Migration Patterns of American College Students

An Interactive Qualifying Project Submitted to the Faculty of

WORCESTER POLYTECHNIC INSTITUTE

In Partial Fulfillment of the Requirements for the degree of Bachelor of Science.

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Date:

March 10th, 2022

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ABSTRACT

Every year millions of American high school students graduate and go further in their education, pursuing college. The decision of where to go is a big decision that impacts both students and the universities that they go to. The goal of this project is to track the movement of college students throughout the country. By analyzing data collected from the National Center of Educational Statistics, we were able to see the residential status of students both on a state and institutional level.

Using that data, we were able to determine the influence of colleges and the movement of students from state-to-state. A few key findings show that Alaska, Texas, New Jersey, and California all have the most students that stay in-state while DC has the least. When adjoining states are factored in, Alaska, which has none, still has a large number of students from their immediate region that go to Alaska colleges. Massachusetts pulls the most non-domestic students. Out of all the university groups, the major public universities attract the most students from outside their immediate region and also the United States.

In order to better understand the findings of our data, we created a survey to determine the influence of location in the college decision process. Key findings from the survey show that those who made their decision during the pandemic found relative distance more important than the other year groups. In addition those who stayed in state found absolute and relative distance more important than any other residential group.

CHAPTER 1: INTRODUCTION

There are many factors that a student must consider as they begin their college search. Do the schools they are looking at have the major they want? How much does it cost? Are there family ties to that school? Where is the school?

Every year, millions of American students graduate from high school all across the country and begin the trek to the college of their choice. In all of these factors, where the college is can be an important one.

In this project, we are looking to see where high school students go when they graduate. How does this young and elusive group flow across the country? Do they consider location, both absolute and relative, to be an influential factor in their decision for finding a college?

We looked into the concrete migration of students using a compiled dataset created from information that is available through the National Center for Education Statistics (NCES). Then, in an effort to get more personalized data, we formulated a survey to gather responses from students, parents, and alumni. Using that data, we determined how much impact location has against other factors that students consider in the college search.

Together in this report we seek to understand what migration patterns are most common among students and how these young adults flow across the country to the hundreds of colleges and universities in the United States. Then, by looking at universities and their pull among students across the country, we hope to see the trends and influence that individual colleges might have in their state, region and in the country as a whole.

The remainder of this report is outlined as follows. Chapter 2 covers the background that went into the research and reports creation. Chapter 3 covers the research objectives and questions that went into analysis of the compiled data. Chapter 4 provides results for the compiled data. Chapter 5 presents the design and objectives relating to the survey. Chapter 6 describes the objectives and creation of the survey. Chapter 7 presents overall results for the survey. Chapter 8 breaks down survey results by respondent residential status and year of decision. Chapter 9 concludes the paper and Chapter 10 lays out potential future work.

CHAPTER 2: BACKGROUND

2.1 Student Migration

Before beginning data collection and analysis, a wide search was done to see what information on this subject already existed. There have been studies in the past to see what happens on a larger scale of students going across the country for college. There are also reports on the factors that influence students as they pick the college that best suits their needs. Piecing them together, a picture of the student movement can be seen across the US.

Early research was centered around finding the influence of colleges across the country. Data charts from NCES showed migration of students from state to state, even using some of the residency terminology that we would later use in our analysis (*Residence and Migration of All First-Time Degree/certificate-Seeking Undergraduates in Degree-Granting Postsecondary Institutions, by State or Jurisdiction: Fall 2018*, 2021). There was also charts with overall college enrollment by state from NCES, that helped to formulate initial hypotheses by the data that we would find (*Total Fall Enrollment in Degree-Granting Postsecondary Institutions, by State or Jurisdiction: Selected Years, 1970 Through 2019*, 2021).

Most of the background information was found on a state to state basis. A blog post by NCES showed the state-by-state breakdown of in-state and out-of-state students. For example, according to their statistics, Alaska had the most students who stayed in-state with over 93.1%. On the other side the District of Columbia had the least amount of in-state students with 9.8%. It also showed the statistics behind the net migration of states (Ruiz, 2020).

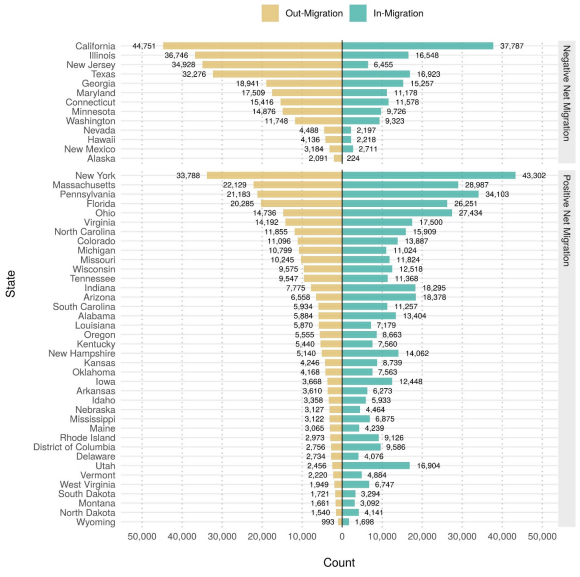

Figure 2-1: From NCES showing In and Out of State Net Migration (Ruiz, 2020)

The New York Times takes 2016 statistics from the NCES to create an interactive story to view where students end up going to college. Breaking it down for each state, viewers are able to see where students go if they leave a state and where students come from if they come to a state (Strayer, 2016).

There was some background found in other forms. A study by Niche Ink focused on students individually. It showed that, between 2014 and 2015, 58% of high school graduates moved within 100 miles away from their hometown. 72% stayed in-state, and around 11% traveled more than 500 miles for college (Chokshi, 2014).

Another segment of information was studying where students went after they graduated. an independent study done by The Wall Street Journal using an outside data collection source, They found what happened to graduates of over 400 prominent research and liberal arts universities. It is a searchable, interactive database, showing the cities of where alumni go after graduating from a university (Dougherty et al., 2018). This was the only comprehensive background we found on the migration patterns of alumni.

In our research, we came across a page on EducationalData.org that had statistics for college graduation from both across the United States as well as a limited number of additional countries (Hanson, 2021). It did not relate well to what we had on high school graduation, but would have helped to supplement information regarding alumni movement.

Following along with the information that was found about alumni migration, we also found some information regarding alumni happiness and success from an article in Forbes. They used the median total private donations per enrolled student and the percent of alumni that give back to make a "happiness index" and then use that to rank schools (Hansen, 2018). Tying this with the previous information regarding alumni movement, we wondered if it was at all possible to create metrics and map alumni as opposed to current students. While interesting, it is something that was hard to explore for this project and was quickly deemed to be outside of the scope of what could be done.

2.2 Factors in College Decision Making

As we honed in on what the project was going to look like, we shifted from finding information to finding raw data to compile a comprehensive data set. NCES provides raw data and dataset creation through The Integrated Postsecondary Education Data System (IPEDS). On a few run throughs, we found it hard to gather all the information easily. So we turned to a resource that we had stumbled across in our initial literature review. The Urban Institute maintains a data collation wizard that can create raw datasets on a variety of given metrics. They pull from educational data centers like IPEDS, College Scorecard, National Historical Geographic Information System, Federal Financial Aid, and more (*Educational Data Portal*, n.d.). The Urban Institute was an amazing find that we used to pull the raw data for the data analysis portion of the project.

When creating the survey, we did some research to help determine the best ways to design the survey. A big point of research that was conducted was done to help figure out if a four or five point likert scale should be used for the survey. A Swedish study states that likert scales work best when done with five points, the middle most being a neutral answer (Østerås et al., 2008). On the other hand, a presentation from the Center for Disease Control argued that by not presenting a neutral answer it can "force people to choose" (Losby & Wetmore, 2012). Using that information, we decided to go with a four-point scale.

The factors that were included on that scale also came from researched areas. Using a report from NCES, we pulled and reworded the "Academic quality/reputation", "Cost of Attendance", "Being close to home", "Desired program of study", and "Family Legacy" (Wilson, 2020). Then using a blog post from Beyond College Access, we were able to grab and reword "Social Climate and Activities" and "Location" (LaFave et al., 2018).

In addition, we were interested to see if COVID-19 had any effect on college enrollment. In a search, an article by the National Public Radio (NPR) appeared in the search. It talks about the ways in which the college application process has been affected by COVID (Smith, 2020). This information provided context and gave some initial background to inform early hypotheses about the results of the survey.

2.3 Summary

In summary, articles from across the Internet worked to provide context for information, as well as giving initial data to ponder upon. Sources like The National Center for Educational Statistics helped in both the creation of research objectives, as well as being the backbone of the original raw data collection. Even as the survey was being designed, sources helped in its creation from the choosing of college factors to the decision of a four point likert scale. Early background research and literature reviews helped mold the project into its final state.

CHAPTER 3: RESEARCH OBJECTIVES AND QUESTIONS

3.1 Research Goals

After exploring what information was readily available, the research began to take shape. We wanted to explore what migration for a US college student looked like. In order to achieve the overall goal of the project, a series of subgoals were created.

