Appendices

THE PLA BOOST

Results from a 72-Institution Targeted Study of Prior Learning Assessment and Adult Student Outcomes

By Rebecca Klein-Collins, Jason Taylor, Carianne Bishop, Peace Bransberger, Patrick Lane, and Sarah Leibrandt

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Select tables in Appendix D have been revised from the original due to the discovery of an error in the dataset (some PLA event records were duplicated due to a data matching error).

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Appendix A: Technical Report

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Introduction

This report describes the adult student's experience with prior learning assessment (PLA) using student record data from 72 degree-granting postsecondary institutions in the United States, primarily focusing on the data from 69 of those institutions based on the more detailed data provided by those institutions to the study. Researchers from the Council for Adult and Experiential Learning (CAEL) and the Western Interstate Commission on Higher Education (WICHE) collected student record data from the participating institutions (which included data from the National Student Clearinghouse's Student Tracker on students' enrollment and completion at institutions other than that participating institution), as well as information on the institutions' PLA policies and practices and adult learner policies and programs through an online questionnaire. The research team also drew on institutional-level data through IPEDS and interviews with PLA administrators at six of the participating institutions and with six recent adult learner graduates who had used PLA at the participating institutions.

The questions the study was designed to answer included the following:

1. Is there a difference in persistence, degree completion, and time to degree for adult students with prior learning assessment credit compared to those without?
2. What are the outcomes for different types of students, particularly for students of different races/ethnicities and for students with transfer credits from other institutions?
3. Can differences in credential completion be attributed to prior learning assessment alone and can you control for other student characteristics such as gender, race/ethnicity, GPA, socio-economic status?
4. Are there differences by institutional characteristics?

The main report focuses on adult students who matriculated for the first time at the participating institutions during the academic year 2011-2012, their patterns of PLA credit-earning (whether they had any PLA credits, the number of PLA credits, and the method of earning the PLA credits), and comparisons of credential completion by adult students with PLA and adult students without PLA, with credentials including associate degrees, bachelor's degrees, and postsecondary certificates. The research team also: examined the number of months between the adult students' matriculation and their credential completion in order to determine whether PLA credit-earning resulted in time-savings; estimated possible cost savings from PLA credit-earning; the PLA experience of specific student populations of interest from an equity perspective; the PLA experience of service members (current or former); and the possible relationship between, on the one hand, institutional policies and practices, and PLA credit-earning or credential completion on the other. In addition to the descriptive analysis of the data, we also conducted a multivariate analysis using propensity score matching in order to isolate the impact of PLA on adult student credential completion.

This appendix describes the methods we used to field and select institutions to participate in the study, the process for selecting institutions and students for interviews, the IRB process, how we defined the student cohort included in the analysis (including decisions on which students to exclude from the analysis), variables used (both collected and constructed), data cleaning decisions, specific details about the propensity score matching analysis, and advisors consulted.

Fielding and Selection of Institutions

The sites for this research study were two- and four-year postsecondary institutions who expressed interest and were invited to participate. There were initially three main criteria for selecting the institutions for the study:

1. The institution had offered at least two different PLA methods since 2011. PLA methods were defined as including standardized exams (e.g., CLEP, UExcel, DSST, etc.), challenge exams, portfolio assessment, credit for military training/occupations through ACE recommendations, and credit for other external training through ACE or NCCRS recommendations.
2. The institution had the ability to track total PLA credit-earning as part of the student's academic record.
3. The institution had at least 20 students who matriculated at the institution in academic year 2011-2012 and earned some form of PLA credit between 2011 and 2018.

A customized website was produced with detailed description of the project's purpose, an a formal announcement and invitations to apply were sent via email to the membership of both CAEL and WICHE, PLA clients of CAEL's consulting practice and LearningCounts initiative, the institutions that participated in CAEL's 2010 study, and the mailing list of SUNY-Empire State College's PLA Inside/Out (PLAIO). The partner organizations also shared the announcement and invitation more broadly through social media and their network of higher education organizations.

All institutions interested in the study were required to complete an application that asked for the following information: IPEDS UnitID; number of campuses; PLA methods offered in 2011; availability of portfolio assessment; number of students earning PLA credit through portfolio assessment in 2011-2012; number of students earning PLA credit from any method of PLA in 2011-2012; whether PLA was available to all students at the institution; ability of the institution to provide the total number of PLA credits earned for each student between 2011 and 2018 (required for the study); whether the institution can also track PLA credits by method, date earned, or area of study (optional for the study); ability of the institution to report on enrollment and degree-earning by students after leaving the institution; the ability of the institution to provide the data and information needed for the project; and whether the institution would require a review by its own Institutional Review Board.

A total of 83 institutions completed applications for the study, of which 72 were chosen for participation; 11 were either not able to meet the main criteria for the study (particularly the ability to track data on PLA activities as far back as 2011) or were not able to obtain administrative approval to sign the memorandum of understanding outlining the terms of participation.

The memorandum of understanding outlined that the institutions would provide the project with: (1) the requested de-identified student-level data; and (2) information about PLA policies/practices and adult-serving policies/practices via an institutional questionnaire and follow-up, as necessary. The MOU stated CAEL and WICHE's practices for secure handling of all the data. The institutions were also informed that the project team would be contacting a small number of institutions for short phone interviews about their PLA programs and/or help in recruiting a small number of adult students to participate in short interviews about their PLA experiences. Each of the participating institutions received a stipend of $2,500.

Data Collection

The data used in the report included deidentified administrative data records (student-level demographics, credit-earning, and other records), institution-level information through surveys and national databases, and interviews with a small number of PLA administrators and recent adult graduates connected to six of the participating study institutions.

Administrative data records

Our primary source of the student-level data was provided by the participating institutions from their student information systems. Institutions were asked to provide student-level data records in a deidentified format for the cohort of all degree/certificate-seeking undergraduate students who matriculated for the first time at the institution in academic year 2011-12, with data elements reflecting credits earned and postsecondary outcomes through the end of calendar year 2018 (Fall 2018-19).

We requested data elements associated with student postsecondary outcomes; student demographics such as student age, sex, race/ethnicity, veteran status; receipt of Pell Grants; prior postsecondary attendance or credentials. We also requested data about the degree sought, field of study, and about transferred credits. Data about student enrollment and persistence (credits attempted and earned by academic year) and postsecondary outcomes (first credential earned and last known enrollment status) related to the outcomes that PLA is hypothesized to have a positive impact on. (The data request is found in Appendix F.)

In order to analyze how adult student outcomes vary along PLA usage dimensions, we requested data about students' PLA activity. At a minimum, institutions had to provide the total PLA credits that were transcripted while the student was at the institution, distinct from and in addition to native course credits and transfer credits; we also asked for the institutions to provide information on any PLA credits that were transferred to the institution (because these were minimal in number, they were not ultimately included in the analysis). In addition, we also asked institutions to provide data about the timing of the PLA credit award, the method of PLA assessment, and the areas of study/disciplines for which the PLA credits were awarded (not all institutions were able to provide these variables).

Finally, we asked institutions to collect a small number of student-level variables from the National Student Clearinghouse (specifically, whether the student has transferred to another institution and/or has earned a degree or credential from another institution after transferring). This data was not required for participation.

Disclosure avoidance. Throughout the report, we avoid presenting results in any way that an individual institution's results could be deduced.

Limitations on results shown. Results with student sizes of less than 50 are not included in any of the reported findings.

Institution-level data

Institutional questionnaires

We obtained quantifiable/quantified information about the institution from two structured questionnaires—the Application to Participate and an institution questionnaire administered to institutions selected to participate. These data helped us codify institutions as more or less PLA-accessible and adult-friendly; institutions also responded with details on the institution's PLA policies (including any fees that were charged), staffing and other internal support, marketing/outreach practices, variations in policies among different departments, quality assurance practices, and overall institutional culture—dimensions that we expect are associated with students' usage and accumulation of PLA credit.

Secondary data sources

We also utilized publicly available data from the Integrated Postsecondary Data Systems (IPEDS) for academic year 2011-12 unless otherwise noted and the U.S. Census Bureau's American Community Survey. These data elements were used to understand how our sample may have differed in key ways from adult students enrolled in higher education more broadly or at other adult-focused institutions. In our analysis models, we also used some of these elements to categorize and analyze institutions/institutional effects that may explain the outcomes, particularly institutional sector and minority-serving status. (Details of the IPEDS data are available upon request).

For institutions that changed sectors between 2011 and 2019, we treated those institutions as being of the sector in which they were classified in 2011.

Student and staff interviews

In order to supplement the quantitative analysis with additional insights from adult students and PLA administrators, the research team set out to identify a small number of participating institutions that could provide a range of perspectives. Criteria for selecting these institutions included:

- A mix of public and private institutions
- A mix of 2-year and 4-year institutions
- A range of sizes of institutions
- Robust engagement with PLA by the study cohort at that institution (defined as a PLA take-up rate of 15% or higher or as having students in the cohort earning PLA credit from a wide range of PLA methods)
- Difference in credential completion between PLA and non-PLA students at 20% or higher
- At least two institutions meeting criteria for "adult-focused" (this derived variable is described later in this appendix
- At least one minority-serving institution (MSI)

Using these criteria, the team selected six institutions for staff interviews:

- 2 community colleges, 2 four-year public institutions, and 2 four-year private institutions
- 2 with adult student cohorts totaling more than 1,200, 3 with adult student cohorts totaling between 500 and 1,000, and 1 with an adult student cohort totaling less than 100.
- 3 meeting criteria for "adult-focused"
- 1 MSI

The research team scheduled 45-minute phone conversations with the PLA administrative staff at these six institutions; for one of the institutions, three administrators participated in the conversation, while at all others, just one did.

In these staff/administrator conversations, we asked a range of questions, including about: the staff's background and experience with PLA, the history of PLA at the institution, the reasons why PLA is offered at the institution, how students typically learn about PLA at the institution, what the process is like for a student to apply for PLA credit, whether faculty and staff receive training on PLA, the extent to which faculty understand and support PLA, the successes of their PLA programs, challenges in the administration of PLA (faculty support, financial support, affordability, quality), how challenges have been addressed, the future of PLA at the institution, and any advice that the administrators would give to an institution that is considering whether to develop a PLA program. These conversations were transcribed and used to provide additional context for the study's findings, comments to illustrate implementation experiences throughout the report, and insights for the section on recommendations.

The research team asked each of the six interviewed institutions to recruit 1-2 adult students for interviews. The request was for these students to be recent graduates who had used PLA (recent to 2019, which is when the study was conducted; we did not attempt to locate graduates from the study cohort/time period). We completed 45-minute phone conversations with seven recent adult graduates from four of the institutions. Questions guiding the conversation focused on: the student's background and recent work history, educational history, reasons for returning to college, current educational or work activities, use of PLA at the institution, how they heard about PLA, what kind of help they received from the institution in pursuing PLA, the process for earning PLA credit, any obstacles or challenges in learning about or earning PLA credit, how they felt after earning PLA credit, the role that PLA credit may have played in the student's overall educational experience, and whether they would recommend PLA to other students.

Prior to all phone conversations, the interviewees (both administrators and students) signed a consent form. All comments and information shared during the conversations were anonymized for inclusion in the report. The students each received a $50 gift card for their participation in the interviews; the institutional administrators did not receive any compensation.

Institutional Review Board (IRB) Process

On March 22, 2019, the research team submitted an IRB application to conduct this research to the State Higher Education Policy Center (SHEPC) Institutional Review Board for expedited review. The IRB application (protocol number 20190405-EXP-3) was approved on April 8, 2019. The IRB application included details regarding the study methodology (i.e. site selection, participant recruitment strategies, etc.), data collection procedures, proposed data analyses, subject population, informed consent, confidentiality, and risks/benefits to participants. Researchers also included several supporting documents with the IRB application including: the student data request and memorandum of understanding between the researchers and participating institution, advertisements for subject recruitment, and the funding application. For each researcher involved in the study, a copy of his or her curriculum vitae, certificate of completion for CITI training, and conflict of interest form were also provided as part of the application. On June 25, 2019, the research team submitted an amendment to the approved IRB application to the State Higher Education Policy Center (SHEPC) Institutional Review Board for expedited review. This amendment included the following study materials: interview consent forms, interview protocols, and the survey instrument. The amendment was approved on July 2, 2019.

Defining the Cohort

Institutions were asked to provide data for a specific cohort of students: degree- or certificate-seeking undergraduates who enrolled at their institution for the first time during the 2011-2012 academic year and who were not "dual enrollment" students. These students' matriculation dates should generally be aligned with Fall semester 2011 through June 30, 2012 and should include students who matriculated on or after July 1, 2011 if the student continued their enrollment in Fall 2011.

Data Cleaning and Internal Consistency

Slightly over 500,000 individual student records were obtained from 72 institutions. Each institution's data underwent several iterations of screening to assess: 1) adherence to cohort parameters (first enrollment within requested timeframe, exclusion of dual enrollment students) 2) structural data integrity (consistent, unduplicated Proxy IDs that match across data tables) and 3) data element parameters (number of missing values, adherence to coding protocols, unexpected or out-of-range values, inconsistent responses among closely related data elements). This screening was done for the entire student population, not just the adult students in the sample.

Adherence to cohort parameters

Over 28,000 student records at 20 institutions contained matriculation dates that were outside the requested July 1, 2011 to June 30, 2012 date range. CAEL contacted these institutions to verify the criteria used to select the student cohort and learned that in many institutions' student information systems, matriculation date does not align with the date the student first enrolled in a course at the institution. Records from Institutions that were able to definitively verify that all records submitted met the cohort definition, regardless of matriculation date value, were kept in the data set, and the matriculation dates were recoded to appropriate in-range values. Records from the remaining institutions were excluded if the matriculation data was before 5/1/2011 or after 7/1/2012. Ultimately, 231 students were excluded because of an early matriculation date and 12,092 were excluded because of a late matriculation date (of this last number, 10,766 students were from a single institution that submitted any student matriculating between 2011 and 2018).

Structural data integrity

Because data were submitted in multiple data tables, it was essential that each institution provide unique Proxy IDs for their students. We identified and removed any duplicate students and ensured that unique Proxy IDs existed for each student in the sample.

Data element parameters

Missing data

- **Data record exclusion due to missing values:** Age and attempted credit data were deemed essential for data analysis, and records that did not have valid values for these data elements were excluded: 641 student records were excluded because of unknown age and 16,216 records were excluded because all data pertaining to attempted academic credits were missing.
- **Data elements not included in the reported analysis because of high percentage of missing data:** Dependency Status, Student has Dependents, and First Generation student.
- **Data elements requiring follow up because of high percentage of missing data:** Institutions with high number of missing values for number of transfer credits, number of PLA credits earned, first term GPA or cumulative GPA were contacted to determine why the data was missing and/or what was meant by a missing value. In cases where additional information was not available, those students were omitted from the analysis.

Out-of-range or unexpected data values

- **Categorical data elements** were screened for values outside the coding protocol. Institutions were contacted to determine which code should be applied to each unexpected value.
- **Continuous date elements** were screened for minimum and/or maximum values that raised concerns about the accuracy of the data.
  - **Age** values less than 17 were flagged and excluded from the analysis, due to concerns that these students might be dual-enrolled high school students.
  - **First term GPA** and **Cumulative GPA** values greater than 4.1 were tabulated and associated institutions were contacted to determine whether the GPA had been converted to a 4-point scale. (GPA values up to 4.1 were allowed due to rounding error). Institutions that had not converted GPAs to a 4-point scale submitted updated data.
- **Inconsistent responses among closely related data elements** were tabulated and institutions were contacted to determine if the values of both seemingly conflicting data elements were correct.
  - Institutions that provided cumulative GPA values of 0.00 and positive number of regular credits earned, and institutions that reported the number of credits needed for the student's degree or other credential goal that was inconsistent with the student's reported degree or credential goal submitted updated data.
  - Institutions were contacted if they provided data where the number of credits earned was larger than number of credits attempted, the number of developmental credits attempted or earned was greater than the number of all credits attempted or earned, or the number of credits earned equaled the number of credits attempted for all students across all academic years. Explanations from the institutions varied widely, and these explanations were often related to how data were stored in the student information system and institutional policies about whether certain developmental courses carried credit. Given that there was

no way to guarantee the accuracy of these academic credit variables, all 26,284 students with academic credit data inconsistency were flagged and filtered out of all analyses pertaining to academic credits or new variables calculated based on academic credit data.

Impact of cleaning raw data: After out-of-range values were corrected, and after other data were corrected or clarified, over 29,000 students were deleted from the data, 7,599 student records were flagged and ultimately excluded from all analyses included in this report, and 26,284 student records were flagged for exclusion from analyses related to academic credit outcomes. These students are not reflected in the "n" values presented in the report or the appendices.

Defining Special Variables

Adult student. For the purposes of this study, we identified all students who were age 25 or older at the time of matriculation as "adult students." The age at matriculation was calculated by the individual institutions, using the difference between the student's date of birth and matriculation date.

Socioeconomic status. As noted in the main report, we used two proxies for socioeconomic status. The first was whether the student had ever received a Pell Grant at the study institution. The second used the relative concentration of low-income individuals in the student's residential area at the time of matriculation.

To determine the concentration of low-income individuals in the student's residential area, we used the raw zip code values provided by the institution. After evaluating the zip codes for basic formatting and integrity, we compared the student zip codes to the list of zip codes used in the Census/ACS Zip Code based Tabulation Area (ZCTA) estimates to determine whether they were standard zip codes, military FPO/APO, or unique (e.g., associated with a business establishment only). We used a crosswalk of zip codes to counties from HUD, to match the student-provided zip codes to a database of NCHS Urban-Rural Classification Scheme for Counties. For zip codes that are associated with multiple counties, where possible, the county urbanicity indicator was set if all counties associated with the zip code had the same urbanicity value. Basic state and region flags were also added to the Student Zip Code records.

More than 92% of the student zip codes were evaluated as valid standard zip codes. Virtually all of these also matched directly to Census/ACS Zip Code Tabulation Areas (Zip matches ZCTA). Three percent of zip codes were missing or invalid completely, and two percent of zip codes were associated with military (APO or FPO) and therefore not able to be matched to Census estimates. The student's zip codes were then matched to the zip-code tabulation areas poverty estimates for the percent of individuals in the Census zip code tabulated area at or below 200 percent of poverty in a time period that roughly overlapped the 2011-12 cohort starting timeframe. In our analysis, we looked at each group of students relative to the other (e.g., students in communities where 0<=15% of individuals were at 200% of poverty or less, students in communities where >15 and <=30% of individuals were at 200% of poverty or less, and other groups: >30 and <=45; >45 and <=60; and >60).[1]

Race/ethnicity

For the purposes of this study, we followed the 1997 OMB/U.S. Department of Education's method for categorizing students by race and ethnicity in which any student indicating Hispanic ethnicity is designated as Hispanic, and then non-Hispanic students are categorized into various single-race categories, or Multiracial (students identifying with two or more races). Although there is great value in examining the specific experiences of all distinct minority groups in U.S. higher education, particularly Native Hawai'ian/Other Pacific Islander (NH/OPI) and American Indian/Alaska Native (AI/AN), in our sample these groups were very small. Therefore, when examining PLA usages (take-up rates and average number of credits earned), we opted to examine NH/OPI and AI/AN categories separately and include any student who identified with that race, even if they also identified with one or more other races, and even if they also identified as Hispanic. This was particularly relevant given the unique composition of institutions in our study. For example:

- 276 (48 adult) students identified as both Hispanic and NH/OPI, but not AI/AN; these students were reclassified in the separate analysis as NH/OPI
- 344 (118 adult) students identified as Hispanic and AI/AN, but not NH/OPI; these students were reclassified in the separate analysis as AI/AN
- 2,363 (413 adult) students identified as NH/OPI and another race other than AI/AN (but not Hispanic); these students were reclassified in the separate analysis as NH/OPI

[1] WICHE calculations from U.S. Census Bureau, Fact Finder Table S1701 "Poverty Status in the Past 12 Months", American Community Survey 2012 5-year estimates, downloaded November 2019.

- 2,839 (953 adult) students identified as AI/AN and another race other than NH/OPI (but not Hispanic); these students were reclassified in the separate analysis as AI/AN
- 200 (37 adult) students identified as NH/OPI and AI/AN and remained classified as Multiracial

The resulting new groups were, however, still too small to include in the credential completion analysis of PLA vs. non-PLA adult students.

Note that these race/ethnicity definitions apply to the 53 percent of the adult students for which race/ethnicity was reported; race/ethnicity data was not provided by a small subset of institutions, but this accounted for a large number of the students in the sample.

Minority serving institutions

Eighteen of the institutions in the study were categorized as minority serving institutions (MSIs), using designations dated July 2019 (Source: Rutgers University Graduate School of Education Center for Minority Serving Institutions). Nine were four-year institutions (two nonprofit), and nine were public two-year institutions. They were geographically distributed in California: 2, Colorado: 2, Florida: 2, Georgia: 1, Hawai'i: 6, Illinois: 2, Minnesota: 1, New York: 1, Pennsylvania: 1. Among the institutions designated included under the MSI category for these analyses, four had Asian American- and Native American Pacific Islander-Serving Institution status (AANAPISI), five had Alaskan Native- or Native Hawai'ian-Serving Institution status (ANNH), nine had Hispanic Serving Institution status (HSI), and three had Predominantly Black Institution status (PBI); the study did not include any Historically Black Colleges and Universities, Tribal Colleges or Universities, or Native American-Serving Nontribal Institutions. We did not retrospectively confirm whether these institutions were designated MSIs also in 2011-12, the matriculation start point for the study, but the racial/ethnic distribution of the entering undergraduates in 2011-12 at these institutions was similar to the racial/ethnic distributions used for the official MSI designations.

Predominantly online institutions

While the institutions were required to identify students who were enrolled "exclusively online," the research team also wanted to identify the institutions where large numbers of adult students were exclusively online. We identified 9 institutions where 70% or more of their adult students in our sample were exclusively online, and we called this group of institutions "predominantly online" institutions (all other institutions had fewer than 50% of students studying exclusively online). In addition to all four participating for-profit institutions, this group included one 2-year public institution, two 4-year publics, and two 4-year privates. Approximately 64% of the sample of students attending predominantly online institutions attended the two largest institutions in our study.

Institutional culture variables: PLA commitment and adult-focused

For the propensity score matching analysis, the research team wanted to control for differences in institutional culture. Using the information from the institutions obtained through the online questionnaire, the research team constructed two new variables: a "PLA commitment" variable and an "Adult-Focused Institution" variable. We consulted two outside experts on the assumptions underlying the construction of these two variables

For the "PLA commitment" variable, we marked institutions as committed to PLA if they indicated all of the following:

- They have a universal set of PLA policies that applied across the entire institution OR their policies vary somewhat for a few key programs or majors (disqualifying would be institutions where policies vary considerably for different programs or majors, or where each department or major establishes its own PLA policies).
- PLA policies are available in a formal written document.
- They have some formal process for ensuring the quality of PLA policies and practices.
- They offer at least 3 PLA methods
- The institution directs coaches and advisors to talk about PLA with all students "a moderate amount," "a lot," or "a great deal."
- Students hear about PLA "very often" or "always" at at least two different stages or touch points (e.g., enrollment, orientation, advising/counseling session, faculty/department interactions, recruitment events, diploma check-in, career advising, veteran programs)
- The institution regularly examines the number of students earning PLA credits in order to evaluate the use and impact of PLA

Institutions were marked as "adult-focused" if they:

- Had all three of the following programs/practices in place starting sometime between 2011-2014:
  - Had a specific strategy to recruit adult students.
  - Offered support services on a schedule and format accessible to working adults
  - Provided alternative modalities, scheduling or formats that are more convenient for working learners.

- Had any two of the following programs/practices in place starting sometime between 2011-2014:
  - Provided accelerated formats for adults to complete their studies in a shorter period of time.
  - Provided affordable or subsidized child/dependent care to meet the needs of adult students.
  - Used predictive analytics to track students' progress.
  - Advisors and/or instructors proactively reached out when an adult student was in danger of falling behind.
  - Provided veteran/active duty military students with a designated point-of-contact.
  - Provided veteran/active duty military students with veteran-centered support services.
  - Provided programs and services to address financial needs (e.g. food or housing insecurity, unexpected bills, healthcare crises, etc.)

Twenty-two (22) of the 69 institutions included in the main analysis were marked as "PLA commitment institutions," and 26 were marked as "adult-focused institutions" based on these definitions.

