

# Office of Career Planning Data Analysis Report

Caroline Alford, Jeannie Hinton, Madison Helton, Sarai Alvarenga-Polio

December 2, 2022

## First Destination Survey Analysis

The First Destination Data given to us by Meredith College contains information about Meredith students who graduated between August of 2017 and May of 2022. The purpose of the First Destination Survey conducted by the OCP is to follow up with Meredith alumnae on what they did post-graduation. The survey opens about five weeks before graduation and remains available for six months after graduation. After exploring the data, we found that there were patterns regarding majors, salaries, and graduation season.

A question that arose after we explored the data further was “does the graduation season affect post-graduation outcomes?” The data was separated into tables by year, so the first thing that we did to answer this question was combine the tables into one large table spanning over all of the recorded years (2017-2022). Then, we recoded the variable “Graduation Date” into “Graduation Season” by grouping all of the graduates over all of the years into the season that they graduated in. Next, we analyzed the distribution of graduates across the three graduation seasons: spring, summer, and fall.

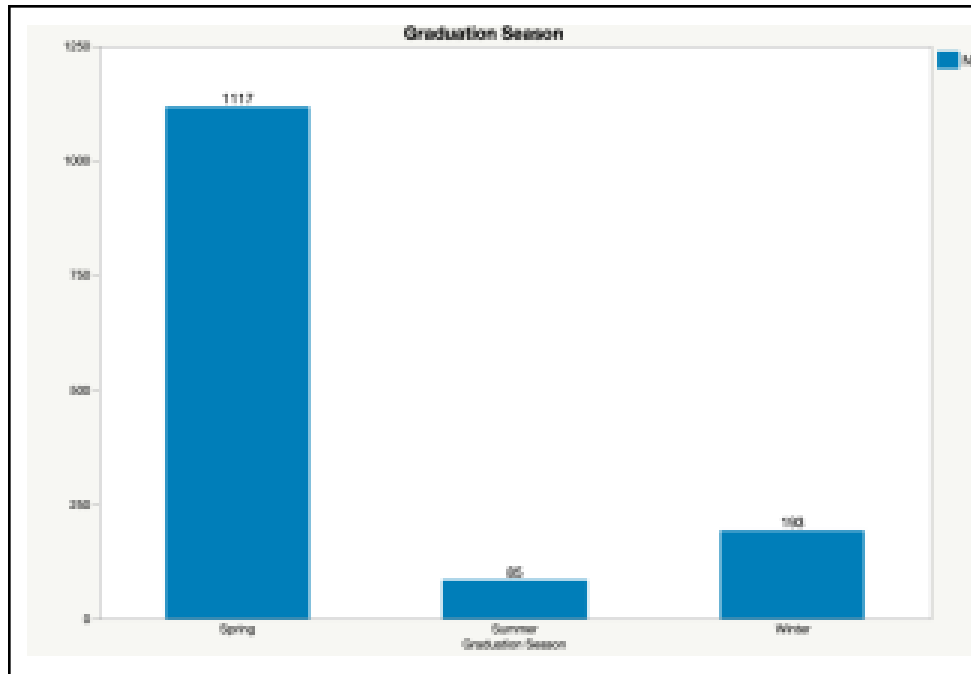


Figure 1 shows that the majority (1117) of Meredith graduates who filled out the First Destination Survey graduated in the spring. That is over 80% of the total graduates.

What we discovered from the analysis in Figure 1 was to be expected. The vast majority of responses were provided by spring graduates. We next analyzed the distribution of graduate outcomes: continuing education, still looking, and working.

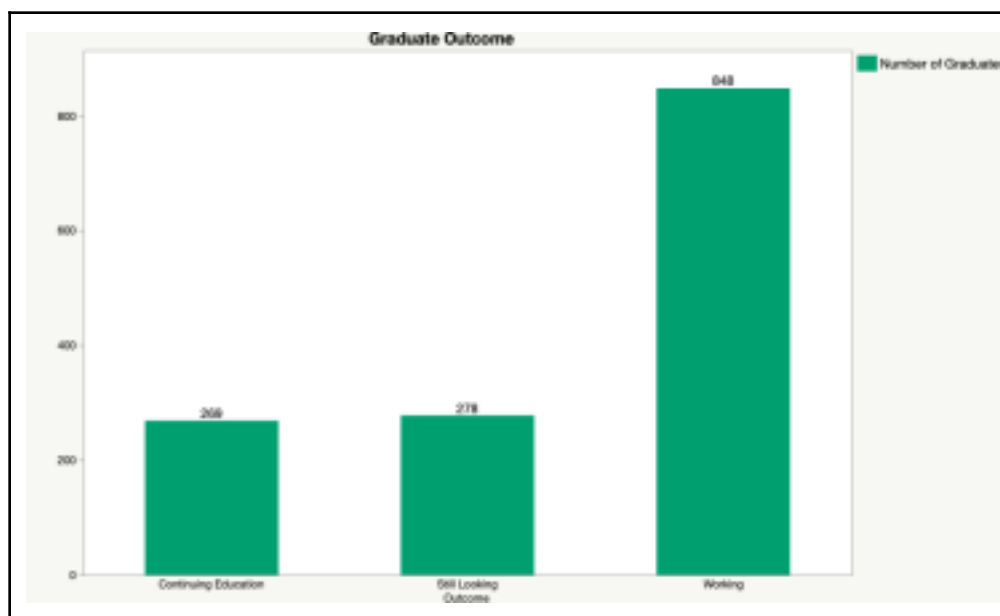
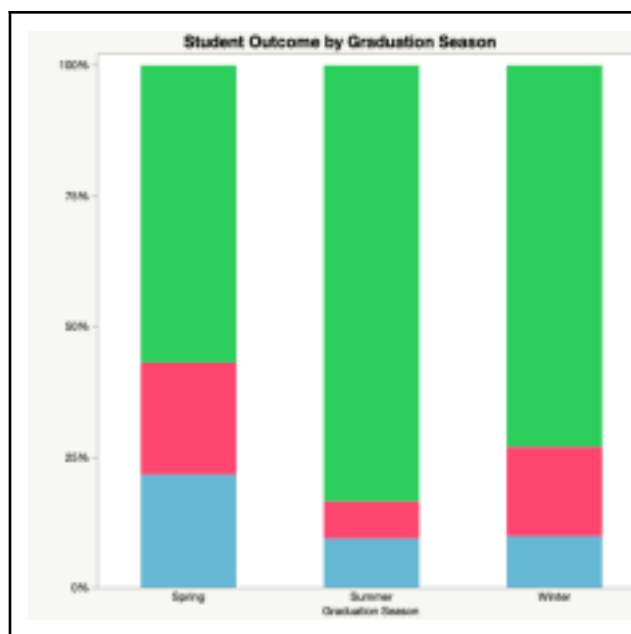


Figure 2 shows that the majority of Meredith graduates who filled out the First Destination Survey responded that their outcome was “working” post-graduation.