First, we wanted to explore migration on a state-to-state basis, in statistics that were comparative to what had been found. At a basic level we wanted to see what percent of students stayed in state and what percent of students left the state. To expand on this more we also wanted to see where the students go in relation to their state. Particularly, as they left their home state, was it likely for them to end up in states right next door? Or where they are more likely to end up across the country?

In addition, we wanted to explore what universities have the most influence and in what areas. By seeing what colleges are able to pull the most from their state or other adjoining states, we could make inferences about their influence in their direct region. Looking also at what schools have large amounts of international students can show their draw.

Finally, we wanted to use all the data received and analyzed to prepare a picture of what college migration patterns truly look like. By seeing what states lose more students and what states gain more students, we can piece together a semi-holistic look at college migration. These patterns help understand the movement of college students.

3.2 Research Questions

In order to accomplish our goals, it was decided that the best way to analyze the data was by using questions as a framework. Questions were generated for the data analysis. The following list was created:

Data Analysis Questions:

A. Questions for State Data

    1. What state retains the most of their high school graduates?
    2. What state loses the most of their high school graduates?
    3. When you factor in students from adjoining states, do any states with low in-state percentages rise to the top?
    4. What state manages to pull in large amounts of students from their adjoining states?

5. Do states like Hawaii and Alaska with no adjoining states see more or less in-state students?

6. What state attracts the most international/non-domestic students?

B. Questions for College Group Data

1. What university groups (major public, major private, HBCU, etc) pull in the most students from their state?

2. Among the different types of college (major public, major private, HBCU, etc), what effect does adjoining states have on them?

3. What type of school (major public, major private, HBCU, etc) pulls the most from states beyond itself and immediate region?

4. What type of school (major public, major private, HBCU, etc) pulls the most international/non-domestic students?

C. Questions for Individual Schools by College Group

1. What universities see the biggest in-state student population?

2. What universities see the biggest percentage of students from their immediate region?

3. What universities see the biggest percentage of students from outside of their immediate region?

4. What universities see the biggest percentage of students from outside of the United States?

3.3 Summary

In order to best shape the research, a set of goals were created for the project. Overall, we wanted to explore migration, both on a state-to-state basis, as well as an individual university basis. All of this would help determine common migration patterns that occur in the United States. With all of this in mind, a set of research questions were created and are being used to shape the results of the research.

CHAPTER 4: DATA ANALYSIS METHODOLOGY

4.1 Finding the Raw Data

Using the Urban Institute College Data Portal (*Educational Data Portal*, n.d.), we created a request for a large amount of raw data from their database collective. The most recent, full dataset from 2018, so that is the year that we decided to pull from. The dataset contained the following variables:

- Unit ID
    - This variable contained the unique identification number for each university as assigned by IPEDS.
- Institution Name
    - This variable is the full name of the university as put in IPEDS.
- Institution State
    - This variable is the state that the university is located in as input in IPEDS. The possible options for this variable are all 50 states.
- Institution Control
    - This variable is how a university is funded as input in IPEDS. The possible options for this variable are Private-not for profit and Public.
- Institution Level
    - This variable is what undergraduate degrees are offered as input in IPEDS. The possible options for this variable are “At least two but less than four years” and “Four or more years”.
- State of Residence
    - This variable is the state of residence for the given freshman. The possible options for this variable are all 50 states, American Samoa, Federated States of Micronesia, Foreign countries, Guam, Marshall Islands, Northern Marianas, Outlying areas total, Palau, Puerto Rico, Residence not reported (balance line), State unknown, Total, US total, and Virgin Islands.
- Type of Freshman
    - This variable is how the type of freshman students that are enrolled are distinguished. The possible options for this variable are “Graduated from HS in the past 12 months” and “Total”.
- Enrollment in the Fall
    - This variable is the count of freshmen enrolled during the fall.

4.2 Creating the Usable Data

To get from the raw data csv files, a number of cleaning steps were done. In the original raw data files, it was not completely uncommon for some of the variables to be left blank. Most of the time this came in the form of missing institution control or level spaces. To start, information

from the file was combined with other IPEDS data to fill in any missing institutional information. To help with future data slicing, the flags were added to the data to help determine different institutional categories.

From there, the data was transformed into Excel files with one line per institution or state, grouped using the grouping flags from before. At this point, we also considered doing analysis based on fixed regions and thus a file was created using that as a slice. It was something that was determined to be out of the scope of the project at this time. Once the files were ready, they were sent over for analysis.

4.3 Data Slicing

In order to best group the universities for comparison, a series of college groups were set up and sliced among the data. The institution groups that were used were: Major Public Universities (Flagship/Land Grant), Major Private Universities, Other Public Universities, Other Private Universities, Historically Black Colleges and Universities (HBCU), Historically Hispanic Serving Institutions (HSI), Liberal Arts Universities, and USNews Top 150. In the end, we decided to cut the liberal arts university group from analysis, leaving us with the other seven categories.

4.3.1 Major Public Universities

The Major Public Universities contain 76 entries. These are all public state universities and can fall under the category of either a state's flagship university or a land-grant university. There are also a few other major public state universities in the list, if it fits. There is at least one entry for each state, but no more than two per state.

4.3.2 Major Private Universities

The Major Private Universities contain 83 entries. These are institutions that are considered privately funded by IPEDS and are from the US News top 100 universities in the United States (Franklin, 2022).

4.3.3 Other Public and Private Universities

The Other Public and Private Universities are two files with 385 and 442 entries respectively. These are universities that are considered either publicly or privately funded and they are *not* in the US News top 150 ranking.

4.3.4 HBCUs and HSIs

The HBCUs and HSI are two files with 79 and 146 entries respectively. These are universities that have historically and still serve specific demographic groups, HBCUs serve black students

and HSI serve hispanic students. These groups may have overlap between the groups above, as a university can be both an HBCU/HSI and a major or other university.

4.3.5 US News Top 100

The USNews Top 100 has 102 responses. These entries are in the US News top 100 ranked universities and as such has overlap with every other list stated above.

4.4 Data Analysis

In order to both hit the research objectives and answer the questions, a few basic analyses were done on the data.

To begin, each file was scanned for any anomalies. That could mean any place that there were zeros or places where percentages were at 100. These were rare, and often in areas that ultimately did not fit any goal or questions hit.

Then the search for maximums and minimums were done on each file and placed into ranked order in separate tables. Top and bottom 10 states and universities in various metrics were separated out to see.

On a state-to-state basis, graphs were created ranking all 50 states and their various metrics, like in-state, out-of-state, and non-domestic student percentages.

Finally, on a college group basis, calculated totals were used to compare college groups to one another.

4.5 Definition of Important Terms and Knowledge

In the research questions, answers, and dataset a variety of terms have been taken on to fit the needs and meaning of the research. **Students**, in this context, mean first-time, first-year college students that are enrolled in the Fall of 2018. **In-State**, in this context, means students that go to school in the same state as their primary residence. **Adjoining states**, in this context, mean the states that directly border the state being talked about. For most states, that is the case, but there are a few circumstances where states do not share a direct border, but instead share in the sphere of influence. For example, the adjoining of DC and Pennsylvania and the adjoining of Massachusetts and Maine. Figure 3-1 is a copy of the adjoining state table that was used to calculate those numbers.

Immediate region is the region that is created by the state and their adjoining states. This is all determined geographically. **Other US**, in this context, means any states or US territories that are not the state in question or a state that is a part of their immediate region. And finally, **non-domestic**, in this context, means all countries outside of the United States, the same as international.

AK		MS	TN AL LA AR
AL	TN GA FL MS	MT	ND SD WY ID WA
AR	MO TN MS LA TX OK	NC	VA SC GA TN
AZ	UT CO NM CA NV	ND	MN SD MT
CA	OR NV AZ	NE	SD IA MO KS CO WY
CO	WY NE KS OK NM AZ UT	NH	ME MA VT
CT	MA RI NY	NJ	NY DE PA
DC	MD PA	NM	CO OK TX AZ UT
DE	PA NJ MD	NV	ID UT AZ CA OR
FL	GA AL	NY	VT MA CT NJ PA
GA	NC SC FL AL TN	OH	PA WV KY IN MI
HI		OK	KS MO AR TX NM CO
IA	MN WI IL MO NE SD	PA	NY NJ DE MD WV OH VA DE
ID	MT WY UT NV OR WA	RI	MA CT
IL	WI IN KY MO IA	SC	NC GA
IN	MI OH KY IL	SD	ND MN IA NE WY OH VA DC
KS	NE MO OK CO TX	TN	KY VA NC GA AL MS AR MO
KY	OH WV VA TN MO IL IN	TX	OK AR LA NM KS
LA	AR MS TX	UT	ID WY CO NM AZ NV
MA	NH RI CT NY VT ME	VA	MD DC NC TN KY WV PA
MD	OA DE DC VA WV	VT	NH MA NY
ME	NH MA	WA	ID OR MT
MI	OH IN WI	WI	MI IL IA MN
MN	WI IA SD ND	WV	PA MD VA KY OH
MO	IA IL KY TN AR OK KS NE	WY	MT SD NE CO UT ID

Figure 3-1: Adjoining States Lookup Table

4.6 Summary

In summary, the raw data was processed and cleaned in order to be used for analysis. The variables that were given in the raw data were used to calculate variables in the final Excel sheets. The data was then taken and given a variety of analysis steps in order to answer the research questions presented at the heart of this project.

