**Survey Weighting Notes**

Using administrative data from the College’s Office of Institutional Research and the Office of Greek Life, the raw survey data is weighted by five variables—race/ethnicity, international student status, Greek affiliation, gender, varsity athlete status, and class year—and goes through two rounds of weighting.

1. Greek Affiliation

In the first round of weighting, weights for the distribution of students who are affiliated (part of a fraternity, sorority, or gender inclusive house) and who are not affiliated with a Greek house are applied to all non-freshmen (eligible) respondents in the survey.

From the OIR page, in the 2016-17 academic year, 765 of 1110 (68.9%) 18’s were a part of Greek life, and 740 of 1097 (67.5%) 19’s were a part of Greek life. Importantly, this data does not suffer from counts of Greek affiliated students within a single quarter (which ignores the people who join after the fall term when they’re first eligible, for example), which would result in undercounting the percentage of students by class year affiliated with Greek life.

From year-to-year, the percentage of students within a single class year affiliated with Greek life is somewhat stable (70-68 for 16’s, 64-65-68 for 17’s, and 63-69 for 18’s). We can tentatively assume 2016-17 data for 18’s and 19’s should be fairly similar for the 2017-18 academic term. For 18’s and 19’s in combination, it is safe to infer that percentage of students affiliated with Greek life can be calculated as follows:

100 \* (740 + 765) / (1097 + 1110) = 68.2% (proportion = 0.6819212)

2. Race/Ethnicity, International Student Status, Class Year, Gender, Varsity Athlete Status

In the second round of weighting, freshmen are added back into the data and given a weight of 1, while non-freshmen keep their weight from the first round of weighting. Using the entire sample, weights for race, international student status, class year, gender, and varsity athlete status are then applied to either this weight of 1 or the weight from the first round.

*Race/Ethnicity*

Roughly the same 8 response options from the non-international “Race/Ethnicity: Fine” classification from the OIR website are used as survey response options for the race/ethnicity question. Due to small cell subgroup concerns, not all 8 options are used for matching the administrative data distribution to survey response distribution. A new race variable that comprises white, Asian, Hispanic, black and other (all other options combined) is used in the weighting process. From the latest data from the OIR, 52 percent of the student body is white, 18 percent is Asian, 11 percent is Hispanic/Latino, 8 percent is black, and 11 percent are other.

*International Student Status*

According to OIR data, 9 percent of Dartmouth students are international students, and so 91 percent are non-international ones. Survey responses to a question about international student status are weighted to match this distribution.

*Class year*

The distribution of students by class year is almost exactly even, with 25 percent in each graduation class year. The “Other” response option for class year is always excluded, as these students are not in the sampling frame (i.e. the student email lists). For the 17X freshman issue survey, three graduation class years are reached: 2020, 2019, and 2018. Using two data sources from the OIR, as well as the expected class size for 18s described in the first round of weighting section, there are 1116 20s (33 percent), 1134 19s (34 percent), and 1110 18s (33 percent). This distribution is used in the weighting process.

*Gender*

The gender distribution in OIR data is 50 percent women and 50 percent men. However, this benchmark is adjusted to include a non-binary option, which takes up 1 percent of all students, while 49.5 percent are each women and men. Allowing for 1 percent of student body to fall into non-binary gender more or less reflects the amount that emerges when asking about gender (with 3 response options provided) in early surveys. This makes for somewhat of an arbitrary adjustment, but is still important. Administrative data on gender provides only two options, which excludes non-binary gender identifiers, who do exist. This estimated distribution—which still preserves the near even split between men and women—addresses this administrative data flaw and incorporates a non-binary option in the benchmark distribution. Otherwise, non-binary gender identifiers would have to be removed from the data.

*Varsity Athlete Status*

In 2016-17, the unduplicated total count of male varsity athletes was 485 and the count for female varsity athletes was 428. This makes for 913 unique athletes. The total amount of students enrolled at Dartmouth is difficult to discern, and overall counts occur in each fall term but only include students that are enrolled for that fall term—therefore, students still enrolled at the school but not “on” for the fall term are left uncounted. In fall 2016, the official headcount was 4310. But this slightly underestimates the true total student count, specifically because many Class of 2018 members are not “on” for their junior fall term (when it’s a popular time to take “off” terms at Dartmouth). To account for this, the previous year’s fall headcount total for the Class of 2018 is substituted in for the current year’s headcount. The new total student count becomes 4359. The varsity athlete status percentage in 2016-17 is 20.9% (0.2094517).