



## President's Leadership Program

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### Executive Summary

**Purpose:** To explore the President's Leadership Program (PLP) demographics and association with academic success.

### **Population:**

- **PLP Group** (N= 398): New, first time, full-time freshmen (FA06-FA14 cohorts<sup>1</sup>) who have taken IU 170
- **Non-PLP Group** (N=38,266): New, first time, full-time freshmen (FA06-FA14 cohorts) who have not taken IU 170 their first semester

### **Findings:**

- Overall, the President's Leadership Program (PLP) (categorized as taking IU 170 your first semester at CSU) was associated with positive student success outcomes.
- Being in the PLP significantly predicted positive student success outcomes for all four outcomes of interest (second fall persist, second fall CSU GPA, four-year and six-year graduation) even after controlling for their index score compared to non-PLP students.
- Female, Pell recipients, Colorado residents and minority students are all well-represented in the PLP when compared to the larger CSU student body, while first generation students are just slightly underrepresented.
- On average, students in the PLP have a significantly higher average index score than non-PLP students.
- PLP's association with positive student success outcomes varied when looking at subpopulations within the PLP.
  - PLP had a statistically significant positive association with retention and graduation among Pell recipients. However, PLP did not significantly predict higher second fall end of term GPA among Pell recipients.
  - PLP participation did not significantly predict persistence, second fall CSU GPA, or four-year graduation among first generation students; however, PLP significantly predicted six year graduation for first generation students.
  - Across all four student success outcomes, PLP participation was not statistically significant for minority students.
- For the most part, student success outcomes for students in the PLP are fairly consistent across cohorts. The FA07 cohort was an exception. The success rates by cohort are available in the appendix.

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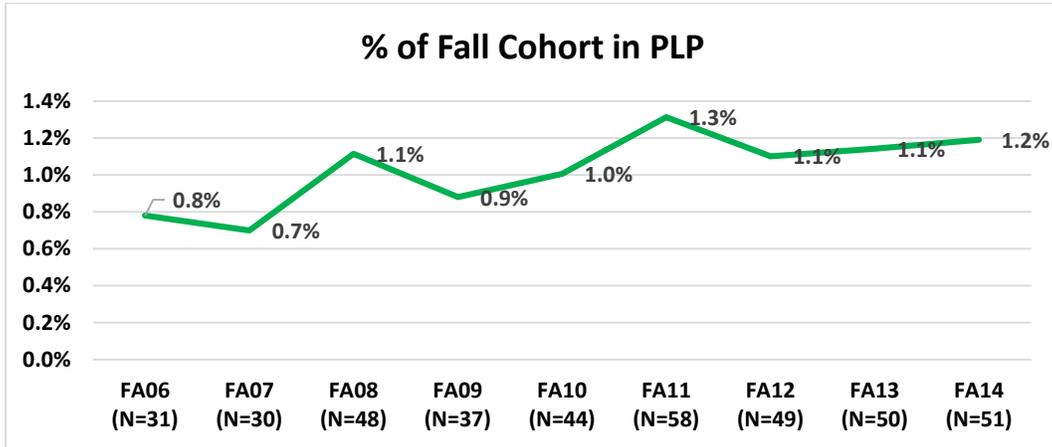
<sup>1</sup> Cohorts include fall starts only (summer and spring starts are excluded).