Additional derived variables:

- **Transfer students** were defined as any student with transfer credits greater than 0.
- **PLA students** were defined in three ways:
  - Students with credits from any of the PLA methods, including AP/IB (students whose only method of PLA is AP/IB are considered non-PLA students throughout the report)
  - Students with credits from any PLA method excluding AP/IB (referred to as PLA students throughout the report)
  - Students with credits from any PLA method excluding AP/IB and ACE military (referred to as PLA-non-military throughout the report)
- **Course completion rate.** This was calculated by dividing a student's total regular credits earned by the total attempted regular credits.
- **Enrollment intensity.** For students with the goal of a bachelor's degree, we divided the total credits required for that goal at the student's institution by 4 years to get the average number of credits per year for full-time enrollment; we then divided each student's average number of credits earned per year by the number of credits for full-time enrollment. This created a percentage of enrollment intensity. For associate degree, we used the same process but divided total credits needed for the degree by 2 years to determine the number of credits needed for full-time enrollment per year.
- **Months to degree.** Using the date of the students' first credential earned during the observation period, we defined time to degree/months to degree as the number of months between the student's matriculation date and the date of their first degree earned. Students' first credentials were limited to students who earned an associate degree and did not earn a bachelor's degree during the observation period, and students who earned a bachelor's degree and did not earn an associate degree during the observation period.
- **Tuition cost savings.** Institutional questionnaire data pertaining to the cost of each PLA method were tabulated excluding eleven institutions because the pricing structure information submitted was too complex or incomplete. Data for the remaining 60 institutions were matched to the student PLA data (n=24,144), resulting in 23,645 matched records. Students with an intended degree goal other than associate or bachelor's (n=535) were excluded. Based on their degree goal, the number of credits each student could earn for each PLA method was limited to the number of PLA credits that could be applied to that degree at their institution (i.e., PLA credit values exceeding the limit were recoded to equal the limit). The total number of PLA credits each student earned across all PLA methods was calculated, and if this total number exceeded the number of PLA credits that could be applied to their intended degree at their institution, the number of PLA credits was reduced to the maximum value allowed while not exceeding the threshold (these credits were all from PLA methods where there were no fees, such as ACE or NCCRS credit recommendations or other review of external training). Students who still had too many PLA credits were excluded from the analysis (n=34).

  The total cost across all PLA methods was computed for students who had adequate cost data for every PLA method they utilized; 97 students were omitted because cost information was not available for one or more of the PLA methods they utilized. To determine each student's cost savings, this total PLA cost was subtracted from the estimated tuition cost the student would have incurred by taking the equivalent course credits at that institution (the number of PLA credits multiplied by the average cost per credit hour). For tuition, for most institutions, we used the IPEDS Institutional Characteristics (IC) variable for in-state per credit hour charge for part-time undergraduates; for a small number of institutions, that variable was not available, so for those institutions, we divided the annual in-state tuition by 60 credits. Cost savings were averaged for each institution, and these institution averages were averaged to create sector averages. (This analysis was for tuition only; it did not account for fees or other costs of attendance.)

- **Military service.** Students who were affirmatively reported as non-service members were grouped with those of unknown status (approximately 18% of all students); it is therefore possible that there are some former or current service members **who are included in our "non-service member" group. Students** who had credit through ACE credit recommendations for military training but were labeled as having no or unknown military service (n=2,591) were recoded to be identified as service members. Analyses included service members of all ages, not just those age 25 and over.
- **Credential completion.** We collected data from the institutions on up to five possible degrees or credentials earned by the student at the participating study institution. We used this data to construct several different ways that credential completion was defined:
  - First credential earned. The credential type and date for the first credential earned was used for calculating time to degree.
  - Highest credential earned. The credential type and date for the highest credential earned by the student during the seven-and-a-half-year observation period was used for the main completion analysis in the report.
  - Comprehensive completion. Completion details from the participating study institution were also paired with additional completion data from the National Student Clearinghouse, as described below.

NSC data variables

Sixty-five of the participating institutions provided data from the National Student Clearinghouse on students' educational activities following their departure from the participating institution. A total of 29,388 (13%) adult students from 7 institutions that did not provide NSC data were excluded from analyses pertaining to academic enrollment or completion after the student exited the primary institution.

Consistent with reports that some students do not permit their records to be shared with NSC, about 30% of students were missing from the NSC data submitted by the 65 institutions who provided these data. Because the timeframe of the NSC data includes the entire cohort timeframe, students whose primary institution does not appear in the NSC data are assumed to have incomplete data (and therefore were counted as missing), while students whose only records pertain to the primary institution are assumed to have no post-primary institution educational activities. Because 30% of the students had missing data, the analyses included in the report are likely undercounting post-primary educational activity.

New variables were derived from the NSC data that captured academic enrollment and completion occurring after exit from the primary institution, but within the cohort timeframe. Students were identified as enrolled after exit from the primary institution if they met all of the following criteria: 1) they had at least one enrollment record associated with their primary institution (this reduces the likelihood that the student was incorrectly matched to the NSC data), 2) they first enrolled at the post-primary institution after they first enrolled at the primary institution, 3) their enrollment period at the post-primary institution contained dates after the student was no longer enrolled at the primary institution, regardless of whether the student was co-enrolled at the primary and post primary institution, and 4) the student first enrolled at the post-primary institution before 1/1/2019.

Students were identified as having completed at a post-primary institution if they met all of the following criteria: 1) they had at least one enrollment record associated with their primary institution, 2) they first enrolled at the post-primary institution after they first enrolled at the primary institution (the college sequence for the post-primary institution was greater than the colleges sequence for the primary institution), 3) the post-primary institution graduation date was after the primary institution exit date, and 4) the student earned a certificate, associate degree, bachelor's degree or graduate degree. These four degree/credential types were each codified in a separate yes/no variable to allow analysis by post-primary degree/credential type.

Propensity Score Matching Analysis

This section describes the research led by Jason L. Taylor, Assistant Professor in the Department of Educational Leadership and Policy at the University of Utah. He received his Ph.D. in Higher Education from the University of Illinois at Urbana-Champaign with a research specialization in evaluation methods and concentration in public policy. His scholarship investigates how higher education policies shape educational opportunities for marginalized and underrepresented college students, particularly in the community college sector.

For this research, Taylor used the data and variables prepared by CAEL for the descriptive analysis. The definitions outlined in previous sections also apply here, unless otherwise noted.

Methodology: Isolating the effect of PLA

To truly isolate the effect and identify the causal effect of PLA, students would need to be randomly assigned to either receive PLA or not receive PLA. In the absence of random assignment, we used propensity score matching (PSM), which is in the quasi-experimental design family of research designs because it attempts to approximate causal inference (Murnane & Willet, 2011). Although we use PSM in this analysis, we do not make causal inferences in this study because our data and design do not meet the strongest standards for the underlying PSM assumption (described below). However, we elected to produce PSM estimates rather than standard regression estimates because PSM offers methodological advantages, namely by reducing bias and increasing the precision of our estimates (Murnane & Willet, 2011). What follows is a description of our methodological approach for the PSM estimates.

Propensity score matching

The goal of propensity score matching is to address selection bias by simulating a treatment and control group by creating a propensity score that represents an individual's likelihood of treatment assignment and is based on observed covariates (Rosenbaum & Rubin, 1983; 1984; 1985). Below is a description of the PSM process and method as it was applied in this study and generally followed the PSM matching sequence suggested by Caliendo & Kopeinig (2008).

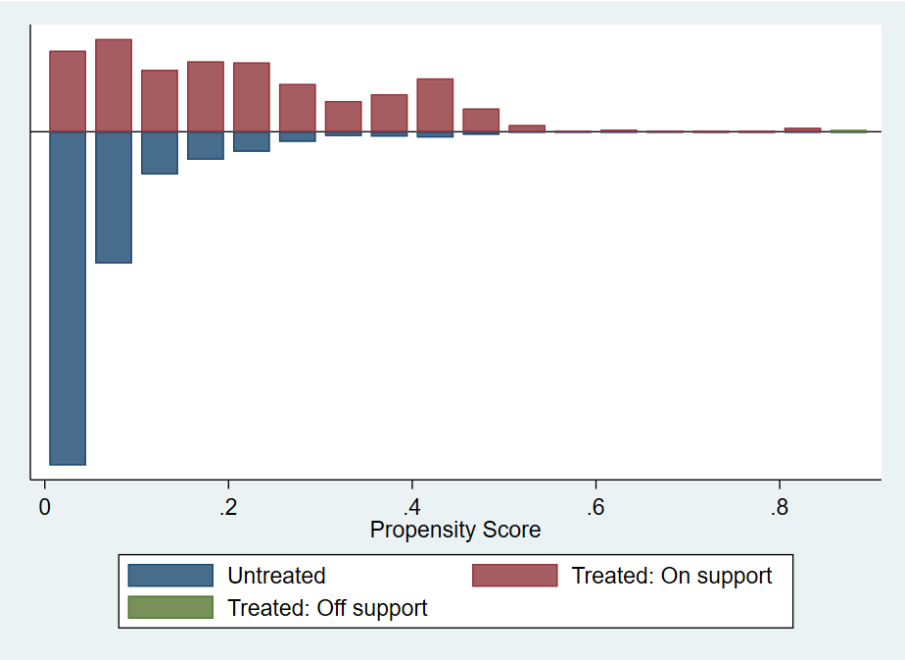
Step 1: Generate propensity scores

The first step of the PSM process is to use existing covariates to generate a propensity score that represents every individual's probability of being in the treatment group (PLA credit recipients). This is accomplished by using a logistic regression (for the binary outcome of receiving PLA credits or not) to regress PLA receipt on all covariates. Because we want to model the selection process and reduce selection bias, the critical assumption of this step is that we use covariates that influenced selection into PLA. It is important for the propensity score to use pre-treatment variables, so we only included student-level variables that were pre-treatment or in the first semester of students' postsecondary career. The following variables were used to generate the propensity score: race/ethnicity (grouped according to federal categorizations), gender, age (age was only included for analyses that included all students and not just adult students), Pell Grant recipient status, Census/ACS Zip Code based Tabulation Area (ZCTA) indicator of lower-income concentration, number of transfer credits, first semester GPA, developmental education participation, first declared major, and an institutional-level fixed effect indicator (see Table 1 below for coding categories for each variable). There are two critical limitations of this analysis. First, a couple of the variables may not be pre-treatment variables (e.g., first semester GPA, developmental education participation), which violates the PSM assumption. However, we felt it was important to include these two measures in the derivation of the propensity score because they were our only measures of students' academic performance. Further, these measures were derived in the first semester of students' college careers (first semester GPA) or likely early in their college career (developmental education) so the treatment may be less likely to have affected them than if they were measures later in these students' college careers. The inclusion of pre-treatment variables may bias our estimates (in this case, likely an upward bias). Second, although the covariates used to create the propensity score represent a robust set of covariates that predict the likelihood of treatment participation, it is by no means a comprehensive list of factors that influence selection into PLA, which means we cannot make a causal inference. However, the benefit of PSM is that it allows us to create treatment and control groups of students who took PLA and did not take PLA but had a similar propensity to take PLA. In other words, it allows us to more precisely compare the PLA student outcomes to the outcomes of students who looked similar to the PLA students. And as demonstrated below, once we use the propensity scores to create a matched control group, we successfully remove baseline differences between the treatment and control groups on observable characteristics. It is important to note that there still may be systematic differences between treatment and control groups on unobserved characteristics that might influence selection into PLA (e.g., advising experiences, motivation for going to college, previous work or educational experiences, etc.).

Step 2: Assess area of common support

PSM relies on an adequate area of common support whereby there is adequate overlap in the propensities among individuals in the treatment and control groups. A visual analysis of common support is adequate to assess the common support. Figure 1 illustrates this overlap for the primary analysis of the effect of PLA on completion. The red bars are the PLA students (treated) and the blue bars are the non-PLA students (control). We would expect the distribution of treated students to be larger on the right side of the distribution and the distribution of control students to be larger on the left side. This distribution shows that we have adequate overlap to compare the outcomes of individuals in the control group to those in the treatment group. For all PSM analyses and models, an area of common support was established, and treatment observations were excluded if their propensity score was higher than the maximum control group propensity score.

Figure 1. Propensity scores by treated (PLA) and untreated (non-PLA) students



Step 3: Conduct matching

There are multiple techniques and approaches to matching in the methodological and applied literature. For this analysis, two specific matching techniques were used. First, we used nearest-neighbor matching which matches an individual in the control group with an individual in the treatment group with a similar propensity score (Morgan & Winship, 2007). We also limited the nearest-neighbor matching based on a caliper, which is a predetermined difference between the propensity score a treatment and control; this caliper was set to .01 (Reardon, Cheadle, & Robinson, 2009). That is, a control student was only matched to a treatment student if they had a very similar propensity score (within .01 of each other). Finally, during the matching process we used *one-to-many matching* whereby an individual in the treatment group could be matched with more than one individual in the control group; a maximum of two control individuals were used per treatment individual and final estimates were weighted if more than one control individual was used in the matching process.

Step 4: Covariate balance check

The final step before estimating the effect of PLA was to assess if the matched groups of treatment and control students were systematically different based on observed covariates (Rosenbaum & Rubin, 1985). This is accomplished by simply examining the differences in the mean (continuous variables) or the distribution (categorical variables) between the treatment and control group. If there are no differences, PSM is acting similar to random assignment whereby if individuals were randomly assigned to the treatment and control groups, the distribution of observed covariates would be equally distributed between the treatment and the control group. This ensures baseline equivalencies between the treatment and control group and allows us to attribute the difference in outcomes between the treatment and control group to the treatment. However, as previously noted, even though most covariates achieved balance in the PSM models and estimates produced in this analysis, we were unable to establish causal estimates.

The results of several unique PSM models are included in the report, but for the purpose of illustrating covariate balance, we only display the covariate balance for the primary effects of PLA (not including AP/IB) on completion at the original institution for the adult students in the sample. Table 1 displays the covariate balance before and after the matching process for the primary model of the effect of PLA (not including AP/IB) on completion for the adult students. For example, before matching, the adult PLA students were significantly more likely to be male (68%) compared to Non-PLA students (36%). After matching, there was virtually no difference in the gender distribution between PLA and non-PLA students. Table 1 shows that balance was achieved for all covariates.

Table 1. Covariate balance before and after the matching process for the primary model of the effect of PLA on adult students[2]

Variable	Before Matching		After Matching	
	PLA	Non-PLA	PLA	Non-PLA
Race/ethnicity				
White or Asian	21%	32%	21%	22%
Students of Color (Black, Hispanic, Native Hawai'ian/ Other Pacific Islander, American Indian/Alaska Native, and Multi-racial)	13%	21%	13%	14%
Unknown	66%	47%	66%	64%
Gender				
Male	68%	36%	68%	69%
Female	32%	64%	32%	31%
Pell Grant recipient				
Yes	42%	64%	42%	42%
No	56%	33%	56%	56%
Unknown	3%	3%	3%	3%
Transfer credits				
Number of transfer credits (average)	29	24.1	29	31
Developmental education participant				
Yes	7%	12%	7%	8%
No	93%	88%	93%	92%
Program CIP Code				
STEM	2%	3%	2%	2%
Computer & information sciences	14%	9%	14%	14%
Industrial & applied technologies	1%	1%	1%	1%
Health	12%	18%	12%	12%
Business	34%	28%	34%	34%
Education & child care	1%	5%	1%	1%
Human services & public safety	16%	11%	16%	15%
Other CTE	<1%	<1%	<1%	<1%
Social & behavioral sciences	7%	7%	7%	6%
Arts, humanities, communication, & design	12%	16%	12%	13%
Missing or uncategorized	<1%	2%	<1%	1%
Low income				
Average percent of residential community that was lower income (below 200% Poverty)	31%	33%	31%	30%

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[2] There may be slight differences in distribution of PLA students vs. non-PLA students in this table, compared to the results in the main report, due to the model omitting several institutions.

Variable	Before Matching		After Matching	
	PLA	Non-PLA	PLA	Non-PLA
Institution (presented in random order; note that several institutions were dropped by the model, typically in cases where there was no variation in the outcome on the treatment variable)				
Institution 1	0.44%	0.28%	0.44%	0.46%
Institution 2	2.35%	6.15%	2.35%	2.49%
Institution 3	62.9%	42.25%	62.91%	60.48%
Institution 4	0.01%	0.25%	0.01%	0.02%
Institution 5	2.40%	2.34%	2.40%	2.62%
Institution 6	0.50%	6.43%	0.50%	0.64%
Institution 7	0.55%	2.31%	0.55%	0.56%
Institution 8	0.65%	1.39%	0.65%	0.66%
Institution 9	<0.00%	0.08%	<0.00%	<0.00%
Institution 10	1.23%	1.72%	1.23%	1.35%
Institution 11	0.10%	1.18%	0.10%	0.11%
Institution 12	0.28%	1.44%	0.28%	0.28%
Institution 13	1.13%	0.23%	1.13%	1.11%
Institution 14	0.09%	1.23%	0.09%	0.12%
Institution 15	0.68%	2.54%	0.68%	0.81%
Institution 16	0.03%	0.16%	0.03%	0.04%
Institution 17	0.01%	0.12%	0.01%	0.01%
Institution 18	0.05%	0.24%	0.05%	0.04%
Institution 19	0.02%	0.11%	0.02%	0.03%
Institution 20	0.31%	0.24%	0.31%	0.34%
Institution 21	0.09%	0.29%	0.09%	0.08%
Institution 22	11.51%	5.13%	11.51%	12.19%
Institution 23	0.09%	0.02%	0.09%	0.11%
Institution 24	0.29%	0.40%	0.29%	0.31%
Institution 25	0.17%	0.43%	0.17%	0.16%
Institution 26	0.09%	0.25%	0.09%	0.10%
Institution 27	0.03%	0.13%	0.03%	0.05%
Institution 28	0.19%	0.28%	0.19%	0.20%
Institution 29	0.05%	0.18%	0.05%	0.04%
Institution 30	0.08%	0.29%	0.08%	0.09%
Institution 31	0.43%	0.15%	0.43%	0.53%
Institution 32	0.61%	0.28%	0.61%	0.67%
Institution 33	0.61%	0.52%	0.61%	0.62%
Institution 34	0.41%	0.22%	0.41%	0.55%
Institution 35	0.06%	0.19%	0.06%	0.06%
Institution 36	0.21%	1.07%	0.21%	0.21%
Institution 37	<0.00%	0.74%	<0.00%	0.01%
Institution 38	1.14%	0.94%	1.14%	1.30%
Institution 39	0.04%	0.26%	0.04%	0.05%
Institution 40	0.20%	0.20%	0.20%	0.22%

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Variable	Before Matching		After Matching	
	PLA	Non-PLA	PLA	Non-PLA
Institution 41	0.42%	0.29%	0.42%	0.51%
Institution 42	0.14%	0.94%	0.14%	0.21%
Institution 43	0.21%	0.23%	0.21%	0.29%
Institution 44	0.10%	0.03%	0.10%	0.10%
Institution 45	0.09%	0.17%	0.09%	0.09%
Institution 46	0.07%	0.03%	0.07%	0.10%
Institution 47	0.23%	1.47%	0.23%	0.28%
Institution 48	0.12%	0.98%	0.12%	0.16%
Institution 49	2.04%	0.12%	2.03%	1.97%
Institution 50	0.26%	0.04%	0.26%	0.22%
Institution 51	0.09%	0.65%	0.09%	0.12%
Institution 52	0.07%	0.21%	0.07%	0.05%
Institution 53	0.02%	0.01%	0.02%	0.02%
Institution 54	2.69%	2.29%	2.69%	2.63%
Institution 55	0.25%	0.34%	0.25%	0.23%
Institution 56	0.08%	1.16%	0.08%	0.10%
Institution 57	0.21%	0.26%	0.21%	0.23%
Institution 58	0.88%	0.39%	0.88%	0.79%
Institution 59	0.24%	0.27%	0.24%	0.23%
Institution 60	1.02%	0.58%	1.02%	1.08%
Institution 61	0.18%	2.51%	0.18%	0.22%
Institution 62	0.06%	0.11%	0.06%	0.05%
Institution 63	0.16%	1.48%	0.16%	0.17%
Institution 64	0.23%	1.14%	0.23%	0.23%
Institution 65	0.14%	1.64%	0.14%	0.18%

Step 5: Estimate treatment effect

The final step is to estimate the treatment effect. This is simply done by calculating the difference in the outcomes between the treatment and control group based on the matched observations generated by the matching process. The difference between the treatment and control provides an estimate of the effect size of PLA participation.

Effect heterogeneity

We also produced PSM estimates for several subgroups of students as is presented throughout the report. To generate these estimates, we restricted the analysis to each subgroup and repeated the five steps above. It is important to note that for some subgroup analyses, we did not achieve adequate co-variate balance on all covariates, the result of which may also bias the PSM results. This was not a widespread issue, but important to note.

Treatment groups

The PSM results presented in the report used two primary treatment groups:

1. The first treatment group included students who received PLA credits other than AP/IB, so we ran a series of models using the steps outlined above with an indicator of whether students received PLA (No AP/IB) or not.
2. The second treatment group included only students who received PLA credits other than AP/IB, and also excluding those who only had PLA credit from ACE credit recommendations for military training (the group called “PLA-non-military” in the report).

We ran a second series of models using the steps outlined above with an indicator of whether students received PLA (No AP/IB/ACE credit recommendations for military) or not.

Dosage effects method

The dosage effects presented in the credential completion section of the report did not use PSM methods. Rather, we used a logistic regression model and calculated the marginal effects using Stata's margins command; the marginal effects are interpreted similar to the PSM estimates and represent the difference in credential completion for PLA (no AP/IB) students relative to non-PLA students, and then also the difference in credential completion for PLA-non-military (no AP/IB and no ACE credit recommendations for military) students relative to non-PLA students. Our logistic regression models included the same student-level covariates used in the PSM analysis (described above) as well as a set of institutional-level variables derived from IPEDS for 2011-2012 and the CAEL survey, including:

- Open admissions (IPEDS): Admission policy whereby the school will accept any student who applies
- System flagship: An institution that is either the flagship of a system of institutions or an institution that is known to report to IPEDS on behalf of non-reporting institutions within their system
- Weekend and evening school delivery (IPEDS): An institution reported providing weekend and evening school services.
- Daycare options for students (IPEDS): An institution reported providing on-campus day care for students' children
- Selectivity (IPEDS): Percent of applicants admitted to an institution.
- MSI status (Rutgers University Graduate School of Education Center for Minority Serving Institutions): detailed definition defined earlier in this appendix
- Percent of fall students who were underrepresented minorities (IPEDS): Percent of fall semester entering degree-/certificate-seeking undergraduates (including first-time and transfer students) who were American Indian/Alaska Native, Black, Hispanic, Native Hawai'ian/Other Pacific Islander, or Two or more races.
- Full-time equivalency enrollment (IPEDS): Undergraduate full-time equivalent enrollment.
- Total awards per FTE (IPEDS): Total awards per 100 FTE undergraduate enrollments.
- Percent of first-time full-time Pell students (IPEDS): Percent of first-time, full-time undergraduates in financial aid cohort awarded a Pell Grant.
- Adult-focused institution status (CAEL/WICHE SURVEY): See "institutional culture variables," above.
- PLA commitment (CAEL/WICHE SURVEY): See "institutional culture variables," above.

Assessing the magnitude of PLA treatment effects

We wanted to understand the treatment effects sizes from the PSM estimates so we turned to the Institute of Education Sciences (IES) What Works Clearinghouse (WWC) procedures. The WWC procedures is the guide to assess the quality of educational research and has a standardized protocol for evaluating the magnitude of different effect sizes. Namely, WWC uses standardized mean differences to assess the magnitude of an effect size. This allows us to assess the magnitude of an effect size in standard deviation (SD) units that can be compared across studies and methods. By calculating a standardized effect size, we can then compare effect sizes to other social science research. For example, some social scientists use Cohen's (1988) standard, which suggests that 0.2=small effect, 0.5=medium effect, and 0.8=large effect. Despite being used widely, Cohen's standard has been critiqued for multiple reasons. One more appropriate comparison is the WWC's 4.0 standards of an effect size of .25 SD, which they considered substantively important (Note: in the 4.1 standards, WWC decided not to characterize the magnitude of the effect size). Perhaps an even more appropriate comparison is to look at meta-analyses. In an IES-funded study of effect sizes, Lipsey et al. (2012) reviewed 124 randomized control trials in education and found an average effect size of .28 SD. For the purpose of interpreting the magnitude of the findings in this study, we do not have comparable effect sizes from other PLA studies, but it is reasonable to consider effect sizes over .25 SD as large and meaningful.

