



Analyzing the Distribution of a Tuition Assistance Program in Montgomery County, Maryland, US

Louis Christian Garcia

June 2025

[Link to Google Colab Notebook / Code](#)

Summary

The county of **Montgomery** in **Maryland, USA** has enacted a tuition assistance program for their local government employees that allows them to enroll in various schools and get their courses subsidized. This project aims to analyze the general trends and distributions of these courses and the enrollees involved. This research includes **1393** subsidized courses for government employees taking their Bachelors' degrees. On average, each course costs around **~700 USD** (*maximum cost: 2130 USD*).

This research project has identified that a huge majority (~20%) of the total courses subsidized were for business-admin majors. Furthermore, business majors are the most ubiquitous students in Montgomery's local government incentivizing future students to potentially study Business-Admin due to its flexibility. Consequently, political and government-related majors are surprisingly uncommon in the county.

Finally, most subsidized courses were offered by University of Maryland, a state-based university, but **community colleges** offered a huge majority of the courses as well. This opens the door to conversations and initiatives in improving community college education and student acquisition initiatives.

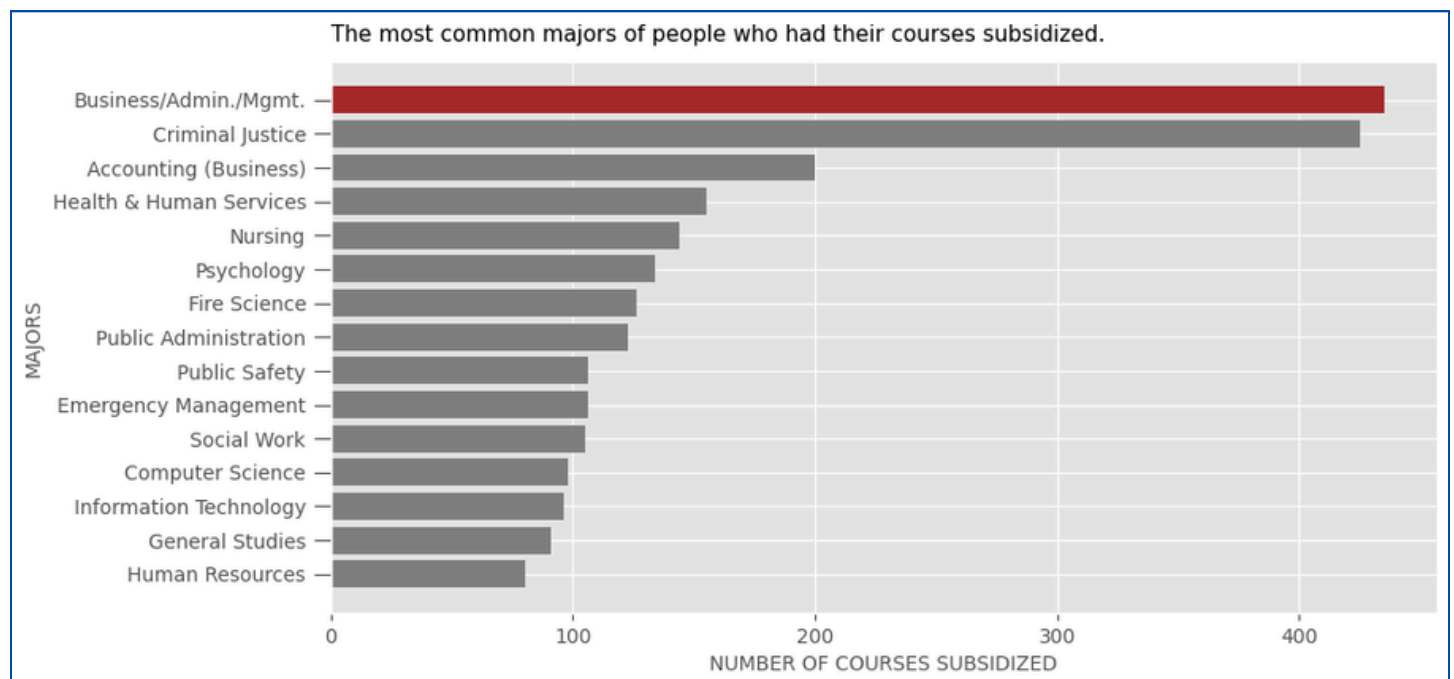
In the final analysis, Montgomery's pet project appears to be a success; incentivizing people who take up business-admin major as well as those who go to state-based universities. However, this research also raises salient points on reevaluating the courses and majors of the individuals in the tuition assistance program. There is room for enrolling in community colleges and taking up less popular courses such as the social sciences. This calls for increased diversity and plurality in Montgomery local government's education profile.

Majoring in Business-Admin or social sciences is highly flexible and universally applicable in Montgomery’s local government.

