

In order to properly analyze the data concerning the demographics of Notre Dame Computer Science and Engineering Department students, several other data sets were collected for comparisons. The first set of data was general student population data for 2015 from the Notre Dame Admissions Office website. This helps recognize how the breakdown of CSE Department students compares to our peers in the other programs at Notre Dame. Secondly, general student population for 2015 was collected from the Purdue University Admissions website; this school was chosen due to its geographic proximity to Notre Dame, similar academic profiles, and strength of engineering program to better compare against a Notre Dame College of Engineering department. Finally, basic statistics from the United States as a whole were found on the US Census Bureau's website for the year 2014.

When the Computer Science and Engineering department at Notre Dame is looked at in isolation, a number of interesting facts can be seen. Firstly, the size of classes progressing through the degree programs has doubled from 2013 to 2018; two large jumps of thirty new students occurred between the 2016 and 2017 classes and then the 2017 and 2018 classes. When the data is broken down into different demographics, we can see how the diversity of department students has changed in some ways while remaining steady in others. When reviewing the information based on male/female gender, there is a clear trend of the ratio of male students to female students coming closer to evening out; however, while that ratio is lowering at about 2% per year, the overall percentage of male students in the class each year remains high (70% in 2018). In regards to racial demographics, there are no clear trends present in the data. The percentage of Caucasian students remains at roughly 65% each year with the number of minority students varying in background depending on the year.

The other data sets collected now lets us compare the Computer Science and Engineering department information to see how representative the department is in relation to other similar groups of people. The first of these sets would be the general student population from the University of Notre Dame; the second that is analyzed alongside it is data that was provided by Purdue University regarding their student body. When contrasted against those larger populations, the Notre Dame CSE

department comes across as severely lacking in diversity in regards to gender. For example, the 2016 Notre Dame student class is composed of 54% male students and 46% female students, while the CSE department 2016 class is ~75% male and 25% female. The difference in class composition based on race shows a minor reversal of lack of diversity though: 74% to 70% Caucasian and 26% to 30% minority. When the Purdue University data points are used in place of the University of Notre Dame information, the results are relatively similar. The Computer Science and Engineering department lacks diversity in gender (a ~3:1 male to female ratio for ND CSE and a ~3:2 male to female ratio for Purdue) while having an extremely similar diversity in regards to race (a ~3:2 Caucasian to minority ratio for both ND CSE and Purdue). Finally, the provided Notre Dame CSE department data will be measured against the general US population data from a 2015 report by the US Census Bureau. Again, these two sets were correlated into gender and race groupings. When looking at the gender diversity of the US verse ND CSE, the department is lacking when it comes to the male to female student ratio. The general American population is composed of ~49% males and ~51% females. This sharply contrasts with the 75%-25% breakdown of the computer science and engineering students. In regards to racial representation, the Notre Dame CSE department is actually more diverse than the makeup of the US; there is a ~10% higher number of minorities in the department than in the general population.

Overall when the Computer Science and Engineering department data is looked through, the diversity picture that the student classes present could do with some improving on the gender ratio. The percentage of male students in the department is significantly higher than in any of the other data sets analyzed with the percentage of female students being correspondingly lower. The good news is that for the racial comparisons, the CSE department is actually nearly equal or slightly better than the other population groups it was contrasted against.