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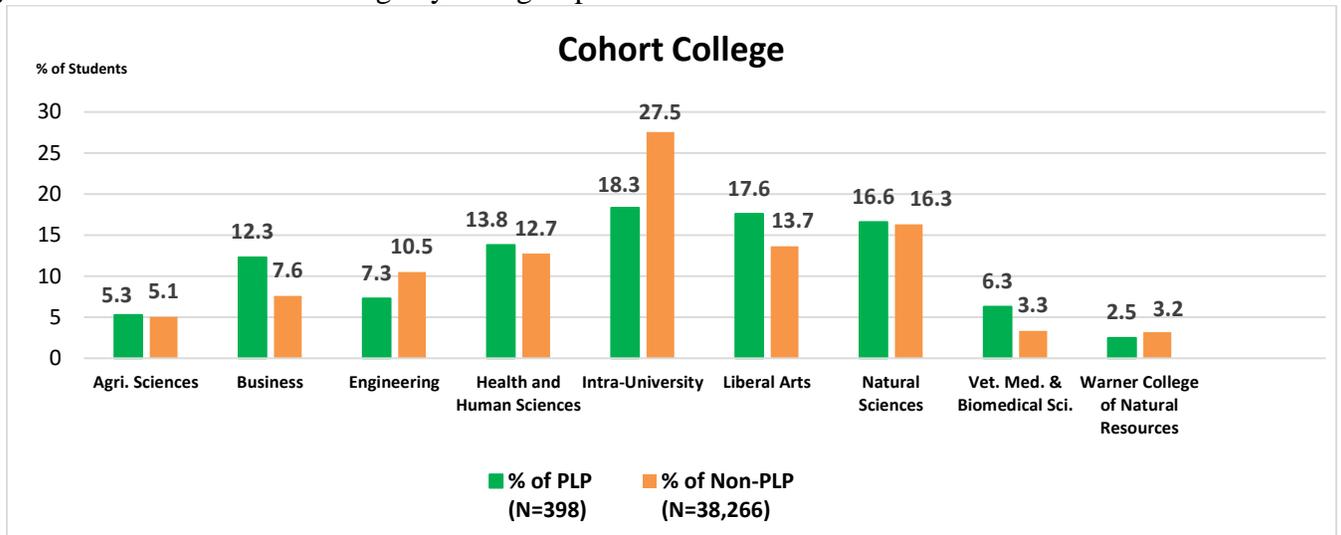
#### Research Question 1: Who are the students in the PLP?

Figure 1. Percent of FTFT students in each cohort in the PLP



- The number of new, first time, full-time freshmen admitted into the President’s Leadership Program each fall (Fall 2006-Fall 2014) has varied from 30 -58 students (mean = 44.22 students per cohort). This is roughly only one percent of a fall cohort.

Figure 2. Students’ cohort college by PLP group

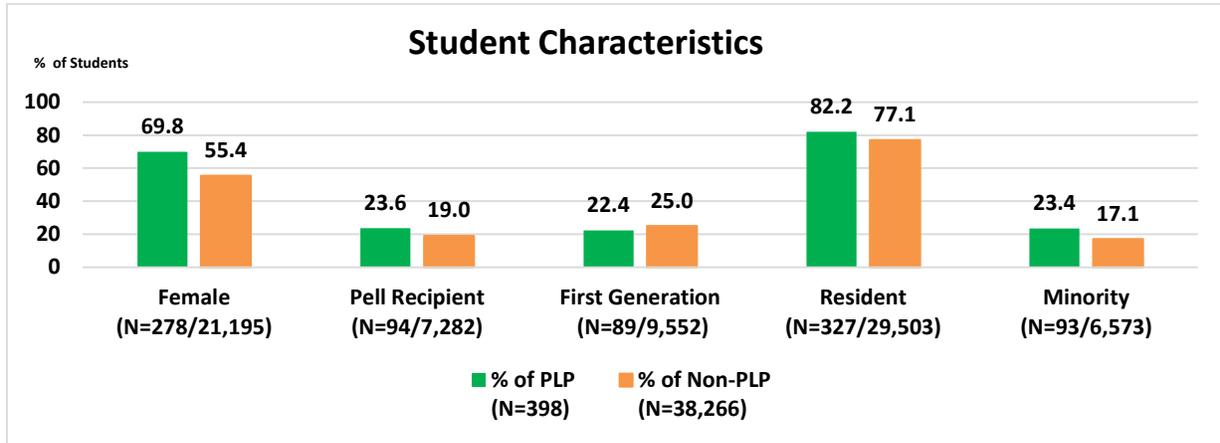


- When compared to the portion of non-PLP students in the same cohorts, the percent of students in the PLP program were notably well-represented in the colleges of Business, Liberal Arts, and Veterinary Medicine & Biosciences, while students in the Intra-University and Engineering colleges were underrepresented compared to the larger cohort’s colleges. About one third of the students, regardless of PLP group, have a major in a STEM field.