For dichotomous outcomes similar to those measured in this study (e.g., complete or not complete), the mean difference is the difference in the probability of the occurrence of an event; that is, the probability of completion or not. WWC suggests using the odds ratio and the Cox index to calculate the standardized mean different. The WWC suggests using the Cox index which is calculated by converting the odds ratio into a log odds ratio (LOR) and dividing the LOR by 1.65. To estimate the odds ratio, we simply used a logit model in Stata using only the propensity score matching observations used from Stata's psmatch2 command. The logit model included all student-level control variables that were used in the PSM analyses. The result yielded an odds ratio of OR=2.485322. Applying the Cox index formula results in an effect size of .55. This can be interpreted as: the PLA (no AP/IB) students had a completion rate that was .55 standard deviations higher than non-PLA students. This effect size could be considered quite large relative to WWC's 4.0 standards of .25 SD.

Appendix B: Characteristics of Students in the Sample

Statistical significance testing comparing demographic subgroups were performed on a limited basis. See section of the report on Equity for select reporting of significance.

Table 1. Age range of all undergraduate students in sample

	All undergraduate students in sample - number					All undergraduate students in sample - percent				
	All institutions	**2-year public**	**4-year public**	**4-year private nonprofit**	**For-profit**	**All institutions**	**2-year public**	**4-year public**	**4-year private nonprofit**	**For-profit**
Total						444,698	144,174	116,951	21,045	162,528
Row %							32%	26%	5%	37%
17-24	211,946	87,754	79,790	5,576	38,826	48%	61%	68%	26%	24%
25-34	134,657	32,068	24,893	7,039	70,657	30%	22%	21%	33%	43%
35-44	62,148	14,057	8,191	5,011	34,889	14%	10%	7%	24%	21%
45-54	28,583	7,580	3,221	2,728	15,054	6%	5%	3%	13%	9%
55-64	6,630	2,298	774	662	2,896	1%	2%	1%	3%	2%
65+	734	417	82	29	206	0%	0%	0%	0%	0%
Total	444,698	144,174	116,951	21,045	162,528	100%	100%	100%	100%	100%

Table 2. Race/ethnicity of undergraduate students in sample, all ages and adult students, by institution type

	All students					Students age 25+ (adult student definition)					Age 25+ enrollment at online institution	
	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	Predominantly online	Not predominantly online
Total	444,698	144,174	116,951	21,045	162,528	232,752	56,420	37,161	15,469	123,702	142,798	89,954
Row %		32%	26%	5%	37%		24%	16%	7%	53%	61%	39%
Race/ethnicity (number and column %) *Note that race/ethnicity was not provided for a small subset of institutions*												
American Indian/ Alaska Native	2,162	688	919	158	397	1,144	311	392	126	315	498	646
% all students	0%	0%	1%	1%	0%	0%	1%	1%	1%	0%	0%	1%
% exclude unknowns	1%	1%	1%	1%	1%	0.9%	1%	1%	1%	1%	1%	1%
Asian	11,589	4,179	6,395	634	381	3,421	1,139	1,500	488	294	813	2,608
% all students	3%	3%	5%	3%	0%	1%	2%	4%	3%	0%	1%	3%
% exclude unknowns	4%	3%	6%	3%	1%	3%	2%	5%	3%	1%	2%	3%
Black	53,265	24,109	16,600	2,767	9,789	29,510	11,183	7,918	2,221	8,188	11,961	17,549
% all students	12%	17%	14%	13%	6%	13%	20%	21%	14%	7%	8%	20%
% exclude unknowns	19%	18%	16%	14%	33%	24%	22%	24%	15%	36%	29%	22%
Hispanic	50,166	28,491	17,726	1,766	2,183	16,414	8,730	4,779	1,252	1,653	3,102	13,312
% all students	11%	20%	15%	8%	1%	7%	15%	13%	8%	1%	2%	15%
% exclude unknowns*	18%	22%	17%	9%	7%	13%	17%	15%	8%	7%	8%	16%
Native Hawaiian/ Other Pacific Islander	1,988	932	845	74	137	801	325	305	62	109	168	633
% all students	0%	1%	1%	0%	0%	0%	1%	1%	0%	0%	0%	1%
% exclude unknowns	1%	1%	1%	0%	0%	0.7%	1%	1%	0%	0%	0%	1%
White	157,929	68,191	58,659	14,732	16,347	68,616	27,953	17,421	10,794	12,448	24,238	44,378
% all students	36%	47%	50%	70%	10%	29%	50%	47%	70%	10%	17%	49%
% exclude unknowns	55%	52%	56%	73%	56%	56%	55%	53%	72%	54%	59%	55%
Multiracial	8,971	4,520	4,405	46	0	1,883	1,275	598	10	0	13	1,870
% all students	2%	3%	4%	0%	0%	1%	2%	2%	0%	0%	0%	2%
% exclude unknowns	3%	3%	4%	0%	0%	1.5%	3%	2%	0%	0%	0%	2%
Unknown	158,628	13,064	11,402	868	133,294	110,963	5,504	4,248	516	100,695	102,005	8,958
% all students	36%	9%	10%	4%	82%	48%	10%	11%	3%	81%	71%	10%

**Calculations of share of students of each race/ethnicity but excluding the students with unknown race/ethnicity from the denominator*

Table 3. Gender and veteran/military status of undergraduate students in sample, all ages and adult students, by institution type

	All students					Students age 25+ (adult student definition)					Age 25+ enrollment at online institution	
	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	Predominantly online	Not predominantly online
Total	444,698	144,174	116,951	21,045	162,528	232,752	56,420	37,161	15,469	123,702	142,798	89,954
Row %		32%	26%	5%	37%		24%	16%	7%	53%	61%	39%
Gender (number and column %)												
Male	183,960	66,121	57,956	8,144	51,739	90,610	24,675	18,947	5,992	40,996	48,626	41,984
% all students	41%	46%	50%	39%	32%	39%	44%	51%	39%	33%	34%	47%
Female	257,058	77,727	57,772	12,882	108,677	139,701	31,591	17,565	9,459	81,086	92,458	47,243
% all students	58%	54%	49%	61%	67%	60%	56%	47%	61%	66%	65%	53%
Other	242	150	56	18	18	131	90	9	17	15	109	22
% all students	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Unknown	3,438	176	1,167	1	2,094	2,310	64	640	1	1,605	1,605	705
% all students	1%	0%	1%	0%	1%	1%	0%	2%	0%	1%	1%	1%
Veteran status (number and column %)												
Does not and has never served	273,235	82,469	47,687	14,812	128,267	155,665	33,558	15,383	12,201	94,523	110,629	45,036
% all students	61%	57%	41%	70%	79%	67%	59%	41%	79%	76%	77%	50%
Currently serving or veteran	54,601	4,392	24,463	2,288	23,458	37,747	2,760	13,733	1,964	19,290	21,321	16,426
% all students	12%	3%	21%	11%	14%	16%	5%	37%	13%	16%	15%	18%
Unknown status for individual	99,276	52,793	42,538	3,945	0	26,462	18,015	7,143	1,304	0	959	25,503
% all students	22%	37%	36%	19%	0%	11%	32%	19%	8%	0%	1%	28%
Unknown status at entire institution (not tracked)	17,586	4,520	2,263	0	10,803	12,878	2,087	902	0	9,889	9,889	2,989
% all students	4%	3%	2%	0%	7%	6%	4%	2%	0%	8%	7%	3%

Table 4. Socioeconomic status of adult students (Pell Grant status and share of individuals in residential area at or below 200% poverty level), by institution type, race/ethnicity, and age range

	Pell status (number and row%)					Share of individuals in residential area at or below 200% poverty level (number and row %)						
	All students	Student has received one or more Pell Grant	Student has not received a Pell Grant	Unknown for individual	Unknown for institution	All students	Less than 15% of residential area at or below 200% poverty level (proxy for high SES)	Between 15 and 30% of residential area	Between 30 and 45% of residential area	Between 45 and 60% of residential area	More than 60% of residential area is at or below 200% poverty level (proxy for low SES)	Unknown or zip code error
Total	232,752	141,353	81,346	3,660	6,393	232,752	17,536	68,944	74,106	40,711	14,624	16,831
Row %		60%	34%	2%	4%		8%	30%	32%	18%	6%	7%
Institution type												
2-year public	56,420	30,015	23,506	2,050	849	56,420	4,844	18,632	17,678	9,854	3,773	1,639
Column %	25%	21%	29%	51%	39%	25%	28%	27%	24%	25%	27%	10%
Row %		53%	42%	4%	2%		9%	33%	31%	17%	7%	3%
4-year public	37,161	14,452	20,822	1,512	375	37,161	4,193	11,615	8,858	3,664	1,485	7,346
Column %	17%	12%	26%	46%	4%	17%	25%	18%	13%	10%	11%	44%
Row %		39%	56%	4%	1%		11%	31%	24%	10%	4%	20%
4-year private nonprofit	15,469	6,893	8,429	98	49	15,469	1,674	5,782	4,946	2,052	573	442
Column %	6%	5%	10%	2%	1%	6%	9%	8%	7%	5%	4%	3%
Row %		45%	54%	1%	0%		11%	37%	32%	13%	4%	3%
For-profit	123,702	89,993	28,589	0	5,120	123,702	6,825	32,915	42,624	25,141	8,793	7,404
Column %	52%	63%	35%	0%	56%	52%	38%	47%	56%	60%	58%	44%
Row %		73%	23%	0%	4%		6%	27%	34%	20%	7%	6%

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Table 4B. Socioeconomic status of adult students (Pell Grant status and share of individuals in residential area at or below 200% poverty level), by institution type, race/ethnicity, and age range

	Pell status (number and row%)					Share of individuals in residential area at or below 200% poverty level (number and row %)						
	All students	Student has received one or more Pell Grant	Student has not received a Pell Grant	Unknown for individual	Unknown for institution	All students	Less than 15% of residential area at or below 200% poverty level (proxy for high SES)	Between 15 and 30% of residential area	Between 30 and 45% of residential area	Between 45 and 60% of residential area	More than 60% of residential area is at or below 200% poverty level (proxy for low SES)	Unknown or zip code error
Total	232,752	141,353	81,346	3,660	6,393	232,752	17,536	68,944	74,106	40,711	14,624	16,831
Row %		60%	34%	2%	4%		8%	30%	32%	18%	6%	7%
Race/ethnicity (number, column %, row%) *Note that race/ethnicity was not provided for a small subset of institutions*												
Hispanic	16,414	8,439	7,303	256	416	16,414	923	4,061	5,238	3,544	1,290	1,358
Column % - exclude unknowns		14%	14%	8%	8%		9%	11%	15%	20%	20%	11%
Row % - exclude unknowns		51%	44%	2%	3%		6%	25%	32%	22%	8%	8%
Asian	3,421	1,124	2,059	162	76	3,421	426	1,302	790	294	55	554
Column % - exclude unknowns	3%	2%	4%	5%	1%	3%	4%	3%	2%	2%	1%	4%
Row % - exclude unknowns		33%	60%	5%	2%		12%	38%	23%	9%	2%	16%
Black	29,510	17,857	8,918	552	2,183	29,510	1,667	6,308	7,881	6,418	3,494	3,742
Column % - exclude unknowns	24%	30%	17%	16%	41%	24%	15%	16%	22%	36%	55%	29%
Row % - exclude unknowns		61%	30%	2%	7%		6%	21%	27%	22%	12%	13%
White	68,616	30,921	32,771	2,355	2,569	68,616	7,480	25,415	20,630	6,939	1,386	6,766
Column % - exclude unknowns	56%	51%	62%	69%	48%	56%	69%	66%	58%	39%	22%	53%
Row % - exclude unknowns		45%	48%	3%	4%		11%	37%	30%	10%	2%	10%
Other/multiracial	3,828	2,159	1,524	79	66	3,828	322	1,399	1,168	479	140	320
Column % - exclude unknowns		4%	3%	2%	1%		3%	4%	3%	3%	2%	3%
Row % - exclude unknowns		56%	40%	2%	2%		8%	37%	31%	13%	4%	8%
Unknown	110,963	80,853	28,771	256	1,083	110,963	6,718	30,459	38,399	23,037	8,259	4,091

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Table 4C. Socioeconomic status of adult students (Pell Grant status and share of individuals in residential area at or below 200% poverty level), by institution type, race/ethnicity, and age range

	Pell status (number and row%)					Share of individuals in residential area at or below 200% poverty level (number and row %)						
	All students	Student has received one or more Pell Grant	Student has not received a Pell Grant	Unknown for individual	Unknown for institution	All students	Less than 15% of residential area at or below 200% poverty level (proxy for high SES)	Between 15 and 30% of residential area	Between 30 and 45% of residential area	Between 45 and 60% of residential area	More than 60% of residential area is at or below 200% poverty level (proxy for low SES)	Unknown or zip code error
Total	232,752	141,353	81,346	3,660	6,393	232,752	17,536	68,944	74,106	40,711	14,624	16,831
Row %		60%	34%	2%	4%		8%	30%	32%	18%	6%	7%
Age range												
25-34	134,657	85,132	44,282	1,971	3,272	134,657	9,301	39,721	43,334	23,728	8,395	10,178
Column %	58%	60%	55%	56%	53%	58%	53%	58%	59%	59%	58%	61%
Row %		63%	33%	1%	2%		7%	29%	32%	18%	6%	8%
35-44	62,148	37,979	21,366	882	1,921	62,148	4,968	18,532	19,794	10,686	3,809	4,359
Column %	27%	27%	26%	23%	29%	27%	28%	27%	27%	26%	26%	26%
Row %		61%	34%	1%	3%		8%	30%	32%	17%	6%	7%
45-54	28,583	14,783	12,210	645	945	28,583	2,635	8,628	8,700	5,001	1,796	1,823
Column %	12%	10%	15%	17%	14%	12%	15%	12%	12%	12%	12%	11%
Row %		52%	43%	2%	3%		9%	30%	30%	17%	6%	6%
55-64	6,630	3,128	3,118	150	234	6,630	583	1,881	2,027	1,170	543	426
Column %	3%	2%	4%	4%	3%	3%	3%	3%	3%	3%	4%	3%
Row %		47%	47%	2%	4%		9%	28%	31%	18%	8%	6%
65+	734	331	370	12	21	734	49	182	251	126	81	45
Column %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Row %		45%	50%	2%	3%		7%	25%	34%	17%	11%	6%

Table 5A. Academic profile of adult students (transfer credits, enrollment intensity), by institution type, race/ethnicity, age range, and Pell status

	Transfer student				Enrollment intensity (full-time vs. part-time)					
	All students	**Some transfer credits**	**No transfer credits**	**Unknown**	**Less than 20% enrollment**	**21-40% enrollment**	**41-60% enrollment**	**61-80% enrollment**	**81-100% enrollment (full-time)**	**Unknown/ cannot calculate**
Total	232,752	111,248	121,478	26	39,857	51,280	50,985	43,620	17,204	29,806
Row %		48%	52%	0%	17%	22%	22%	19%	7%	13%
Institution type (number and row%)										
2-year public	56,420	10,492	45,928	0	8,000	10,625	8,090	4,870	2,199	22,636
Row %		19%	81%	0%	14%	19%	14%	9%	4%	40%
4-year public	37,161	22,612	14,546	3	7,397	7,764	6,972	5,041	3,760	6,227
Row %		61%	39%	0%	20%	21%	19%	14%	10%	17%
4-year private nonprofit	15,469	14,528	918	23	448	2,340	4,693	4,704	2,978	306
Row %		94%	6%	0%	3%	15%	30%	30%	19%	2%
For-profit	123,702	63,616	60,086	0	24,012	30,551	31,230	29,005	8,267	637
Row %		51%	49%	0%	19%	25%	25%	23%	7%	1%
Race/ethnicity (number and column %) **Note that race/ethnicity was not provided for a small subset of institutions**										
Hispanic	16,414	6,538	9,876	0	1,860	2,673	2,658	2,014	1,191	6,018
Row %		40%	60%	0%	11%	16%	16%	12%	7%	37%
Asian	3,421	2,072	1,347	2	501	643	743	538	331	665
Row %		61%	39%	0%	15%	19%	22%	16%	10%	19%
Black	29,510	11,692	17,813	5	5,585	7,334	5,912	3,743	1,550	5,386
Row %		40%	60%	0%	19%	25%	20%	13%	5%	18%
White	68,616	34,742	33,858	16	8,169	13,108	14,416	11,985	7,216	13,722
Row %		51%	49%	0%	12%	19%	21%	17%	11%	20%
Other/multiracial	3,828	1,766	2,060	2	547	820	848	588	333	692
Row %		46%	54%	0%	14%	21%	22%	15%	9%	18%
Unknown	110,963	54,438	56,524	1	23,195	26,702	26,408	24,752	6,583	3,323

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Table 5B. Academic profile of adult students (transfer credits, enrollment intensity), by institution type, race/ethnicity, age range, and Pell status

	Transfer student				Enrollment intensity (full-time vs. part-time)					
	All students	**Some transfer credits**	**No transfer credits**	**Unknown**	**Less than 20% enrollment**	**21-40% enrollment**	**41-60% enrollment**	**61-80% enrollment**	**81-100% enrollment (full-time)**	**Unknown/ cannot calculate**
Total	232,752	111,248	121,478	26	39,857	51,280	50,985	43,620	17,204	29,806
Row %		48%	52%	0%	17%	22%	22%	19%	7%	13%
Age range										
25-34	134,657	62,988	71,654	15	23,421	30,174	29,323	24,867	10,260	16,612
Row %		47%	53%	0%	17%	22%	22%	18%	8%	12%
35-44	62,148	30,804	31,339	5	10,448	13,763	13,922	11,994	4,633	7,388
Row %		50%	50%	0%	17%	22%	22%	19%	7%	12%
45-54	28,583	14,300	14,277	6	4,644	5,857	6,304	5,687	1,925	4,166
Row %		50%	50%	0%	16%	20%	22%	20%	7%	15%
55-64	6,630	2,986	3,644	0	1,185	1,352	1,330	1,025	369	1,369
Row %		45%	55%	0%	18%	20%	20%	15%	6%	21%
65+	734	170	564	0	159	134	106	47	17	271
Row %		23%	77%	0%	22%	18%	14%	6%	2%	37%
Pell status										
Student has received one or more Pell Grant	141,353	62,155	79,183	15	20,101	33,181	34,950	31,219	11,402	10,500
Row %		44%	56%	0%	14%	23%	25%	22%	8%	7%
Student has not received a Pell Grant	81,346	43,248	38,088	10	16,584	15,444	14,262	11,668	5,408	17,980
Row %		53%	47%	0%	20%	19%	18%	14%	7%	22%
Unknown for individual	3,660	1,801	1,858	1	1,018	919	702	347	200	474
Row %		49%	51%	0%	28%	25%	19%	9%	5%	13%
Unknown for institution	6,393	4,044	2,349	0	2,154	1,736	1,071	386	194	852
Row %		63%	37%	0%	34%	27%	17%	6%	3%	13%

Table 6. Academic profile of adult students (online status, developmental education), by institution type, race/ethnicity, age range, and Pell status

	Online status				Developmental education participation	
	All students	Exclusively online	Not exclusively online	Unknown	Dev ed credits (any)	No dev ed credits
Total	232,752	130,349	90,591	11,812	25,676	207,076
Row %		56%	39%	5%	11%	89%
Institution type (number and row %)						
2-year public	56,420	10,214	35,475	10,731	20,668	35,752
Row %		18%	63%	19%	37%	63%
4-year public	37,161	11,515	24,932	714	4,374	32,787
Row %		31%	67%	2%	12%	88%
4-year private nonprofit	15,469	13,025	2,077	367	303	15,166
Row %		84%	13%	2%	2%	98%
For-profit	123,702	95,595	28,107	0	331	123,371
Row %		77%	23%	0%	0%	100%
Race/ethnicity (number and column %) **Note that race/ethnicity was not provided for a small subset of institutions**						
Asian	3,421	1,172	1,981	268	459	2,962
Row %		34%	58%	8%	13%	87%
Black	29,510	15,908	11,642	1,960	6,463	23,047
Row %		54%	39%	7%	22%	78%
Hispanic	16,414	4,204	7,789	4,421	3,502	12,912
Row %		26%	47%	27%	21%	79%
White	68,616	30,448	33,724	4,444	11,907	56,709
Row %		44%	49%	6%	17%	83%
Multiracial	3,828	1,014	2,563	251	909	2,919
Row %		26%	67%	7%	24%	76%
Unknown	110,963	77,603	32,892	468	2,436	108,527
Row %		70%	30%	0%	2%	98%

	Online status				Developmental education participation	
	All students	Exclusively online	Not exclusively online	Unknown	Dev ed credits (any)	No dev ed credits
Total	232,752	130,349	90,591	11,812	25,676	207,076
Row %		56%	39%	5%	11%	89%
Age range						
25-34	134,657	72,697	55,556	6,404	15,630	119,027
Row %		54%	41%	5%	12%	88%
35-44	62,148	37,337	21,690	3,121	6,265	55,883
Row %		60%	35%	5%	10%	90%
45-54	28,583	16,351	10,565	1,667	3,018	25,565
Row %		57%	37%	6%	11%	89%
55-64	6,630	3,638	2,508	484	675	5,955
Row %		55%	38%	7%	10%	90%
65+	734	326	272	136	88	646
Row %		44%	37%	19%	12%	88%
Pell status						
Student has received one or more Pell Grant	141,353	85,353	50,286	5,714	18,662	122,691
Row %		60%	36%	4%	13%	87%
Student has not received a Pell Grant	81,346	39,003	36,594	5,749	6,155	75,191
Row %		48%	45%	7%	8%	92%
Unknown for individual	3,660	831	2,829	0	533	3,127
Row %		23%	77%	0%	15%	85%
Unknown for institution	6,393	5,162	882	349	326	6,067
Row %		81%	14%	5%	5%	95%

Table 7. ESL participation of adult students by institution type

	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit
Total	232,752	56,420	37,161	15,469	123,702
ESL participation					
Any ESL enrollment	4,118	4,035	83	0	0
% all students	2%	7%	0%	0%	0%
No ESL enrollment	114,375	41,570	33,692	13,273	25,840
% all students	49%	74%	91%	86%	21%
Unknown	114,259	10,815	3,386	2,196	97,862
% all students	49%	19%	9%	14%	79%

Table 8. Grades and course completions by adult students at the primary institution, by institution type

	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit
Total	232,752	56,420	37,161	15,469	123,702
First-term GPA					
1.00 or less	36,382	16,185	6,710	319	13,168
% all students	16%	29%	18%	2%	11%
1.01 to 2.00	21,468	4,014	3,236	262	13,956
% all students	9%	7%	9%	2%	11%
2.01 to 3.00	60,108	9,829	8,899	12,449	28,931
% all students	26%	17%	24%	80%	23%
3.01 to 4.00	108,677	25,654	18,041	2,190	62,792
% all students	47%	45%	49%	14%	51%
Unknown	6,117	738	275	249	4,855
% all students	3%	1%	1%	2%	4%
Cumulative GPA					
1.00 or less	34,883	13,893	6,056	324	14,610
% all students	15%	25%	16%	2%	12%
1.01 to 2.00	27,975	5,620	3,602	343	18,410
% all students	12%	10%	10%	2%	15%
2.01 to 3.00	72,505	11,635	9,180	12,533	39,157
% all students	31%	21%	25%	81%	32%
3.01 to 4.00	93,983	24,599	17,721	2,220	49,443
% all students	40%	44%	48%	14%	40%
Unknown	3,406	673	602	49	2,082
% all students	1%	1%	2%	0%	2%
Course success rate					
Less than 70%	74,660	21,389	11,150	5,576	36,545
% all students	32%	38%	30%	36%	30%
71-89%	40,689	6,492	5,221	2,939	26,037
% all students	17%	12%	14%	19%	21%
90-100%	110,312	21,882	20,630	6,694	61,106
% all students	47%	39%	56%	43%	49%
Unknown	7,091	6,657	160	260	14
% all students	3%	12%	0%	2%	0%

Table 9. First credential completed at primary institution by December 31, 2018, by credential goal, all students versus adult students

