS OM, Pell Grant completion rates are reported for all individual campuses (i.e., at the UNITID).

Table 2 shows a brief example, completion rates reported in College Scorecard are redundant for all campuses under the same PPA, while those reported in IPEDS OM are unique for each location. When working with these data sources, researchers should be mindful of the "ecological fallacy" in statistics, where data measured for one level (i.e., the "main" location) may not be representative for data measured at another level (i.e., the "branch" location). When using these data sources, researchers should document how they handled these aggregation issues and explain the trade-offs, strengths, and weaknesses of doing so.

TABLE 2:

Example Pell Grant completion rate data comparing College Scorecard to IPEDS (2018-19)

Institution Name	UNIT ID	OPE ID	College Scorecard	IPEDS
University of Phoenix-Arizona	484613	020988	35.3%	24.9%
University of Phoenix-California	484631	020988	35.3%	40.6%
University of Phoenix-Colorado	484640	020988	35.3%	32.0%
University of Phoenix-Florida	484668	020988	35.3%	29.7%
University of Phoenix-Georgia	484677	020988	35.3%	21.7%
University of Phoenix-Hawaii	420042	020988	35.3%	46.3%
University of Phoenix-Illinois	442161	020988	35.3%	20.4%
University of Phoenix-Louisiana	484686	020988	35.3%	21.9%
University of Phoenix-Michigan	484695	020988	35.3%	15.4%

MISSING DATA

In both the College Scorecard and IPEDS, there are several instances where colleges report missing values for Pell Grant completion rates. In the College Scorecard, most of the missing data are due to privacy suppression protocols that report missing data when fewer than 30 students are reported.[27] In IPEDS, most missing records are among colleges that are not degree-granting, meaning they award certificates or other types of awards (and not associate's degrees, bachelor's degrees, etc.).[28]

Table 3 provides a summary of how many colleges are missing Pell Grant completion data across the two data sources. In the 2018-19 College Scorecard file, 2,851 of 6,907 colleges (or 41 percent) did not report completion data. Nearly half of these missing cases (n=1,400) were for-profit two-year colleges that enrolled 222,236 Pell Grant recipients and disbursed nearly $919 million in Pell Grants. The next-largest sector, community colleges, enrolled 535,987 Pell Grant recipients and disbursed nearly $2 billion in Pell Grants.[29] Of the 5,402 institutions in IPEDS, 2,330 (or 43 percent) have missing Pell Grant completion data, and these colleges enrolled a total of 321,820 Pell Grant recipients and disbursed $1.2 billion in Pell Grants. Unlike the College Scorecard, IPEDS has better representation of Pell Grant completion rates among community colleges.

TABLE 3:

Summary of missing Pell Grant completion rates data, by sector (2018-19)

	College Scorecard			IPEDS		
	Missing Observations	**Pell Recipients**	**Pell Disbursements**	**Missing Observations**	**Pell Recipients**	**Pell Disbursements**
Community college	582	535,987	$1,963,186,640	318	44,042	$168,971,376
Public four-year	45	31,449	$149,889,901	24	3,824	$12,812,358
Non-profit two-year	211	27,722	$115,579,005	119	11,887	$46,627,543
Non-profit four-year	551	75,810	$371,766,412	323	4,334	$20,385,303
For-profit two-year	1,400	222,236	$918,990,876	1,417	248,699	$933,472,664
For-profit four-year	60	3,731	$15,762,725	73	8,850	$32,906,217
Total	**2,849**	**896,935**	**$3,535,175,559**	**2,274**	**321,636**	**$1,215,175,461**

COMPARING COMPLETION RATES

Despite the differences across the two datasets, Figure 1 shows the median completion rate for Pell Grant recipients is very similar across the two sources. Using six-year completion rates for Pell Grant recipients, the solid line represents the median college and the shaded band around each line represents the middle 25th to 75th percentiles (i.e., the interquartile range). Although the College Scorecard reports Pell Grant completions prior to 2012-13, Figure 1 begins with 2012-13 since this was the year when NSLDS enrollment reports began requiring colleges to report completions for Pell Grant recipients.[30] The IPEDS OM component did not begin reporting Pell Grant completion rates until 2017-18, and the College Scorecard (at the date of publication in 2022) has not been updated with completion rates past 2018-19. Therefore, we have only two overlapping years of data to compare completion rates between the two sources.

