Disc Golf Growth Report powered by UDisc

Assumption Testing

Location (within the U.S.): We first wanted to check if

- The surveys covered the majority of the U.S.
- The ratio of UDisc rounds scored (UDiscers) to total players was relatively consistent across the U.S.

To look at the spread of the surveys across the U.S. we simply plotted their locations. We were very pleased with the spread.



We also wanted to make sure that the ratio of UDiscers to total players did not vary wildly across the country so we aggregated the ratio at the state level.

Survey Locations

Ratio of UDiscers/Players



Some states (e.g. Nebraska and Maine) differed from the average ratios of about 0.2, but those were due to either variance from a small number of surveys or, in Maine's case, the fact that many of the courses are pay-to-play, likely increasing the number of people who record their rounds with UDisc. It seems that the location will not have much of an impact on our overall estimates.

Day of the week: We first compared the ratios of UDiscers to total players by day of the week and found that the ratio appeared to be higher on Thursday, Saturday, and Sunday and lower on Friday.



Rather than grouping Thursday with Saturday and Sunday, it seemed cleaner to just group Thursday and Friday with the other weekdays.

Course Ratings: After a number of models, we didn't find a significant difference in the ratio based on either the course rating or the number of evaluations.

Weather: We fit a number of different models to see if the weather significantly impacted the ratio of UDiscers to total rounds. We did not find any significant differences, so will leave weather out of our model.

Hole Count: After seeing some evidence in exploratory analysis that indicated that the ratio of UDisc users to all players might be different depending on hole count, we decided to split courses into two groups: short courses (including those with 1-9 holes) and long courses (10+ holes).

	Ratio	Number of surveys
Short Courses	0.249	371
Long Courses	0.291	949

Looking both at the ratios above and some statistical tests, we determined that the size of the course had a significant effect on the ratio.

Authors:

Brian Hartman McKay Christiansen McKay Gerratt Brandon Brunner