	Credential goal - all students					Credential goal - adult students				
	All students	**Certificate**	**Associate degree**	**Bachelor's degree**	**Unknown**	**All students**	**Certificate**	**Associate degree**	**Bachelor's degree**	**Unknown**
Total	444,698	13,912	208,893	189,384	32,509	232,752	7,892	105,285	104,228	15,347
Row %		3%	47%	43%	7%		3%	45%	45%	7%
Students who earned a credential	139,199	4,633	48,090	83,206	3,270	69,130	2,646	25,089	40,107	1,288
Row %		3%	35%	60%	2%		4%	36%	58%	2%
Certificate	11,430	4,086	5,394	363	1,587	5,974	2,435	2,463	250	826
% all students	3%	29%	3%	0%	5%	3%	31%	2%	0%	5%
% students who earned a credential	8%	88%	11%	0%	49%	9%	92%	10%	1%	64%
Associate degree	44,544	520	41,267	1,614	1,143	23,286	190	21,966	793	337
% all students	10%	4%	20%	1%	4%	10%	2%	21%	1%	2%
% students who earned a credential	32%	11%	86%	2%	35%	34%	7%	88%	2%	26%
Bachelor's degree	83,225	27	1,429	81,229	540	39,870	21	660	39,064	125
% all students	19%	0%	1%	43%	2%	17%	0%	1%	37%	1%
% students who earned a credential	60%	1%	3%	98%	17%	58%	1%	3%	97%	10%
Did not complete any credential	305,499	9,279	160,803	106,178	29,239	163,622	5,246	80,196	64,121	14,059
% all students	69%	67%	77%	56%	90%	70%	66%	76%	62%	92%

Table 10. Highest credential completed at primary institution by December 31, 2018, by credential goal, all students versus adult students

	Credential goal - all students					Credential goal - adult students				
	All students	**Certificate**	**Associate degree**	**Bachelor's degree**	**Unknown**	**All students**	**Certificate**	**Associate degree**	**Bachelor's degree**	**Unknown**
Total	444,698	13,912	208,893	189,384	32,509	232,752	7,892	105,285	104,228	15,347
Row %		3%	46%	44%	8%		3%	45%	45%	7%
Students who earned a credential	139,199	4,633	48,090	83,206	3,270	69,130	2,646	25,089	40,107	1,288
Row %		3%	33%	62%	2%		3%	33%	62%	2%
Certificate	9,129	3,825	3,864	116	1,324	4,881	2,300	1,771	87	723
% all students	2%	27%	2%	0%	4%	2%	29%	2%	0%	5%
% students who earned a credential	7%	83%	8%	0%	40%	7%	87%	7%	0%	56%
Associate degree	39,970	747	36,711	1,128	1,384	19,603	296	18,327	552	428
% all students	9%	5%	18%	1%	4%	8%	4%	17%	1%	3%
% students who earned a credential	29%	16%	76%	1%	42%	28%	11%	73%	1%	33%
Bachelor's degree	90,100	61	7,515	81,962	562	44,646	50	4,991	39,468	137
% all students	20%	0%	4%	43%	2%	19%	1%	5%	38%	1%
% students who earned a credential	65%	1%	16%	99%	17%	65%	2%	20%	98%	11%
Did not complete any credential	305,499	9,279	160,803	106,178	29,239	163,622	5,246	80,196	64,121	14,059
% all students	69%	67%	77%	56%	90%	70%	66%	76%	62%	92%

Table 11. Adult student credential completion at primary institution

		Sector				Enrollment at online institution	
	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	Predominantly online	Not predominantly online
Completion at primary Institution - any							
Total	232,752	56,420	37,161	15,469	123,702	142,798	89,954
Row %		24%	16%	7%	53%	61%	39%
Adult students not completing any credential	163,622	45,790	25,190	6,908	85,734	97,303	66,319
% all students	70%	81%	68%	45%	69%	68%	74%
Adult students completing one or more credentials (certificate, associate or bachelor's)	69,130	10,630	11,971	8,561	37,968	45,495	23,635
% all students	30%	19%	32%	55%	31%	32%	26%
Completion at primary institution by credential type							
Students completing certificate (any)	7,424	5,731	582	37	1,074	1,331	6,093
% all students	3%	10%	2%	0%	1%	1%	7%
Students completing associate degree (any)	24,232	6,349	1,330	151	16,402	16,584	7,648
% all students	10%	11%	4%	1%	13%	12%	9%
Students completing bachelor's degree (any)	44,646	106	10,794	8,416	25,330	32,564	12,082
% all students	19%	0%	29%	54%	20%	23%	13%
Completers of multiple credentials							
Students completing at least one associate and at least one bachelor's	4,629	96	392	36	4,105	4,146	483
% all students	2.0%	0.2%	1.1%	0.2%	3.3%	2.9%	0.5%
Students completing at least one certificate and at least one associate	2,048	1,460	65	0	523	1,444	604
% all students	0.9%	2.6%	0.2%	0.0%	0.4%	1.0%	0.7%
Students completing at least one certificate and at least one bachelor's	938	18	321	7	592	620	318
% all students	0.4%	0.0%	0.9%	0.0%	0.5%	0.4%	0.4%

Table 12. Academic activities at post-primary institutions by adult students who did not complete at primary institution

		Sector				Enrollment at online institution	
	All institutions	2-year public	4-year public	4-year private nonprofit	For-profit	Predominantly online	Not predominantly online
Non-completers at primary institution							
Total students at institutions providing National Student Clearinghouse (NSC) data	203,347	54,993	37,135	3,468	107,751	115,016	88,331
Row %		27%	18%	2%	53%	57%	43%
Total non-completers at primary institutions (including only primary institutions providing NSC data)	146,383	44,572	25,171	1,613	75,027	81,330	65,053
% all students at institutions providing NSC data	72%	81%	68%	47%	70%	71%	74%
Activities and outcomes at post-primary institutions of adult students who did not complete at primary institution							
Enrolled at a post-primary institution	32,648	6,321	9,846	588	15,893	17,680	14,968
% all non-completers in NSC group	22%	14%	39%	36%	21%	22%	23%
Completed certificate at post-primary institution	1,121	294	367	13	447	500	621
% all non-completers in NSC group	1%	1%	1%	1%	1%	1%	1%
Completed associate degree at post-primary institution	2,591	646	1,023	34	888	970	1,621
% all non-completers in NSC group	2%	1%	4%	2%	1%	1%	2%
Completed bachelor's degree at post-primary institution	4,394	897	1,995	68	1,434	1,617	2,777
% all non-completers in NSC group	3%	2%	8%	4%	2%	2%	4%

Appendix C. Institutional Characteristics

Table 1A. Comparison of PLA Impact Study sample with all U.S. degree-granting institutions and subset of U.S. "adult-concentrated" institutions, 2011-2012

Institution Group [1] -->	**PLA impact study cohort**		**All U.S. degree-granting institutions**	
	PLA 1: Enrolled anytime AY 2011-2012	PLA 2: Enrolled in 2011	1: All	2: "Adult-concentrated"
Student Subgroup-->	Percent of entering degree-seeking undergraduates (full-year) who were 25 or over	Percent of fall entering degree-seeking undergraduates (proxy=matriculated in 2011)	Percent of total fall undergraduates 25 or over	
Percent of undergraduates who were 25 years and over, by sector percentages in sector labels are what portion of the total adult student segment of the cohort, each sector was)				
All Institutions	51%	45%	38%	52%
2-year public (25%)	39%	34%	44%	50%
4-year public (17%)	31%	24%	23%	38%
4-year private, nonprofit (6%)	74%	65%	36%	65%
4-year for-profit (52%)	76%	75%	88%	90%
Students who were 25 years and over: Percent at exclusively or primarily online institutions, or if not, by region of institution				
With an exclusively or primarily online institution [1]	69%	68%	10%	15%
Not with an exclusively or primarily online institution	31%	32%	90%	85%
Location of institution attended by students not with an exclusively or primarily online institution:				
Midwest	22%	23%	23%	25%
Northeast	12%	14%	12%	7%
South	23%	23%	36%	39%
West	44%	40%	29%	29%

[1] Unless otherwise noted, data points for the PLA Impact Study Cohort are from the student-level data for the entering, degree-seeking students age 25 or over who enrolled in AY 2011-2012, or only those who enrolled in 2011 (proxy for fall enrollment). For statistics run from IPEDS data for the institutions in the PLA Impact Study Cohort, the data represent the characteristics of the primary institutions that applied to and participated in the study, which were the "campus"/site of 83% of the adult students in the study (i.e., 17% of adult students were enrolled with an affiliated institution/campus other than the primary participating location. For all data points from IPEDS, from IPEDS 2011-2012 (Institutional Characteristics, Fall Enrollments, Student Financial Aid and Completions). The primary participating PLA study institutions/campuses are included for all institutional groupings. Additional technical documentation available upon request.

Table 1B. Comparison of PLA Impact Study sample with all U.S. degree-granting institutions and subset of U.S. "adult-concentrated" institutions, 2011-2012

	PLA impact study cohort		All U.S. degree-granting institutions	
			1: All	2: "Adult-concentrated"
Student Subgroup-->	Among total cohort (entering degree-seeking undergraduates (full-year))	Percent of fall entering degree-seeking undergraduates (proxy=matriculated in 2011)	Among total fall undergraduates [2]	
% of students 25 or over who were female	60%	62%	61%	61%
% of students 25 years or over who were enrolled part time [5]	70%	63%	41%	40%
% of all students who were 25 or over and enrolled part time	37%	29%	25%	33%
Student Subgroup-->	Among total cohort (entering degree-seeking undergraduates, full-year)	Percent of fall entering degree-seeking undergraduates (proxy=matriculated in 2011)	Among fall entering (first-time or transfer), degree-seeking undergraduates	
Percent of all students in group who were of a given race/ethnicity *(among those with identified race/ethnicity, and not limited to students 25 and over):*				
Black	19%	18%	18%	20%
Hispanic	18%	18%	19%	17%
White	54%	54%	53%	54%
Non-Hispanic Asian, AIAN, NHOPI or Multi-race	9%	10%	10%	9%
Group-->	Rate from IPEDS data for PLA Impact Study institutions:		Rate from IPEDS data for category of U.S. degree-granting institutions:	
Average institutional rate of Pell receipt among first-time full-time students (not limited to adult students; unweighted averages), **by sector**				
All institutions	53%		54%	63%
2-year public	60%		60%	62%
4-year public	43%		46%	53%
4-year private, nonprofit	45%		44%	75%
4-year for-profit	70%		74%	54%
Average percent of undergraduates who completed an award, who were students 25 years or over (unweighted averages)**, by sector**				
All institutions	59%		48%	65%
2-year public	58%		53%	59%
4-year public	52%		38%	53%
4-year private, nonprofit	62%		36%	63%
4-year for-profit	94%		74%	82%

[2] Including only the four sectors represented in this study.

Additional Notes: ***Students from one statewide community college system accounted for 41 percent of all public two-year students age 25 or over; another 11 percent were with another large community college system. A range of types of public 4-year institutions were represented among the 4-year public portion of the sample; 25 percent of adult students in the study cohort who attended a public four-year institution were with one of four participating state university flagships (three from Western states).***

Appendix D: Results Tables

PLA Usage: Take-up Rates and Average Credit-Earning

The following tables in Appendix D have been revised from the original in December 2020 due to the discovery of an error in the dataset (some PLA event records were duplicated due to a data matching error): 1-3, 17-23, and 27

Tables 1-6. Statistical significance testing comparing demographic or characteristic subgroups were performed on a limited basis. See report sections on PLA Usage and Equity for select reporting of significance.

Table 1A. PLA usage by adult students, PLA methods and adult student demographics and socioeconomic categories (data for average PLA credit earning revised December 2020)

	PLA take-up rates		Average PLA credit earning		Sample sizes		
	PLA	PLA-non-military	PLA	PLA-non-military	Total adult students	Total PLA credit earners	Total PLA-non-military credit earners
All adult students (age 25+)	11%	4%	14.8	11.7	232,622	24512	9118
Student demographics							
Gender							
Male	18%	5%	15.9	12.3	90,557	16,594	4,395
Female	6%	3%	12.4	11.1	139,624	7,744	4,639
Race/ethnicity - U.S. Department of Education method for categorizing							
Asian	8%	3%	15.7	13.2	3,418	263	118
Black	6%	2%	15.3	12.5	29,484	1,753	642
Hispanic	8%	5%	15.5	11.8	16,400	1,351	751
White	8%	4%	17.2	14.4	68,549	5,306	2,875
Other/Multiracial	7%	2%	18.0	14.9	3,826	250	91
Unknown					110,945		
Race/ethnicity - Students with any identification with smaller race groups*							
Native Hawai'ian/Other Pacific Islander	7%	2%	18.1	11.2	1262	94	23
American Indian/Alaska Native	6%	3%	18.9	14.5	2215	126	61

**Hispanic, Asian, Black and White students were defined using the U.S. Department of Education's method, in which any student identifying as Hispanic is designated as Hispanic, and then non-Hispanic students were categorized into one or more racial categories. There is great value in examining the specific experiences of additional minority groups in U.S. higher education, particularly Native Hawai'ian/Other Pacific Islander (NH/OPI) and American Indian/Alaska Native (AIAN), but in our sample, these groups were very small; for the purposes of understanding their usage of PLA, we conducted a separate analysis using a definition of these groups that included any student that identified as that group, even if they also identified as Hispanic or another race. These categories were, however, still too small to include in the credential completion analysis.*

continued on next page

Table 1B. PLA usage by adult students, PLA methods and adult student demographics and socioeconomic categories (data for average PLA credit earning revised December 2020)

	PLA take-up rates		Average PLA credit earning		Sample sizes		
	PLA	PLA-non-military	PLA	PLA-non-military	Total adult students	Total PLA credit earners	Total PLA-non-military credit earners
Age range							
25-34	11%	3%	14.1	10.6	134,584	14,872	4,666
35-44	10%	4%	15.5	12.7	62,120	6,301	2,769
45-54	10%	5%	16.4	13.0	28,560	2,947	1,424
55-64	6%	4%	15.2	13.1	6,624	371	247
Pell status							
Student has received one or more Pell Grant	7%	3%	12.3	10.3	141,312	9,990	3,879
Student has not received a Pell Grant	16%	6%	16.3	11.5	81,293	13,206	4,485
Share of households in residential area at or below 200% poverty level							
Less than 15% of residential area at or below 200% poverty level (proxy for high SES)	13%	7%	15.9	12.4	17,510	2,359	1,144
Between 15 and 30% of residential area	12%	5%	15.2	11.9	68,880	8,417	3,232
Between 30 and 45% of residential area	10%	3%	14.5	11.5	74,076	7,438	2,524
Between 45 and 60% of residential area	8%	3%	13.0	10.5	40,707	3,293	1,168
More than 60% of residential area is at or below 200% poverty level (proxy for low SES)	7%	3%	13.6	11.7	14,623	981	385

Table 2. PLA usage by adult students, PLA methods and academic categories (data for average PLA credit earning revised December 2020)

	PLA take-up rates		Average PLA credit earning		Sample sizes		
	PLA	PLA-non-military	PLA	PLA-non-military	Total adult students	Total PLA credit earners	Total PLA-non-military credit earners
All adult students (age 25+)	11%	4%	14.8	11.7	232,622	24,512	9,118
Student academic characteristics							
Online status							
Exclusively online	8%	3%	14.2	11.1	130,340	10,808	3,768
Not exclusively online	15%	6%	15.9	12.7	90,470	13,265	5,007
Enrollment intensity (full-time vs. part-time)							
Less than 20% enrollment	9%	1%	16.0	13.9	39,843	3,657	551
21-40% enrollment	10%	3%	16.1	13.7	51,249	5,059	1,411
41-60% enrollment	12%	5%	13.9	11.4	50,948	6,061	2,619
61-80% enrollment	15%	7%	14.2	11.0	43,591	6,402	2,948
81-100% enrollment (full-time)	14%	6%	14.4	12.7	17,196	2,460	1,042
Transfer student							
No transfer credits	6%	2%	15.1	14.2	121,433	7,793	1,997
Some transfer credits	15%	6%	14.6	11.0	111,163	16,716	7,118
First GPA							
1.00 or less	4%	1%	16.0	17.2	36,375	1,514	302
1.01 to 2.00	7%	1%	13.8	13.3	21,463	1,533	288
2.01 to 3.00	9%	2%	14.3	10.8	60,089	5,483	1,392
3.01 to 4.00	14%	6%	14.9	11.5	108,579	15,684	7,029
Course success rate							
Less than 70%	6%	1%	14.6	12.5	74,643	4,178	660
71-89%	11%	3%	14.0	10.7	40,671	4,492	1,231
90-100%	14%	6%	15.1	11.9	110,221	15,544	6,952
ESL participation							
Any ESL enrollment	3%	Not shown	9.0	Not shown	114,261	124	Not shown
No ESL enrollment	8%	Not shown	16.3	Not shown	4,117	8,701	Not shown
Developmental education participation							
Dev ed credits (any)	7%	Not shown	14.5	Not shown	25,640	1,725	Not shown
No dev ed credits	11%	Not shown	14.8	Not shown	206,982	22,787	Not shown

Table 3. PLA usage for adult students, by PLA methods and institutional characteristics (data for average PLA credit earning revised December 2020)

	PLA take-up rates		Average PLA credit earning		Sample sizes		
	PLA	PLA-non-military	PLA	PLA-non-military	Total adult students	Total PLA credit earners	Total PLA-non-military credit earners
All adult students (age 25+)	11%	4%	14.8	11.7	232,622	24,512	9,118
Institutional characteristics							
Sector							
2-year public	4%	2%	12.5	14.1	56,330	2,234	1,119
4-year public	14%	5%	17.7	11.5	37,147	5,307	2,014
4-year private nonprofit	7%	7%	16.4	15.8	15,444	1,084	1,035
For-profit	13%	4%	14.0	10.4	123,701	15,887	4,950
Online institution							
Predominantly online	12%	4%	14.2	11.1	142,794	16,426	5,429
Not predominantly online	9%	4%	15.9	12.7	89,828	8,086	3,689
Minority serving institution							
MSI	4%	2%	11.3	9.8	22,148	838	546
Not an MSI	11%	4%	14.9	11.8	210,474	23,674	8,572
Adult-focused institution							
Institution with fewer adult-focused policies and practices	6%	3.0%	15.3	14.2	51,965	3,082	1,683
Institution with more adult-focused policies and practices	12%	4.0%	14.7	11.1	180,657	21,430	7,435

Table 4. PLA usage for adult students, by race/ethnicity and institutional sector

	PLA take-up rates				Sample sizes			
	2-year public	4-year public	4-year private nonprofit	For-profit	2-year public	4-year public	4-year private nonprofit	For-profit
Hispanic	4%	15%	14%	7%	8,720	4,778	1,249	1,653
Asian	4%	12%	3%	7%	1,137	1,499	488	294
Black	3%	12%	7%	4%	11,159	7,917	2,220	8,188
White	4%	16%	5%	6%	27,909	17,410	10,782	12,448

Table 5. PLA usage for adult students, by Pell Grant status and institutional sector

	PLA take-up rates				Sample sizes			
	2-year public	4-year public	4-year private nonprofit	For-profit	2-year public	4-year public	4-year private nonprofit	For-profit
Student has received one or more Pell Grant	3%	10%	5%	8%	29,986	14,447	6,887	89,992
Student has not received a Pell Grant	3%	17%	9%	29%	23,472	20,815	8,417	28,589

Table 6. Enrollment intensity distribution of non-PLA students and PLA students

		Enrollment intensity (full-time vs. part-time)					Sample sizes				
		Less than 20% enrollment	21-40% enrollment	41-60% enrollment	61-80% enrollment	81-100% enrollment (full-time)	Less than 20% enrollment	21-40% enrollment	41-60% enrollment	61-80% enrollment	81-100% enrollment (full-time)
2-year public	**Non-PLA**	0%	10%	36%	36%	19%	15	324	1,210	1,208	628
	PLA	3%	15%	32%	30%	20%	18	88	186	176	116
	Total						33	412	1,396	1,384	744
4-year public	**Non-PLA**	0%	11%	29%	32%	28%	43	998	2,666	2,985	2,576
	PLA	2%	24%	33%	23%	18%	43	486	671	455	352
	Total						86	1,484	3,337	3,440	2,928
4-year private nonprofit	**Non-PLA**	0%	9%	25%	34%	31%	16	685	1,863	2,568	2,333
	PLA	1%	9%	35%	32%	23%	5	79	298	273	198
	Total						21	764	2,161	2,841	2,531
For-profit	**Non-PLA**	0%	3%	28%	53%	16%	8	763	8,143	15,733	4,870
	PLA	0%	4%	28%	52%	17%	8	300	2,188	4,133	1,325
	Total						16	1,063	10,331	19,866	6,195
Total	**Non-PLA**	0%	6%	28%	45%	21%	82	2,770	13,882	22,494	10407
	PLA	1%	8%	29%	44%	17%	74	953	3,343	5,037	1,991
	Total						156	3,723	17,225	2,7531	12,398

PLA and Credential Completion

Table 7. Adult student credential completion at the participating study institution, by PLA credit-earning and credential goal

Cells representing fewer than 50 students are not shown

			Highest credential completed			
	PLA credit earning status	**Did not complete**	**Certificate**	**Associate degree**	**Bachelor's degree**	**Total**
Associate degree as initial goal	**Non-PLA**	75,849	1,666	16,201	4,263	97,979
	PLA	4,304	102	2,089	728	7,223
	PLA-non-military	618	56	953	279	1,906
Bachelor's degree as initial goal	**Non-PLA**	56,325	73	379	30,658	87,435
	PLA	7,784	Not shown	173	8,783	16,754
	PLA-non-military	1,705	Not shown	Not shown	5,184	6,948
Certificate as initial goal	**Non-PLA**	5,177	2,239	258	Not shown	7,715
	PLA	67	60	Not shown	Not shown	170
	PLA-non-military			Not shown	Not shown	75

Tables 8 through 11

Completed any credential

Chi square tests of significance were performed comparing Non-PLA students to PLA students, and Non-PLA students to PLA-non-military students. When comparing the proportion of students who did not complete to the proportion of students who completed any credential (i.e., completed a certificate and/or an associate degree and/or a bachelor's degree), students with PLA always completed at a higher rate than Non-PLA students ($p<.001$), regardless of additional student or institutional characteristics added to the crosstab. Cells representing fewer than 50 students are not shown.

