

### Summer Term Enrollment

At the beginning of 2012, then President of Purdue University, France Cordova, announced that Purdue would be moving towards a trimester system with a goal of increasing summer enrollment to 20,000 students within a decade. This goal of a year-round university is also held by current University President, Mitch Daniels, and is featured as a part of the “Transformative Education” initiative in the *Purdue Moves*. The Division of Summer Session, reporting through the Office of the Provost, has led the charge to expand summer enrollment and course offerings in an effort to decrease the time to degree and increase opportunities for undergraduate students to participate in research, internships, and study abroad programs. This paper outlines trends in Summer term at Purdue University including the characteristics of the students taking summer courses, enrollment, course offerings, and student performance. It also inventories special summer programs and initiatives. The paper focuses on undergraduate enrollment, undergraduate courses, and does not include study abroad credits.

Undergraduate enrollment in Summer term has increased year over year since 2011. As of the beginning of Module 2 for Summer 2017, undergraduate enrollment has risen 5.4% since last year, and the University has seen an increase of 40.1% since 2011. The growth in Summer enrollment isn’t just due to the increasing size of the incoming classes. The ratio of Summer enrollment compared to the Spring term directly preceding it is increasing. For Summer 2017, 30.0% of Spring 2017 students enrolled in Summer term, whereas in Summer 2011, 21.1% of Spring 2011 students enrolled in Summer term.

**Summer Programs**

In an effort to increase enrollment during the Summer term, the Division of Summer Session, as well as several colleges, have developed programs targeting key groups of students. These programs not only aim to enroll more summer students, but also to bridge the gap between high school and college, decrease time to degree, provide financial assistance, and offer valuable experiences for students outside of the classroom. The “Think Summer” awareness campaign has targeted the campus as a whole since 2013, while the three Division of Summer Session programs have targeted specific groups on campus:

- **Summer Start** is a bridge program targeting conditionally admitted students. (Began 2016) For analysis on this program see the Feb. 2017 briefing.
- **Summer Stay** encourages students to engage in research, internships, and on-campus course work by providing a scholarship. (Began 2016)
- **The Summer Finish scholarship** has a goal of helping students graduate in August who would have otherwise graduated in December. (Began 2017)

**Summer Guarantee Program**

The Office of the Provost has been operating a Summer Guarantee Program for select courses since the Summer of 2014. The guarantee refers to both the department’s guarantee to offer at least one section of the course per summer for three summers and the Office of the Provost guarantees to cover the cost of instruction for the course, no matter the enrollment. This program is designed to reduce departmental financial risks as the departments expand the offerings of summer courses and grow enrollment with the goal of the courses becoming self-sustaining. For Summer 2016, less than 7% of guaranteed courses required funding from the Provost’s Office. There are 255 guaranteed courses for Summer 2017 which account for 77.1% of all Summer course enrollments.

**Summer Student Characteristics**

Table 2 shows the breakdown of summer students by a variety of characteristics. **Residency:** Enrollment in Summer term for each residency group is increasing, however the relative proportions of groups has changed, with an increasing percent of Summer students coming from out-of-state. **URM:** 35.4% of Spring 2017 underrepresented minority students enrolled during Summer 2017, six years ago, in 2011, only 26.5% of underrepresented minority students stayed for Summer term. **Gender:** The ratio of men to women has remained steady during the Summer session, hovering around 45%-55%, women:men. As a point of comparison, the ratio is generally around 43%-57% during the Fall and Spring terms. **Transfer Students:** Transfer students make up 13.4% of the Summer 2017 enrollment, while Fall and Spring had just under 10% transfer students. **Classification:** The breakdown by classification can be done in several ways. Looking at the proportion of Freshmen, Sophomores, Juniors, and Seniors by credit hour in the summer provides skewed results as most students begin college in the fall and have taken 30 or more credits the start of the year. A more meaningful metric is to compare Summer classification and Spring end-of-term classification to determine what proportion continue taking courses in the summer. Looking at Summer 2017 versus end-of-term Spring 2017, and accounting for students who graduated, 63.0% of freshmen enrolled during Summer, 27.2% of sophomores, 39.1% of juniors, and 43.2% of seniors. This indicates that students with fewer credits (those with a freshman classification) are taking advantage of the summer to catch up. It’s interesting to note that non-traditional, underserved, or minority groups are utilizing summer session at a higher rate than their counterparts when compared to the prior Spring term. This includes out-of-state students, women, underrepresented minorities, and students with fewer credit hours. This is in line with programmatic aspects of Summer Start, Summer Stay, and Summer Finish, as well as several of the programs offered by the colleges.

