Underserved Market Segments in

Higher Education

Submitted By: Eric Flottmann

As part of the Springboard Foundations of Data Science course I am enrolled it, I will be completing a Cap Stone Project that demonstrates my competence with the data science process and some of its tools. Please consider the proposal that follows for its relevance and adherence to the project guidelines.

# Background

I am a founder and Chief Operating Officer of a marketing company that operates in the post-secondary education space. My company uses internet based marketing tactics and contact centers to generate inquiries (leads) for post-secondary schools’ enrollment departments. In spite of the fact that we work with more than 800 post-secondary institutions, we still work with many potential students that we cannot match to a school. I would like to use data science to understand some of the patterns at play here. For instance, are these would-be students located in certain parts of the country? Are they interested in certain types of degree programs? Do they come from a particular age group or background? Or are our school clients simply over saturated with potential inquiries?

# Client

My client for this analysis is my company and the universities we serve. Identifying underserved market segments in this sector has several potential benefits to my organization. First, we may find patterns that suggest the addition of new lead buyers that we can recruit to fill gaps in our coverage. Additionally, we might find patterns that suggest new markets for our existing school clients to target. Finally, we may find new potential buyers of post-secondary education that are simply unserved by the marketplace as a whole. This discovery could fuel development of new courses or even modalities for serving these markets.

# Dataset

The data set I will use to answer these questions is my company’s proprietary data. We have saved millions of individual search records and can cross reference these records with the specific school results (if any) that were returned for search and also determine which of those schools a user was interested in. For this study my focus will be on those searches that received no school results.

# Approach

After exporting the dataset from my company’s system and using R to clean it up (make it neat), I will perform some basic statistical analyses. That said, I believe the real meat and potatoes of this project involves clustering the data to determine which variables work together to create the outcomes I am interested in.

# Deliverables

Once the analysis is complete, I intend to deliver my findings as a report accompanied by a slide deck. In addition, I will provide my code and a detailed description of the analytical processes I used to complete the study.

# Conclusion

Assuming there are clear, actionable patterns to be found in the data, this study will be presented to the management team at my company. Additional, specific findings may be released directly to our client schools to assist them in their marketing practices and may even be released into the press. I am very much looking forward to completing this project both for the opportunity to learn new analytical skills and because of the relevance of the study results to my company’s day to day business.