CHAPTER 5: DATA ANALYSIS RESULTS

With a comprehensive set of data and list of research questions, data analysis began. The goal was to answer the questions given. This chapter contains all the answers and meaningful analysis.

5.1 Results by State

5.1.1 What state retains the most of their high school graduates?

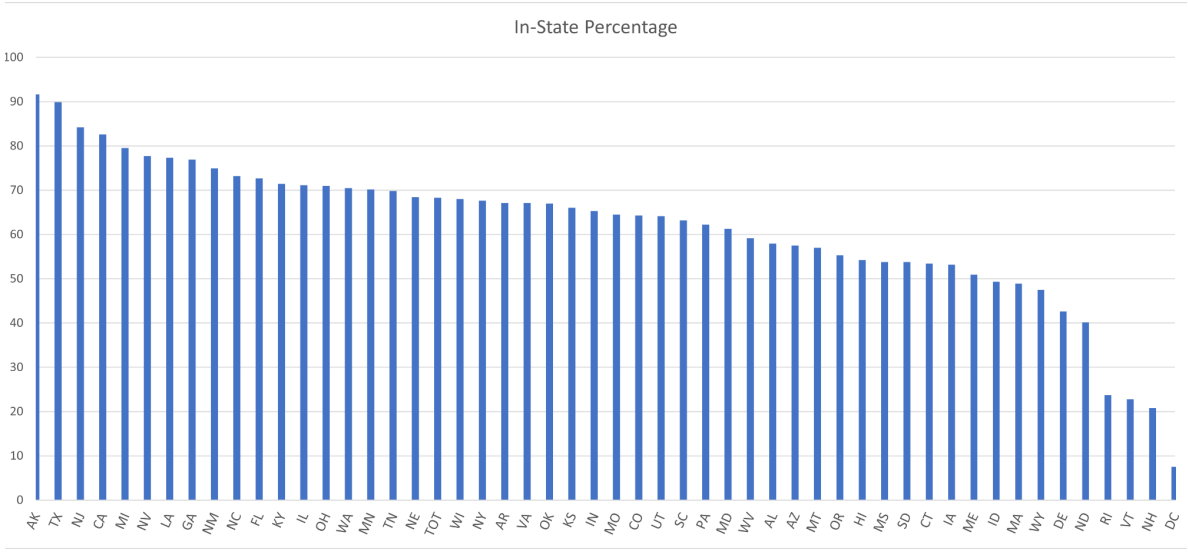

Figure 5-1: Percentage of In-State Students

According to **Figure 5-1**, Alaska retains the most of their high school graduates with 91.6% of their high school graduates staying in state to go to college. This is possibly due to the low population of Alaska, meaning the low number of high school students in the state and general. The second most state is Texas with 89.9% of their high school students staying in state to go to college.

5.1.2 What state loses most of their high school graduates?

According to **Figure 5-1**, DC only manages to keep 7.5% of their students "in-state" for college. This again could be attributed to the low population of the District of Columbia and their low population of high school graduates in general. The second state with the least amount of in-state students is New Hampshire. New Hampshire only manages to keep about 20.4% of their students to go to colleges in-state.

5.1.3 When you factor in students from adjoining states, do any states with low in-state percentages rise to the top?

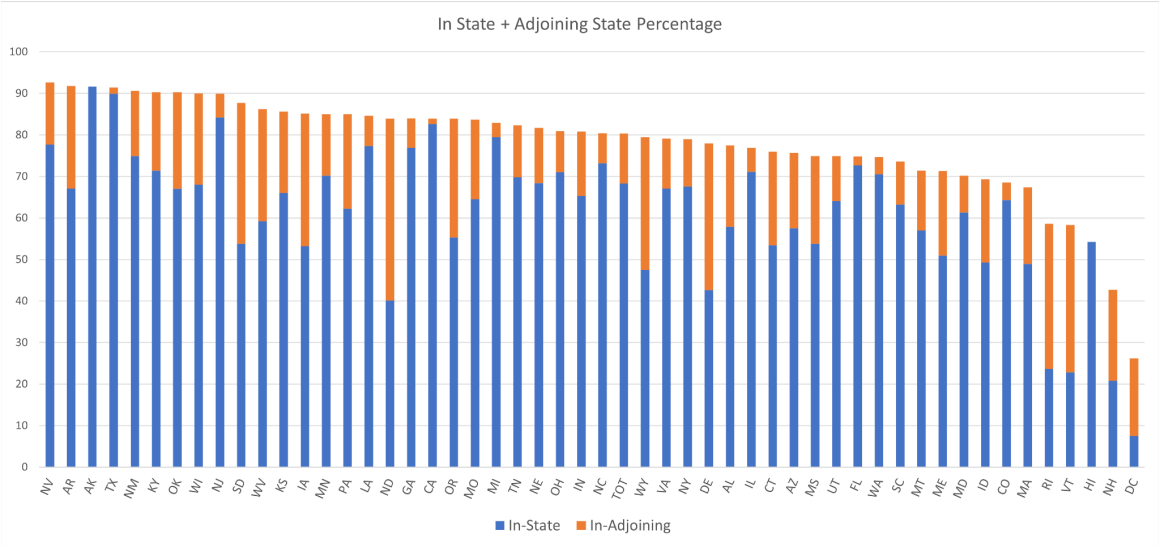

Figure 5-2: In-state + Adjoining State Percentages

When looking at **Figure 5-2**, it is shown that states like North Dakota and Delaware with about 40% in-state students, rise in the rankings with a good percentage of adjoining state students. North Dakota was particularly in the bottom few states in **Figure 5-2**, But has risen to the top half using the addition of adjoining state students.

5.1.4 What state manages to pull in large amounts of students from their adjoining states?

Looking at **Figure 5-2**, states like North Dakota and Delaware have high percentages of adjoining states students. North Dakota has about 43.8% and Delaware has about 35.4% of students coming from in-state. Two of the highest percentages on the graph.

5.1.5 Do states like Hawaii and Alaska with no adjoining states see more or less in-state students?

Looking at both **Figure 5-2** and **5-1**, It is seen that Alaska is among the top three with just in-state students alone. Hawaii lands among the bottom three with just in-state students alone. As they have no adjoining states, both being outside of the domestic US, there is no additional benefit that can be seen from adding either of those metrics.

It is also worth noting that DC has a surprising amount of adjoining state students. Their in-state percentage is 7.5%, but their adjoining State percentage is 18.7%, a nearly 250% increase.

5.1.6 What state attracts the most international/non-domestic students?

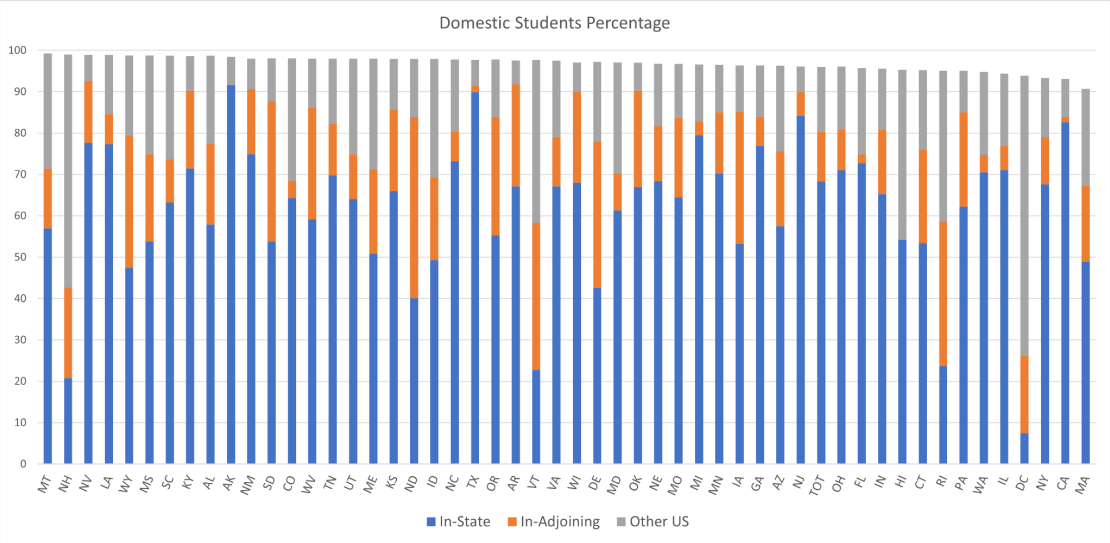

Figure 5-3: Percentage of All Domestic Students

Massachusetts manages to bring in the most non-domestic students to their state for college, according to **Figure 5-3**. 9.3% of all of the college students in the state came from outside of the US originally. This is possibly due to the high number of influential universities in the state of Massachusetts.

On the other side it is shown that Montana has the least amount of non-domestic students. 99.4% of their students come from the United States.