The majority of graduates responded that they were working after graduation. We then wondered if the proportion of outcomes would be the same across all graduation seasons. To do this, we created a bar chart to display the percentage of students who belong to each outcome across the three graduation seasons. The proportion of graduates was not the same for each graduation season.



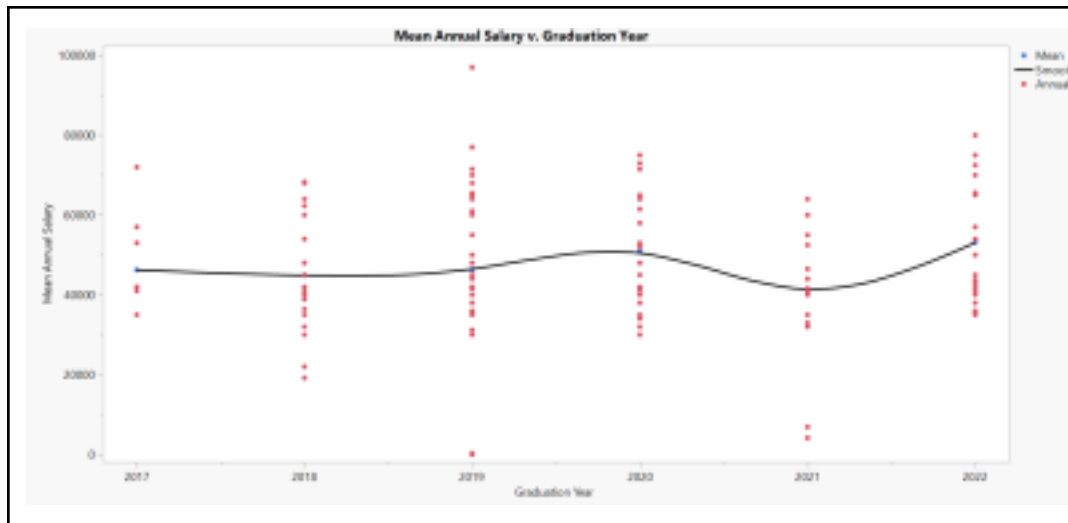
Graduation Season	Outcome			
	Count	Continuing Education	Still Looking	Working
	Total %			
	Col %			
	Row %			
Spring	242	239	636	1117
	17.35	17.13	45.59	80.07
	89.96	85.97	75.00	
	21.67	21.40	56.94	
Summer	8	6	71	85
	0.57	0.43	5.09	6.09
	2.97	2.16	8.37	
	9.41	7.06	83.53	
Winter	19	33	141	193
	1.36	2.37	10.11	13.84
	7.06	11.87	16.63	
	9.84	17.10	73.06	
Total	269	278	848	1395
	19.28	19.93	60.79	

Figures 3 and 4 show that the outcome proportion is not the same across all graduation seasons.

From the contingency table in Figure 4, we were able to reveal that the proportion of working graduates in the summer is 0.8353. We can visualize from Figure 3 that students who graduated in the summer at Meredith College have the largest proportion of working graduates. The largest proportion of graduates who continued education was in the Spring graduation season. We must acknowledge that the sample size across all three seasons was different. 80.07% of respondents graduated in the spring, 6.09% of respondents graduated in the summer, and 13.84% of the respondents graduated in the winter. From this analysis, we may state that the distribution of graduate outcome varies across each graduation season.

In our effort to study salaries, we first wondered how salaries changed over time from the first alumnae surveyed in 2017 to the alumnae surveyed in 2022. Thus, we created a scatterplot of annual salary versus graduation year as seen in Figure 5. It is important to note

that there were 13 rows that were excluded because they were missing salary data or it appeared the salaries were entered incorrectly. The red points represent individual salaries, and the black curve connects the mean salaries for each year.



*Figure 5 reveals that the mean annual salary has remained about the same over time with a small decline in 2021, but it recovered in 2022.*

From *Figure 5*, we concluded that the average salary remained somewhat unchanged over the five years with a small decline in 2021 and a recovery in 2022. It is unclear what may have caused this small decline but that could also be due to a lack of alumnae responses more than an economic factor. This exploration, though, prompted us to look more closely at the variables involved with each respondent so we divided our observations into the academic schools at Meredith College. We recoded all of the primary majors into either the School of Arts & Humanities, the School of Natural & Mathematical Sciences, the School of Business, or the School of Education, Health, & Human Sciences. Then, we remade our scatterplot to include the breakdown of salary by school and produced *Figure 6*.

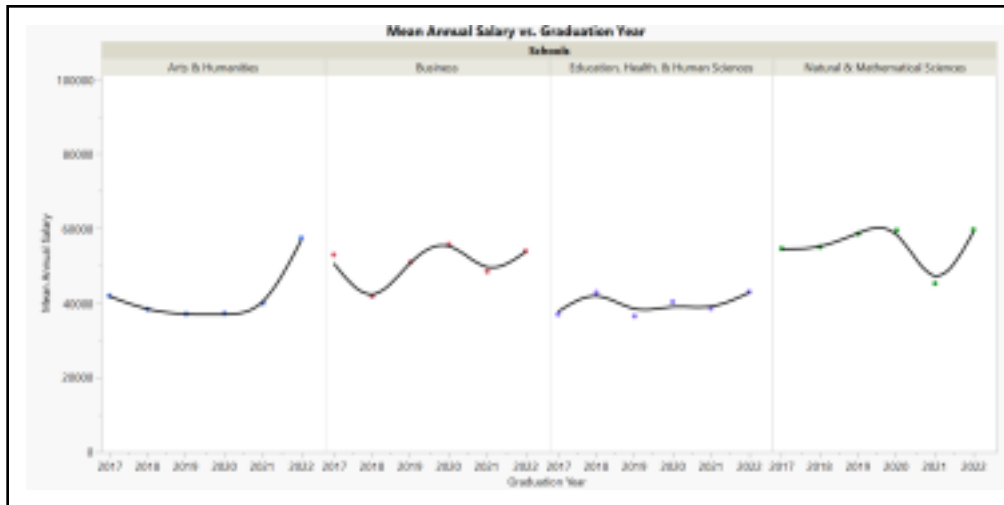


Figure 6 shows how the mean annual salary for each school changes over the five year time period, with some of the schools having an irregular change in salary and some remaining rather constant.

Across the four schools, the only school's salary that remained relatively constant was the School of Education, Health, & Human Sciences. In contrast, all of the other schools had more interesting distributions. The Business school had a wave-like distribution with two declines in salary but both times, the salaries recovered to about 55,000 dollars. The School of Natural & Mathematical Sciences had a steady increase in average salary until 2021 when it had a big decline. Although it recovered in 2022. Finally, the School of Arts & Humanities almost had a constant distribution for salary, but 2022 was a year in which the mean salary increased. These last two schools, the School of Natural & Mathematical Sciences and the School of Arts & Humanities, both had either sharp increases or decreases, so we decided to examine each observation rather than just the mean observation for salary as seen in Figure 6.