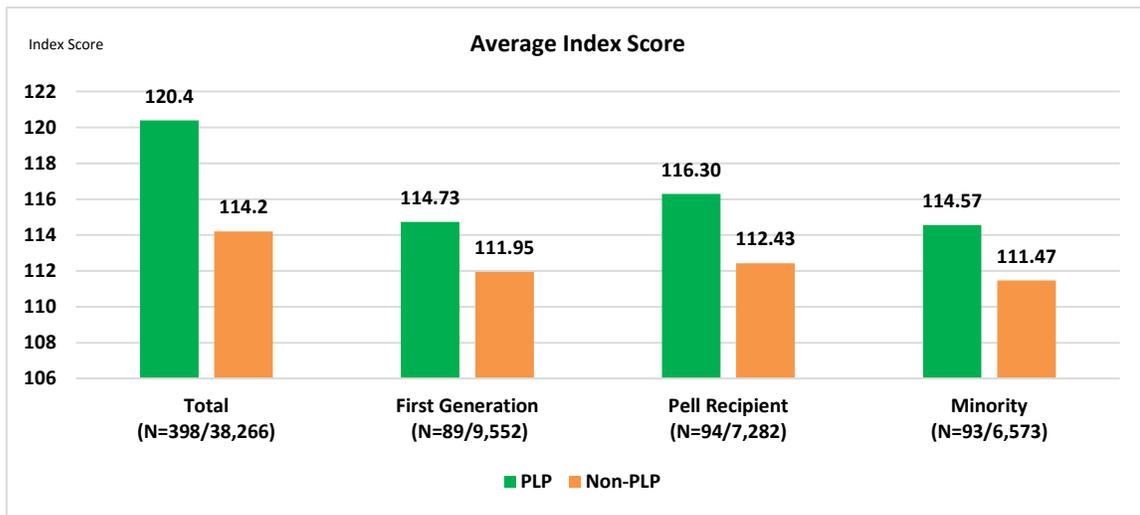
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Figure 3. Student characteristics by PLP group



- When compared to the portion of non-PLP students in the same cohort range, there was a higher percentage of students represented in the PLP program who were female, Pell, a resident, or of a minority race or ethnicity (14.4, 4.6, 5.1, and 6.3 percentage point differences respectively); however, there was a lower percentage of students who were first generation in PLP compared to the percentage of first generation among the non-PLP population (2.6 percentage points difference).

Figure 4. Students’ average index score by PLP group



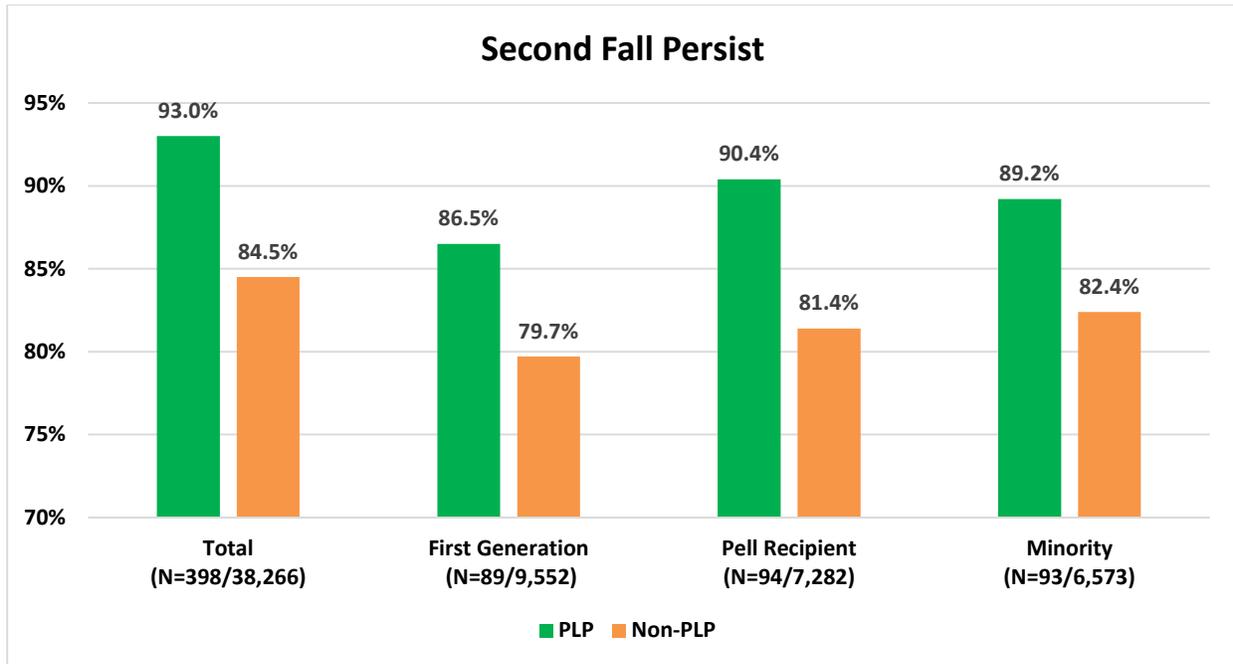
- On average, PLP students have a significantly higher index score (mean=120.4) than non-PLP students (mean=114.2) ( $p < .001$ ). First generation, Pell and minority students in PLP also all had significantly higher index scores on average than non-PLP students who were first generation, Pell, or of a minority ethnicity or race respectively ( $p < .001$ ).