5.2 Results by College Group

5.2.1 What university groups (major public, major private, HBCU, etc) pull in the most students from their state?

University Group	Percentage of In-State Students
Major Public Universities	65.2%
Major Private Universities	30.3%
Other Public Universities	87.0%
Other Private Universities	57.1%
Historically Black Colleges and Universities	60.8%
Historically Hispanic Serving Institutes	90.5%
US News Top 100	56.8%

Figure 5-4: In-state Percentages

According to **Figure 5-4**, Historically hispanic-serving institutions have the highest percentage of in-state students with 90.5%. This is possibly due to their low total size in comparison to the other university groups. Next and also expected to have a high percentage is the other public universities category with 87.0%. These universities tend to only have reach within their state, making these high percentages believable.

5.2.2 Among the different types of college (major public, major private, HBCU, etc), what effect does adjoining states have on them?

University Group	Percentage of Adjoining State Students
Major Public Universities	13.9%
Major Private Universities	18.3%
Other Public Universities	6.4%
Other Private Universities	18.3%
Historically Black Colleges and Universities	15.9%
Historically Hispanic Serving Institutes	2.3%
US News Top 100	10.7%

Figure 5-5: College Group Percentage of Adjoining State Students

Looking at **Figure 5-5**, it has shown that Major and other private universities pull the most from their adjoining States. This is an interesting find as an initial inference concluded that it might have been public universities instead. It's also worth noting that coming in third is Historically Black Colleges and Universities, another interesting find that was different from initial hypotheses.

5.2.3 What type of school (major public, major private, HBCU, etc) pulls the most from states beyond itself and immediate region?

University Group	Percentage of Other US Student
Major Public Universities	16.1%
Major Private Universities	41.6%
Other Public Universities	4.7%
Other Private Universities	21.3%
Historically Black Colleges and Universities	21.9%
Historically Hispanic Serving Institutes	4.1%
US News Top 100	23.7%

Figure 5-6: College Group Percentage of Other US Students

Looking at **Figure 5-6**, it is shown that major private universities pull over 40% of their students from outside of their state and immediate region. Following behind, yet not all that close, is Historically Black Colleges and Universities. As explained many times before, it possibly has something to do with the name recognition of these universities. Another note to be made is the fact that some of these universities are in places like Washington, DC which historically have low in-state student percentages to pull from.

5.2.4 What type of school (major public, major private, HBCU, etc) pulls the most international/non-domestic students?

University Group	Percentage of Non-Domestic Students
Major Public Universities	4.8%
Major Private Universities	9.8%
Other Public Universities	1.9%
Other Private Universities	3.3%
Historically Black Colleges and Universities	1.4%
Historically Hispanic Serving Institutes	3.1%
US News Top 100	8.7%

Figure 5-7: College Group Percentage of Non-domestic Students

Looking at **Figure 5-7**, it is shown that major private universities get the most non-domestic students in comparison to the other university groups. This is possibly due to the name recognition that a lot of these universities have, making it so that they are highly sought-after from both students in and out of the United States.

5.2.5 What major public universities see the biggest in-state student population?

University	In-State Percentage
Texas A&M University	94.1%
University of Alaska Fairbanks	90.0%
University of Texas	88.9%
Florida State University	87.7%
University at Buffalo	87.4%
North Carolina State University	85.8%
University of Georgia	84.1%
University of New Mexico	83.8%
Rutgers University	83.7%
University of North Carolina	82.4%

Figure 5-8: In-State Percentage by Major Public University

Looking at **Figure 5-8**, Texas A&M has the highest percentage of first year in-state students. This is also not a case of a small sample size as Texas A&M is the largest university in the United States with over 67,000 students (Lynch, 2022). In our data their count was over 11,000. On the other hand, the second in the list, University of Alaska Fairbanks, has 90% in-state first year students, but that is coming from a count of only around 700 students.

5.2.6 What major private universities see the biggest in-state student population?

University	In-State Percentage
University of La Verne	89.6%
University of the Pacific	85.8%
University of St Thomas (MN)	77.7%
Duquesne University	72.5%
Clarkson University	66.0%
DePaul University	64.7%
Chapman University	62.3%
Stevens Institute of Technology	62.3%
Seton Hall University	61.8%
University of San Francisco	61.0%

Figure 5-9: In-State Percentage by Major Private University

Looking at **Figure 5-9**, University of La Verne gathers the most students from their state with 89.6% coming from California. Second is University of the Pacific, also in California with 85.8%. California universities take up four spots on this ranking, possibly due to the large population of the state in general.

5.2.7 What other public universities see the biggest in-state student population?

University	In-State Percentage
University of Connecticut-Waterbury	99.7%
California State University-Stanislaus	99.4%
California State University-Dominguez Hills	99.4%
California State University-San Bernardino	99.3%
University of Houston-Clear Lake	99.3%
CUNY Lehman College	99.2%
Georgia College & State University	99.1%
University of Houston-Downtown	99.1%
University of Connecticut-Hartford	99.0%
CUNY York College	99.0%

Figure 5-10: In-State Percentage by Other Public University

Looking at **Figure 5-10**, University of Connecticut-Waterbury has the most in-state students out of all the other public universities with 99.7%. Coming in second is a tie between California State University-Stanislaus and California State University-Dominguez Hills with 99.4%.

5.2.8 What other private universities see the biggest in-state student population?

University	In-State Percentage
United Talmudical Seminary	100.0%
St Joseph's College-Long Island	99.4%
Our Lady of the Lake University	98.9%
Texas Lutheran University	98.1%
Mount St Mary's University	97.5%
National Louis University	97.3%
Schreiner University	97.2%
Houston Baptist University	96.6%
University of St Thomas	96.6%
University of Mary Hardin-Baylor	96.3%

Figure 5-11: In-State Percentage by Other Private University

Looking at **Figure 5-11**, United Talmudical Seminary has the largest in-state student population as 100% of their students are from the state of New York. This list has a few interesting features. The first of which, is the overrepresentation of Texas universities, taking up six of the ten spots. This could be due to the large population of Texas in general. This is also the first list where almost all of the universities have religious affiliation. National Louis is not a faith-based institution, but is instead aligned with the military. Correlation is not causation, but an interesting find nonetheless.

5.2.9 What HBCUs see the biggest in-state student population?

University	In-State Percentage
Selma University	96.4%
Fayetteville State University	95.8%
Huston-Tillotson University	95.0%
Southern University-New Orleans	92.8%
Fort Valley State University	91.5%
Edward Waters College	90.2%
Prairie View A&M University	89.0%
Texas College	89.0%
Jarvis Christian College	88.2%
Winston-Salem State University	88.2%

Figure 5-12: In-State Percentage by HBCU

Looking at **Figure 5-12**, Selma University in Alabama has the largest population of in-state students with 96.4%. Coming in second is Fayetteville State University in North Carolina with 95.8%.

5.2.10 What HSIs see the biggest in-state student population?

University	In-State Percentage
Boricua College	100.0%
Cambridge College	100.0%
Carlos Albizu University-Miami	100.0%
Heritage University	100.0%
Humphreys University-Stockton and Modesto	100.0%
Polytechnic University of Puerto Rico-Miami	100.0%
Trinity International University-Florida	100.0%
University of California-Merced	99.7%
California State University-Dominguez Hills	99.4%
California State University-Stanislaus	99.4%

Figure 5-13: In-State Percentage by HSIs

Looking at **Figure 5-13**, there is a seven-way tie for first. Boricua College, Cambridge College, Carlos Albizu University-Miami, Heritage University, Humphreys University-Stockton and Modesto, Polytechnic University of Puerto Rico-Miami, and Trinity International University-Florida all have 100% of their students coming from in their own state. This is possibly due to the low number of students that these universities have in the first place, all have less than 150.

5.2.11 What major public universities see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
North Dakota State University	59.6%
South Dakota State University	44.1%
University of North Dakota	43.9%
University of Arkansas	43.6%
University of New Hampshire	38.1%
University of Vermont	37.9%
University of Delaware	37.0%
West Virginia University	35.9%
Iowa State University	34.9%
University of Oregon	33.9%

Figure 5-14: Adjoining State Percentage by Major Public University

Looking at **Figure 5-14**, North Dakota State University pulls the most from their surrounding region at 59.6% being from adjacent states. South Dakota State University comes in second with 44.1% from adjacent states. Considering that both North Dakota and South Dakota are on each other adjoining lists, it would not be wild to assume that they are possibly swapping students. With low populations each, these results do not surprise.

5.2.12 What major private universities see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
Drake University	49.6%
Marquette University	49.6%
Villanova University	47.6%
Quinnipiac University	45.1%
Samford University	43.6%
St Louis University	41.8%
Lehigh University	39.6%
University of Tulsa	36.0%
Catholic University of America	36.0%
Thomas Jefferson University	33.9%

Figure 5-15: Adjoining State Percentage by Major Private University

Looking at **Figure 5-15**, Drake University in Iowa pulls the most students from the adjoining states with 49.6% coming from their immediate region. Iowa has a larger number of adjoining states, which is a possible explanation for the near 50% of their students coming from their immediate region. In a tie for first is Marquette University in Wisconsin with 49.6%. Wisconsin does not have nearly as many adjoining neighbors, so this was a bit of a diversion from initial hypotheses.