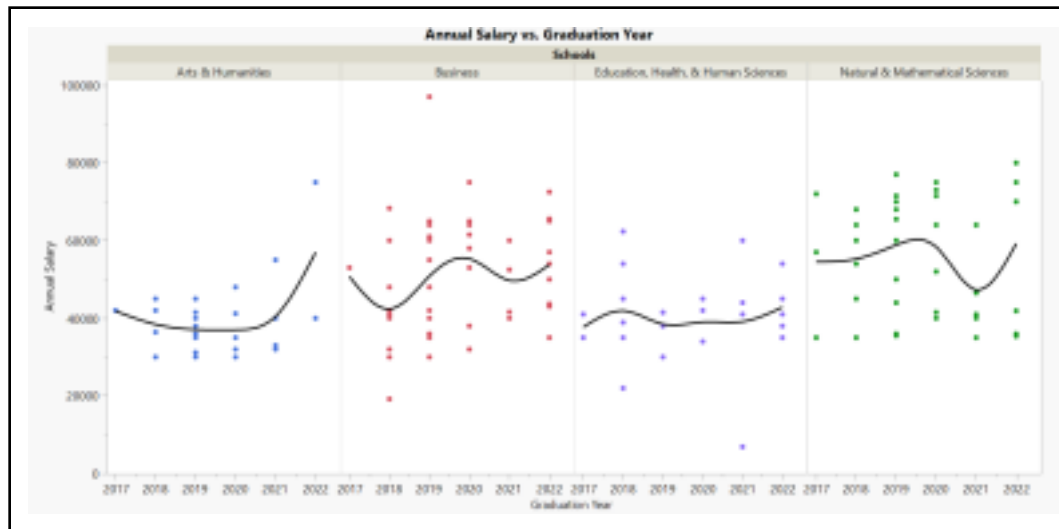


Figure 7 is a scatter plot of each observation for salary with some years having very few observations and some with many observations possibly skewing the mean salary denoted by the smooth curve line.

Figure 7 provides more information regarding the sharp changes for the School of Natural & Mathematical Sciences and the School of Arts & Humanities. First, the School of Natural & Mathematical Sciences had a much more symmetric distribution for salary amount for every year except 2021. In 2021, one can see how there were more respondents with lower salaries than higher salaries, causing the mean salary to be lower. Second, for the School of Art & Humanities, the sharp increase in mean salary for 2022 should be read with caution because there are only two observations for that year making the mean really susceptible to high or low outliers skewing it to an unusual value.

The last question we had for our salary data was how did salary change for the four most popular employer industries over the last five years. Since there were such a large array of industries, we began by determining the four most popular employer industries. Using a histogram of the employer industries, we found that Internet & Software, K-12 Education, Insurance, and Advertising, PR, & Marketing were the four most popular industries.

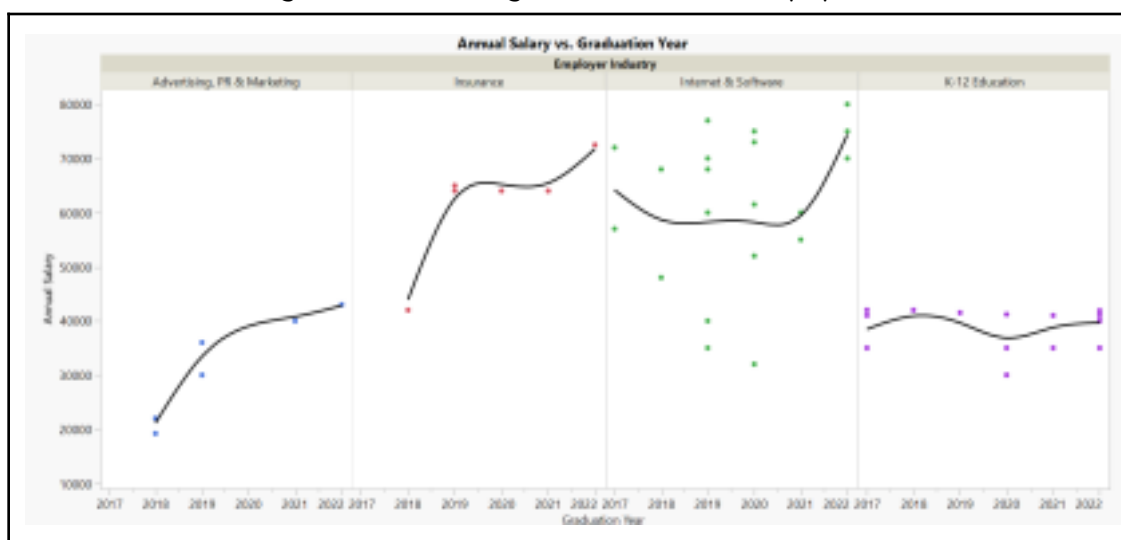


Figure 8 displays an overall increase in salary over the last five years for all of the industries except for K-12 education, in which alumnae's salaries remained somewhat constant with a small decline and then a recovery.

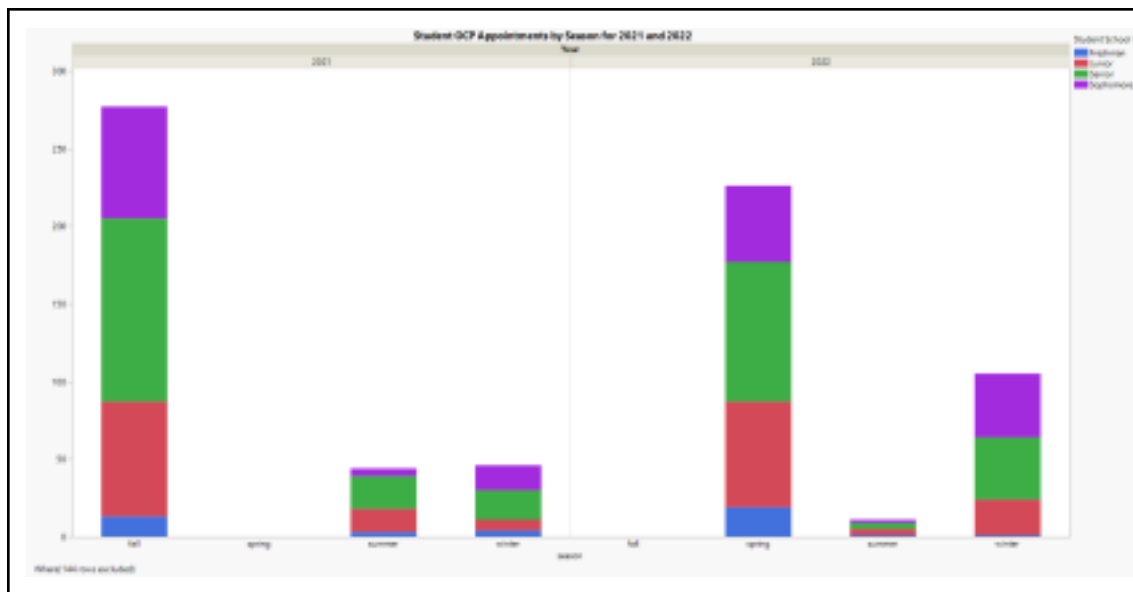
Figure 8 is the scatterplot of Annual Salary versus Graduation Year divided by the four most popular industries for Meredith alumnae. Advertising, PR, & Marketing in addition to Insurance and Internet & Software jobs experienced an overall increase in salary between 2017 and 2022. Internet & Software did experience a larger decline in 2018 but it recovered slowly with a plateau in 2020. K-12 education is the one industry of the four popular industries that