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#### **Research Question 2: Do students in the PLP have different student success outcomes than non-PLP students?**

**Figure 5.** Percent of students who persist to second fall by PLP group

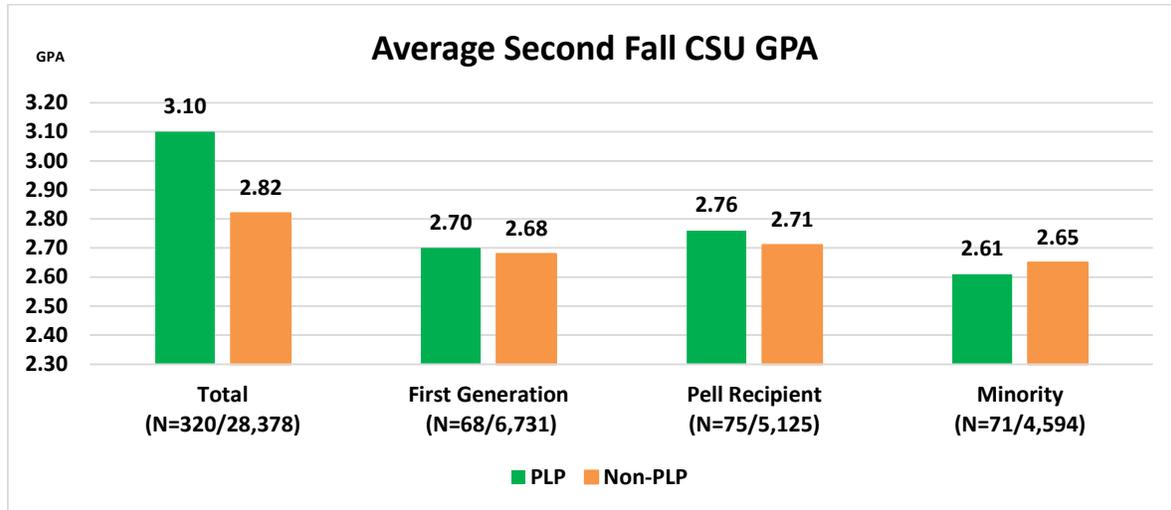


- PLP’s second fall persistence rate was 8.5 percentage points higher than non-PLP’s persistence rate. First generation, Pell, and minority students in PLP also had higher second fall persistence rates than their peers not in-PLP (6.8, 9, and 6.8 more percentage points respectively).
- A logistic regression showed students in PLP were significantly more likely to persist to their second fall term than non-PLP students even after controlling for students’ index scores ( $p < .001$ ). Specifically, the odds of students in the PLP persisting at CSU to their second fall term were 2.12 times higher than those students not in the PLP program after controlling for their index score.
- Among Pell recipients, PLP participation is significantly associated with persistence after controlling for students’ index ( $p = .03$ ).
- Among first generation and minority students, PLP participation is not significantly associated with persistence after controlling for students’ index.



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**Figure 6.** Average Second Fall CSU GPA by PLP group



- On average, PLP students had significantly higher overall mean GPAs at the end of their second fall term (mean = 3.10) compared to non-PLP students (mean=2.82) ( $p < .001$ ).
- However, among Pell, first generation, and minority students PLP participation did not have a significant association with GPA.
- A linear regression was used to determine whether PLP predicted second fall CSU GPA even after controlling for a student's index score. Overall, average second fall end of term CSU GPA remained significantly higher for PLP students compared to non-PLP students when controlling for index ( $p = .01$ ).
- Additionally, the linear regression results showed a significant interaction between minority status and PLP group. This suggests that PLP participation had a different effect on second fall GPA depending on whether the student was a minority or non-minority. Among non-minority students, PLP had statistically significant positive association with second fall GPA; however, for minority students there is not a positive association between PLP participation and second fall GPA.<sup>2</sup>

<sup>2</sup> When interpreting these findings, please note the small population of minority students in PLP (N=71) and interpret with caution.