Distribution of majors in Montgomery’s tuition assistance program

We can divide the number of subsidized courses according to the majors of the individuals who took them. Figure 1.A shows the breakdown of these subsidized courses according to the most common majors of the people enrolled in the tuition assistance program. There is at least 600 people who majored in business-admin which is around **20%** of the total number of recorded enrollees.

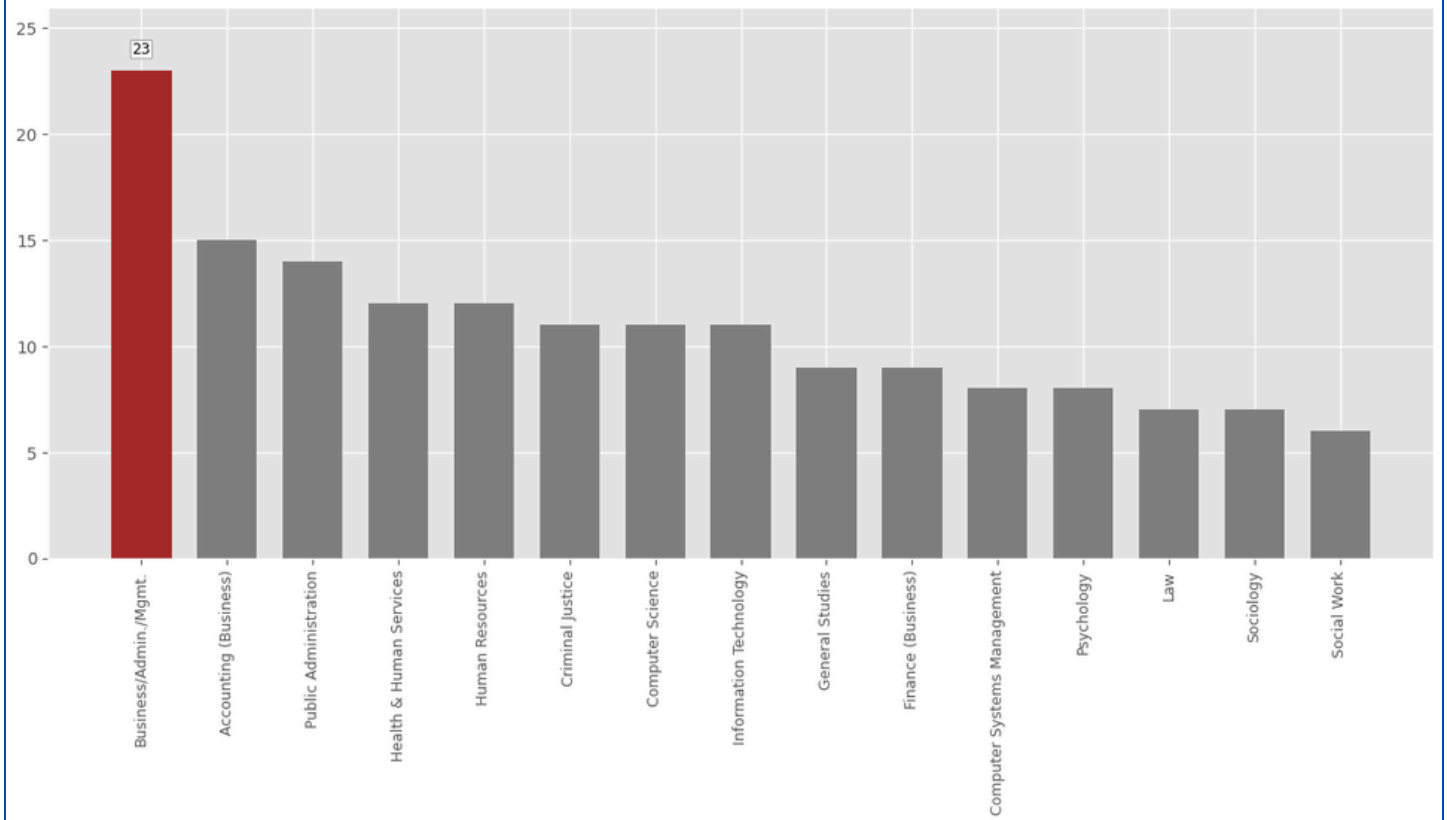
Figure 1.A



Some may find this surprising, but this is indicative of the near universal skills found in this major. This is especially true when we look at the second-most common majors of the enrollees: **criminal justice**. Although there is a huge chunk of enrollees majored in Criminal Justice, these individuals are concentrated in Montgomery’s police department. However, Business-Admin majors can be found in numerous departments in Montgomery’s circuit. Figure 1.B shows the total number of unique departments that employ the most common majors.