5.2.13 What other public universities see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
University of Wisconsin-River Falls	50.1%
University of Wisconsin-Superior	39.9%
Chadron State College	37.6%
Keene State College	36.4%
West Liberty University	35.9%
University of Wisconsin-Stout	35.3%
Southern Oregon University	34.8%
Fort Lewis College	34.4%
Plymouth State University	33.6%
Shepherd University	32.7%

Figure 5-16: Adjoining State Percentage by Other Public University

Looking at **Figure 5-16**, University of Wisconsin-River Falls has just barely over 50% of their students coming from the Wisconsin immediate region. Wisconsin is represented again, as number two, another Wisconsin school, has 39.9% of their students coming from adjoining states.

5.2.14 What other private universities see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
St Ambrose University	69.4%
Bryant University	62.9%
Roger Williams University	60.9%
Salve Regina University	60.4%
University of Dubuque	58.5%
Wheeling Jesuit University	58.2%
St Michael's College	57.5%
Carthage College	57.1%
Springfield College	56.0%
University of Scranton	55.6%

Figure 5-17: Adjoining State Percentage by Other Private University

Looking at **Figure 5-17**, St Ambrose University in Iowa has the most students from their immediate region with 69.4%. This is yet another university from Iowa leading in the adjoining state students. In second is Bryant University in Rhode Island with 62.9%.

5.2.15 What HBCUs see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
Lincoln University	48.9%
Harris-Stowe State University	47.8%
Delaware State University	37.6%
Wiley College	39.7%
Langston University	33.1%
Tuskegee University	24.3%
Wilberforce University	45.5%
Kentucky State University	48.2%
Talladega College	22.8%
Tennessee State University	37.2%

Figure 5-18: Adjoining State Percentage by HBCU

Looking at **Figure 5-18**, Lincoln University in Pennsylvania pulls the most from their immediate region with 48.9% of students coming from adjoining states. About 1% behind is Harris-Stowe State University in Missouri with 47.8%.

5.2.16 What HSIs see the biggest percentage of students from their immediate region?

University	Adjoining State Percentage
Oklahoma Panhandle State University	40.9%
University of the Southwest	32.1%
Eastern University	28.9%
New Mexico State University	27.0%
Western New Mexico University	22.4%
Calumet College of St Joseph	21.6%
Warner Pacific University	21.5%
Dominican College of Blauvelt	21.4%
Eastern New Mexico University	20.4%
Nyack College	20.0%

Figure 5-19: Adjoining State Percentage by HSIs

Looking at **Figure 5-19**, Oklahoma Panhandle State University pulls the largest from their immediate region with 40.9%. Then University of the Southwest, the first of four New Mexico universities on this list, with 32.1%

5.2.17 What major public universities see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
University of Alabama	45.3%
University of Colorado	43.2%
University of Mississippi	42.0%
University of Michigan	39.6%
University of Vermont	38.7%
Montana State University	37.7%
University of Hawaii	35.3%
University of South Carolina	34.1%
Clemson University	29.0%
University of Rhode Island	27.4%

Figure 5-20: Other US State Percentage by Major Public University

Looking at **Figure 5-20**, University of Alabama pulls 45.3% of their students from outside their state and immediate region. This is the most of any of the major public universities. Coming in a close second is University of Colorado with 43.2%.

5.2.18 What major private universities see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
Gallaudet University	77.6%
American University	77.1%
Tulane University	76.8%
Howard University	76.0%
Dartmouth College	74.5%
George Washington University	72.5%
Georgetown University	71.9%
Johns Hopkins University	71.2%
Elon University	71.1%
Massachusetts Institute of Technology	70.9%

Figure 5-21: Other US State Percentage by Major Private University

Looking at **Figure 5-21**, Gallaudet University in Washington, DC is first with over 77.6% of students coming from areas other than the DC immediate region. Second place is also from DC with 77.1% is American University. DC is overrepresented in this list as five of the ten schools in that list are from DC. DC has the lowest number of students that stay in state, so it fits that their universities would also have a high percentage of students from outside of the state and adjoining states.

5.2.19 What other public universities see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
United States Merchant Marine Academy	75.1%
University of Maryland-University College	54.2%
Coastal Carolina University	48.0%
Arizona State University-Skysong	43.3%
College of Charleston	39.7%
Citadel Military College of South Carolina	33.3%
South Dakota School of Mines and Technology	32.1%
Evergreen State College	30.1%
Boise State University	27.9%
Miami University	25.3%

Figure 5-22: Other US State Percentage by Other Public University

Looking at **Figure 5-22**, The United States Merchant Marine Academy pulls over 75% of their students from across the country. They are not the only military aligned school in the top ten as the Citadel Military College of South Carolina ranks sixth with 33.3% of their students coming from outside the immediate South Carolina region.

5.2.20 What other private universities see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
Southern New Hampshire University	80.5%
Embry-Riddle Aeronautical University-Worldwide	79.9%
Eckerd College	77.8%
Brigham Young University-Hawaii	76.5%
Southern Virginia University	73.9%
University of Tampa	73.4%
Loyola University Maryland	67.4%
High Point University	62.6%
Franciscan University of Steubenville	59.6%
Colorado Christian University	58.0%

Figure 5-23: Other US State Percentage by Other Private University

Looking at **Figure 5-23**, Southern New Hampshire University pulls 80.5% of their students from across the country. This is most likely explained by the fact that SNHU is a well advertised and well respected online university, as well as in-person. Coming second is Embry-Riddle Aeronautical University-Worldwide, another well respected in-person and online university, with 79.9%.

5.2.21 What HBCUs see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
Howard University	76.0%
Morehouse College	63.5%
Spelman College	62.9%
Clark Atlanta University	61.1%
Fisk University	59.8%
Oakwood University	50.8%
Hampton University	47.8%
Xavier University of Louisiana	47.2%
Talladega College	45.7%
Jackson State University	43.9%

Figure 5-24: Other US State Percentage by HBCU

Looking at **Figure 5-24**, Howard University, following the trend of DC schools topping the immediate region rankings, is first with 76.0%. Second is Morehouse College in Georgia with 63.5%. This list is full of colleges that one might know by name, or universities that people immediately associate with HBCUs, which could explain their ranking on this list.

5.2.22 What HSIs see the biggest percentage of students from outside of their immediate region?

University	Other US Percentage
Polytechnic University of Puerto Rico-Orlando	100.0%
Union Institute & University	80.0%
Nova Southeastern University	36.0%
Barry University	35.3%
Life Pacific College	29.7%
Concordia University-Chicago	25.6%
Roosevelt University	23.4%
University of Arizona	22.2%
Nyack College	20.5%
Arizona State University-Downtown Phoenix	18.3%

Figure 5-25: Other US State Percentage by HSIs

Looking at **Figure 5-25**, Polytechnic University of Puerto Rico-Orlando tops the list with 100% of their students coming from outside the immediate Florida region. This is possibly due to both this university being a satellite campus for a Puerto Rican university and the small number of students they have in general. In second is Union Institute & University in Ohio with 80.0%.

5.2.23 What major public universities see the biggest percentage of students from outside of the United States?

University	Non-domestic Percentage
University of Washington	16.5%
Stony Brook University	14.4%
University of California-Berkeley	14.1%
University of Illinois	12.5%
Georgia Institute of Technology	12.4%
Ohio State University	11.9%
University of California-Los Angeles	11.3%
University at Buffalo	10.7%
University of Massachusetts	10.5%
University of Connecticut	10.2%

Figure 5-26: Non-domestic Percentage by Major Public University

Looking at **Figure 5-26**, University of Washington has the most non-domestic students at 16.5%. Stony Brook University in New York is second with 14.4%. Most of the universities on this list come from the coasts, only schools not from the coast are the middle three, University of Illinois, Georgia Institute of Technology, and Ohio State University.

5.2.24 What major private universities see the biggest percentage of students from outside of the United States?

University	Non-domestic Percentage
University of Rochester	37.3%
New School	28.8%
Boston University	23.8%
New York University	19.0%
Brandeis University	19.0%
Carnegie Mellon University	18.2%
Emory University	17.8%
University of Chicago	17.2%
Northeastern University	16.2%
Rensselaer Polytechnic Institute	15.6%
University of Rochester	37.3%

Figure 5-27: Non-domestic Percentage by Major Private University

Looking at **Figure 5-27**, University of Rochester in New York has the most non-domestic students in comparison to any of the major private universities with 37.3%. About 9% away in second is New School, also in New York with 28.8%.

5.2.25 What other public universities see the biggest percentage of students from outside of the United States?

University	Non-domestic Percentage
Pennsylvania State University-Penn State Harrisburg	28.8%
Pennsylvania State University-Penn State York	27.7%
Pennsylvania State University-Penn State Abington	26.4%
Pennsylvania State University-Penn State Erie-Behrend College	15.7%
University of California-Santa Cruz	15.5%
University of Wisconsin-Superior	13.8%
Florida International University	12.5%
University of Arkansas-Little Rock	8.8%
Minot State University	8.6%
University of Massachusetts-Boston	8.5%

Figure 5-28: Non-domestic Percentage by Other Public University

Looking at **Figure 5-28**, Pennsylvania State University-Penn State Harrisburg has the most non-domestic students at 28.8%. Pennsylvania State University and its satellite campuses take up the top four spots in this ranking, all above 15% non-domestic students.