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Figure 7. Four year graduation rates by PLP group

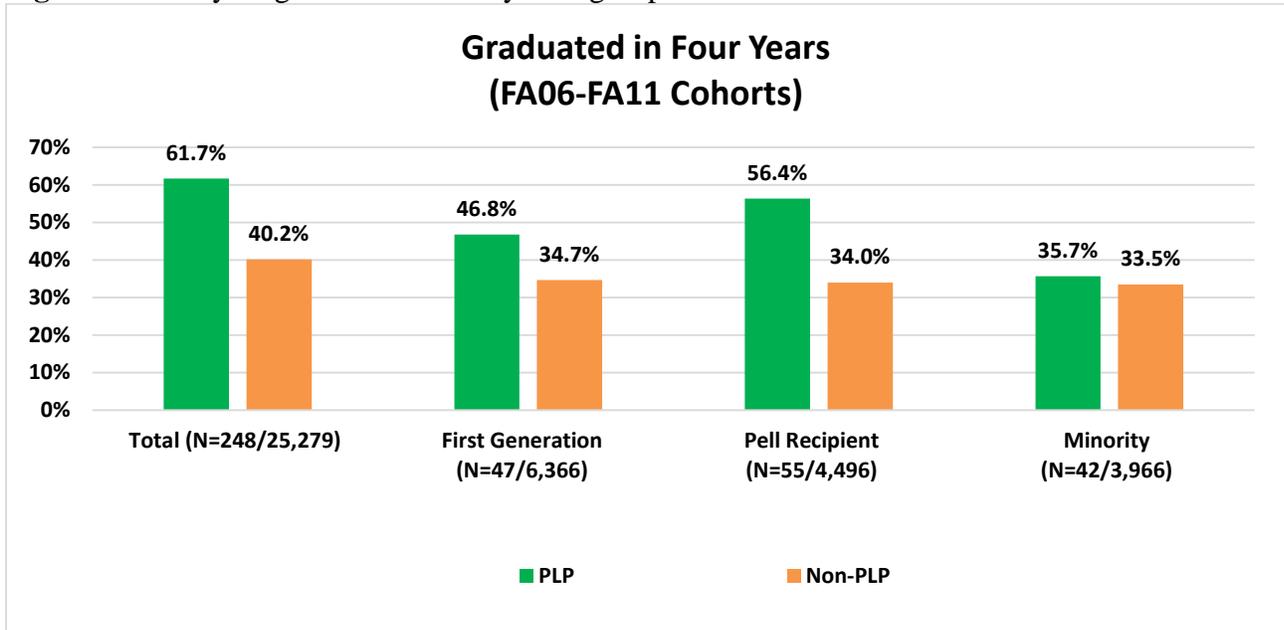
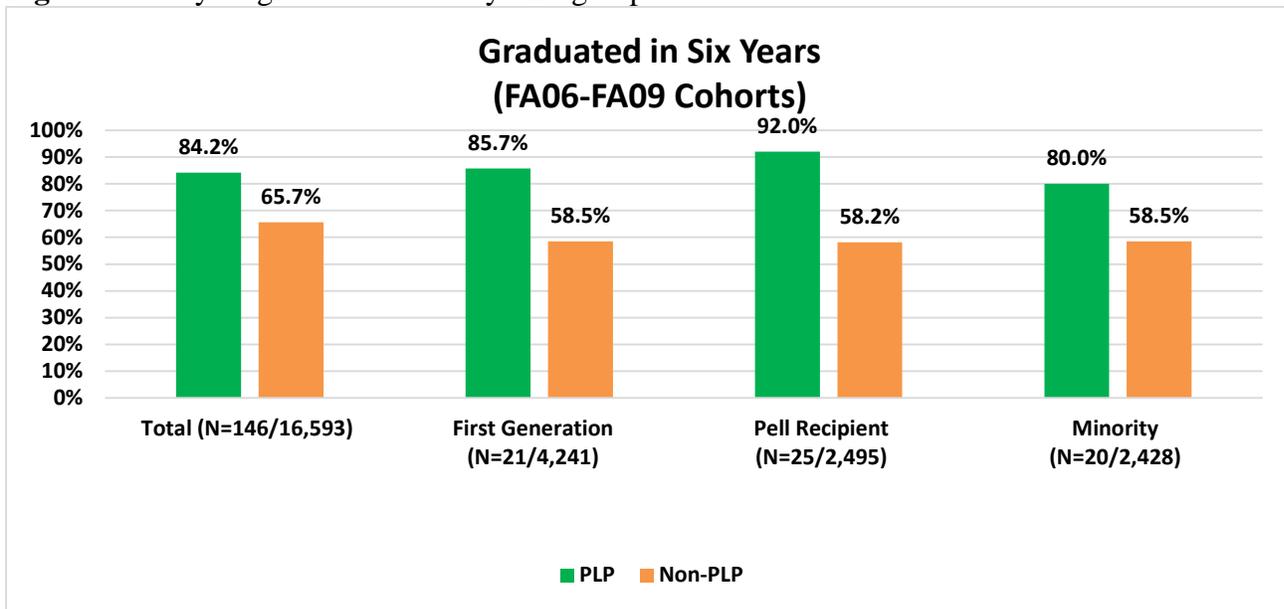