remained at a steady level for salary with salaries ranging from about 30,000 to just over 40,000 dollars. Interestingly, of the four industries, Insurance and Internet & Software, overall, had higher salaries than K-12 Education and Advertising, PR, & Marketing. Most of the salaries for Insurance and Internet & Software ranged from about 40,000 to 80,000 dollars, and most of the salaries for K-12 Education and Advertising, PR, & Marketing ranged from about 20,000 to 40,000 dollars.

## Office of Career Planning Appointment Data Analysis

The Office of Career Planning Appointment data contains information on the type of student and type of appointments the OCP conducted from September 30th, 2021 to April 21, 2022 along with data from a survey students completed regarding their appointments. This data will allow us to explore trends between appointments, students, season, and counselors.

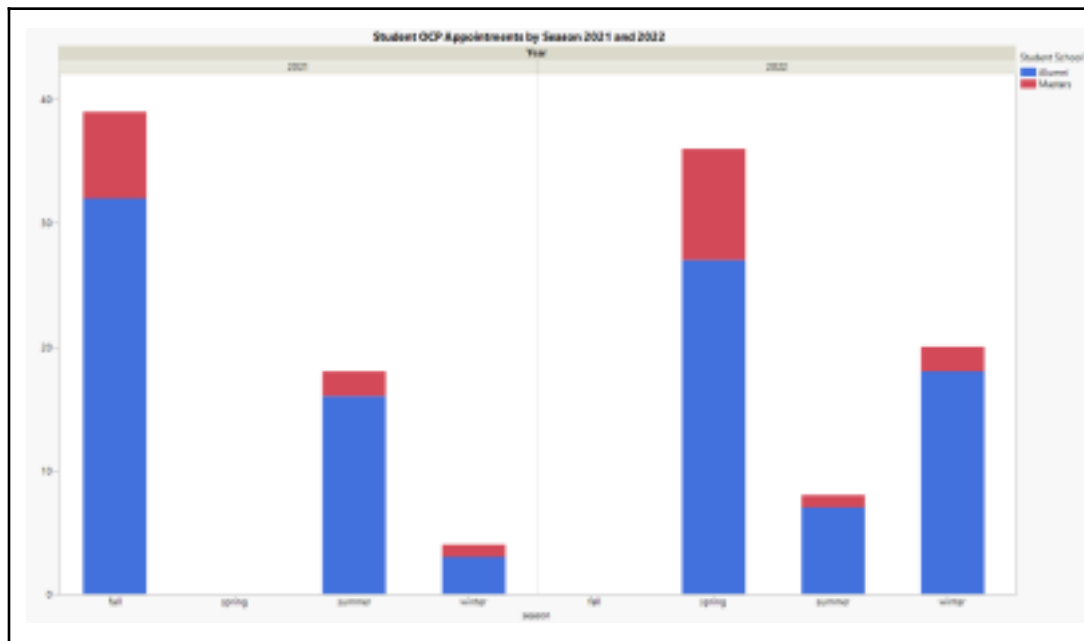
One question we explored was “what students seek help the most? –and is there a time of year in which OCP is busiest?” To explore this question further, we focused on student class year for the first part of this question. In *Figure 9*, two new columns were created in order to analyze this question. The first column being Seasons of the year and the second column a Year column. This visualization shows which undergrad students made the most visits to OCP per season in 2021 and 2022.



*Figure 9 displays the number of undergraduate students who attended OCP appointments during the different seasons of 2021 and 2022.*

From our visualization, it is important to note the data that we have missing. Since our data is from September 30th, 2021 to April 21st 2022, the missing seasons in our visualization are the missing seasons from both years. After analyzing our visualization, Seniors had more appointments with the OCP throughout both years.

Our next visualization, *Figure 10*, shows the number of alumni and graduate students' OCP appointments for 2021 and 2022. Alumni have OCP appointments a lot more than graduate students throughout all seasons.



*Figure 10 displays the number of graduate students who attended OCP appointments during the different seasons of 2021 and 2022.*

The next question we wanted to explore was "Is there a busy season? Is there a time when students are going to OCP the most?" Based on our histogram, *Figure 8*, there is a significant amount of students going to OCP during the fall.



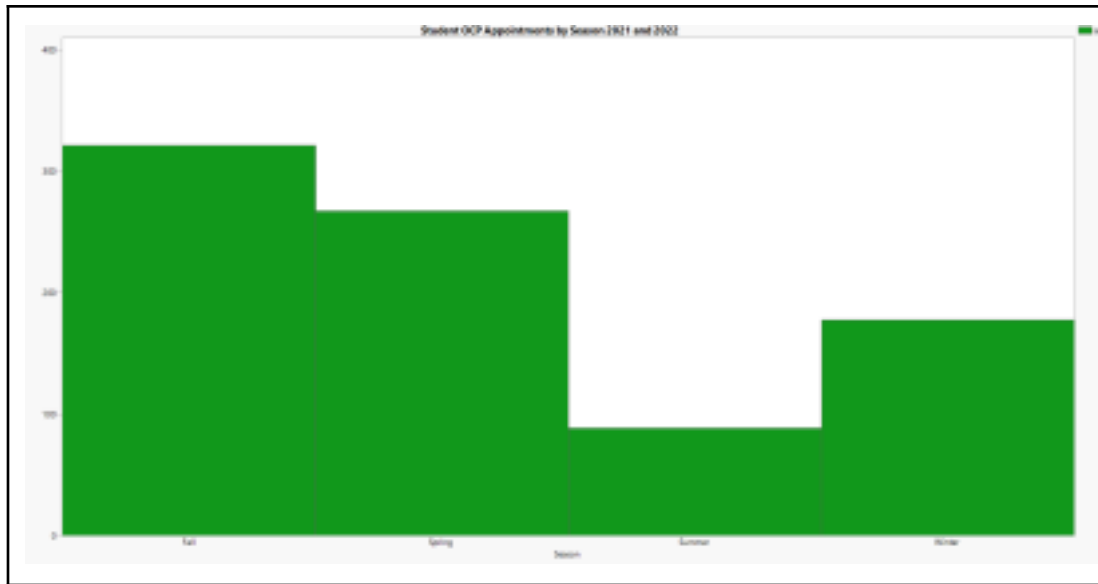


Figure 11 displays the number of OCP appointments during the different seasons of 2021 and 2022. Realizing that there are different seasonal months in a semester, we wanted to see if there is a specific month in which OCP is the busiest. There is a significant amount of OCP appointments during March and November. Both of these months happen to be a month before the fall and spring semesters end which could result in students seeking help for jobs or internships.