Highest credential completed

Additional Chi square tests of significance were performed on the highest credential the student completed, comparing Non-PLA students to PLA students, and Non-PLA students to PLA-non-military students. Cells in PLA or PLA-non-military rows representing a subgroup for which students with PLA did NOT complete at a higher rate than students without PLA are blacked out, as is any cell representing fewer than 50 students. Accordingly, cells in PLA or PLA-non-military rows that are not blacked out represent subgroups with 50 or more students with PLA who completed at a higher rate than Non-PLA students

Table 8. Adult student credential completion at the participating study institution, by PLA credit-earning and adult student demographics

		PLA credit earning status	Did not complete	Completed any credential	Certificate	Associate	Bachelor's	Total
	Adult students	**Non-PLA**	151,140	56,970	4,690	17,218	35,062	208,110
		PLA	12,425	12,087	Not shown	2,344	9,556	24,512
		PLA-non-military	2,459	6,659	Not shown	1,063	5,492	9,118
Gender	Male	**Non-PLA**	55,602	18,361	2,098	4,883	11,380	73,963
		PLA	9,460	7,134	Not shown	1,434	5,580	16,594
		PLA-non-military	1,484	2,911	Not shown	446	2,410	4,395
	Female	**Non-PLA**	93,782	38,098	2,564	12,123	23,411	131,880
		PLA	2,864	4,880	Not shown	887	3,926	7,744
		PLA-non-military	938	3,701	Not shown	603	3,049	4,639
Age range	25-34	**Non-PLA**	88,439	31,273	2,472	9,763	19,038	119,712
		PLA	8,249	6,623	Not shown	1,449	5,072	14,872
		PLA-non-military	1,364	3,302	Not shown	567	2,689	4,666
	35-44	**Non-PLA**	39,883	15,936	1,192	4,763	9,981	55,819
		PLA	2,908	3,393	Not shown	590	2,758	6,301
		PLA-non-military	700	2,069	Not shown	316	1,723	2,769
	45-54	**Non-PLA**	17,592	8,021	780	2,227	5,014	25,613
		PLA	1,119	1,828	Not shown	267	1,527	2,947
		PLA-non-military	332	1,092	Not shown	150	920	1,424
	55-64	**Non-PLA**	4,605	1,648	222	438	988	6,253
		PLA	140	231	Not shown	Not shown	192	371
		PLA-non-military	61	186	Not shown	Not shown	154	247
Race/ethnicity	Hispanic	**Non-PLA**	11,368	3,681	521	831	2,329	15,049
		PLA	647	704	Not shown	246	434	1,351
		PLA-non-military	216	535	Not shown	173	347	751
	Black	**Non-PLA**	22,941	4,790	514	1,245	3,031	27,731
		PLA	1,051	702	Not shown	201	477	1,753
		PLA-non-military	241	401	Not shown	74	318	642
	White	**Non-PLA**	42,798	20,445	2,863	4,926	12,656	63,243
		PLA	2,575	2,731	Not shown	747	1,876	5,306
		PLA-non-military	932	1,943	Not shown	459	1,423	2,875
	Asian	**Non-PLA**	1,946	1,209	98	219	892	3,155
		PLA	137	126	Not shown	Not shown	84	263
		PLA-non-military	Not shown	Not shown	Not shown	Not shown	Not shown	Not shown

Table 9. Adult student credential completion at the participating study institution, by PLA credit-earning and adult student socioeconomic categories

	PLA credit earning status	Did not complete	Completed any credential	Certificate	Associate	Bachelor's	Total
Pell status							
Student has received one or more Pell Grant	**Non-PLA**	95,719	35,603	1,743	13,306	20,554	131,322
	PLA	4,459	5,455	Not shown	1,160	4,295	9,914
Student has not received a Pell Grant	**Non-PLA**	48,434	19,653	2,704	3,567	13,382	68,087
	PLA	7,268	5,848	Not shown	1,005	4,843	13,116
Share of households in residential area at or below 200% poverty level							
Less than 15% of residential area at or below 200% poverty level (proxy for high SES)	**Non-PLA**	9,899	5,252	562	1,201	3,489	15,151
	PLA	1,014	1,345	Not shown	213	1,114	2,359
Between 15 and 30% of residential area	**Non-PLA**	40,622	19,841	1,841	5,626	12,374	60,463
	PLA	3,955	4,462	Not shown	862	3,525	8,417
Between 30 and 45% of residential area	**Non-PLA**	48,271	18,367	1,405	6,102	10,860	66,638
	PLA	3,760	3,678	Not shown	728	2,904	7,438
Between 45 and 60% of residential area	**Non-PLA**	29,263	8,151	537	2,985	4,629	37,414
	PLA	1,758	1,535	Not shown	307	1,202	3,293
More than 60% of residential area is at or below 200% poverty level (proxy for low SES)	**Non-PLA**	11,481	2,161	132	809	1,220	13,642
	PLA	567	414	Not shown	70	335	981

Table 10A. Adult student credential completion at the participating study institution, by PLA credit-earning and academic categories

	PLA credit earning status	Did not complete	Completed any credential	Certificate	Associate	Bachelor's	Total
Transfer student							
Some transfer credits	**Non-PLA**	55,271	39,176	809	7,788	30,579	94,447
	PLA	7,633	9,083	Not shown	Not shown	7,740	16,716
No transfer credits	**Non-PLA**	95,862	17,778	3,881	9,430	4,467	113,640
	PLA	4,791	3,002	Not shown	1,069	1,814	7,793
Enrollment intensity (full-time vs. part-time)							
Less than 20% enrollment	**Non-PLA**	35,970	216	134	Not shown	51	36,186
	PLA	3,574	83	Not shown	Not shown	Not shown	3,657
21-40% enrollment	**Non-PLA**	42,879	3,311	475	920	1,916	46,190
	PLA	4,063	996	Not shown	422	547	5,059
41-60% enrollment	**Non-PLA**	30,187	14,700	560	5,287	8,853	44,887
	PLA	2,646	3,415	Not shown	772	2,607	6,061
61-80% enrollment	**Non-PLA**	14,137	23,052	320	7,008	15,724	37,189
	PLA	1,292	5,110	Not shown	Not shown	4,524	6,402
81-100% enrollment (full-time)	**Non-PLA**	4,056	10,680	147	2,488	8,045	14,736
	PLA	434	2,026	Not shown	Not shown	1,725	2,460
Online status							
Exclusively online	**Non-PLA**	87,135	32,397	484	10,739	21,174	119,532
	PLA	6,011	4,797	Not shown	1,173	3,599	10,808
Not exclusively online	**Non-PLA**	54,658	22,547	3,607	5,436	13,504	77,205
	PLA	6,300	6,965	Not shown	Not shown	5,830	13,265
First GPA							
1.00 or less	**Non-PLA**	33,937	924	274	293	357	34,861
	PLA	1,386	128	Not shown	Not shown	69	1,514
1.01 to 2.00	**Non-PLA**	17,735	2,195	184	383	1,628	19,930
	PLA	1,290	243	Not shown	Not shown	183	1,533
2.01 to 3.00	**Non-PLA**	39,776	14,830	867	Not shown	11,036	54,606
	PLA	3,569	1,914	Not shown	417	1,462	5,483
3.01 to 4.00	**Non-PLA**	54,599	38,296	3,349	13,353	21,594	92,895
	PLA	5,984	9,700	Not shown	Not shown	7,770	15,684

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Table 10B. Adult student credential completion at the participating study institution, by PLA credit-earning and academic categories

	PLA credit earning status	Did not complete	Completed any credential	Certificate	Associate	Bachelor's	Total
Course success rate							
Less than 70%	**Non-PLA**	68,844	1,621	383	340	898	70,465
	PLA	4,000	178	Not shown	65	96	4,178
71-89%	**Non-PLA**	25,872	10,307	753	4,153	5,401	36,179
	PLA	2,929	1,563	Not shown	Not shown	1,008	4,492
90-100%	**Non-PLA**	51,081	43,596	3,265	11,873	28,458	94,677
	PLA	5,440	10,104	Not shown	Not shown	8,388	15,544
ESL participation							
Any ESL enrollment	**Non-PLA**	3,543	450	83	328	Not shown	3,993
	PLA	Not shown	103	Not shown	77	Not shown	124
No ESL enrollment	**Non-PLA**	76,198	29,362	3,941	7,318	18,103	105,560
	PLA	4,759	3,942	Not shown	1,190	2,593	8,701
Developmental education participation							
Developmental education credits (any)	**Non-PLA**	19,487	4,428	924	2,563	941	23,915
	PLA	922	803	Not shown	408	335	1,725
No developmental education credits	**Non-PLA**	131,653	52,542	3,766	14,655	34,121	184,195
	PLA	11,503	11,284	Not shown	1,936	9,221	22,787

Table 11. Adult student credential completion at the participating study institution, by PLA credit-earning and institutional environments

		PLA credit earning status	Did not complete	Completed any credential	Certificate	Associate	Bachelor's	Total
All institutions	All institutions	**Non-PLA**	151,140	56,970	4,690	17,218	35,062	208,110
		PLA	12,425	12,087	Not shown	2,344	9,556	24,512
		PLA-non-military	2,459	6,659	Not shown	1,063	5,492	9,118
Sector	2-year public	**Non-PLA**	44,576	9,520	4,115	5,338	67	54,096
		PLA	1,169	1,065	Not shown	874	Not shown	2,234
		PLA-non-military	409	710	Not shown	587	Not shown	1,119
	4-year public	**Non-PLA**	22,035	9,805	213	610	8,982	31,840
		PLA	3,152	2,155	Not shown	328	1,801	5,307
		PLA-non-military	768	1,246	Not shown	108	1,124	2,014
	4-year private nonprofit	**Non-PLA**	6,677	7,683	Not shown	106	7,547	14,360
		PLA	223	861	Not shown	Not shown	852	1,084
		PLA-non-military	206	829	Not shown	Not shown	821	1,035
	For-profit	**Non-PLA**	77,852	29,962	332	11,164	18,466	107,814
		PLA	7,881	8,006	Not shown	Not shown	6,864	15,887
		PLA-non-military	1,076	3,874	Not shown	Not shown	3,508	4,950
Online institution	Predominantly online	**Non-PLA**	89,234	37,134	471	11,277	25,386	126,368
		PLA	8,068	8,358	Not shown	Not shown	7,175	16,426
		PLA-non-military	1,230	4,199	Not shown	Not shown	3,803	5,429
	Not predominantly online	**Non-PLA**	61,906	19,836	4,219	5,941	9,676	81,742
		PLA	4,357	3,729	Not shown	1,183	2,381	8,086
		PLA-non-military	1,229	2,460	Not shown	681	1,689	3,689
Minority serving institution	MSI	**Non-PLA**	14,845	6,465	915	1,503	4,047	21,310
		PLA	243	584	Not shown	228	356	827
		PLA-non-military	93	443	Not shown	186	257	536
	Not an MSI	**Non-PLA**	136,295	50,505	3,775	15,715	31,015	186,800
		PLA	12,182	11,316	Not shown	2,116	9,200	23,498
		PLA-non-military	2,366	6,112	Not shown	877	5,235	8,478
Adult-focused institution	Institution with fewer adult-focused policies and practices	**Non-PLA**	36,904	11,979	3,559	4,350	4,070	48,883
		PLA	1,400	1,682	Not shown	733	811	3,082
		PLA-non-military	520	1,163	73	425	665	1,683
	Institution with more adult-focused policies and practices	**Non-PLA**	114,236	44,991	1,131	12,868	30,992	159,227
		PLA	11,025	10,405	Not shown	Not shown	8,745	21,430
		PLA-non-military	1,939	5,496	Not shown	Not shown	4,827	7,435

Table 12A. Adult student completions at both participating study institutions and at other institutions, by select student and primary institution characteristics, among institutions with valid NSC data

Cells representing fewer than 50 students are not shown and no tests of significance were performed on these data.

	PLA credit earning status	Did not complete	Completed at primary institution	Completed after leaving primary institution	Total	% additional completions at post-primary institutions
All institutions						
All institutions	**Non-PLA**	127,502	45,433	6,682	179,617	4%
	PLA	11,115	11,463	1,039	23,617	4%
	PLA-non-military	2,071	6,163	202	8,436	2%
Sector - Post-primary completions not provided for 4-year private nonprofit institutions due to more than 78% of that subsample lacking NSC data.						
2-year public	**Non-PLA**	41,713	9,317	1,657	52,687	3%
	PLA	1,025	1,064	144	2,233	6%
	PLA-non-military	Not shown	Not shown	Not shown	Not shown	Not shown
4-year public	**Non-PLA**	19,238	9,800	2,781	31,819	9%
	PLA	2,655	2,153	494	5,302	9%
	PLA-non-military	674	1,245	92	2,011	5%
For-profit	**Non-PLA**	65,240	25,202	2,132	92,574	2%
	PLA	7,271	7,522	383	15,176	3%
	PLA-non-military	866	3,512	65	4,443	1%
Online institution						
Predominantly online	**Non-PLA**	71,091	25,880	2,436	99,407	2%
	PLA	7,399	7,803	403	15,605	3%
Not predominantly online	**Non-PLA**	56,411	19,553	4,246	80,210	5%
	PLA	3,716	3,660	636	8,012	8%

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Table 12B. Adult student completions at both participating study institutions and at other institutions, by select student and primary institution characteristics, among institutions with valid NSC data. Cells representing fewer than 50 students are not shown and no tests of significance were performed on these data.

	PLA credit earning status	Did not complete	Completed at primary institution	Completed after leaving primary institution	Total	% additional completions at post-primary institutions
Gender						
Male	**Non-PLA**	47,842	14,894	2,529	65,265	4%
	PLA	8,615	6,865	720	16,200	4%
Female	**Non-PLA**	79,048	30,460	4,049	113,557	4%
	PLA	2,428	4,571	307	7,306	4%
Age range						
25-34	**Non-PLA**	74,298	25,877	4,603	104,778	4%
	PLA	7,358	6,327	760	14,445	5%
35-44	**Non-PLA**	33,489	12,213	1,504	47,206	3%
	PLA	2,611	3,181	198	5,990	3%
45-54	**Non-PLA**	15,083	6,057	490	21,630	2%
	PLA	1,005	1,720	78	2,803	3%
55-64	**Non-PLA**	Not shown	Not shown	Not shown	Not shown	Not shown
	PLA	Not shown	Not shown	Not shown	Not shown	Not shown

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Table 12C. Adult student completions at both participating study institutions and at other institutions, by select student and primary institution characteristics, among institutions with valid NSC data. Cells representing fewer than 50 students are not shown and no tests of significance were performed on these data.

	PLA credit earning status	Did not complete	Completed at primary institution	Completed after leaving primary institution	Total	% additional completions at post-primary institutions
Race/ethnicity						
Hispanic	**Non-PLA**	9,546	2,973	624	13,143	5%
	PLA	532	648	93	1,273	7%
Black	**Non-PLA**	18,158	3,440	1,042	22,640	5%
	PLA	857	622	131	1,610	8%
White	**Non-PLA**	30,164	12,086	2,376	44,626	5%
	PLA	2,091	2,323	345	4,759	7%
Asian	**Non-PLA**	Not shown	Not shown	Not shown	Not shown	Not shown
	PLA	Not shown	Not shown	Not shown	Not shown	Not shown
Other/multiracial	**Non-PLA**	Not shown	Not shown	Not shown	Not shown	Not shown
	PLA	Not shown	Not shown	Not shown	Not shown	Not shown
Unknown race/ethnicity	**Non-PLA**	Not shown	Not shown	Not shown	Not shown	Not shown
	PLA	Not shown	Not shown	Not shown	Not shown	Not shown
Pell status						
Student has received one or more Pell Grant	**Non-PLA**	81,949	30,125	2,718	114,792	2%
	PLA	4,037	5,247	277	9,561	3%
Student has not received a Pell Grant	**Non-PLA**	39,170	13,626	3,387	56,183	6%
	PLA	6,456	5,611	689	12,756	5%
Transfer student						
Some transfer credits	**Non-PLA**	42,515	29,399	3,251	75,165	4%
	PLA	6,668	8,564	789	16,021	5%
No transfer credits	**Non-PLA**	84,980	16,018	3,431	104,429	3%
	PLA	4,447	2,898	250	7,595	3%

Table 13. Transfer and credential completion activities of adult students after leaving the participating 2-year public institutions

No tests of significance were performed on these data

		All	Attended 2-year institution after leaving participating study institution	Attended 4-year institution after leaving participating study institution	Earned associate at later institution	Earned bachelor's at later institution
Adult students originally enrolled at 2-year public institution	**All adults**	40,070	1,953	3,226	719	1,677
	PLA	1,919	88	294	66	251
	Non-PLA	38,151	1,865	2,932	653	1,426
Non-completing adults originally enrolled at 2-year public institution	**All adults**	32,490	1,824	2,245	643	894
	PLA	1,007	67	113	52	89
	Non-PLA	31,483	1,757	2,132	591	805

Table 14. Credential completions, adults and students age 17-24, all methods of PLA including AP/IB

No tests of significance were performed on these data

		Did not complete	Completed any credential	Total
Students aged 17-24	**Students with no form of PLA, including AP/IB**	132,985	56,993	189,978
	AP/IB only	2,655	8,127	10,782
	All other forms of PLA	6,134	4,750	10,884
Adult students (age 25+)	**Students with no form of PLA, including AP/IB**	151,017	56,532	207,549
	AP/IB only	123	438	561
	All other forms of PLA	12,425	12,087	24,512

Propensity Score Matching: PLA Effect on Credential Completion

Table 15. PLA effect sizes for adult students: All PLA methods including AP/IB, PLA methods excluding AP/IB ("PLA"), and PLA methods excluding AP/IB and military credit ("PLA-non-military")

	PLA Effect Size: Adult Students				
	All PLA methods including AP/IB		PLA methods excluding AP/IB ("PLA")		PLA methods excluding AP/IB and military credit ("PLA-non-military")
	Complete at institution (SE)	Complete anywhere (SE)	Complete at institution (SE)	Complete anywhere (SE)	Complete at institution (SE)
Overall	.176 (.005)	.170 (.005)	.173 (.005)	.170 (.005)	.303 (.007)
Student-level categories					
Student has received one or more Pell Grant	.195 (.007)	.198 (.007)	.194 (.007)	.200 (.007)	.329 (.010)
Student has not received a Pell Grant	.135 (.007)	.129 (.007)	.128 (.007)	.124 (.007)	.257 (.011)
Female	.236 (.007)	.231 (.007)	.234 (.008)	.232 (.008)	.339 (.009)
Male	.141 (.006)	.139 (.006)	.136 (.006)	.134 (.006)	.265 (.012)
Hispanic	.187 (.018)	.196 (.018)	.240 (.021)	.233 (.021)	.322 (.026)
Black	.154 (.017)	.162 (.017)	.141 (.018)	.136 (.018)	.283 (.027)
White	.176 (.012)	.165 (012)	.180 (.012)	.170 (.012)	.229 (.015)
Transfer	.149 (.006)	.149 (.006)	.153 (.006)	.155 (.006)	.227 (.013)
Non-transfer	.161 (.008)	.169 (.008)	.162 (.008)	.170 (.009)	.318 (.021)
Institutional categories					
2-year public	.241 (.013)	.252 (.014)	.252 (.014)	.263 (.014)	.356 (.019)
4-year public	.131 (.010)	.124 (.010)	.138 (.010)	.129 (.010)	.200 (.016)
4-year private nonprofit	.152 (.034)	.152 (.033)	.177 (.033)	.169 (.033)	.176 (.031)
For-profit	.157 (.006)	.160 (.006)	.163 (.006)	.166 (.006)	not significant
More adult-focused policies	.173 (.005)	.167 (.005)	.171 (.005)	.165 (.005)	.310 (.007)
Fewer adult-focused policies	.182 (.013)	.189 (.013)	.176 (.015)	.185 (.015)	.231 (.021)
Exclusively online	.166 (.006)	.169 (.006)	.161 (.006)	.163 (.006)	.320 (.008)
Not exclusively online	.157 (.009)	.170 (.005)	.157 (.009)	.161 (.010)	.303 (.007)
Above median PLA take-up	.179 (.005)	.171 (.005)	.173 (.005)	.168 (.005)	.298 (.008)
Below median PLA take-up	.190 (.016)	.183 (.016)	.218 (.022)	.232 (.022)	.265 (.027)
MSI	.250 (.018)	.253 (.017)	.333 (.022)	.348 (.022)	.418 (.025)
Not MSI	.170 (.005)	.165 (.005)	.164 (.005)	.160 (.005)	.296 (.008)

SE=Standard error, which is an indication of the reliability of the mean (measure). A small SE (relative to the reported effect size) is an indication that the mean effect size is a more accurate reflection of the actual population mean. A larger sample size will normally result in a smaller SE.

Table 16. PLA effect sizes for age ranges for all students: All PLA methods including AP/IB, PLA (methods excluding AP/IB, and PLA-non-military (methods excluding AP/IB and ACE credit recommendations for military)

	PLA effect size: all students				
	All PLA methods including AP/IB		PLA (methods excluding AP/IB)		PLA-non-military (methods excluding AP/IB and ACE credit recommendations for military)
	Complete at institution (SE)	Complete anywhere (SE)	Complete at institution (SE)	Complete anywhere (SE)	Complete at institution (SE)
Age ranges					
Under 25	.157 (.005)	.126 (.005)	.158 (.007)	.147 (.007)	.281 (.009)
25-34	.158 (.006)	.151 (.006)	.156 (.006)	.151 (.006)	.303 (.010)
35-44	.195 (.009)	.185 (.009)	.201 (.010)	.194 (.010)	.323 (.013)
45-54	.200 (.014)	.198 (.014)	.221 (.014)	.223 (.014)	.289 (.019)
55-64	.241 (.036)	.220 (.036)	.238 (.038)	.227 (.038)	.324 (.043)

SE=Standard error, which is an indication of the reliability of the mean (measure). A small SE (relative to the reported effect size) is an indication that the mean effect size is a more accurate reflection of the actual population mean. A larger sample size will normally result in a smaller SE.

Table 17. PLA effect sizes for adults for different doses of PLA credits and PLA-non-military credits (revised December 2020)

	PLA effect size: adult students	
	PLA (methods excluding AP/IB)	PLA-non-military (methods excluding AP/IB and ACE credit recommendations for military)
PLA credit category	Complete at institution (SE)	Complete at institution (SE)
1 to 6	.164 (.005)	.282 (.007)
7 to 14	.147 (.006)	.293 (.009)
15 to 29	.192 (.006)	.328 (.012)
30 to 59	.225 (.008)	.300 (.018)
60 or more	.246 (.036)	.406 (.088)

SE=Standard error, which is an indication of the reliability of the mean (measure). A small SE (relative to the reported effect size) is an indication that the mean effect size is a more accurate reflection of the actual population mean. A larger sample size will normally result in a smaller SE.

Cost Savings from PLA

No tests of significance were performed on the data in Tables 18 or 19.

Table 18. Average cost savings for adult students from PLA, calculated at the institution level and aggregated by sector (revised December 2020)

	Mean	N Institutions	Minimum	Maximum	Standard deviation	25th Percentile	Median	75th Percentile	N students represented
2-year public	$ 1,481	27	$ 283	$ 5,921	$ 1,394	$ 477	$ 1,193	$ 1,643	1,691
4-year public	$ 3,794	19	$ 303	$ 15,360	$ 3,866	$ 1,329	$ 2,665	$ 4,943	4,618
4-year private nonprofit	$ 10,220	10	$ 339	$ 19,866	$ 6,529	$ 5,064	$ 9,937	$ 15,252	859
For-profit	$ 6,090	4	$ 4,218	$ 7,235	$ 1,320	$ 5,201	$ 6,454	$ 6,980	15,860

Table 19. Average cost savings for adult students from non-military PLA, calculated at the institution level and aggregated by sector (revised December 2020)

	Mean	N Institutions	Minimum	Maximum	Standard deviation	25th Percentile	Median	75th Percentile	N students represented
2-year public	$ 1,222	26	$ (148)	$ 5,518	$ 1,274	$ 322	$ 1,006	$ 1,428	754
4-year public	$ 3,048	19	$ 303	$ 19,412	$ 4,538	$ 833	$ 1,419	$ 2,665	1,710
4-year private nonprofit	$ 8,938	10	$ 339	$ 19,866	$ 6,499	$ 4,407	$ 7,251	$ 11,413	806
For-profit	$ 5,322	4	$ 2,522	$ 6,384	$ 1,870	$ 4,332	$ 6,192	$ 6,312	4,923

Time Savings from PLA

Analyses of variance were used to analyze the number of months required to earn an associate degree or a bachelor's degree for each PLA credit category. Bonferroni post-hoc analyses were used to determine which PLA credit categories were statistically different from each other.

The sample of students used in the analyses were students with no transfer credits, an enrollment intensity between 20% and 80%, and completion of an associate degree or bachelor's degree, but not both, at the primary institution.

Table 20. Months to degree for associate degree earners at 2-year public institutions (revised December 2020)

PLA credit category	N	Mean	Standard deviation
No PLA credits	1,541	45.5	15.7
1-12 PLA credits	122	42.9	17.7
More than 12 PLA credits	96	31.5	17.3
Total	1,759	44.6	16.3

Outcome: students with more than 12 PLA credits had a significantly shorter time to associate degree completion than students with no PLA credits and students with 1-12 PLA credits.

Table 21. Months to degree for associate degree earners at for-profit institutions (revised December 2020)

PLA credit category	N	Mean	Standard deviation
No PLA credits	6,705	28.5	9.8
1-12 PLA credits	552	27.5	10.5
More than 12 PLA credits	187	22.9	15.3
Total	7,444	28.3	10.0

Outcome: students with more than 12 PLA credits had a significantly shorter time to associate degree completion than students with no PLA credits and students with 1-12 PLA credits.

Table 22. Months to degree for bachelor's degree earners at 4-year public, 4-year private nonprofit, and for-profit institutions (revised December 2020)

	N	Mean	Standard deviation
No PLA credits	3,106	53.0	13.7
1-12 PLA credits	546	51.5	12.6
More than 12 PLA credits	785	43.7	12.0
Total	4,437	51.2	13.8

Outcome: students with more than 12 PLA credits had a significantly shorter time to bachelor's degree completion than students with no PLA credits and students with 1-12 PLA credits.