Figure 1:

COMPARISON OF PELL GRANT COMPLETION RATES BETWEEN COLLEGE SCORECARD AND IPEDS
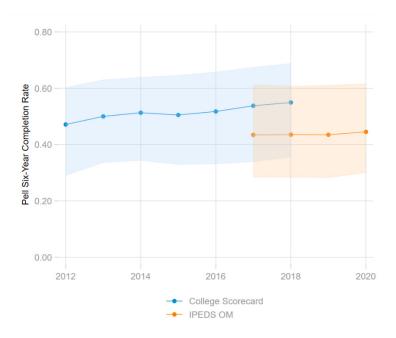

Figure 1 shows College Scorecard completion rates are higher than those reported in IPEDS OM. This makes sense given the definition of completion used in this series, where the College Scorecard measure uses three different metrics — completing at the student's original institution; completing at a different two-year institution; or completing at a different four-year institution. By accounting for completions that occur after transfer, the College Scorecard completion rate is higher than IPEDS since the IPEDS OM component does not account for completions that occur after transferring out. It is possible to disaggregate IPEDS OM completion data by credential type (e.g., certificate, associate's degree, etc.) but not in the College Scorecard; accordingly, Figure 1 includes all credentials in the IPEDS OM data to make comparisons more similar to one another. Additionally, all IPEDS OM completions are aggregated to the six-digit OPEID (i.e., the "main" location) to make them comparable to those reported in the College Scorecard. Taking these steps results in more "apples to apples" comparison between the two sources and can help researchers and data users understand the trade-offs, strengths, and weaknesses of using either source to measure completion rates for Pell Grant recipients.

SUMMARY

One main purpose of this series was to establish baseline trends to help inform policy and research conversations concerning access and completion for Pell Grant students. Doing so required a close investigation into the two main data sources researchers can use — College Scorecard and IPEDS OM — to understand the pros and cons of using either source. To establish trends, the analytic team preferred to use the College Scorecard data over IPEDS OM since it goes back to the early 2000s, whereas IPEDS OM only goes back to 2017-18.

Additionally, for this series the analytic team was not investigating the different types of credentials awarded, so the disaggregated data available in IPEDS OM was unnecessary. Finally, since this analysis included community colleges and broad-access institutions that often have transfer missions, it was important to account for credentials awarded after students transferred away from their original institution. When researchers are faced with determining which dataset to use — College Scorecard or IPEDS OM — they should consider and specify these and several other trade-offs that might arise when answering their research questions.

Another goal of this data brief is to help researchers understand the merits of each data source and not to assess whether one source is "better" than another. Each data source has its merits and researchers will need to make their own judgment on which to use based on the research question they seek to answer. Regardless of whether researchers use College Scorecard or IPEDS OM, this brief should help researchers understand where the data come from, how each source measures certain variables, how extensive missing data are, and how to handle main and branch campus reporting structures. These may seem like minute details, but they can have meaningful implications when generalizing findings, linking data sources, and determining strategies for data analysis and policymaking.

When ED released these completion variables in the College Scorecard, they did so to promote dialogue around using and improving these measures.[31] This data brief is a step in that direction and my hope is it can help contribute to — and improve — efforts to promote access and completion for students who receive the Pell Grant.

ACKNOWLEDGEMENT

ENDNOTES

1	See 34 CFR 685.309(b) https://www.govinfo.gov/content/pkg/CFR-2021-title34-vol4/pdf/CFR-2021-title34-vol4-sec685-309.pdf

2	See Chapter 5 of the National Student Loan Data System Enrollment Reporting Guide (GEN 21-71) for more information: https://fsapartners.ed.gov/knowledge-center/library/electronic-announce-ments/2021-10-29/availability-updated-nslds-enrollment-reporting-guide-sep-tember-2021-general-21-71

3	See A. Dundar & D. Shapiro (2016). The National Student Clearinghouse as an Integral Part of the National Postsecondary Data Infra-structure. National Student Clearinghouse Research Center: https://nscre-searchcenter.org/wp-content/uploads/NSC-as-an-Integral-Part-of-the-Na-tional-Postsecondary-Data-Infrastructure.pdf