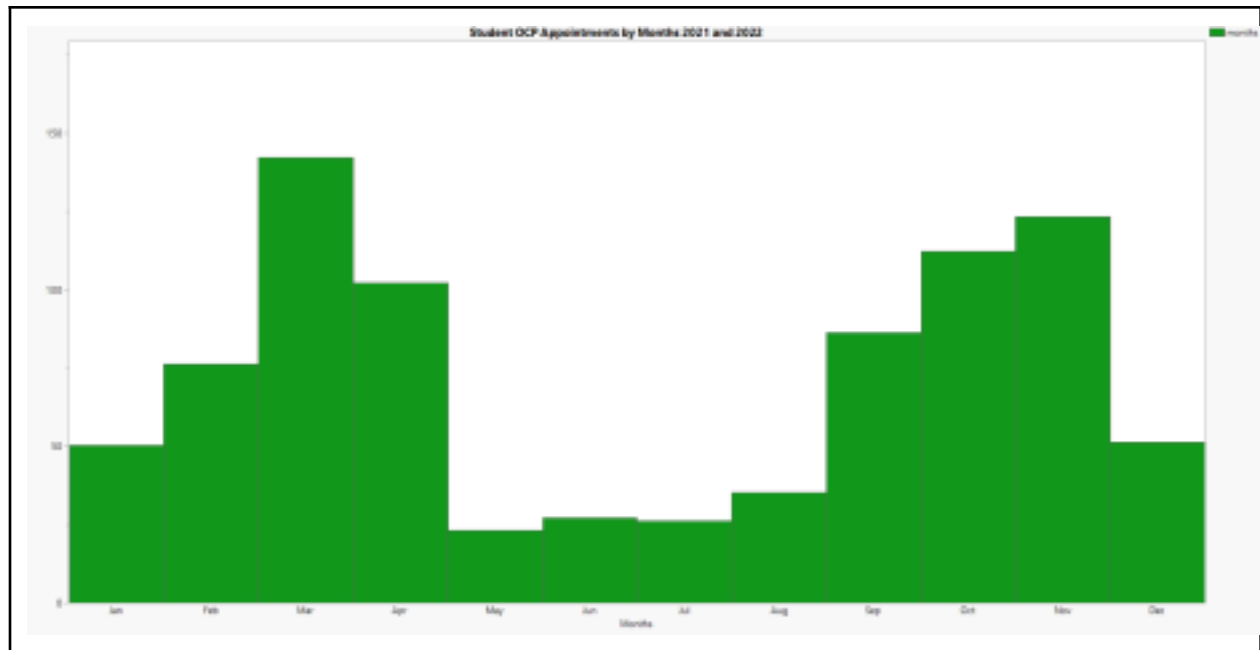
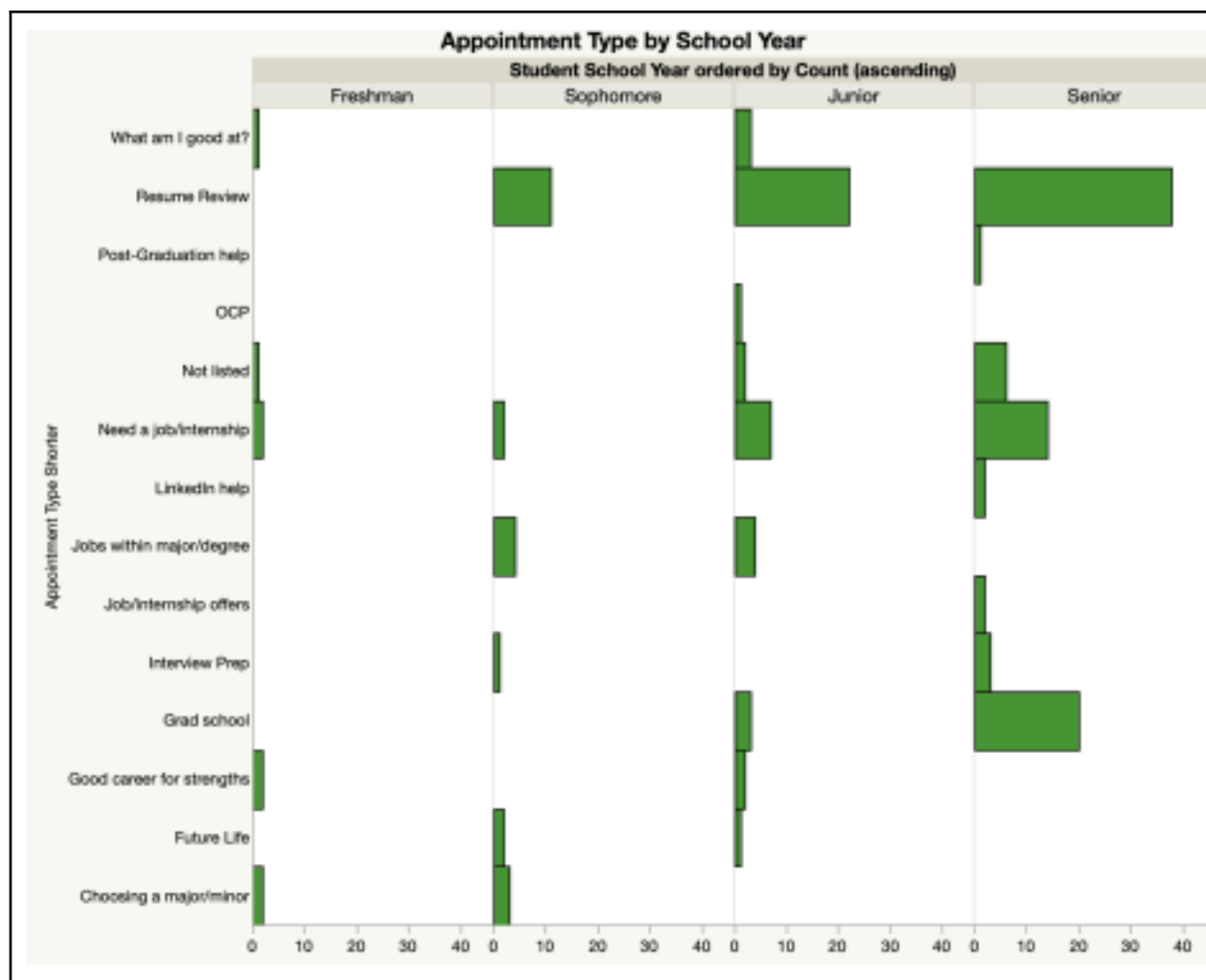


Figure 12 displays the number of OCP appointments during the different months of 2021 and 2022.