PLA Methods: Usage and Impact

No tests of significance were performed on the data presented below

Table 23. Adults student usage of PLA methods (data for average PLA credit earning revised December 2020)

	% of all adults with any PLA credit	Average PLA credits per adult student	Total adult students in category
Students using multiple methods are counted multiple times*			
Standardized exams: CLEP, DSST, etc.	22%	8.7	5,277
Challenge exams	2%	5.6	369
ACE/NCCRS credit recommendations for corporate and other external training	4%	16.6	877
ACE credit recommendations for military training	68%	15.2	16,789
Portfolio assessment	4%	12.3	930
Credits for certifications/ licenses	8%	14.2	1,876
Other	2%	13.7	432
Total students			24,512
Students using multiple methods are counted only in the multiple methods categories			
Standardized exams: CLEP, DSST, etc.	15%	8.9	3,771
Challenge exams	1%	5.8	324
ACE/NCCRS credit recommendations for corporate and other external training	3%	17.4	702
ACE credit recommendations for military training	63%	14.9	15,372
Portfolio assessment	3%	13.2	676
Credits for certifications/ licenses	5%	15.9	1,307
Other	2%	13.9	368
ACE military plus standardized exams	5%	26.4	1,117
Other multiple methods	4%	23.6	875
Total students			24,512

24,512 students used a total of 26,550 methods. To calculate "% of all adults with any PLA credit," "total adults students in category" was divided by 24,512, resulting in total "% of all adults with any PLA credit" value of 108%

Table 24A. Adult student usage of PLA methods by academic categories

	Course success rate			First GPA				Developmental Education Participation	
	Less than 70%	71-89%	90-100%	1.00 or less	1.01 to 2.00	2.01 to 3.00	3.01 to 4.00	Dev Ed credits (any)	No Dev Ed credits
Standardized exams: CLEP, DSST, etc.	365	730	3,972	108	151	922	4,072	303	4,974
Challenge exams	23	60	281	10	11	50	273	71	298
ACE/NCCRS credit recommendations for corporate and other external training	103	121	641	56	61	80	632	59	818
ACE credit recommendations for military training	3,703	3,502	9,557	1,274	1,302	4,378	9,637	1,160	15,629
Portfolio assessment	26	98	796	39	22	124	733	101	829
Credits for certifications/ licenses	126	222	1,492	95	43	232	1,506	98	1,778
Other	44	72	308	13	12	71	335	61	371

Table 24B. Adult student usage of PLA methods by academic categories

	Course success rate			First GPA				Developmental education participation	
	Less than 70%	71-89%	90-100%	1.00 or less	1.01 to 2.00	2.01 to 3.00	3.01 to 4.00	Dev Ed credits (any)	No Dev Ed credits
Standardized exams: CLEP, DSST, etc.	7%	14%	78%	2%	3%	18%	78%	6%	94%
Challenge exams	6%	16%	77%	3%	3%	15%	79%	19%	81%
ACE/NCCRS credit recommendations for corporate and other external training	12%	14%	74%	7%	7%	10%	76%	7%	93%
ACE credit recommendations for military training	22%	21%	57%	8%	8%	26%	58%	7%	93%
Portfolio assessment	3%	11%	87%	4%	2%	14%	80%	11%	89%
Credits for certifications/ licenses	7%	12%	81%	5%	2%	12%	80%	5%	95%
Other	10%	17%	73%	3%	3%	16%	78%	14%	86%

Table 25. Adult student credential completion by PLA method, all institutions and by sector

	2-year public		4-year public		4-year private nonprofit		For-profit		All institutions	
	% Completed	N	% Completed	N	% Completed	N	% Completed	N	% Completed	N
Standardized exams: CLEP, DSST, etc.	71%	348	55%	640	72%	176	84%	2,607	78%	3,771
Challenge exams	71%	133	72%	86	Not shown	Not shown	80%	81	74%	324
ACE/NCCRS credit recommendations for corporate and other external training	76%	80	52%	61	Not shown	Not shown	64%	554	65%	702
ACE credit recommendations for military training	32%	1,115	27%	3,277	Not shown	Not shown	38%	10,931	35%	15,372
Portfolio assessment	76%	94	80%	204	77%	159	85%	219	80%	676
Credits for certifications/ licenses	44%	193	72%	278	81%	439	78%	397	72%	1,307
Other	50%	191	71%	73	94%	94	Not shown	Not shown	65%	368
ACE military plus standardized exams	Not shown	Not shown	54%	359	Not shown	Not shown	62%	731	59%	1,117
Other multiple methods	90%	58	60%	329	83%	131	84%	357	75%	875
Non-PLA	18%	54,096	31%	31,840	54%	14,360	28%	107,814	27%	208,110

Service Members: Usage and Impact

Statistical significance testing comparing demographic or characteristic subgroups were performed on a limited basis. See section of the report on service members for select reporting of significance.

Table 26A. Service members, all ages, demographic, institutional and academic categories

	Any current/previous service	No service history or unknown	Total
Sector			
All institutions	57,192	387,506	444,698
2-year public	5,317	138,857	144,174
4-year public	24,982	91,969	116,951
4-year private nonprofit	2,341	18,704	21,045
For-profit	24,552	137,976	162,528
Online institution			
Not predominantly online	30,257	228,777	259,034
Predominantly online	26,935	158,729	185,664
Minority serving institution			
Not an MSI	55,370	319,188	374,558
MSI	1,822	68,318	70,140
Gender			
Female	16,083	240,975	257,058
Male	39,307	144,653	183,960
Race/ethnicity			
Asian	1,125	10,464	11,589
Black	6,987	46,278	53,265
Hispanic	4,926	45,240	50,166
White	18,592	139,337	157,929
Other/Multiracial	1,130	11,991	13,121
Unknown	24,432	134,196	158,628

continued on next page

Table 26B. Service members, all ages, demographic, institutional and academic categories

	Any current/previous service	No service history or unknown	Total
Age range			
under 25	17,596	194,350	211,946
25-34	25,742	108,915	134,657
35-44	9,062	53,086	62,148
45-54	4,106	24,477	28,583
55-64	629	6,001	6,630
65+	57	677	734
First GPA			
1.00 or less	7,187	67,328	74,515
1.01 to 2.00	5,616	43,357	48,973
2.01 to 3.00	15,875	106,193	122,068
3.01 to 4.00	27,078	162,056	189,134
Unknown	1,436	8,572	10,008
Course success rate			
Less than 70%	15,680	123,271	138,951
71-89%	9,404	66,786	76,190
90-100%	31,391	172,394	203,785
Developmental education participation			
No developmental education credits	52,058	314,549	366,607
Developmental education credits (any)	5,134	72,957	78,091
Enrollment intensity (full-time vs. part-time)			
Less than 20% enrollment	12,750	49,355	62,105
21-40% enrollment	11,789	71,640	83,429
41-60% enrollment	10,395	75,149	85,544
61-80% enrollment	9,240	67,796	77,036
81-100% enrollment (full-time)	4,782	59,598	64,380
Unknown/ Cannot calculate	8,236	63,968	72,204

Table 27. Service members, PLA take-up and average credit earning, by institutional sector (data for average PLA credit earning revised December 2020)

		PLA take-up rate	Average PLA credit-earning	Total adult students in category	Total PLA credit earners
All institutions	Any current/previous service	43%	15.0	57,136	24,287
	No service history or unknown	3%	11.1	387,130	11,107
2-year public	Any current/previous service	37%	10.4	5,267	1,957
	No service history or unknown	3%	10.1	138,620	3,466
4-year public	Any current/previous service	29%	16.6	24,979	7,322
	No service history or unknown	2%	12.2	91,858	2,249
4-year private nonprofit	Any current/previous service	11%	19.5	2,339	250
	No service history or unknown	5%	14.9	18,676	977
For-profit	Any current/previous service	60%	14.7	24,551	14,758
	No service history or unknown	3%	10.6	137,976	4,415

Table 28. Service members, credential completion and PLA

		No credential completed	Any credential completed
Any current/previous service	No PLA	25,869	6,980
	PLA	15,807	8,480
No service history or unknown	No PLA	260,911	115,112
	PLA	2,752	8,355

Table 29. Service members, credential completion and PLA, by institutional sector

			No credential completed	Any credential completed
2-year public	Any current/previous service	No PLA	2,694	616
		PLA	1,355	602
	No service history or unknown	No PLA	108,501	26,653
		PLA	1,231	2,235
4-year public	Any current/previous service	No PLA	15,343	2,314
		PLA	5,275	2,047
	No service history or unknown	No PLA	45,201	44,408
		PLA	598	1,651
4-year private nonprofit	Any current/previous service	No PLA	1,198	891
		PLA	79	171
	No service history or unknown	No PLA	7,637	10,062
		PLA	171	806
For-profit	Any current/previous service	No PLA	6,634	3,159
		PLA	9,098	5,660
	No service history or unknown	No PLA	99,572	33,989
		PLA	752	3,663

Appendix E. Adult Supporting and PLA Policies and Practices at the 72 Participating Study Institutions

This appendix describes responses from the 72 participating study institutions on question related to their programs and services that support adult students, as well as their policies and practices with respect to prior learning assessment.

Policies and Practices that Support Adult Students at the Participating Institutions

PLA is not the only program that institutions offer in support of returning adult students. Many other policies, programs, and practices of an individual institution can contribute to adult student success. The institutions self-reported details on policies and practices that they had in place between 2011 and 2018. The information was not independently verified, and the respondents may not have been fully informed about whether specific programs and approaches were in place across an eight-year period in the past.

A slight majority (61%) of the 72 participating institutions offered degree or credential programs that were specifically marketed to adults, with the private institutions (both for-profit and nonprofit) all offering such programs.

The participating institutions shared additional information about other adult-focused practices they had, and whether those were in place throughout the cohort enrollment period of 2011-2018 or whether such policies were in place at any time during that period. For example:

- 72% said that they had a specific strategy to recruit adult students at some point during the observation period, but only 42% said they had such a strategy in place for the entire 2011-2018 period
- 76% offered support services on a schedule and in a format accessible to working adults; only 50% did so for the entire observation period
- 88% provided alternative course modalities, scheduling or formats, with 63% providing them the entire period
- 97% provided a designated point-of-contact for veterans, and only 57% provided one for the entire period (Table 1).

Table 1. Adult-focused practices at the participating institutions, 2011-2018, by implementation period

	In effect throughout 2011-2018	Launched at some point between 2011-2014 and continued through 2018	Launched at some point between 2015-2018 and continued through 2018	Launched at some point between 2011-2018 but was discontinued during that period	Never in effect or available between 2011-2018	I don't know
Had a specific strategy to recruit adult students.	42%	11%	13%	6%	15%	14%
Offered support services on a schedule and format accessible to working adults	50%	13%	7%	6%	18%	7%
Provided alternative modalities, scheduling or formats that are more convenient for working learners.	63%	13%	6%	6%	6%	8%
Provided accelerated formats for adults to complete their studies in a shorter period of time.	42%	17%	10%	8%	14%	10%
Provided affordable or subsidized child/ dependent care to meet the needs of adult students.	13%	0%	0%	8%	68%	11%
Used predictive analytics to track students' progress.	13%	15%	11%	4%	43%	14%
Advisors and/or instructors proactively reached out when an adult student was in danger of falling behind.	51%	15%	17%	4%	7%	6%
Provided veteran/active duty military students with a designated point-of-contact.	69%	18%	7%	3%	1%	1%
Provided veteran/active duty military students with veteran-centered support services.	57%	21%	10%	3%	6%	4%
Provided programs and services to address financial needs (e.g. food or housing insecurity, unexpected bills, healthcare crises, etc.)	22%	17%	31%	0%	17%	14%

PLA Policies and Practices at the Participating Institutions

The institutions participating in this study were also asked to share details about their current PLA programs. The research team opted not to ask about PLA offerings and policies at the start of the observation period, academic year 2011-2012, recognizing that those details might be difficult or impossible to determine eight years later; there is often turnover in administrative roles related to PLA, and, unlike with other kinds of adult-focused offerings, official policies and practices are sometimes not well-documented.

Important to note, however, is that this particular snapshot of PLA policies and practices should not be viewed as representative of higher education generally—the 72 participating institutions were selected for this study because they were more supportive of PLA than is typical. This is not to say that these 72 institutions were all PLA superstars throughout the observation period. According to the respondents themselves, opportunities to earn PLA credit and apply such credit to degree requirements were likely less generous when the student cohort first enrolled in 2011, compared to the institution's current PLA policies and practices.

The summary information on PLA policies and practices in this section nevertheless provides some additional context for PLA usage and impact at the 72 participating institutions. Overall, PLA program and policy details varied widely from institution to institution.

Reasons for Offering PLA

The institutions were asked to rate the different reasons for why they offered PLA. The top reasons (rated as "very important" or "important") across all institution types were: to help students save time (89%), to help students save money (86%), to fulfill the institution's mission to serve adult learners (86%), and to encourage persistence toward a degree (85%) (Table 2).

Adult student recruitment was viewed as important by a smaller overall proportion, two-thirds of all responding institutions (68%). However, there was considerable variation by institution type: 100% of participating for-profit institutions, 83% of 4-year private nonprofits, 56% of 4-year publics, and 68% of 2-year publics (Table 2).

Table 2. Reasons rated as "very important" or "important" for offering PLA, by all 72 institutions

	2-year public (n=31)	4-year public (n=25)	4-year private, nonprofit (n=12)	For-profit (n=4)	All Institutions (n=72)
To provide a time-saving avenue for degree completion	84%	92%	92%	100%	89%
To provide a cost-effective avenue for degree completion	81%	92%	83%	100%	86%
To fulfill our mission to serve adult learners	87%	80%	92%	100%	86%
To encourage greater student persistence toward a degree	84%	84%	83%	100%	85%
To offer a way for students to avoid class work that would be redundant	81%	80%	50%	100%	76%
To recruit students	68%	56%	83%	100%	68%
To comply with system-level policy	84%	56%	17%	0%	58%
To comply with state legislation	77%	56%	8%	50%	57%
To comply with state board/department of education policy	77%	52%	8%	50%	56%
To keep up with the offerings of our competitors	45%	44%	58%	75%	49%
To allow students to bypass prerequisites and register for upper-level courses	58%	40%	42%	25%	47%

TAACCCT Involvement. Several of the institutions began to offer a more robust PLA program between 2011-2018 partly due to their involvement in the U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCCT) grants. Nineteen of the 31 (61%) participating 2-year public institutions were part of one or more TAACCCT grant initiatives; two of the 4-year public institutions and only 1 of the 4-year private nonprofit institutions also were part of TAACCCT grant programs. Of the public institutions that participated in TAACCCT grants, 13 of the 2-year institutions (68%) and both of the 4-year institutions reported that their TAACCCT projects supported changes/improvements to their institution's PLA offerings.

PLA Methods Offered

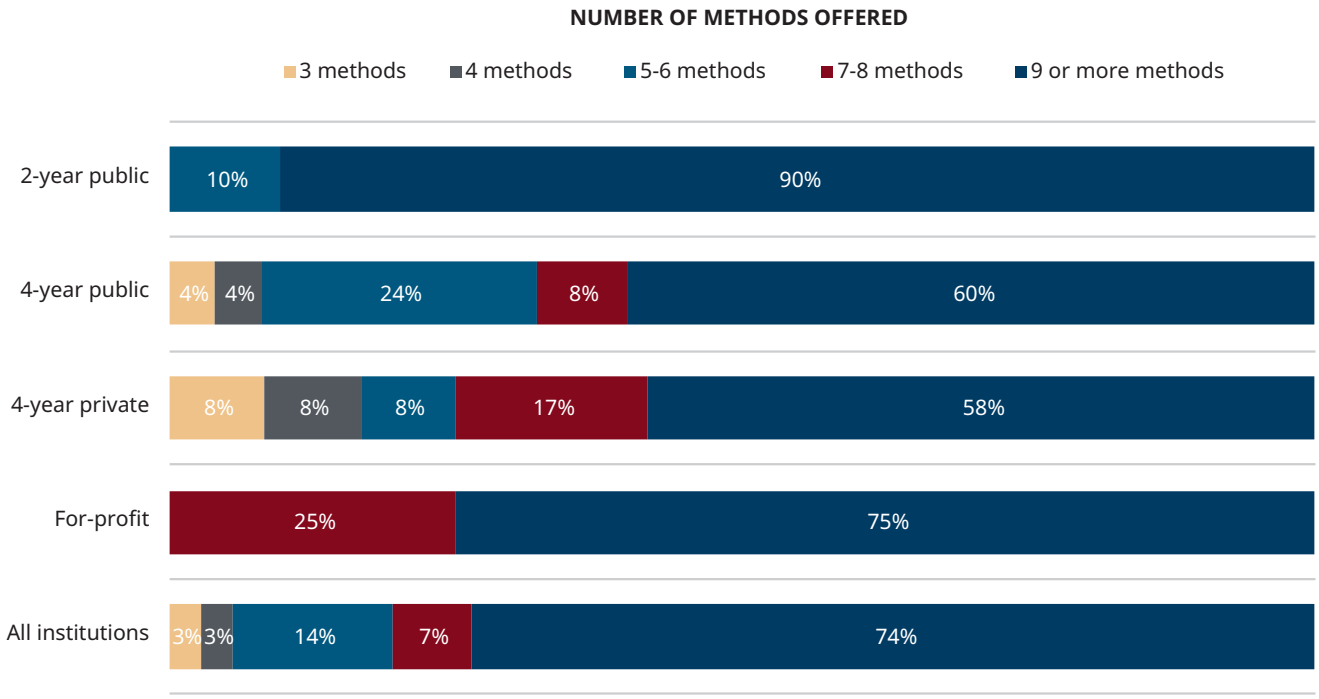
As noted above, one of the selection criteria for this study was that the institutions must offer at least two separate methods of PLA since at least 2011 from the following categories:

- standardized exams (e.g., CLEP, UExcel, DSST, etc.)
- challenge exams
- portfolio assessment
- credit for military training/occupations through ACE recommendations
- credit for other external training through ACE or NCCRS recommendations)

A more detailed questionnaire asked the institutions about a longer list of 13 PLA methods and sub-methods (for example, the institutions were asked if they offered the specific sub-method of CLEP rather than the larger method category of standardized exams; also, one of the 13 methods was an institution-defined "other").

Of the 72 participating institutions, two said they offered 3 methods, two offered 4, ten offered 5-6, five offered 7-8, and 53 offered 9 or more methods (Figure 1). These methods were available at some point during the cohort enrollment period; they may not have been available at the start of the cohort enrollment period.

Figure 1. PLA methods offered at individual institutions, by institutional type



Two methods were available at all institutions to at least some students: CLEP test credit and ACE credit recommendations for military training. However, some of the participating institutions limited the use of such credits to specific degree programs. Other common methods offered included portfolio assessment (93% of institutions), DSST exams (81%), credit for professional licenses (83%), credit for industry certifications (82%), and challenge exams (82%). The least common methods were UExcel exams (43%), ACE/NCCRS credit recommendations for MOOCs and other noncredit courses (51%), and performance assessments/skills demonstrations (54%) (Table 3).

Table 3. Individual PLA methods offered, by extent offered across undergraduate programs at all 72 institutions

	Available to all undergraduates regardless of declared program	Available but limited to subset of programs	Available at this institution, but do not know if available across all programs	Not available
CLEP	94%	4%	1%	0%
DSST	74%	6%	1%	19%
UExcel	38%	1%	4%	57%
ACE credit recommendations for military training	90%	7%	3%	0%
ACE/NCCRS credit recommendations for corporate or other external training	61%	7%	3%	29%
ACE/NCCRS credit recommendations for MOOCs and other noncredit courses	42%	3%	7%	49%
Credit recs based on internal review of external training	47%	18%	7%	28%
Challenge exam	51%	26%	4%	18%
Portfolio assessment	61%	31%	1%	7%
Performance assessment/ skills demonstration	28%	22%	4%	46%
Credit for industry certifications	47%	28%	7%	18%
Credit for professional licenses	46%	31%	7%	17%

There was some variability in the availability of methods offered by institutional sector. All four of the participating for-profit institutions offered 8 PLA methods to all undergraduates regardless of declared program. All sector-level PLA method offerings are presented in Tables 4a and 4b.

Table 4a. Availability of CLEP, DSST, UExcel exams, ACE military, and ACE/NCCRS credit, by extent offered across undergraduate programs and by institution type

		Available to all undergraduates regardless of declared program	Available but limited to subset of programs	Available at this institution, but do not know if available across all programs	Not available
CLEP	2-year public (n=31)	97%	3%	0%	0%
	4-year public (n=25)	92%	4%	4%	0%
	4-year private nonprofit (n=12)	92%	8%	0%	0%
	For-profit (n=4)	100%	0%	0%	0%
DSST	2-year public (n=31)	81%	3%	3%	13%
	4-year public (n=25)	68%	4%	0%	28%
	For-profit (n=4)	100%	0%	0%	0%
	4-year private nonprofit (n=12)	58%	17%	0%	25%
UExcel	2-year public (n=31)	42%	3%	6%	48%
	4-year public (n=25)	36%	0%	0%	64%
	For-profit (n=4)	100%	0%	0%	0%
	4-year private nonprofit (n=12)	8%	0%	8%	83%
ACE military	2-year public (n=31)	90%	6%	3%	0%
	4-year public (n=25)	92%	4%	4%	0%
	4-year private nonprofit (n=12)	83%	17%	0%	0%
	For-profit (n=4)	100%	0%	0%	0%
ACE/ NCCRS for corporate or other external training	2-year public (n=31)	65%	6%	6%	23%
	4-year public (n=25)	52%	8%	0%	40%
	4-year private nonprofit (n=12)	58%	8%	0%	33%
	For-profit (n=4)	100%	0%	0%	0%
ACE/NCCRS for MOOCs and other noncredit courses	2-year public (n=31)	32%	3%	13%	52%
	4-year public (n=25)	48%	4%	4%	44%
	4-year private nonprofit (n=12)	33%	0%	0%	67%
	For-profit (n=4)	100%	0%	0%	0%

Table 4b. Availability of internal evaluation of training, challenge exams, portfolio assessment, and other methods, by extent offered across undergraduate programs and by institution type

		Available to all undergraduates regardless of declared program	Available but limited to subset of programs	Available at this institution, but do not know if available across all programs	Not available
Credit recs based on internal review of external training	2-year public (n=31)	58%	13%	16%	13%
	4-year public (n=25)	32%	24%	0%	44%
	4-year private nonprofit (n=12)	50%	17%	0%	33%
	For-profit (n=4)	50%	25%	0%	25%
Challenge exam	2-year public (n=31)	61%	32%	6%	0%
	4-year public (n=25)	56%	32%	4%	8%
	4-year private nonprofit (n=12)	25%	8%	0%	67%
	For-profit (n=4)	25%	0%	0%	75%
Portfolio assessment	2-year public (n=31)	71%	26%	3%	0%
	4-year public (n=25)	48%	40%	0%	12%
	4-year private nonprofit (n=12)	58%	25%	0%	17%
	For-profit (n=4)	75%	25%	0%	0%
Performance assessment/ skills demonstration	2-year public (n=31)	35%	29%	10%	26%
	4-year public (n=25)	20%	28%	0%	52%
	4-year private nonprofit (n=12)	33%	0%	0%	67%
	For-profit (n=4)	0%	0%	0%	100%
Credit for industry certifications	2-year public (n=31)	52%	32%	10%	6%
	4-year public (n=25)	28%	28%	8%	36%
	4-year private nonprofit (n=12)	58%	25%	0%	17%
	For-profit (n=4)	100%	0%	0%	0%
Credit for professional licenses	2-year public (n=31)	48%	29%	10%	13%
	4-year public (n=25)	28%	40%	8%	24%
	4-year private nonprofit (n=12)	58%	25%	0%	17%
	For-profit (n=4)	100%	0%	0%	0%

Only one-quarter (25%) of all participating institutions said that students without a declared major could not earn PLA credit (Table 5).

Table 5. Can students who have not declared a major earn PLA credit?

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All institutions (n=72)
Yes, they can earn credit through any PLA method offered at my institution.	48%	50%	50%	50%	49%
Yes, they can earn credit through some methods of PLA.	28%	31%	8%	0%	24%
No	24%	19%	33%	50%	25%
I don't know	0%	0%	8%	0%	1%

PLA Policy Details

The institutions provided many other details about their PLA policies and programs. Summaries of their responses are provided below.

Existence of a Formal PLA Policy Document. A large majority of the 72 participating institutions (62, or 86%) provided information about their PLA policies in a formal written document. Public 2-year institutions and for-profit institutions were more likely to have a universal – or close to universal – set of policies across the entire institution, compared to public and nonprofit 4-year institutions (Table 6).

Table 6. Which of the following best describes the PLA policies at your institution?

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All institutions (n=72)
We have a universal set of PLA policies that applies across the entire institution	81%	60%	58%	75%	69%
Our policies vary somewhat for a few key programs or majors	16%	16%	25%	25%	18%
Our policies vary considerably for a few key programs or majors	0%	12%	8%	0%	6%
Each department or major establishes its own PLA policies	3%	12%	0%	0%	6%
Other	0%	0%	8%	0%	1%
Total	100%	100%	100%	100%	100%

Credit Limits. The extent to which institutions had limits on the number of PLA credits that can be applied to degrees was highly variable among the participating institutions; credit limits as a proportion of degree requirements were higher (meaning that PLA could count for a larger proportion of the degree) at the associate level, compared to bachelor's.