5.2.26 What other private universities see the biggest percentage of students from outside of the United States?

University	In-State Percentage
Pratt Institute	37.2%
Rhode Island School of Design	33.4%
School of the Art Institute of Chicago	30.1%
Berklee College of Music	29.2%
Maryland Institute College of Art	27.4%
Babson College	24.8%
Otis College of Art and Design	21.7%
Ringling College of Art and Design	20.9%
University of the Ozarks	19.5%
Bentley University	18.9%

Figure 5-29: Non-domestic Percentage by Other Private University

Looking at **Figure 5-29**, the Pratt Institute of New York pulls the most students from outside the US with 37.2% of their students being non-domestic. Second, is the Rhode Island School of Design with 33.4% of their students being non-domestic.

5.2.27 What HBCUs see the biggest percentage of students from outside of the United States?

University	Non-domestic Percentage
Florida Memorial University	30.3%
Langston University	17.9%
Oakwood University	6.0%
University of the District of Columbia	5.2%
Central State University	4.9%
Alcorn State University	4.2%
St Augustine's University	3.9%
Wiley College	3.8%
Philander Smith College	3.7%
Shaw University	3.6%

Figure 5-30: Non-domestic Percentage by HBCU

Looking at **Figure 5-30**, Florida Memorial University has the largest percentage of students from outside of the US with 30.3%. Coming in second is Langston University in Oklahoma with 17.9%.

5.2.28 What HSIs see the biggest percentage of students from outside of the United States?

University	Non-domestic Percentage
University of California-Irvine	20.3%
Marymount California University	19.9%
University of California-Santa Cruz	15.5%
University of California-Santa Barbara	13.9%
Florida International University	12.5%
Nyack College	10.0%
Texas Wesleyan University	8.0%
University of the Southwest	7.7%
University of Illinois-Chicago	6.6%
University of La Verne	5.9%

Figure 5-31: Non-domestic Percentage by HSIs

Looking at **Figure 5-31**, California reigns supreme, not only holding five out of the ten spots, but also the top four rankings. University of California-Irvine is first with 20.3% of students coming from outside of the US. Marymount California University comes in a close second with 19.9%.

5.3 Summary

This chapter is packed full of detailed results. To summarize, here are a few interesting points worth noting. First, when looking at the data from state to state, states like Alaska and Texas rise to the top having high percentages of in-state students. These two states are wildly different, as Texas has a high population of students to begin with, while Alaska does not. Even when adjoining states are factored, which Alaska has none, they both managed to stay in the top ten. This transfers when looking at individual colleges as well. States like Texas, California, and New York all are over-represented in the categories and university groups. The one big exception is the overabundance of DC colleges when looking at the percentage of other US students. DC, having a low population of students to begin with, pulls heavily from all across the country. Their schools are often name brand and prestigious which could explain this high metric and over-representation. When laid out, there are interesting trends to be found that lend itself both to the influence of universities and the movement of students across state lines.

CHAPTER 6: SURVEY OBJECTIVES AND DESIGN

6.1 Survey Objectives

As we explored the data that was available on a large and public basis, we began to wonder what effect location had on students as they decided where they wanted to go to college. This started our process of designing a survey element of the research, gaining a more personal and inside perspective on what students were thinking.

The goals we hoped to accomplish were overall to see how location, both relative (in factor Distance between School and Home) and absolute (in factor Location) stacked up in comparison to the other factors given to respondents to choose.

In addition, we wanted to see how location compared to other factors when the data is sliced along two major elements. First, would location matter more to students that stayed in-state, in the immediate region, or out-of-state? By slicing along the residential status of students, we can see what sorts of impact location has on students. Second, we wondered if the COVID-19 pandemic had any effect on how students viewed location's influence in their college decision. By slicing by year group, we can compare the level upon which different generations of students viewed location in their decision making process.

Ultimately, the survey was the best way to collect data of our own in an effort to better understand what influence migration has on students in an effort to begin to work out motivation.

6.2 Survey Creation

Using the survey we wanted to reach out to students personally and find out what factors they think were the most important when deciding where they went to college. We also wanted to collect information to see where the students that took our survey live and go to college. Using this information we can try to create our own categories of students that live in-state, out of state, and from other areas of the country.

Using background research, we constructed a comprehensive list of factors to include in the study. While we were mostly interested in the location factors, we wanted to make sure that we covered as much of the decision process as possible. Anything that could not fit in any other factor was clumped into the Other Factors section.

Finally, we researched to see how many points we could have on our likert scale. By choosing a four point, we force respondents to make a decision that is not neutral. That was important as we did not want neutral responses. The likert responses that were used in the survey were: Not at all Influential, Weakly Influential, Influential, and Strongly Influential.

We used the background knowledge to design a questionnaire that was both effective for the respondent and for us to analyze data.

6.3 Survey Questions

The survey contained the following questions and possible responses:

1. What is your perspective in taking this survey?
    a. Current College Student (answering based on *your* decision)
    b. Former College Student (answering based on *your past* decision)
    c. Parent/Guardian of Student (answering based on *your child's* decision)
2. When was this decision made?
    a. During calendar years 2020-2021
    b. During calendar years 2015-2019
    c. During calendar years 2005-2014
    d. During calendar years 2004 or earlier
3. Please rank these factors based on how influential they were to the college decision process
    a. Factors
        i. Academic Quality/Educational Rigor
        ii. Campus Culture
        iii. Cost/Financial Aid
        iv. Distance between School and Home
        v. Extracurriculars/Varsity Sports Involvement
        vi. Familial Relations/Legacy
        vii. Location of School
        viii. Program of Study
        ix. Return on Investment
        x. Other Factors
4. Where is the student's state of residence?
    a. US 50 States
    b. United States Territories
    c. International/Outside of US
5. What state is the student's college located?
    a. US 50 States
    b. United States Territories
    c. International/Outside of US
6. As appropriate, elaborate on the factors of most and least important to the student's decision.
    a. Open ended response

6.4 Summary

Preemptive work was done to ensure that the survey created was effective for respondents taking it and for us as we gathered data. Using information found in background research, we made

thoughtful choices in the information we included. From deciding on the list of factors that respondents would rank, to determining the number of points in our Likert scale, decisions were made with research and context in mind. The survey overall fulfilled the objective of getting personal data from users. By using the survey we hoped to collect information that can be sliced to answer different questions regarding location's impact on the college decision process

CHAPTER 7: OVERALL SURVEY RESULTS

Before we can break down the data of the survey, it is best to observe the data overall to get a better understanding of the respondents overall. Below are the full answers given for each of the survey questions.

7.1 What is your perspective in taking this survey?

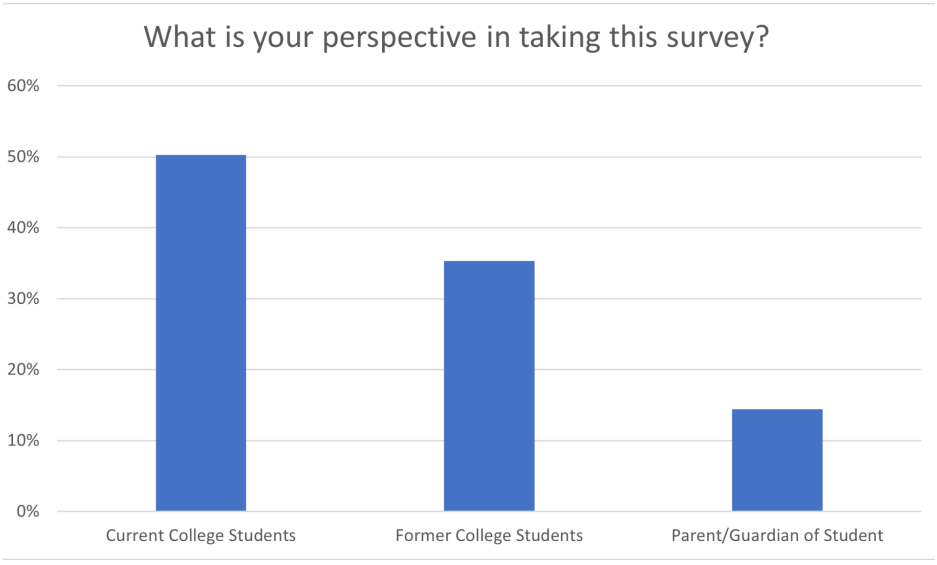

Figure 7-1: Survey perspectives

According to **Figure 7-1**, 50% of the respondents are current college students. The other 50% is split unevenly between former college students and the parents/guardians of students.