4	NSC also conducts other services including enrollment and degree verification. For more information, see A. Dundar & D. Shapiro (2016). The National Student Clearinghouse as an Integral Part of the National Postsecondary Data Infrastructure. National Student Clearing-house Research Center: https://nscresearchcenter.org/wp-content/uploads/NSC-as-an-Integral-Part-of-the-National-Postsecondary-Data-Infrastructure.pdf and see D. Shapiro & Z. Tang (2019). The National Student Clearing-house: Leveraging Administrative Data for Postsecondary Improvement. New Directions in Institutional Research, pp 117-131: https://onlinelibrary.wiley.com/doi/epdf/10.1002/ir.20302

5	See Chapter 1 of the National Student Loan Data System Enrollment Reporting Guide (GEN 21-71): https://fsapartners.ed.gov/knowl-edge-center/library/electronic-announcements/2021-10-29/availability-up-dated-nslds-enrollment-reporting-guide-september-2021-general-21-7

6	Ibid.

7	See for example Chapter 2 of the U.S. Department of Educa-tion's Federal Student Aid Handbook https://fsapartners.ed.gov/knowl-edge-center/fsa-handbook/2022-2023/vol5/ch2-steps-return-title-iv-aid-cal-culation-part-1 and Chapter 4 of the National Student Loan Data System Enrollment Reporting Guide (GEN 21-71): https://fsapartners.ed.gov/knowl-edge-center/library/electronic-announcements/2021-10-29/availability-up-dated-nslds-enrollment-reporting-guide-september-2021-general-21-71

8	See Appendix A and H-7 of the NSLDS Reporting Guide for more information https://fsapartners.ed.gov/knowledge-center/library/nslds-user-resources/2021-10-29/nslds-enrollment-reporting-guide-septem-ber-2021 and see the spreadsheet layout template: https://fsapartners.ed.gov/knowledge-center/library/nslds-user-resources/2020-11-12/nslds-en-rollment-submittal-template

9	See U.S. Department of Education (2022, p. 27). Technical Documentation: College Scorecard Institution-Level Data. https://colleges-corecard.ed.gov/data/documentation/

10	See NSLDS Enrollment Reporting Process Dear Colleague Let-ter: https://fsapartners.ed.gov/knowledge-center/library/dear-colleague-let-ters/2012-03-30/gen-12-06-subject-nslds-enrollment-reporting-process

11	Ibid and NSLDS Enrollment Reporting Process Dear Colleague Letter: https://fsapartners.ed.gov/knowledge-center/library/dear-col-league-letters/2012-03-30/gen-12-06-subject-nslds-enrollment-reporting-process

12	See College Scorecard's data dictionary "Institution_Cohort_Map" tab for each "PELL_COMP_*" variable: https://collegescorecard.ed.gov/data/documentation/

13	In the College Scorecard, three variables (PELL_COMP_ORIG_*; PELL_COMP_4YR_TRANS_*; and PELL_COMP_2YR_TRANS_*) are avail-able for calculating two, three, four, six, and eight year completion rates for Pell Grant recipients.

14	Graduation rate were first required via the Student Right-to-Know and Campus Security Act of 1990. See page 8 in The History and Origins of Survey Items for the Integrated Postsecondary Education Data System: https://nces.ed.gov/ipeds/pdf/NPEC/data/NPEC_Paper_IP-EDS_History_and_Origins_2018.pdf Also see CFR 34 668.41 "Reporting and Disclosure of Information" https://www.govinfo.gov/content/pkg/CFR-2021-title34-vol3/pdf/CFR-2021-title34-vol3-sec668-41.pdf and 668.45 "Informa-tion on Completion or Graduation Rates" https://www.govinfo.gov/content/pkg/CFR-2021-title34-vol3/pdf/CFR-2021-title34-vol3-sec668-45.pdf The 2008 reauthorization of the Higher Education Act introduced the GR200 component, which measures graduation rates at 200% time, see Measuring Student Success in IPEDS: Graduation Rates (GR), Graduation Rates 200%

(GR200), and Outcome Measures (OM): https://nces.ed.gov/ipeds/use-the-data/measuring-student-success-in-ipeds

15   See Committee on Measures of Student Success' archived resources, including membership and reports, here: https://www2.ed.gov/about/bdscomm/list/acmss.html#:~:text=The%20Committee%20on%20Measures%20of,Education%20Opportunity%20Act%20of%202008