Among the participating 2-year public institutions, only 1 (3%) said that 90-100% of associate degree requirements could be fulfilled through PLA credits, and another 4 (14%) said that 76-90% of degree requirements could be met through PLA. Four-year public institutions indicated greater limitations on the number of PLA credits that could be used, compared to other institution types. Out of the 47 institutions responding to this question, 28 (60%) said that PLA can account for 51% or more of associate degree requirements (Table 7).

For bachelor's degree-granting institutions, the 4-year public and 4-year private nonprofit institutions were more likely to have stricter credit limits (allowing fewer PLA credits to be applied), compared to the 2-year publics (14 of the 31 responded to this question about bachelor's degrees) and for-profits (Table 8).

Table 7. Proportion of associate degree requirements that can be met with PLA credit, by institution type

	2-year public (n=29)	4-year public (n=10)	4-year private nonprofit (n=5)	For-profit (n=3)	Total (n=47)
No more than 25% of the degree	10%	30%	20%	33%	17%
Between 26% and 50% of the degree	24%	30%	20%	0%	23%
Between 51% and 75% of the degree	48%	30%	40%	67%	45%
Between 76% and 90% of the degree	14%	0%	0%	0%	9%
Between 91% and 100% of the degree	3%	10%	20%	0%	6%

Table 8. Proportion of bachelor's degree requirements that can be met with PLA credit, by institution type

	2-year public (n=14)	4-year public (n=23)	4-year private nonprofit (n=11)	For-profit (n=4)	Total (n=54)
No more than 25% of the degree	0%	35%	45%	25%	26%
Between 26% and 50% of the degree	6%	35%	36%	0%	24%
Between 51% and 75% of the degree	88%	13%	18%	50%	39%
Between 76% and 90% of the degree	6%	4%	0%	25%	6%
Between 91% and 100% of the degree	0%	13%	0%	0%	6%

Application of PLA Credits to Credential Requirements. Nearly all (97%) of the institutions said with at least some PLA methods, PLA credits could be used to meet undergraduate general education requirements, and 98% said that some PLA methods could be used to fulfill undergraduate program or major requirements. Large majorities said that some PLA methods could be used to achieve advanced standing (72%) or for upper division courses (62%). PLA could also be used fairly widely for certificate programs: 66% said that at least some forms of PLA could be used for short-term certificates, and 70% said the same for longer term certificate programs (Table 9).

Table 9. How PLA credits can be applied to degrees or certificates at the institution

	For all methods	For some methods	For no methods	Not applicable
To meet undergraduate general education requirements	65%	32%	1%	1%
To meet undergraduate program or major requirements	65%	34%	1%	0%
To fulfill undergraduate electives	87%	10%	0%	3%
To waive undergraduate degree requirements or achieve advanced standing	48%	24%	8%	20%
For upper division courses	37%	25%	6%	32%
For graduate level courses	11%	20%	17%	52%
For short-term certificate programs (less than 1 year)	49%	17%	8%	25%
For longer term certificate programs	51%	20%	6%	24%

Changes in PLA Offerings and Policies Over Time. When asked to compare today's policies to those that would have been in place in 2011, more than 90% of the participating institutions said that their policies were either the same as 2011 or were now more beneficial to students in terms of availability of PLA methods, options for applying PLA credits to the degree, PLA credit limits, and fees (Table 10).

Table 10. Availability of PLA methods today compared to 2011, by institution type

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All institutions (n=72)
Are today's policies on the availability of PLA methods more beneficial or less beneficial to students, compared to 2011?					
More beneficial	77%	56%	33%	75%	63%
Same	19%	44%	67%	25%	36%
Less beneficial	0%	0%	0%	0%	0%
I don't know	3%	0%	0%	0%	1%
Are today's policies on the application of PLA credits to the degree more beneficial or less beneficial to students, compared to 2011?					
More beneficial	52%	44%	33%	100%	49%
Same	39%	56%	67%	0%	47%
Less beneficial	3%	0%	0%	0%	1%
I don't know	6%	0%	0%	0%	3%
Are today's policies on PLA credit limits more beneficial or less beneficial to students, compared to 2011?					
More beneficial	42%	28%	8%	50%	32%
Same	52%	68%	83%	50%	63%
Less beneficial	3%	4%	8%	0%	4%
I don't know	3%	0%	0%	0%	1%
Are today's policies on PLA fees more beneficial or less beneficial to students, compared to 2011?					
More beneficial	48%	48%	33%	25%	44%
Same	42%	48%	67%	75%	50%
Less beneficial	0%	0%	0%	0%	0%
I don't know	10%	4%	0%	0%	6%

Transfer of portfolio-assessed credits. About half (52%) of the participating institutions said that they accepted portfolio-assessed credits from other colleges in transfer, with 100% of the participating for-profit institutions accepting such credits (Table 11).

Table 11. Institutional acceptance of portfolio-assessed credits awarded by other institutions, by institutional sector

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All institutions (n=72)
Accept portfolio credits in transfer	59%	54%	50%	0%	52%
Do not accept portfolio credits in transfer	31%	35%	50%	100%	39%
I don't know	10%	12%	0%	0%	8%

Staffing investment. Three-quarters (75%) of the participating institutions in the study reported that they have staff dedicated to PLA and/or portfolio assessment services. Twelve of the institutions had fewer than 1.0 FTE, 31 had between 1 and 2 FTE, 5 had 2-6 FTE, and 2 had 10 or more (the institutions with higher numbers may be including the staffing of testing centers).

Integration of PLA in all parts of the institution. Institutions were asked how often students would hear about PLA at the following stages or types of interaction with the institution: recruitment events, enrollment, mandatory student orientation, optional student orientation, individual advising/counseling session, career advising, faculty or departmental interactions, veterans/military programs, or diploma/graduation "check ins." Veterans/military programs was the only type of interaction where a majority of institutions (65%) said students would "always" or "often" hear about PLA. The next most common were individual advising sessions (43%), enrollment (39%), and recruitment (36%) (Table 12).

Table 12. Percent of institutions saying that students hear "always" or "very often" about PLA at different stages in their interaction with the institution, by institution type

	2-year public	4-year public	4-year private nonprofit	For-profit	All institutions
Recruitment events	29%	28%	75%	25%	36%
Enrollment	23%	32%	83%	75%	39%
Mandatory student orientation	19%	40%	17%	25%	26%
Optional student orientation	16%	32%	33%	0%	24%
Individual advising/counseling session	39%	40%	58%	50%	43%
Career advising	35%	12%	0%	0%	19%
Faculty or departmental interactions	26%	12%	33%	0%	21%
Veterans/military program	68%	68%	58%	50%	65%
Diploma/graduation "check in"	6%	8%	25%	25%	11%

Engagement of leadership, faculty and staff. A large majority (82%) of the participating institutions agreed or strongly agreed that their institutional leaders publicly supported PLA, even though less than one-third (29%) said that their institutional leaders were well trained in PLA. Even fewer institutions (21%) said that faculty were systematically trained on PLA, though a somewhat higher proportion (42%) said that staff were systematically trained on PLA. Just over half (58%) of all participating institutions agreed or strongly agreed that their staff actively encouraged students to take advantage of PLA; 100% of the for-profits agreed or strongly agreed (Table 13).

Table 13. Percent of institutions agreeing or strongly agreeing with statements about internal support for PLA, by institution type

	2-year public	4-year public	4-year private nonprofit	For-profit	All institutions
Institutional leaders publicly support PLA	81%	80%	83%	100%	82%
Faculty actively encourage students to take advantage of PLA	45%	32%	50%	25%	40%
Staff actively encourage students to take advantage of PLA	52%	56%	67%	100%	58%
Institutional leaders are well-trained on PLA	39%	16%	25%	50%	29%
Faculty are systematically trained on PLA	39%	8%	8%	0%	21%
Staff are systematically trained on PLA	42%	36%	50%	50%	42%

Marketing and student outreach. Most of the participating institutions (75%) do use PLA in their outreach and marketing to adult students, but very few report doing so "a great deal" (17%) or "a lot" (13%); a slightly larger proportion (80%) use PLA in their outreach to veterans or active military. Institutions are most likely to inform students about PLA offerings through their catalog (89%), website (96%), and touch-points with staff and faculty (86%); they are less likely to do so through brochures (40%), social media (36%), the student handbook (35%), or traditional media advertising (14%).

Table 14. Extent to which institution uses PLA as a selling point in outreach and marketing to adult students, by institution type

	2-year public (n=31)	4-year public (n=25)	4-year private, nonprofit (n=12)	For-profit (n=4)	All Institutions (n=72)
A great deal	6%	20%	42%	0%	17%
A lot	10%	12%	8%	50%	13%
A moderate amount	23%	12%	25%	25%	19%
A little	26%	36%	8%	25%	26%
None at all	10%	4%	8%	0%	7%
We do not actively conduct adult-focused outreach and marketing	6%	16%	8%	0%	10%
I don't know	19%	0%	0%	0%	8%

Table 15. Extent to which institution uses PLA as a selling point in outreach and marketing to veterans/ active military, by institutional sector

	2-year public (n=31)	4-year public (n=25)	4-year private, nonprofit (n=12)	For-profit (n=4)	All Institutions (n=72)
A great deal	6%	28%	25%	25%	18%
A lot	26%	12%	25%	25%	21%
A moderate amount	39%	8%	8%	50%	24%
A little	10%	36%	8%	0%	18%
None at all	10%	8%	8%	0%	8%
We do not actively conduct outreach and marketing to veterans or active military	0%	4%	17%	0%	4%
I don't know	10%	4%	8%	0%	7%

Table 16. Methods used to inform students about PLA offerings, by institutional sector

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All Institutions (n=72)
Printed or online catalog	81%	92%	100%	100%	89%
Website	94%	96%	100%	100%	96%
Student handbook	42%	20%	42%	50%	35%
PLA brochures	52%	32%	33%	25%	40%
Social media	48%	20%	25%	75%	36%
Traditional media advertising	10%	20%	0%	50%	14%
Touch points with staff/faculty	84%	92%	75%	100%	86%
None of the above - students need to ask for it	3%	0%	0%	0%	1%
Other	77%	92%	67%	50%	79%

Advising and coaching. All four of the participating for-profit institutions directed coaches and advisors to ask about PLA with all students at least a moderate amount, compared to only 52% of 2-year publics, 52% of 4-year publics, and 42% of the 4-year private nonprofits. All of the participating for-profit institutions also directed their coaches and advisors to talk about PLA with a specific category of students at least a moderate amount. More of the 2-year public institutions and for-profit institutions provided one-on-one guidance to students inquiring about PLA, compared to the other sectors (Table 17).

Table 17. Extent to which institution directs coaches and advisors to ask about PLA with all students, by institutional sector

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All Institutions (n=72)
Our institution directs coaches and advisors to ask about PLA with all students					
A great deal	16%	4%	25%	0%	12.5%
A lot	13%	32%	0%	50%	19.4%
A moderate amount	23%	16%	17%	50%	20.8%
A little	26%	24%	8%	0%	20.8%
None at all	13%	24%	33%	0%	19.4%
I don't know	10%	0%	17%	0%	6.9%
Our institution directs coaches and advisors to talk about PLA with a specific category of students that are likely to have significant prior learning					
A great deal	29%	20%	58%	25%	31%
A lot	6%	24%	17%	50%	17%
A moderate amount	26%	20%	8%	25%	21%
A little	29%	24%	0%	0%	21%
None at all	3%	12%	8%	0%	7%
I don't know	6%	0%	8%	0%	4%
Students who inquire about or pursue PLA receive one-on-one advising/coaching on whether their prior learning is a fit for PLA					
A great deal	48%	40%	75%	50%	50.0%
A lot	35%	16%	8%	25%	23.6%
A moderate amount	13%	24%	0%	25%	15.3%
A little	3%	16%	0%	0%	6.9%
None at all	0%	4%	8%	0%	2.8%
I don't know	0%	0%	8%	0%	1.4%

Tracking and reviewing PLA usage and impact. Most of the participating institutions (54 of the 72, or 75%) have at least some process in place for regularly evaluating the use and impact of PLA at their institutions; the institutions that did not do any regular review of data included five 2-year publics, four 4-year publics, and two 4-year private nonprofits. Of these, the most common data elements examined were the number of students earning PLA credits (72%) and the number of PLA credits earned (69%). Much lower proportions (14-26%) evaluated degree completion, time to degree, demographics of PLA students, or student views on the value of PLA. (Table 18).

Table 18. Data elements institutions regularly track and review in order to evaluate the use and impact of PLA, by institutional sector

	2-year public	4-year public	4-year private nonprofit	For-profit	All Institutions
Number of PLA credits earned	81%	52%	67%	100%	69%
Number of students earning PLA credits	81%	56%	75%	100%	72%
Graduation rate of PLA students	23%	20%	25%	100%	26%
Time to degree of PLA students	13%	16%	25%	75%	19%
Demographics of PLA students	10%	28%	8%	25%	17%
The number of students who seek PLA credit but fail to earn credit	13%	24%	25%	50%	21%
Student views on the value of PLA	13%	8%	25%	25%	14%

System Guidance on PLA

Few of the private institutions said that they were part of a larger system that provides institutions with policy guidance, but 87% of the 2-year publics and 64% of the 4-year publics said that they were (Table 19). At the public institutions, 15 institutions said that the guidance comes in terms of system-provided guidelines on PLA, 14 said that the system had universal PLA policies, and 5 said that there were state governing board guidelines. Other less common system influences that were mentioned included partial system policies (4) and a combination of universal system policies and guidelines (3) (Table 20).

Table 19. Proportion of institutions indicating that are part of a larger system that provides policy guidance on PLA, by institutional sector

	2-year public (n=31)	4-year public (n=25)	4-year private nonprofit (n=12)	For-profit (n=4)	All institutions (n=72)
Yes	87%	64%	8%	25%	63%
No	13%	36%	92%	75%	38%

Table 20. Type of system policy or guidance, by institutional sector

	2-year public	4-year public	4-year private nonprofit	For-profit
Accreditor			1	
Guidelines	10	5		
Partial system policy	2	2		1
State Governing Board Guidelines	1	4		
Under development		1		
Universal Policies	10	4		
System - Both Universal Policies and Guidelines	2	1		

Quality Assurance

The most common guidelines used by participating institutions to ensure PLA quality assurance are: following internal guidelines (55 of the participating institutions, or 76%) and following guidelines proposed by accrediting bodies (54, or 75%). Just over half (40 institutions, or 56%) said that they adhere to CAEL's Ten Standards for Assessing Learning. About two-thirds (68%) of the participating institutions indicated that their institutions regularly review their PLA policies and practices (56% of 4-year public institutions; 77% of 2-year public institutions; 58% of 4-year private nonprofit institutions, and all of the for-profit institutions). Only five institutions said that they do not have a formal process for ensuring quality (Table 21).

Table 21. Institutional acceptance of PLA credits awarded by other institutions, by institutional sector

	2-year public	4-year public	4-year private nonprofit	For-profit	All Institutions
We adhere to CAEL's Ten Standards for Assessing Learning	45%	60%	58%	100%	56%
We follow the quality assurance guidelines of our accrediting body	81%	76%	50%	100%	75%
We follow internally established guidelines for quality assurance	77%	68%	83%	100%	76%
We regularly review our PLA policies and practices to assess whether any changes are needed	77%	56%	58%	100%	68%
We do not have a formal process for ensuring quality	3%	12%	8%	0%	7%

Appendix F - Data Request

CAEL-WICHE Study of PLA Usage and Impact - Student Record Data Request

July 12, 2019 - Revised

Overview of the Study and the Student Record Data Requested

The main focus of the CAEL-WICHE PLA study is to examine the relationship between individual student outcomes (such as degree-earning, time to degree and persistence) and PLA credit-earning. Institutions participating in this study are expected to provide CAEL-WICHE with a data file containing deidentified individual student record data.

Our study will be looking at all undergraduate students who matriculated for the first time at your institution during the school year 2011-2012. We will then follow this group of students through the end of calendar year 2018. Institutions will provide for each student: basic demographic data, annual credit earning, PLA credit-earning details, degrees earned, last-known enrollment, and GPA. More details are provided below.

Assurance of Student Privacy and Institutional Confidentiality

CAEL-WICHE are avoiding most data that would identify the student. We are not asking for name, address, phone number, email address, social security number, student ID number, or birth date. (We do ask for age of student at time of matriculation, gender, race/ethnicity, and residential zip code.) We have established a secure process for you to upload your data files to the project.

CAEL-WICHE will share some institutional-specific data and analysis with you toward the end of the project. However, the report that we share with funders and the public will not include the institution-specific data. We may, however, provide some analysis on different groups of institutions, such as private vs. public, 2 year vs. 4 year, institutions with proportionately large PLA take-up vs. not, and so on.

CAEL-WICHE requires that any of our research team members with access to the data sign an agreement preventing the disclosure of the data prior to gaining access to the data. CAEL-WICHE will not under any circumstances disclose or allow any such confidential information to be made available directly or indirectly to or for the use by any individual or organization other than CAEL or WICHE.

All data will be stored in a manner that is safe from access by unauthorized persons. No data from your institution will be transferred to or stored on laptop computers or portable storage devices such as USB keys and external hard drives.

Data File Format & Method of Transmission

We are asking that the student data be provided in this Microsoft Excel file. There are three tabs that will contain the data: Table 1 is for the main student data record, Table 2 is for data from the National Student Clearinghouse (if accessible), and Table 3 is for detailed PLA event data for each student (if tracked). If your institution would prefer to submit portions of its Table 1 data in a multiple-records-per-student format, please do so using the format provided in optional Table 1F and/or Table 1G.

CAEL and WICHE are committed to ensuring a high level of data security. Later this month, we will provide you instructions for submitting the files through a secure process. Please do NOT email files prior to receiving these instructions, as emailing data files is not a method that meets the security standards for this project.

Deadline

Please provide the data file by July 31, 2019. If you are unable to make this deadline, please contact the CAEL-WICHE team at PLAimpact@cael.org to discuss alternative arrangements.

Overall Instructions

Cohort Definition: We are asking you to provide deidentified individual record data for all degree- or certificate-seeking undergraduates who matriculated at your institution for the first time during the 2011-2012 academic year and who are not "dual enrollment" students. (A dual enrollment student is one who is simultaneously enrolled in high school and college courses.)

Additional notes about this definition:

- Please use IPEDS definition for "degree/certificate-seeking students": "Students enrolled in courses for credit who are seeking a degree, certificate, or other formal award…High school students also enrolled in postsecondary courses for credit are not considered degree/certificate-seeking," *https://surveys.nces.ed.gov/ipeds/Downloads/Forms/IPEDSGlossary.pdf.*
- Please note that we are not limiting this to "first time, full time" students, but rather request any student matriculating for the first time at your institution – first time students as well as transfer students, part-time as well as full-time.
- We ask that you use a definition for your matriculation year that generally aligns with Fall semester 2011 through June 30, 2012; please include students who enrolled on or after July 1, 2011 and continued their enrollment in Fall 2011.

Some additional things that you might find helpful:

- Need for unique student ID (ProxyID). Tables 1 and 2 ask for a single row of data for each student, and Table 3 may have multiple rows of data for each student. In order for us to connect these records in our analysis, please assign each student a unique 6-digit ID (ProxyId). Provide this same unique student ID on all rows/records of student data in any table you submit. Please avoid using IDs beginning with zero.
- SiteID. This field is only for institutions that have multiple locations/branches. Please follow the instructions in the SiteID tab to determine the SiteID values(s) to include in Table 1. If your institution does not have multiple locations, please follow the instructions for a missing value code. T
- Table 1 - Main. As mentioned previously, Table 1 asks for a single row of data for each student in the full cohort. If it is easier for you to provide the annual credit or earned degrees/credential data fields as multiple rows per student rather than one row per student, you may opt to paste these data in tabs Table 1F MultiRow or Table 1G MultiRow.
- Table 2 - NSC. The data in Table 2 is also a single row of data for each student. For this table, we are asking for data from all students in the cohort. Our expectation is that this data would come from the National Student Clearinghouse. If you do not have an established account or process for retrieving this data from NSC, please leave this table blank.
- Table 3 - PLA Detail. Table 3 is asking for detailed PLA records for each PLA credit-earning "event" for each student. Not every college is able to provide all levels of detail. Please provide as much of the detail as you are able. If you are unable to provide the data for Table 3 in the format that we are requesting (a single row of data for each PLA event, and potentially multiple rows per student), please let us know and we will provide you with an alternative. If you are unable to provide any of the detail (method, date awarded, or area of study), please leave this table blank.
- Time-stamped data. Unless otherwise specified, please provide the most recent data up through 12/31/18.
- Unavailable, unknown and "zero" data. Most of the information we are asking for should be available through your SIS or other academic record systems. For most fields, we request that you NOT leave fields missing or 'null'; we ask that you differentiate between zero, unknown and unavailable, if at all possible, to improve the likelihood of including all students in relevant analysis. Typically, zero (0) is the preferred option if no such credit or other countable activity occurred; "unknown" is for circumstances where the institution collects the data but is unknown for that particular student; and "unavailable" is for circumstances where the institution does not routinely collect that data.
- Comments/Explanations. If you need to communicate anything to us about the data you are providing, please add comments or explanations in Column F in tab "Instructions Table 1".

If you have any questions at all about the data request, please contact the CAEL-WICHE team at PLAimpact@cael.org.

Table 1: Main Student Record Table

One record per student in your 2011-12 degree-seeking undergraduate cohort (matriculating at your institution for the first time in 2011-12); please include only 1) students matriculating between Fall semester 2011 through June 30, 2011 and 2) students who enrolled on or after July 1, 2011 and continued enrollment in Fall 2011.

A. Education and Degree Information		Format	Response Options	Specifications
PROXYID	**Unique 6-digit identifier for each student**. This unique identifier will be used for the same student in Tables 2 and 3.	Integer	Unique 6-digit ID for each student. *Please avoid using IDs beginning with zero.*	Should not be anything that would allow us to identify the student. *Do not use*: date of birth, SSN, or email address, or any type of student ID number or operational data
SITEID	**SiteID.** A code for the specific campus attended by the student at the time of matriculation.	Text	### site number or code	Timeframe: At the time of matriculation If your institution has multiple campuses/ sites, please find the tab marked "SiteID" and follow the instructions for assigning SiteID codes. We are asking you to take this additional step to further minimize the risk of student identification. If you are a single-site institution, please enter "SC1" for all students.
MATDATE	**Matriculation date.** The date the student first matriculated at your institution. If the exact date is not known, please use the start date of the term in which the student was first enrolled (can be approximate).	Date	dd/mm/yyyy	Timeframe: Within academic year 2011-2012. Please include only 1) students matriculating between Fall semester 2011 through June 30, 2012 and 2) students who enrolled on or after July 1, 2011 and continued enrollment in Fall 2011.
DEGCGL	**Degree or credential goal.** The student's degree/credential goal at your institution at the time of matriculation or soonest thereafter (first declared degree/credential goal).	Integer	1 = Associate of Arts 2 = Associate of Science 3 = Associate of Applied Science 4 = Bachelor's degree (any) 5 = Certificate 6= Other credential 7 = Never declared 998=Unknown 999=Not applicable	Timeframe:At the time of matriculation or soonest thereafter
DEGCRDT	**Credits needed for the student's degree or other credential goal.** The total number of credits needed for the degree or credential captured in DEGCGL (i.e., typically around 60 for an associate degree or 120 for a bachelor's degree). This number will be institution-specific and will be dependent upon what type of degree the student is pursuing.	Integer	1-### Total number of credits needed 998=Unknown 999=Not applicable	
CIP	**Field of Study.** The student's last declared program of study (if declared).	Text ##.####	6 character CIP code ##.#### 998=Unknown 999=Not applicable	Timeframe: Most recent/last declared The *full 6* digits of the CIP are preferred

Continued

ENROLL	**Last date enrolled.** Please indicate the last date the student was enrolled *at your institution*. This date can be up through 12/31/2018. Please provide this date for all students regardless of whether the student earned a degree/credential from your institution.	Date	dd/mm/yyyy 01/01/1900=Unknown or unavailable	Timeframe: Last date though 12/31/2018
CGPA	**Cumulative Grade Point Average.** Indicates cumulative grade point average on the date that the student was last enrolled, on or prior to 12/31/2018.	Decimal	Please convert to a 4-point scale and round to two decimal places. 998=Unknown	Timeframe: Last enrollment prior to 12/31/2018
FRGPA	**Grade Point Average at the end of the student's first term.** Indicates the student's grade point average at the end of the first term of enrollment.	Decimal	Please convert to a 4-point scale and round to two decimal places. 998=Unknown	Timeframe: End of first term of enrollment
B. Transfer Credits		**Format**	**Response Options**	**Specifications**
ALLTRAN	**Total number of transfer credits.** The number of transfer credits earned by the student and accepted by your institution prior to the first degree/ credential earned at your institution or prior to 12/31/2018, whichever comes first. *This does not include credit through any method of PLA (e.g., standardized exam, ACE credit rec, challenge exam, portfolio, etc.)* *This does include credits transferred in from dual or concurrent enrollment experience, if any, from any institution including this institution.*	Integer	**Round to the nearest whole number.** 0 = No transfer credits accepted 1-### Total number of transfer credits 998=Unknown 999=Not applicable	Timeframe: Prior to the first degree/credential earned at your institution or prior to 12/31/2018, whichever comes first.
PRETRAN **(Optional)**	**Total number of transfer credits earned prior to matriculation. (Optional).** If you are able to distinguish which transfer credits were earned by the student and accepted by your institution prior to the student's matriculation at your institution, please provide that number. *This does not include credit through any method of PLA (e.g., standardized exam, ACE credit rec, challenge exam, portfolio, etc.)*	Integer	**Round to the nearest whole number.** 0 = No pre-matriculation transfer credits accepted 1-### Total number of pre-matriculation transfer credits 998=Unknown 999=Not applicable	Timeframe: Prior to the student's matriculation at your institution

Continued

PLAACPT	**PLA credits accepted from other institutions.** The number of PLA credits that are transferred in from other institutions – please include only PLA credits that are based on another institution's evaluation (e.g., portfolio, challenge exam, institutional assessment of training). Do not include CLEP or other standardized exam credits, or credits based on ACE/ NCCRS credit recommendations, or ACE military credit. *If you are not able to distinguish between course transfer credits and PLA transfer credits, please code as 998=Unknown.*	Integer	**Round to the nearest whole number.** 0 = No PLA credits accepted from other institutions 1-### Total number of PLA credits accepted from other institutions 998=Unknown 999=Not applicable	Timeframe: Prior to 12/18/2018

C. PLA Credit-Earning at Your Institution

In this section we are asking for the total number of PLA credits earned by the student at your institution between matriculation [MATDATE] and 12/31/2018.