**Course Offerings and Enrollments**

The number of courses offered for Summer 2017 by College is represented in Figure 1. The total number offered has increased from 439 to 582, a change of 32.6% from 2011. Figure 2 shows the number of course enrollments. The number of course enrollments have steadily risen since 2011 from 10,472 to 15,430, a gain of 47.3%. For Summer 2017, 100 and 200 level courses make up 47.9% of courses offered and 63.8% of course enrollments. Note that zero-enrollment courses have not been included.

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**Table 1: Summer Enrollment at Purdue University**

<table>
<thead>
<tr>
<th>Summer</th>
<th>Enrollment</th>
<th>Change over Prior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6,541</td>
<td>+1.9%</td>
</tr>
<tr>
<td>2012</td>
<td>6,666</td>
<td>+5.4%</td>
</tr>
<tr>
<td>2013</td>
<td>7,027</td>
<td>+12.5%</td>
</tr>
<tr>
<td>2014</td>
<td>7,905</td>
<td>+12.5%</td>
</tr>
<tr>
<td>2015</td>
<td>8,329</td>
<td>+5.4%</td>
</tr>
<tr>
<td>2016</td>
<td>8,698</td>
<td>+4.4%</td>
</tr>
<tr>
<td>2017</td>
<td>8,167</td>
<td>+5.4%</td>
</tr>
</tbody>
</table>

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**Table 2: Summer Student Characteristics**

<table>
<thead>
<tr>
<th>Summer</th>
<th>In-State</th>
<th>Out-of-State</th>
<th>International</th>
<th>Non-URM</th>
<th>URM</th>
<th>Female</th>
<th>Male</th>
<th>Transfer</th>
<th>Student</th>
<th>Non-Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>'11</td>
<td>57.9%</td>
<td>26.4%</td>
<td>15.7%</td>
<td>90.0%</td>
<td>10.0%</td>
<td>45.8%</td>
<td>45.2%</td>
<td>17.4%</td>
<td>82.6%</td>
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</tr>
<tr>
<td>'12</td>
<td>55.5%</td>
<td>26.0%</td>
<td>18.5%</td>
<td>89.9%</td>
<td>10.1%</td>
<td>45.5%</td>
<td>45.4%</td>
<td>17.9%</td>
<td>82.1%</td>
<td></td>
</tr>
<tr>
<td>'13</td>
<td>54.3%</td>
<td>25.7%</td>
<td>20.0%</td>
<td>89.9%</td>
<td>10.1%</td>
<td>45.6%</td>
<td>45.4%</td>
<td>16.4%</td>
<td>83.6%</td>
<td></td>
</tr>
<tr>
<td>'14</td>
<td>52.3%</td>
<td>26.5%</td>
<td>21.2%</td>
<td>89.9%</td>
<td>10.1%</td>
<td>45.5%</td>
<td>45.2%</td>
<td>14.4%</td>
<td>85.6%</td>
<td></td>
</tr>
<tr>
<td>'15</td>
<td>51.9%</td>
<td>27.0%</td>
<td>21.1%</td>
<td>89.8%</td>
<td>10.1%</td>
<td>45.7%</td>
<td>54.3%</td>
<td>13.0%</td>
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<td>'16</td>
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<td>22.0%</td>
<td>89.3%</td>
<td>10.7%</td>
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<td>12.7%</td>
<td>87.3%</td>
<td></td>
</tr>
<tr>
<td>'17</td>
<td>49.3%</td>
<td>29.0%</td>
<td>21.7%</td>
<td>88.8%</td>
<td>11.2%</td>
<td>45.7%</td>
<td>54.3%</td>
<td>13.4%</td>
<td>86.6%</td>
<td></td>
</tr>
</tbody>
</table>

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**Figure 1: Course Offerings by College**

- Agriculture
- Education
- Engineering
- Health & Human Sciences
- Liberal Arts
- Management
- Pharmacy
- Polytechnic
- Science
- Veterinary Medicine

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Among the colleges, Agriculture, Engineering, Management, Pharmacy, and Science have all increased the number of courses they offer by over 50% since 2011 (Table 3). Additionally, Agriculture, Engineering, Management, Pharmacy, and Science have increased their course enrollments by over 50%. The Colleges of Education and Pharmacy have historically had very few summer course offerings or enrollments, because of the nature of their programs (Table 3).