We also explored the question of “What appointment types do students attend the most?” and “What appointment type is most popular within each school & department?” To start, we had to recode the data variables “appointment type” and “student majors.” For “appointment type,” we recoded it to make the variables shorter in length. For example, for the “How does my resume/CV/cover letter/professional communication look?” we recoded it to be “resume review.” We shortened all of the entries within that variable. Then, we decided to recode the variable “student majors” to be a “school & department” variable. To do this, we looked at the Meredith website to determine how the majors were separated into schools and departments and matched those with our entries. Therefore, all of the data that was “Business Administration,” “Economics,” or “Hospitality and Tourism Management” were combined to be “Business” to represent “The School of Business.” One challenge faced during this recoding was when students had more than one major across different schools. The way we resolved this was we used the first major listed and put them into that school.



*Figure 13 displays four bar charts that are separated by school year, excluding Alumnae and Master's students, and the bar charts represent the count of students who went to the OCP for that appointment, and we can see the resume review is the most popular appointment type between school years.*

From Figure 13, we can see that the Resume Review is the most popular appointment type among the Student School years. We also filtered the data to only include undergraduate students. Since seniors are the ones who visit the OCP the most, they also have the most resume review appointments. Seniors also have the most Grad school appointment types. We can also see from Figure 13 that students tend to be more involved with OCP as they continue at Meredith. Freshman visit the least and seniors visit the most. We can also see that the "Need a job/internship appointments" increase for each student's school year.

We were then interested in taking a closer look at the appointment types that seniors visit the most often. To do this, we filtered the data to only include seniors and studied the resulting bar chart. Figure 14 represents the appointment types that seniors attend the most. From this, we can see that the most popular appointment type for seniors is Resume Review, followed by Grad School and Need a Job/Internship. The least popular type of appointment that seniors attend is Post-Graduation Help.

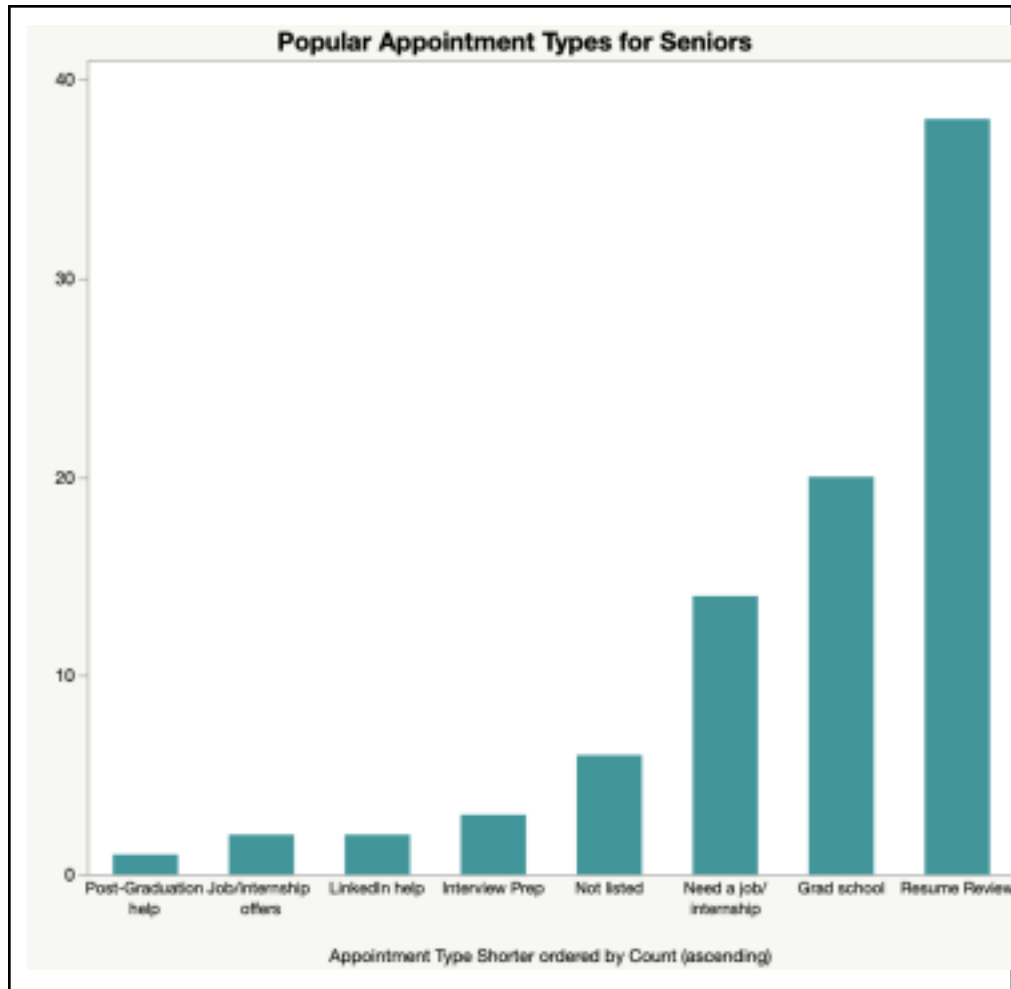


Figure 15 represents the most popular OCP appointment type for senior students at Meredith, and we can see that the top 3 appointment types are Resume Review, Grad School, and Need a job/internship.

We were also wondering what the most popular appointment type was among Meredith Alums. To do that, we removed the filter that only included Seniors and added a filter that only included Alumnae. The resulting chart was Figure 16. Figure 16 highlights that the most popular appointment type among alums is Switching Careers/Jobs, with the least popular being an appointment type that is not listed.