7.2 When was this decision made?

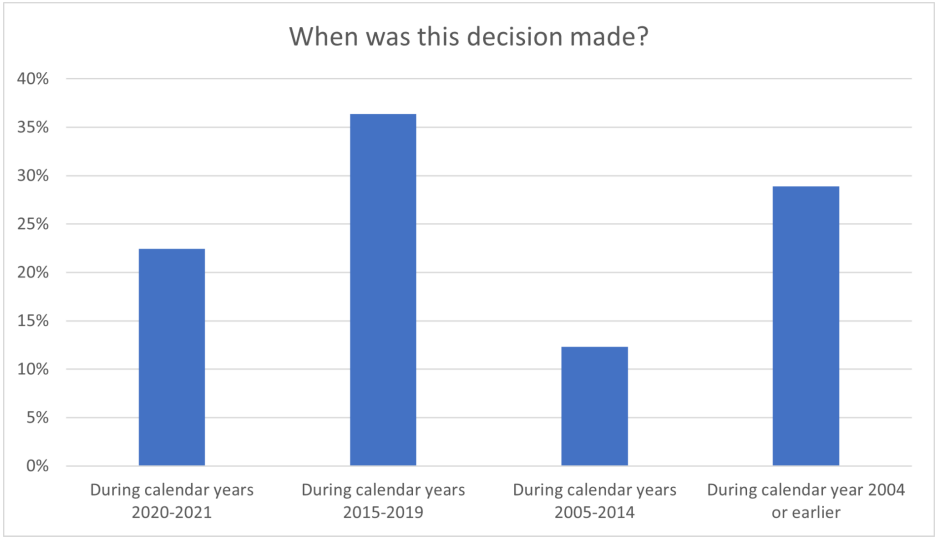

Figure 7-2: College decision years

Based on **Figure 7-2**, over 35% of respondents made their decision between 2015 to 2019, with just under 30% making that choice earlier than 2004.

7.3 Please rank these factors based on how influential they were to the college decision process

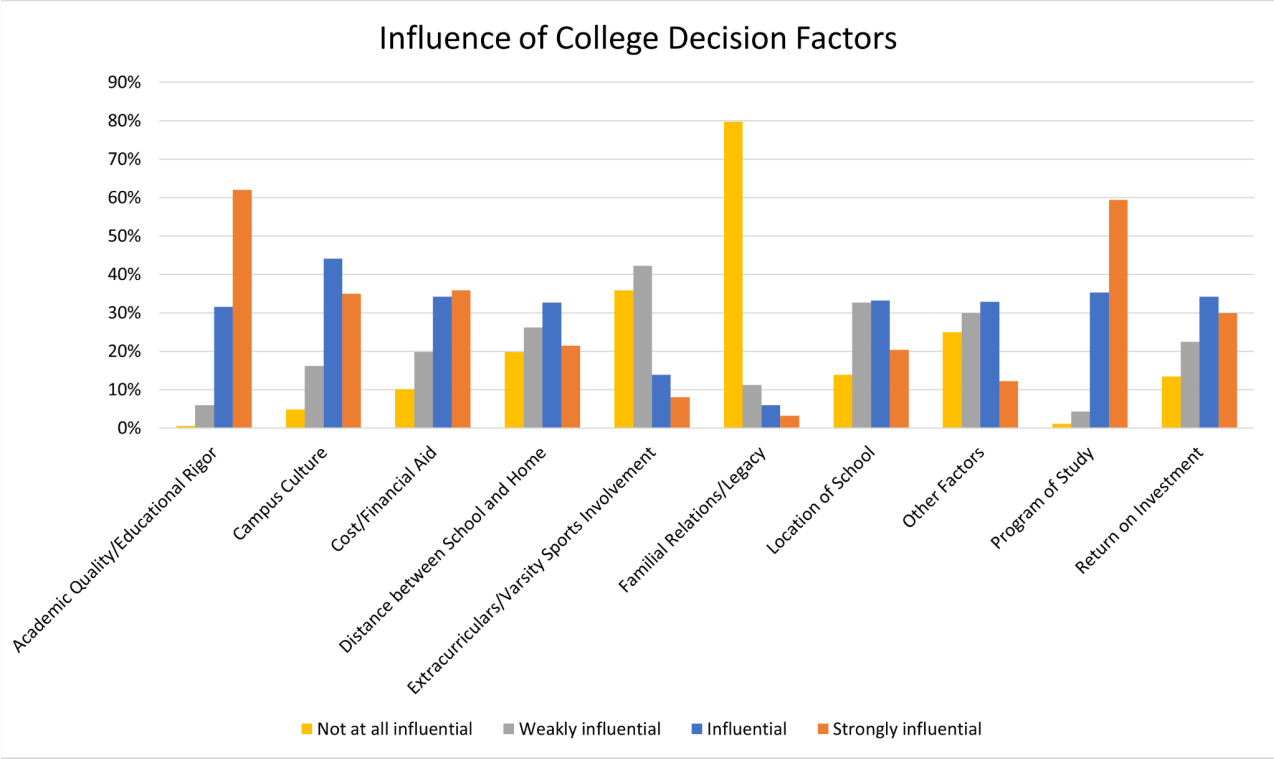

Figure 7-3: Influential scale of all factors over all respondents

Based on **Figure 7-3**, at a near tie Academic Quality/Educational Rigor and Program of Study have the most responses for being Strongly Influential. Familial Relations/Legacy was overwhelmingly the least influential factor, topping out with over 80% of the total responses on that factor.

	Overall Average
Academic Quality/Educational Rigor	3.55
Campus Culture	3.09
Cost/Financial Aid	2.96
Distance between School and Home	2.56
Extracurriculars/Varsity Sports Involvement	1.94
Familial Relations/Legacy	1.33
Location of School	2.60
Program of Study	3.53
Return on Investment	2.81
Other Factors	2.32

Figure 7-4: Averages of Factors on all Respondents

To calculate the average score that each factor received in the survey, we first assigned numerical values to the points of the scale. 1 was the minimum, being the Not at All Influential item. 2 was Weakly Influential; 3 was Influential. 4 was the maximum, being Strongly Influential. The answers were assigned these values, then an average was taken on them.

Using **Figure 7-4**, it is shown that the absolute distance factor, Location of School, had a 2.60 average and the relative distance factor, Distance between School and Home, had a 2.56 average. Together they manage to beat Legacy, Extracurriculars, and Other Factor, but are not as influential as Academic Quality or Campus Culture.

7.4 Where is the student's state of residence?

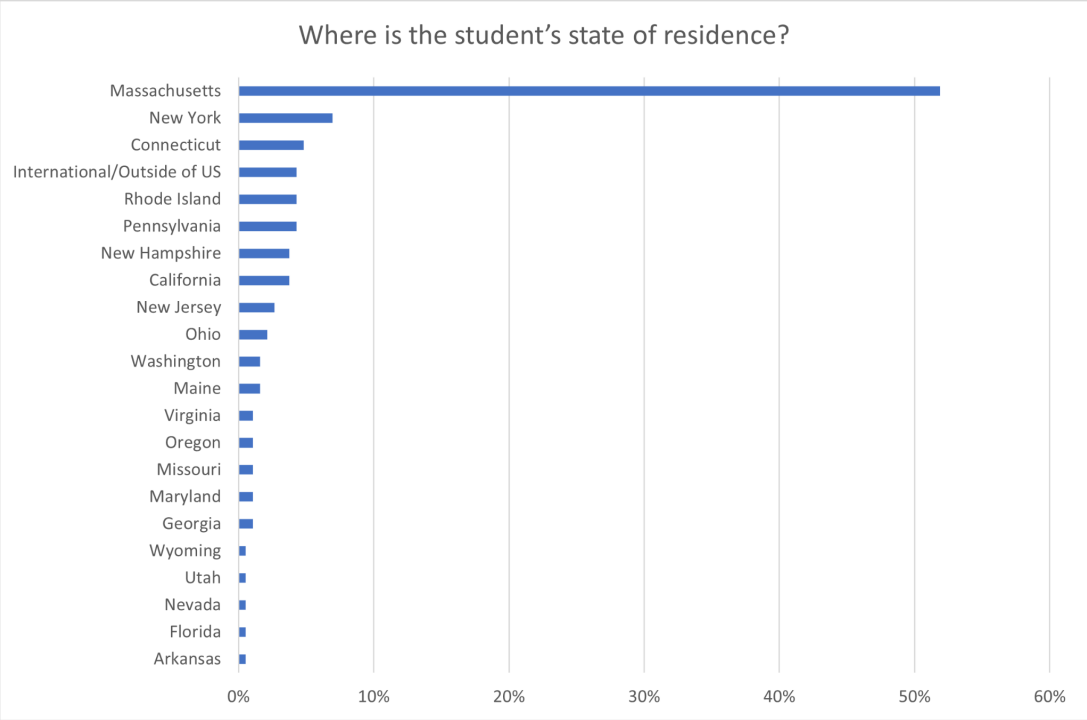

Figure 7-5: State of Residence

Looking at **Figure 7-5** above, it is shown that most of the respondents come from Massachusetts, with New York coming in second. This can be explained as most of the reach of the study came from blasts to students from the New England areas, specifically email blasts to students of WPI.