It should also be noted that less than 5% of courses reached their enrollment capacity for Summer 2017, and approximately 13% have 5 or fewer seats available. This indicates that we are not turning away students who wish to enroll in summer courses.

Students took an average of 5.4 credits during Summer 2017, which is the same as in Summer 2011. The average number of credits taken per student for Fall 2017 was 15.1 and 14.8 for Spring. During the summer students pay tuition and fees per credit hour for 1.5 credit hours at a rate of $348 per hour (In-state) and a fixed amount for 6-9 credit hours equaling to $417-$278 per credit (In-state). For Fall and Spring terms, 1-7 credit hours are paid on a per credit hour basis at $348, while 8 or more are paid at a flat rate equating to $625 (8 hours) to $333 (15 hours).

Online versus Face-to-face

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Online versus Face-to-face

Figure 3 shows the changes in course offerings (lines) and enrollments (bars) for courses with a face-to-face component versus fully online courses. While courses with a face-to-face component have declined 11.3% in enrollments since 2011, online course enrollments are up 295.3% and outnumbered face-to-face enrollments for the first time in 2017. The number of courses offered online has increased 130.7% since 2011, and courses offerings with a face-to-face component have increased 12.0%. For Summer 2017, the average enrollment per course was 17.8 for face-to-face and 39 for online.

Table 4: Online/face-to-Face Course Schedules

Students have changed how they choose to fill their summer schedule — some taking only online courses, some taking only face-to-face courses, and others taking a combination. Table 4 shows the change between 2011 and 2017.

Retakes

The Division of Summer Session has encouraged students to utilize summer term as a way to catch up on course work in an effort to graduate on time.

Retaking courses where a student received a failing grade is one way students are using summer session to their advantage. 12.6% of Summer 2016 course retakes can be found in the June 2017 briefing.

Student Performance

Student Performance in Summer courses is, on average, better than the Fall and Spring terms. There are many possible reasons for the differences in grade distribution. For example, students may perform better when there are fewer distractions during the summer, because they are taking fewer courses, or due to a different pedagogical approach by the instructor. While the overall trend indicates that students receive higher grades in the Summer term, this isn’t the case across the board when examining individual courses, nor is it consistent across course level or student classification as shown in Figure 4.

Summary

Taking classes over the summer can be a great way for the students to get ahead or catch up in their studies, however students may have competing priorities in terms of obtaining gainful employment over the summer to help fund their education. In 2015, NPR published an article on the demise of the summer job. It asserted that having a summer job doesn’t have the purchasing power it used to. In other words, a summer job no longer pays for the same proportion of college expenses that it did in the past. If a student can take advantage of good summer employment or an internship, that should be encouraged, otherwise it would be prudent for students to consider enrolling in Summer Session or participating in other academic pursuits such as study abroad or research. For example, if a student was unable to find gainful summer employment and instead took 6 credit hours during each of 3 summers, they would be able to graduate a semester early. Using current tuition and the average starting salary publish by the CCO, this would allow the student to net an additional $20,870. One could increase their return on investment further by only enrolling during two semesters and taking 6 and 9 credits.

The 4-year or less graduation rate for students beginning Fall 2012 and Spring 2013 (graduating Spring 2016 and Fall 2016 or sooner) was 55.9%. Of those who graduated on-time or early, 58.9% took at least one summer course during their undergraduate education. Of those who didn’t graduate on time, 45.5% have taken a summer course. Overall, a larger summer enrollment could contribute to improved student outcomes while increasing institutional capacity in fulfillment of our mission. Further studies into the efficacy of Summer Start, Summer Stay, Summer Finish, and Think Summer should be done to determine their impact on the preceding analysis.