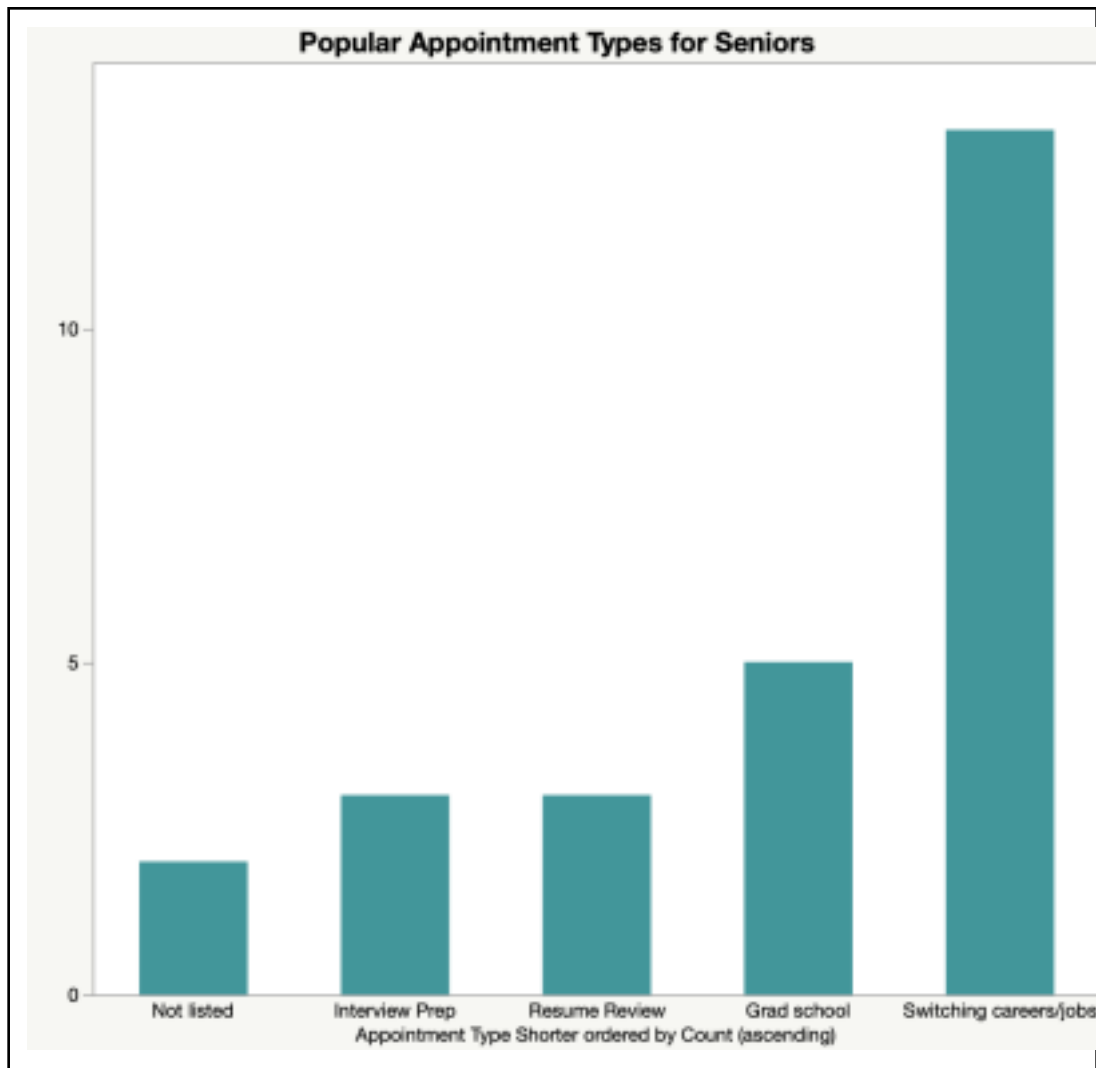
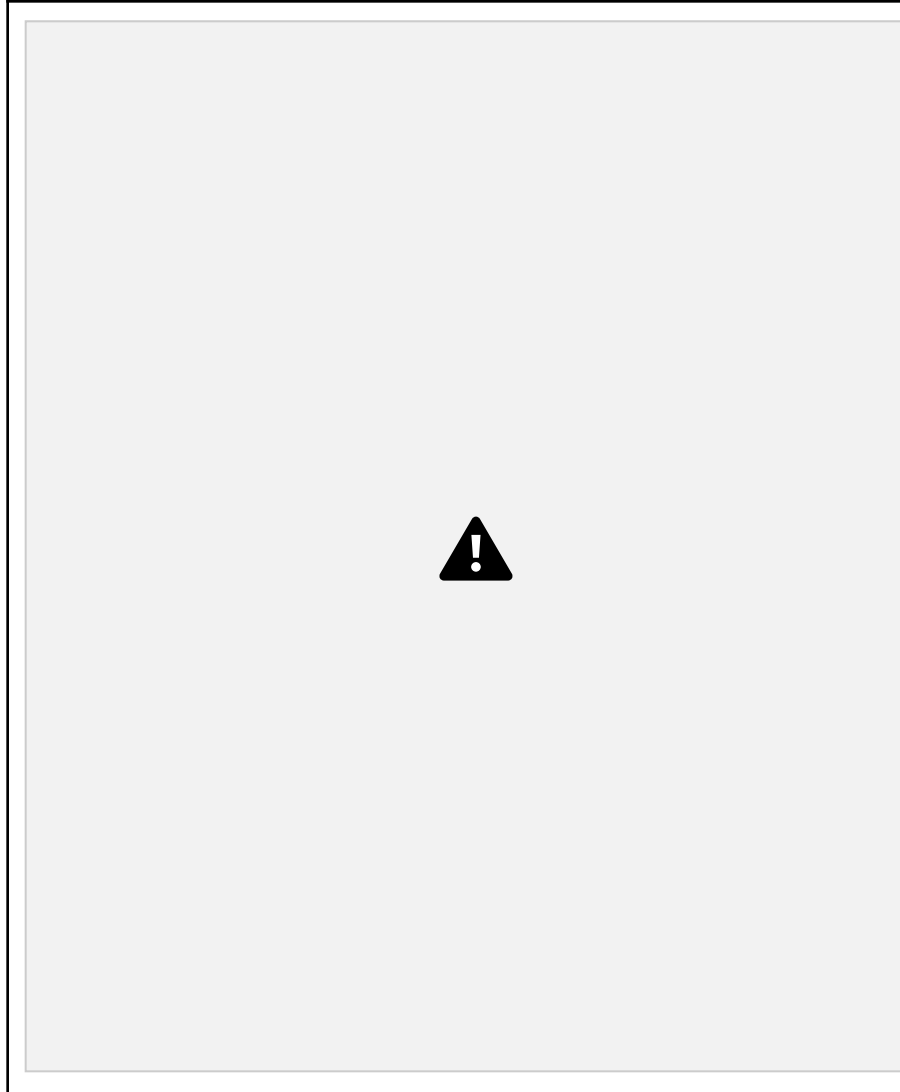


Figure 16 represents the most popular appointment types for Meredith Alumni, and the most popular appointment type is Switching Careers/Jobs, followed by Grad School.