7.5 What state is the student's college located?

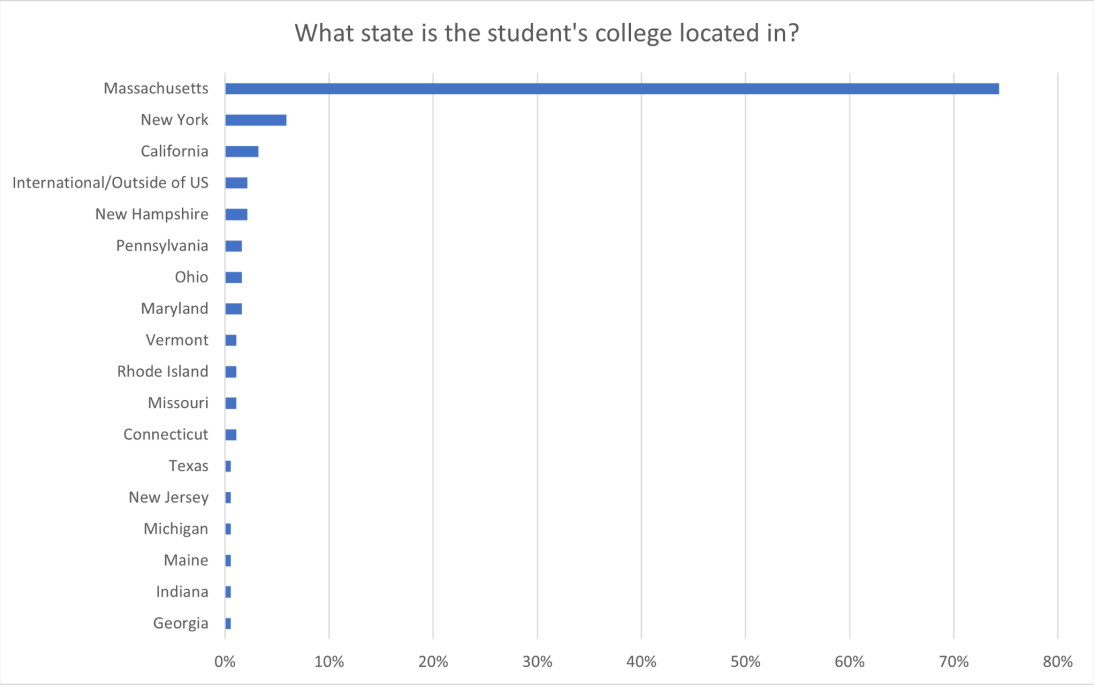

Figure 7-6: States of student college

Looking at **Figure 7-6**, most respondents come from Massachusetts with New York coming second. This, again, is explained by the fact that most of the sample size comes directly from the New England/east coast area.

7.8 Summary

By looking at the results overall of each question, we are able to paint a full picture of what the respondents of our survey were like. For example, there is an over-representation of Massachusetts respondents and those that went to colleges in the New England area. It is also shown that at an overall level location, both relative and absolute, have an average amount of influence on students in the college decision process. Looking at the results completely and fully is a good start as we begin to break down the results by the different data slices.

CHAPTER 8: SURVEY RESULTS BREAKDOWN

After seeing the results fully, it would be best to break them down by the two goals written for the research, by decision year and by residential status. The following charts contain the averages of each factor, first by the overall average, which is the same as **Figure 7-4**, then have the averages based on the different slices. Information about the location based factors have been bolded for readability.

8.1 Results by Decision Year

	Overall Average	Pre-2004	2005-2014	2015-2019	2020-2021
Academic Quality/Educational Rigor	3.55	3.39	3.35	3.71	3.62
Campus Culture	3.09	3.00	3.39	3.15	2.95
Cost/Financial Aid	2.96	2.85	3.09	2.91	3.10
Distance between School and Home	2.56	**2.35**	**2.74**	**2.54**	**2.74**
Extracurriculars/Varsity Sports Involvement	1.94	1.74	2.3	1.96	1.98
Familial Relations/Legacy	1.33	1.30	1.48	1.32	1.29
Location of School	2.60	**2.59**	**2.87**	**2.44**	**2.71**
Program of Study	3.53	3.50	3.26	3.60	3.60
Return on Investment	2.81	2.24	2.43	3.15	3.19
Other Factors	2.32	2.15	2.00	2.39	2.59

Figure 8-1: Average of Factors on all Respondents Sliced by Year Group

According to **Figure 8-1**, location, when compared to the other factors listed comment it's right around the middle overall. When broken down by your group there are a few interesting points to be made. For example, Location of School mattered more to people who made their decision between 2005 to 2014 than any of the other year groups with an average of 2.87. Another interesting point is that relative distance was a right behind cost and financial aid for those who made their decision before 2004.

Shifting to look at those who made their decision during the COVID-19 pandemic, it is seen that relative distance is more important to them than absolute distance. It is also more important than

the overall average and among the other year groups, tying with those who made their decision between 2005 and 2014.

8.2 Results by Residential Status

	Overall Average	In-State	In Adjoining State	In Other US
Academic Quality/Educational Rigor	3.55	3.47	3.46	3.61
Campus Culture	3.09	3.05	3.36	2.98
Cost/Financial Aid	2.96	3.24	2.80	2.48
Distance between School and Home	2.56	**2.94**	**2.60**	**1.98**
Extracurriculars/Varsity Sports Involvement	1.94	1.91	2.20	1.82
Familial Relations/Legacy	1.33	1.44	1.20	1.16
Location of School	2.6	**2.83**	**2.47**	**2.34**
Program of Study	3.53	3.47	3.49	3.64
Return on Investment	2.81	2.86	2.87	2.59
Other Factors	2.32	2.24	2.32	2.49

Figure 8-2: Averages of Factors on all Respondents Sliced by Year Group

According to **Figure 8-2**, there is a big difference in how each of the residential groups viewed location. For example, those that did not go to a school and their immediate region found Distance between School and Home the least important in comparison to the other residential groups. It was also among the bottom three factors overall for that residential group.

On the opposite end, students who stayed in state found Distance between School and Home to be the most important among the other residential groups. We see this trend again, yet less dramatically, with the absolute location factor. Again students from outside of their immediate region see it is less important in comparison to students who stayed in state.

8.3 Summary

The data is sliced by decision year group and residential status, it is seen that location, both relative and absolute, matter a bit more to different groups of people. Like in-state students care a

lot more about the distance between school and home than students who did not go to a college in their immediate region. There is also a small amount of additional influence that those that made their decision during the COVID-19 pandemic gave to location overall. In comparison to the overall results it is not large, but when broken up by decision year groups, it is noticeable.

CHAPTER 9: CONCLUSION

The goal of this project was to see where students start and where they end. By analyzing all of this data, it becomes clear that student migration is fluid. Students have a variety of motivations that lead them to choose the college that they end up at. Sometimes factors like educational rigor or extracurricular opportunities will bring the student all the way across the country for the college that fits their needs completely. Migration without motivation lacks the context that is truly needed and seeing the patterns of student movement.

A college's influence can be the result of many factors and is best represented by their reach from outside of their own state. Using the data that we collected and analyzed from secondary education data sources, we found that out of all the university groups, the major private universities pull the most students from outside their immediate region and also the United States. These universities are known for their prestige and as such, students will travel states and states over to go to them, thus increasing their influence. This also goes for states, as Massachusetts pulls the most non-domestic students, a state with a high number of those prestigious major private universities.

A few additional findings from the data showed that Alaska, Texas, New Jersey, and California all have the most students that stay in state while DC has the least. When adjoining states are factored in, Alaska, which has none, still has a large number of students from their immediate region that go to Alaska colleges.

Over the last portion of the project, we researched the ways that students reside and choose their universities. We looked at how unexpected factors like the COVID-19 pandemic changed students' motivation in moving and what it is that they decided to move for. According to the survey data collected, those who made their decision during the pandemic found relative distance more important than the other year groups. Even without the pandemic, a student deciding to stay in-state or go out of state changes the way they view location in their college search. Those who stayed in-state found absolute and relative distance more important than any other residential group.

We do not know the next unexpected event that might change the way that Americans view higher education. But we do know that as long as college has been around, and as long as it will continue to be around, students will migrate across the country to find the university of their dreams.

CHAPTER 10: FUTURE WORK

In the future, this project can be expanded by picking up on the various areas that were deemed out of scope at the time.

Information exists and can be worked at to determine movement of college students between fixed, named regions, as opposed to the immediate geographical regions that are made up by adjoining states. By giving every state a region based on colloquial or formal definitions, movement can be tracked from one mass of land to another.

There are also some universities that have listed their online campuses in conjunction with their in-person locations. These students would obviously not be at the campus location, but instead would be located all across the country. How would this affect the number of in-state, out-of-state, and non-domestic students these universities have?

Magnifying in, work can be done to see the movement of students within states. At the beginning of this project we considered looking at the impact of small regional public schools, and seeing how they managed to pull students cut. We considered looking at it even from a municipal to county level. This is smaller in geographical scope, but would be larger and data scope as information would need to be more specialized.

There is also a significant gap in concise data regarding where alumni go after they graduate college. This would probably foresee itself in a large level data collection effort. Tracking the migration of alumni and comparing it to the migration of college students would be an interesting parallel to draw. It could even be studied semi-longitudinally, by seeing where a student starts, where they go to college, and then where they end up after they graduate.

It is hard to overlook the amount of damage that has been done to the US higher education system by the COVID-19 pandemic. This project touches briefly on the impact that COVID-19 has had, but there is more to explore in this realm, both now in a during-COVID world, to later whenever we as a country can deem it to be post-COVID. Overall this project lends itself to much more work in the future.

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