How we are defining PLA:
- standardized exams (e.g., CLEP, DSST, UExcel, etc.)
- high school exams (AP and IB)
- credit for externally-evaluated training program (e.g., ACE or NCCRS credit recommendations)
- credit by exam (aka "challenge exams")
- credit for ACE recommendations for military training/occupations
- portfolio assessment
- other PLA (e.g. credit for internally-evaluated training program such as your institution evaluating a certification or license)
- This should not include any credits earned through a previous dual enrollment experience; those credits should be counted in ALLTRAN in Section B.

Please provide the total PLA credits earned by the student through 12/31/2018.

How we are defining PLA: (or: "What is covered in our definition of PLA"?) ● standardized exams (e.g., CLEP, DSST, UExcel, etc.) ● high school exams (AP and IB) ● credit for externally-evaluated training program (e.g., ACE or NCCRS credit recommendations) ● credit by exam (aka "challenge exams") ● credit for ACE recommendations for military training/ occupations ● portfolio assessment ● other PLA (e.g. credit for internally-evaluated training program such as your institution evaluating a certification or license) ● This should not include any credits earned through a previous dual enrollment experience; those credits should be counted in ALLTRAN in Section B. Please provide the total PLA credits earned by the student through 12/31/2018.		**Format**	**Response Options**	**Specifications**
PLAEARN	**TOTAL PLA credits awarded by your institution.** This includes all forms/ methods of PLA. Please total all PLA credits earned by the student *through 12/31/2018.*	Integer	0 = No PLA credits earned 1-### = Total number of PLA credits earned	Timeframe: through 12/31/18.

Continued

D. Student Demographics: Race and Ethnicity		Format	Response Options	Specifications
HISPANIC	**Hispanic or Latino Ethnicity** The person identifies as Hispanic/Latino regardless of race	Integer	0= No 1 = Yes 998=Unknown	Timeframe: At time of matriculation
ASIAN	Student identifies as **Asian.**	Integer	0= Not selected 1 = Yes /Selected 998=Unknown	
BLACKAA	Student identifies as **Black/African American.**			
HAWPAC	Student identifies as **Native Hawaiian or Pacific Islander.**			
NAIAN	Student identifies **American Indian/ Alaskan Native**			
WHITE	Student identifies as **White.**			
NONORRE SIDENTALIEN	**Nonresident alien or resident aliens.** Please provide information about known resident alien status *at time of matriculation.*	Integer	1 = Student is a nonresident alien 2 = Student is resident alien 3 = Neither 999= Not available	
E. Other Student Information and Demographics		**Format**	**Response Options**	**Specifications**
GENDER	**Gender of the student.** If gender identity changed over time, please provide last known.	Integer	1= Male 2= Female 3= Non-binary or other 998= Unknown	Timeframe: Last known
AGE	**Age of the student.** Please calculate the age at of the time of matriculation.	Integer	**[MATDATE] – [birthdate] = AGE. Convert result to years. Round down to nearest year.** 998 = Unknown	Timeframe: At time of matriculation
PELL	**Recipient of Pell Grant** Indicates whether the student received a federal Pell grant *at any time between matriculation and 12/31/18*	Integer	0= No 1 = Yes 998 = Unknown (e.g., student did not complete FAFSA, or student qualified for Pell Grant but did not accept it, or other reason.)	Timeframe: At any time between matriculation and 12/31/18.
VET	**Military/Veteran Status of the Student.** If student's status changes over time, please *use last known.*	Integer	0 = Does not and has never served in the US military/ armed forces 1= Is currently serving in the US military/armed forces (e.g., active full-time military, National Guard/ Reserve) 2= Prior U.S. military service/ armed forces, veteran 998 = Unknown military/ veteran status 999= Not available	Timeframe: Last known

Continued

ESL	**English as a second language courses.** Indicates the number of ESL courses, if any, student took between matriculation and 12/31/18. *These can include for-credit or not-for-credit*	Integer	0 = None 1-### = the number of courses 998 = Number of courses unknown 999 = Not available	Timeframe: Between matriculation and 12/31/18.
DISTED	**Distance education only**. Indicates if student was enrolled exclusively in distance education courses offered at your institution.	Integer	1 = Enrolled exclusively in distance education courses offered at institution2= Not exclusively online998= Unknown 999= Data not available	Timeframe:At all times during enrollment
INDEPEND	**Dependency Status.** Indicates whether student is dependent or independent for the purposes of Title IV Federal Student aid. If student's status changes over time, please use status at time of matriculation.	Integer	1= Dependent 2= Independent 998= Unknown 999= Data not available	Timeframe: At time of matriculation
DEPEND	**Student has Dependents.** Indicates that the student has children or dependents who live in the household and receive more than half their support from them. Indicate "yes" if this is the student's circumstance at any time during their enrollment.	Integer	0 = No 1 = Yes 998 = Unknown 999= Not available	Timeframe: At any time during enrollment
FIRSTGEN	**First Generation student** Defined as neither parent having an associate degree or higher	Integer	0= No (one or more parent has associate degree or higher) 1 = Yes (neither parent has associate degree or higher) 998 = Unknown 999 = Not available	
ZIPCODE	**Zip Code** of where student resides at the time of application/matriculation.	Integer	##### = The 5-digit zip code 998 = Unknown or foreign zipcode 999 = Data not available	Timeframe: At time of application/ matriculation

Continued

F. Academic Outcomes – YOUR INSTITUTION		Format	Response Options	Specifications
** These data elements may alternatively be provided in tab Table 1F MultiRow if you prefer a one-to-many format.*				
DEGEARN1	**First** through **fifth** degree or credential earned by this student from your institution prior to 12/31/2018.	Integer	1 = Earned an **Associate of Arts degree** from this institution 2 = Earned an **Associate of Science degree** from this institution 3 = Earned an **Associate of Applied Science degree** from this institution 4 = Earned a **bachelor's degree** from this institution 5 = Earned a **certificate** from this institution 6 = Earned a **different credentia**l from this institution 7= Did not earn this degree or credential from this institution	Timeframe: From your institution prior to 12/31/2018
DEGEARN2				
DEGEARN3				
DEGEARN4				
DEGEARN5				
DEGCIP1	**Area of study** associated with th**e first** through **fifth** degree or credential earned from your institution. *Please provide CIP code.*	Text	6 character CIP code ##.#### 998=Unknown 999=Not applicable	The *full 6 characters* of the CIP are preferred
DEGCIP2				
DEGCIP3				
DEGCIP4				
DEGCIP5				
DEGDATE1	**Date associated with** the **first** through **fifth** degree or credential earned from your institution.	Date	dd/mm/yyyy 01/01/1900=Unknown or unavailable	Timeframe: Prior to 12/31/2018
DEGDATE2				
DEGDATE3				
DEGDATE4				
DEGDATE5				

G. Credits Attempted and Earned

In this section, we are asking for attempted and earned credits for each academic year.

For "All credits" attempted/earned, please count all credits from both college level and developmental/remedial education courses (using definition of developmental education used by your institution).

For "Developmental credits" attempted/earned, please count only the credits from developmental/remedial education courses (using definition of developmental education used by your institution).

Academic year is defined as July 1 - June 30.

** These data elements can alternatively be provided in tab Table 1G MultiRow if you prefer a one-to-many format.*

ALL ATTEMPTED CREDITS		Format	Response Options	Specifications
ATCR1112	**All** credits **attempted** 2011-2012	Integer	**Round to the nearest whole number.** 0-### = All credit hours (not PLA or transfer credit) attempted by the student at your institution. 998 = Student not enrolled	Please count **all** credits – include college level and developmental/ remedial education. Academic year defined as July 1 - June 30.
ATCR1213	**All** credits **attempted** 2012-2013			
ATCR1314	**All** credits **attempted** 2013-2014			
ATCR1415	**All** credits **attempted** 2014-2015			
ATCR1516	**All** credits **attempted** 2015-2016			
ATCR1617	**All** credits **attempted** 2016-2017			
ATCR1718	**All** credits **attempted** 2017-201**8**			
ATCR1819	**All** credits **attempted** 2018-2019 (through 12/31/2018 only)			

Continued

ALL EARNED CREDITS		Format	Response Options	Specifications
CRT1112	**All** credits **earned** 2011-2012	Integer	**Round to the nearest whole number.** 0-### = All credit hours (not PLA or transfer credit) earned by the student at your institution. 998 = Student not enrolled	Please count **all** credits – include college level and developmental/remedial education. Academic year defined as July 1 - June 30.
CRT1213	**All** credits **earned** 2012-2013			
CRT1314	**All** credits **earned** 2013-2014			
CRT1415	**All** credits **earned** 2014-2015			
CRT1516	**All** credits **earned** 2015-2016			
CRT1617	**All** credits **earned** 2016-2017			
CRT1718	**All** credits **earned** 2017-2018			
CRT1819	**All** credits **earned** 2018-2019 (through 12/31/2018 only)			
ATTEMPTED DEVELOPMENTAL CREDITS		**Format**	**Response Options**	**Specifications**
ATDEV1112	**Developmental** credits **attempted** 2011-2012	Integer	**Round to the nearest whole number.** 0 = No developmental credits attempted 1-### = Developmental credit hours (not PLA or transfer credit attempted by the student at your institution. 998 = Student not enrolled	Only count developmental/ remedial education credits. Academic year defined as July 1 - June 30.
ATDEV1213	**Developmental** credits **attempted** 2012-2013			
ATDEV1314	**Developmental** credits **attempted** 2013-2014			
ATDEV1415	**Developmental** credits **attempted** 2014-2015			
ATDEV1516	**Developmental** credits **attempted** 2015-2016			
ATDEV1617	**Developmental** credits **attempted** 2016-2017			
ATDEV1718	**Developmental** credits **attempted** 2017-2018			
ATDEV1819	**Developmental** credits **attempted** 2018-2019 (through 12/31/2018 only)			
EARNED DEVELOPMENTAL CREDITS		**Format**	**Response Options**	**Specifications**
CEV1112	**Developmental** credits **earned** 2011-2012	Integer	**Round to the nearest whole number.** 0 = No developmental credits earned 1-### = Developmental credit hours (not PLA or transfer credit) earned by the student at your institution. 998 = Student not enrolled	Only count developmental/ remedial education credits. Academic year defined as July 1 - June 30.
CEV1213	**Developmental** credits **earned** 2012-2013			
CEV1314	**Developmental** credits **earned** 2013-2014			
CEV1415	**Developmental** credits **earned** 2014-2015			
CEV1516	**Developmental** credits **earned** 2015-2016			
CEV1617	**Developmental** credits **earned** 2016-2017			
CEV1718	**Developmental** credits **earned** 2017-2018			
CEV1819	**Developmental** credits **earned** 2018-2019 (through 12/31/2018 only)			

Table 2: National Student Clearinghouse StudentTracker® Detail Report

Include all students covered by your 2011-12 degree-seeking undergraduate cohort (Table 1)

Data from the National Student Clearinghouse (NSC) *StudentTracker® Detail Report* are requested for Table 2.

To get the required data, specific values must be entered in three fields in the NSC inquiry/request file

I. Header Row

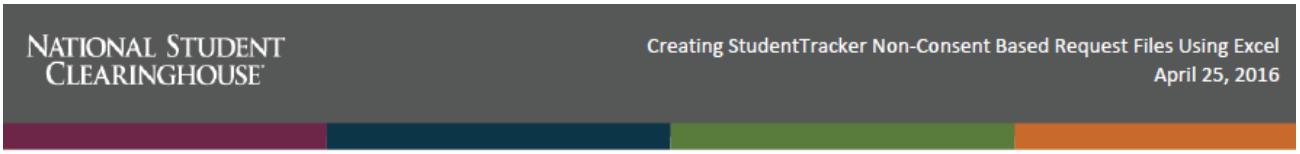
o Column F: **'SE'** (this specifies subsequent enrollment data.)

II. Detail Records: (see first image below)

o Column H**: '20110701'**

o Column L: **the student's 6-digit PROXYID from Table 1.**

PLEASE SEE ADDITIONAL INSTRUCTIONS BELOW

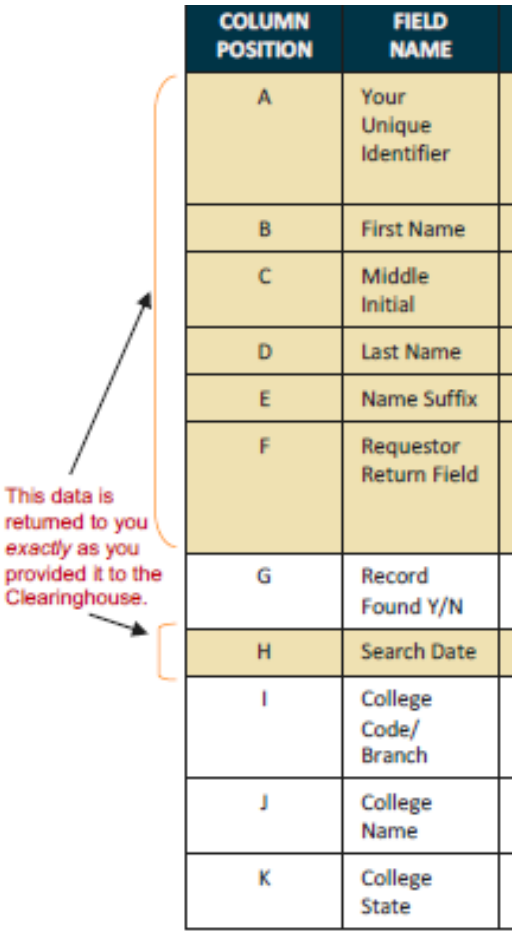


STEP 2: ENTER DETAIL RECORDS FOR COLUMNS A-L BEGINNING IN ROW 2

Each student's information should be entered in its own row. Columns marked with an asterisk(*) are required.

- Column A = **D1***
- Column B = leave blank
- Column C = **First Name***
- Column D = **Middle Initial** (no periods)
- Column E = **Last Name***
- Column F = **Name Suffix** (use letters not numbers, e.g., Jr, I, II, III, IV, V)
- Column G = **Date of Birth** in YYYYMMDD format*
  IMPORTANT: Not required, but you are strongly encouraged to submit this data element as the omission could impact your match rate.
- Column H = **Search begin date** in YYYYMMDD format*
- Column I = leave blank
- Column J = leave blank
- Column K = **00**
- Column L = **Requestor Return Field** (include any information you want unaltered and returned to you with the student record in the detailed report)

The data from the *NCS StudentTracker® Detail Report* will be returned as a .CSV file. When this file is opened in Excel, data will appear in Columns A through AG. The image below shows the variables that will appear in the first 11 columns. **PLEASE DO NOT PASTE THE DATA FROM COLUMNS A THROUGH E INTO THIS DATA REQUEST FILE. Please copy the contents of Columns F though AG in the tab named Table 2 - NSC.** Based on the instructions above, Column F should contain the student PROXYID. Please ensure that Column F contains PROXYID.



COLUMN POSITION	FIELD NAME
A	Your Unique Identifier
B	First Name
C	Middle Initial
D	Last Name
E	Name Suffix
F	Requestor Return Field
G	Record Found Y/N
H	Search Date
I	College Code/ Branch
J	College Name
K	College State

L	2-year4-year
M	Public_Private
N	Enrollment Begin
O	Enrollment End
P	Enrollment Status
Q	Class Level
R	Enrollment Major 1
S	Enrollment CIP 1
T	Enrollment Major 2
U	Enrollment CIP 2
V	Graduated
W	Graduation Date
X	Degree TItle
Y	Degree Major 1
Z	Degree CIP 1
AA	Degree Major 1
AB	Degree CIP 1
AC	Degree Major 1
AD	Degree CIP 1
AE	Degree Major 1
AF	Degree CIP 1
AG	College Sequence

Table 3: Detailed PLA Credit Earning

Include only those students from the cohort in Table 1 who have earned PLA credit from your institution or have been awarded PLA credit by your institution.

DETAILED PLA CREDIT EARNING

For this table, we are asking for details on the PLA credit earned by each student:

- o Please **only** include students in this table who have:
  - + earned PLA credit at your institution or
  - + been awarded credit for things like CLEP exam credits or military credit recommendations, etc.
- o Please do ***not*** include:
  - - students who have not earned any PLA credits at your institution.
- o Each row of data will represent a single instance of PLA credit-earning for a student. This could be a block of credit awarded through portfolio assessment or a course-related award through CLEP.
- o Students with multiple instances of PLA credit-earning (for multiple course equivalencies, using multiple methods, or at different points in time) will have multiple rows of data in this table – one row of data for each PLA event.
- o For data that are not routinely tracked, please follow instructions for indicating "data not available".
- o You may leave the table blank if your institution does not track at least one of the following details for each PLA event: PLA method, date awarded, or area of study
- o If a single method is used to award credit for multiple courses in different areas of study, (e.g., portfolio), please divide that instance into multiple "events", with one row for each course equivalency.

LIST OF PLA CREDITS EARNED		Format	Response Options	Specifications
PROXYID	**Unique 6-digit identifier for each student** used in Table 1 and 2	Number	Unique 6-digit ID for each student.	Same value as in Tables 1 and 2
PLACRED	**PLA Credit Earned** Number of credits earned/awarded for this PLA event	Number	**Please round to one decimal point.** 0.11-###.# = credits 998 = Unknown	Timeframe: Earned while enrolled at this institution
PLAMETHOD	**Method used for this PLA event**	Integer	1=high school exams (AP and IB) 2=standardized exams (e.g., CLEP, DSST, UExcel, etc.) 3=credit by exam (e.g. "challenge exams", final exam given in lieu of course) 4=credit for externally-evaluated training program (e.g., ACE or NCCRS credit recommendations) 5=credit for ACE recommendations for military training/occupations 6=portfolio assessment 7= credit for certifications or licenses 8=other PLA (e.g. credit for internally-evaluated training program) 999=data not available	
PLADATE	**PLA Credit Date** Date credits were awarded for this PLA event	Date	mm/dd/yyyy 01/01/1900=Unknown or Unavailable	If you are unable to specify the month or day, but can provide the year, please use 01/01/yyyy
PLACIP	**Area of study for PLA credit** earned from your institution. Please provide CIP code for this PLA event	Text	6 character CIP code ##.#### 998=Unknown 999=Not applicable	The *full 6 characters* of the CIP are preferred

Instructions for Multiple Sites

This tab is only for institutions with multiples campuses/locations. If you are a single-site institution, please skip the instructions in this tab.

Site ID Number(s) for Your Institution

If your institution has multiple sites/locations, we would like to be able to include that detail in our analysis. In the table below, please enter the name of your institution's campus(es) or branch location(s) for which your will be providing data.

- o If the entity has a an IPEDs Unit ID, please enter the last 3 digits in Column C below.

If the entity does not have an assigned IPEDS Unit ID, please leave Column C blank.

- o Column D will populate automatically for each campus or branch location that you enter.

Please use the value in Column D to populate the SiteID field in Table 1 for each student.

By including only the last three digits of the IPEDS Unit ID, you will not disclose your institution's state, making your institution one of dozens with this 3-digit id.

Name of Campus/Branch/Site	Last 3 digits of IPEDS Unit ID	SiteID value for Table 1

Alternative Format for Data Submission

These last three gray tabs are optional and only for institutions wishing to provide the degree-earning and/or credit-earning data in a multiple-row-per-student format.

Alternative Table Design for capturing Table 1F. Academic Outcomes at Your Institution

- o Multiple records per student
- o For each student, only include data for academic years during which a credential or degree was earned
- o Do not include students who did not earn a degree or credential at your institution between 7/1/2011 and 12/31/2018

Table 1 F. Academic Outcomes at Your Institution		Format	Response Options	Specifications
PROXYID	Unique 6-digit ID for each student.	Number	Same value as in previous Table 1 records.	
DEGEARN	**Degree or credential earned** by this student from your institution prior to 12/31/2018.	Number	1 = Earned an Associate of Arts degree from this institution 2 = Earned an Associate of Science degree from this institution 3 = Earned an Associate of Applied Science degree from this institution 4 = Earned a bachelor's degree from this institution 5 = Earned a certificate from this institution 6 = Earned a different credential from this institution	
DEGCIP	**Area of study associated with the degree or credential earned from your institution.** Please provide CIP code.	Text	6 character CIP code ##.#### 998=Unknown 999=Not applicable	The *full 6 characters* of the CIP are preferred

Continued

DEGDATE	**Date degree or credential was earned from your institution.** Please indicate the date that your student earned this degree or credential from your institution.	Date	dd/mm/yyyy 01/01/1900=missing	
Alternative Table Design for capturing **Table 1G. Credits Attempted and Earned**				
o Multiple records per student o For each student, only include academic years during which ANY credits were attempted				
Table 1 G. Credits Attempted and Earned		**Format**	**Response Options**	**Specifications**
PROXYID	Unique 6-digit ID for each student.	Number	Same value as in previous Table 1 records.	
ACYEAR	**Academic year.** Please use July 1 through June 30.	Number	**CORRECTED VALUES** 1 = 2011-2012 2 = 2012-2013 3 = 2013-2014 4 = 2014-2015 5 = 2015-2016 6 = 2016-2017 7 = 2017-2018 8 = 2018-2019 (through 12/31/2018 only)	
ATCR	**All** credits **attempted** Please count all credits – both college level and developmental education.	Number	**Round to the nearest whole number.** 0-### = **All** credit hours (not PLA or transfer credit) **attempted** by the student at your institution. 998 = Student not enrolled	Please count **all** credits – include college level and developmental/ remedial education.
CRT	**All** credits **earned** Please count all credits – both college level and developmental education.	Number	**Round to the nearest whole number.** 0-### = **All** credit hours (not PLA or transfer credit) **earned** by the student at your institution. 998 = Student not enrolled	
ATDEV	**Developmental** credits **attempted**Only include developmental/ remedial education credits.	Number	**Round to the nearest whole number.**0 = No developmental credits attempted 1-### = **Developmental** credit hours(not PLA or transfer credit) **attempted** by the student at your institution. 998 = Student not enrolled	Only include developmental/ remedial education credits.
DEV	**Developmental** credits **earned** Only include developmental/ remedial education credits.	Number	**Round to the nearest whole number.** 0 = No developmental credits earned 1-### = **Developmental** credit hours (not PLA or transfer credit) **earned** by the student at your institution. 998 = Student not enrolled	