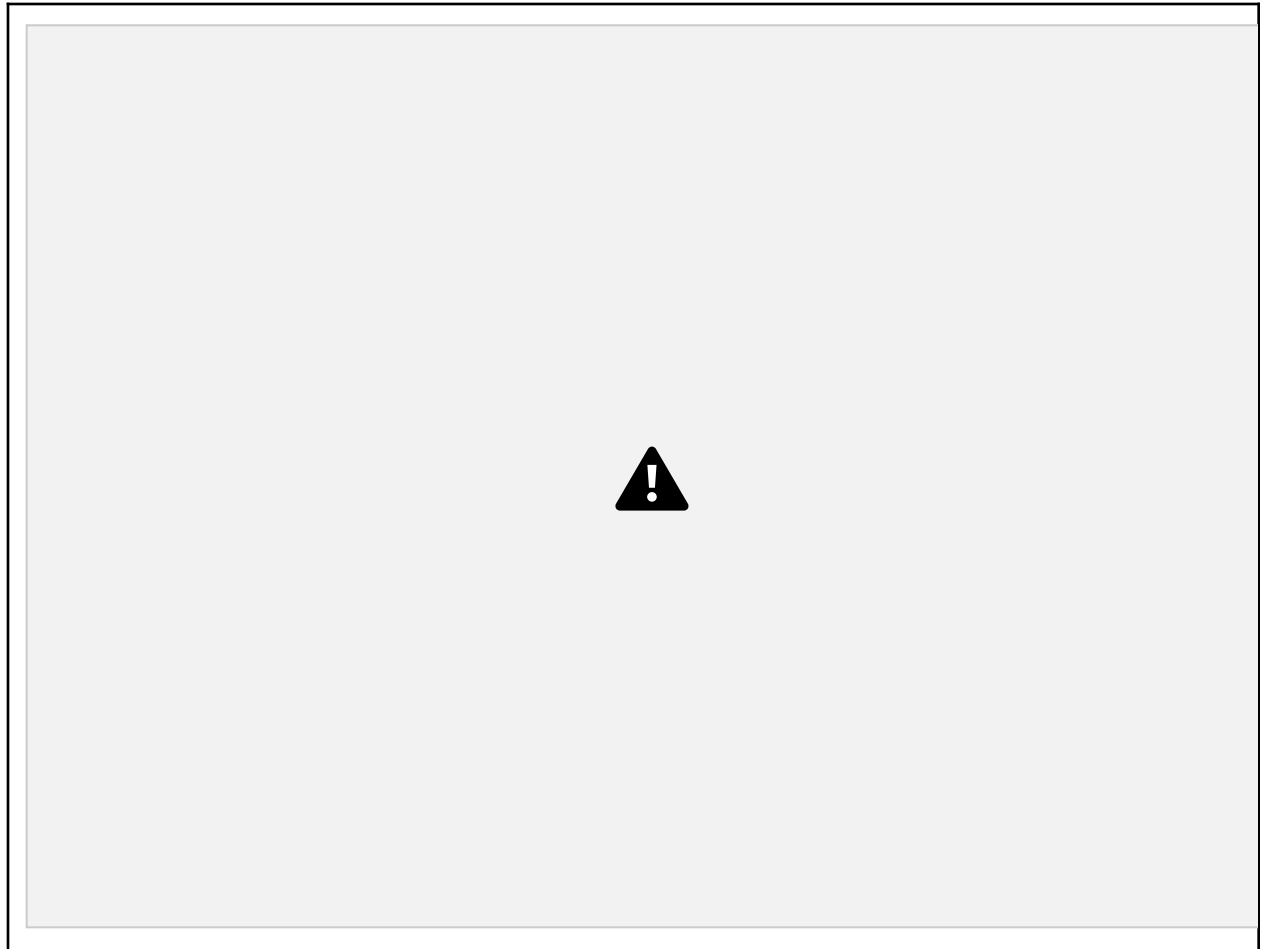
While looking at all this data, we were also interested in seeing the distribution of school years that visit the OCP. Of the OCP appointments made by undergraduate students, freshman students made up 2.9% of appointments. Sophomore made up 15.22% of appointments. Juniors made up 26.09% of appointments, and Seniors made up 55.8% of appointments.



*Figure 17 shows the different types of appointments by the schools and departments that those students' first listed major is in ordered by number of students in that department who visited the OCP and number of appointment types, and we can see that the Resume Review appointment type is the most popular appointment type.*

We were also wondering what appointment types were most popular between Schools and Departments. To do this, we filtered the data by Schools and Departments and picked the 5 most popular Appointment Types. The output was Figure 17. From this figure, we are able to tell that resume review is the most popular type of appointment for all departments except for the Arts and Humanities department. The Arts and Humanities department's most popular type of appointment is the Need a job/internship Appointment. The least popular appointment type for Business is Grad School, and the least popular appointment type for Natural and Mathematics Sciences department and Arts and Humanities is Interview Prep. The two least

popular appointment types for the Education, Health, and Human Sciences department are Interview Prep and Not Listed.



*Figure 18 shows the different school and departments that students are a part of and which counselor the students saw, and we can see that business is the most popular major to visit the OCP and Counselor #3 is the counselor to work with the most students.*

We were also curious to see if any OCP counselors work more with one major over another. The resulting chart is Figure 18. In Figure 18, we can see that the students within the business school visit the OCP the most often, followed by the Natural & Mathematical Sciences department. The students to visit the OCP the least are students within the Education, Health, and Human Sciences department. We can also see that Counselor #3 is the OCP Counselor that is meeting with the most students for each department. Counselor #2 works the most with Education, Health, and Human Sciences students, followed by students who did not list their major. Counselor #4 works the most with students in the Natural & Mathematical department, and Counselor #5 only works with students in the School of Business or the Natural and Mathematical Sciences department.

In closing, the First Destination Survey data and the OCP Appointment Data provided an array of different information regarding the course of Meredith student's careers beginning with the help they seek during their undergraduate studies and continuing past their time of graduation. As far as the first destination data is concerned, the proportion of student outcomes post graduation varies depending on the graduation season. The majority of students reporting that they are working post graduation across all graduation seasons. In regards to the salary data, there are many factors ranging from economic to academic that affect the salary of a Meredith alumna. The analysis conducted in this report mainly focused on the academic factors affecting salary. Based on how academic school affects salary, it may behoove some students to reflect on the findings of this project when determining the school in which their major belongs. Furthermore, the Appointment data revealed a trend with the Seniors (for the undergraduate students) and Meredith Alumni (for those already graduated or seeking a Masters) in regards to the type of students that went to OCP the most. With the undergraduate students, it seemed that the closer they were to graduation, the more appointments OCP had from that year of students. We also noticed that OCP is the busiest during the fall and spring seasons, with the months of March and November being their busiest months. Based on the results, OCP should focus on targeting the upperclassmen and Meredith alumni for appointments and career planning resources. The Office of Career Planning should also prepare to have more availability during the last two months of each semester as they were shown to be the busiest. In regards to specific types of appointments, the Resume Review was the most popular OCP appointment. Many other appointments were more popular with different school years, masters students and alums, and with different schools and departments across campus. However, Resume Review was continuously seen in each department and school year. Because of this, it may be important for the OCP to consider providing more of those types of appointments to students due to their popularity.