Figure 8. Six year graduation rates by PLP group





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### Graduation Rate Findings: <sup>34</sup>

- A higher percentage of PLP students graduated within four years compared to non-PLP students (21.5 percentage points higher). This difference between PLP and non-PLP students was also apparent for the six year graduation rate, but with a smaller gap of 18.5 percentage points.
- Again the percentage point difference in graduation rates by PLP group differs by demographics. Overall the percentage point gap between PLP groups is greatest at four years; however, for first generation, Pell recipient, and minority students the percentage point gap between PLP groups is largest at 6 years.
- Using a logistic regression that controls for a student's incoming index score, results indicate that PLP students have significantly higher odds of graduating in four or six years compared to non-PLP students.
- Pell recipients in the PLP were also significantly more likely to graduate within four or six years than Pell recipients not in PLP after controlling for index ( $p=.01$ ).
- Minority students in the PLP were not significantly more likely to graduate within four or six years when compared to minority students not in PLP after controlling for index; however, PLP participation was significantly associated with four or six year graduation for non-minority students. The impact of PLP does appear to differ by minority status.
- First generation students in the PLP were significantly more likely to graduate within six-years than first generation students not in PLP after controlling for index ( $p =.02$ ); however, among first generation students there was no significant association for PLP status and four year graduation.

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<sup>3</sup> Graduation rates reflect the number of students who graduated each year (end of Summer) as a percentage of the original entering cohort, adjusted by removing deceased students.

<sup>4</sup> When interpreting these findings, please note the small population of first generation, Pell, and minority students in PLP among the FA06-FA09 cohorts. All interpretations should be done with caution.



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### Appendix. Summary of PLP Student Success Outcomes by Cohort

PLP Students	# of Students	Avg. Second Fall Persist	Avg. Second Fall End of Term GPA	Avg. 4-Year Graduation Rate	Avg. 6-Year Graduation Rate
FA06	31	93.5%	3.38	61.3%	80.6%
FA07	30	76.7%	2.98	43.3%	80.0%
FA08	48	95.8%	3.21	68.8%	85.4%
FA09	37	94.6%	3.15	64.9%	89.2%
FA10	44	97.7%	3.16	65.9%	
FA11	58	93.1%	3.00	60.3%	
FA12	49	91.8%	3.24		
FA13	50	96.0%	2.75		
FA14	51	92.2%			
<b>All Cohorts</b>	<b>398</b>	<b>93.0%</b>	<b>3.10</b>	<b>61.7%</b>	<b>84.2%</b>

- The majority of PLP cohorts have similar student success outcomes with the exception of the Fall 2007 cohort, which had a lower second fall persistence, average second fall end of term GPA, and 4-year graduation rate. Additionally, Fall 2013 cohort had a second fall end of term GPA (mean = 2.75) well below the overall average PLP mean of 3.10.