16   See Report and Suggestions from IPEDS Technical Review Panel 45: Outcome Measures: https://edsurveys.rti.org/IPEDS_TRP_DOCS/prod/documents/TRP_45_Summary_for_Posting.pdf and Measuring Student Success in IPEDS: Graduation Rates (GR), Graduation Rates 200% (GR200), and Outcome Measures (OM): https://nces.ed.gov/ipeds/use-the-data/measuring-student-success-in-ipeds

17   See IPEDS Survey Components page for more information on cohorts and sub-cohorts: https://nces.ed.gov/ipeds/use-the-data/survey-components/11/outcome-measures and https://nces.ed.gov/ipeds/use-the-data/measuring-student-success-in-ipeds

18   See U.S. Department of Education (2018). The History and Origins of Survey Items for the Integrated Postsecondary Education Data System. National Postsecondary Education Cooperative (NPEC 2018-023): https://nces.ed.gov/pubs2018/NPEC2018023.pdf Also see the Committee on Measures of Student Success' archived resources, including membership and reports, here: https://www2.ed.gov/about/bdscomm/list/acmss.html#:~:text=The%20Committee%20on%20Measures%20of,Education%20Opportunity%20Act%20of%202008.

19   See "Measuring Traditional and Non-Traditional Student Success in IPEDS: Data Insights from the IPEDS Outcome Measures (OM) Survey Component" (2022) https://nces.ed.gov/blogs/nces/post/measuring-traditional-and-non-traditional-student-success-in-ipeds-data-insights-from-the-ipeds-outcome-measures-om-survey-component

20   Ibid.

21   See U.S. Department of Education "Timing of IPEDS Data Collection, Coverage, and Release Cycle" https://nces.ed.gov/ipeds/use-the-data/timing-of-ipeds-data-collection and "Measuring Traditional and Non-Traditional Student Success in IPEDS: Data Insights from the IPEDS Outcome Measures (OM) Survey Component" (2022) https://nces.ed.gov/blogs/nces/post/measuring-traditional-and-non-traditional-student-success-in-ipeds-data-insights-from-the-ipeds-outcome-measures-om-survey-component

22   See CFR 34 668.14: https://www.govinfo.gov/content/pkg/CFR-2021-title34-vol3/pdf/CFR-2021-title34-vol3-sec668-14.pdf

23   Ibid (specifically, 668.14(b)19).

24   For a thorough overview of these reporting issues, see O. Jaquette & E. Parra (2014). Using IPEDS for Panel Analyses: Core Concepts, Data Challenges, and Empirical Applications. M.B. Paulsen (Ed.). Higher Education: Handbook of Theory and Research. Vol 29. https://link.springer.com/chapter/10.1007/978-94-017-8005-6_11

25   Additionally, the College Scorecard data download includes crosswalks between OPEID and UNITID for various years: https://collegescorecard.ed.gov/data/

26   O. Jaquette & E. Parra (2014). Using IPEDS for Panel Analyses: Core Concepts, Data Challenges, and Empirical Applications. M.B. Paulsen (Ed.). Higher Education: Handbook of Theory and Research. Vol 29. https://link.springer.com/chapter/10.1007/978-94-017-8005-6_11

27   See U.S. Department of Education (2022, p. 3). Technical Documentation: College Scorecard Institution-Level Data. https://collegescorecard.ed.gov/assets/InstitutionDataDocumentation.pdf

28   In 2018-19, 92% of missing observations were among colleges coded as "-2" for their Carnegie Classification, meaning they are "not applicable, not in Carnegie universe (not accredited or nondegree-granting)" according to the IPEDS data dictionary https://nces.ed.gov/ipeds/datacenter/data/HD2018_Dict.zip For more context on the need to collect and report better data for sub-baccalaureate programs, see: https://ticas.org/files/pub_files/TICAS_comments_on_TRP45_Outcomes_Measures.pdf

29   A large share of these missing cases were among California community colleges.

30   See Footnotes 9 and 10 referenced above.

31   See Executive Office of the President of the United States (2017). Using Federal Data to Measure and Improve the Performance of U.S. Institutions of Higher Education, p. 29: https://collegescorecard.ed.gov/assets/UsingFederalDataToMeasureAndImprovePerformance.pdf