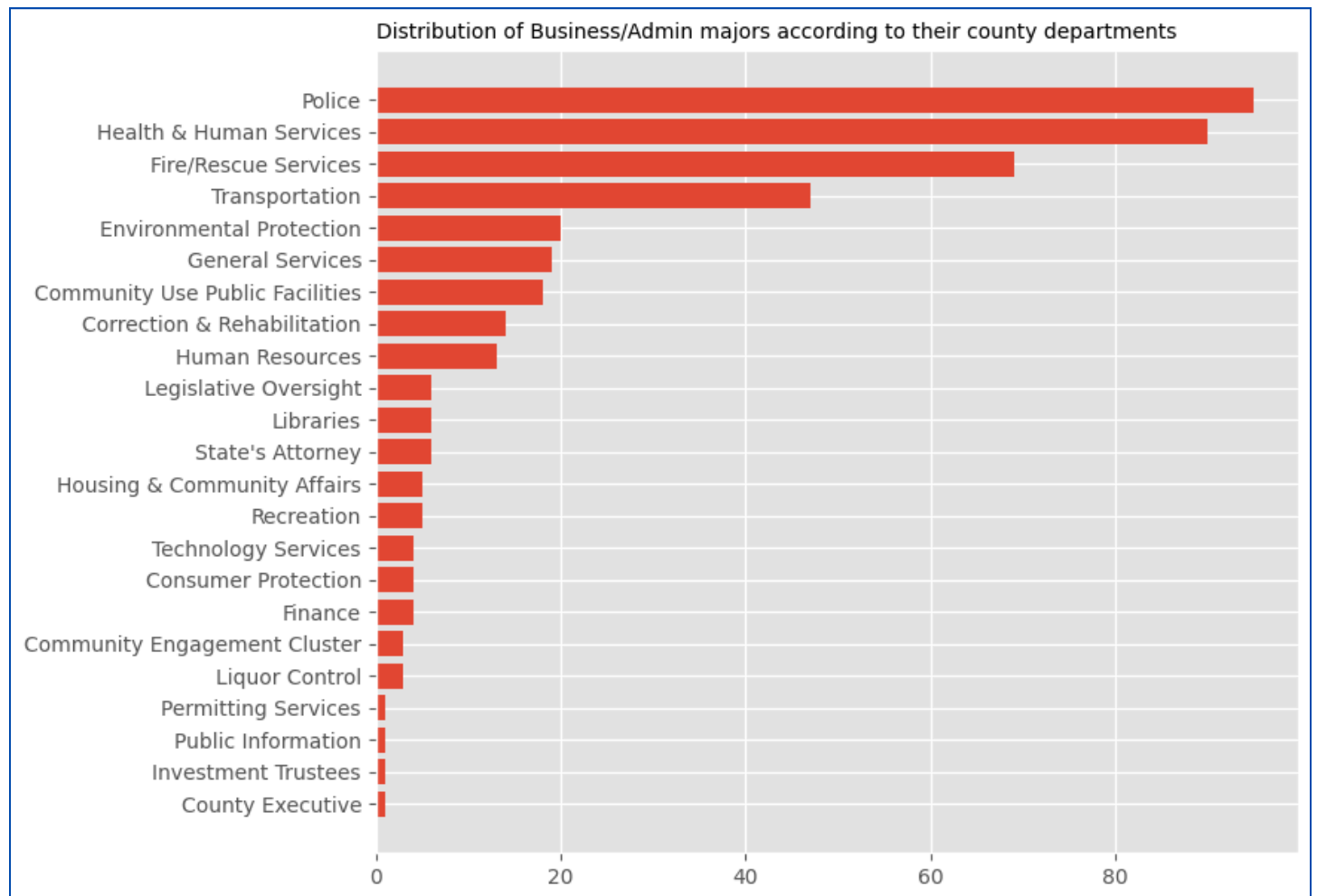
Figure 1.B

The number of departments that employ each major.



There are at least **23 unique departments** in Montgomery’s local government that employ business-admin majors. Compared to this, Criminal Justice majors are only found in ten departments; half of the total departments that employ Business Admin majors. If one is interested in seeing which departments employ Business-Admin majors, view Figure 1.C below. There is definitely demand and space for Business-Admin majors in different departments even those that might make the uninitiated scratch their heads.

Figure 1.C



Interestingly, some majors which are not the most common majors according to Figure 1.A appear in more departments. For instance, individuals who major in social sciences like psychology and human resources, despite being less than the total population who major in criminal justice, can be found in more departments. It would appear that this phenomenon points towards majors closely related to research and humanist disciplines being more universal than job-focused ones. For instance, there is close to 120 fire science majors in the program, but they can only be found in around two departments. There are less than 50 sociology majors in the department, but they can be found in at least 7 different departments.

A message to future employees of Montgomery County's local government

Some people may approach choosing their college majors with great difficulty. If they are interested in serving their local government, the data from the previous section might help. A huge majority of individuals in Montgomery's tuition assistance program majored in business-admin, and business-admin majors are found in at least 20 different departments. Again, this brings to mind that skills and knowledge learned from this major are highly flexible and in-demand in multiple facets of politics. Anyone interested in management and administration may choose this major and find themselves with multiple entry points to their local government structure.

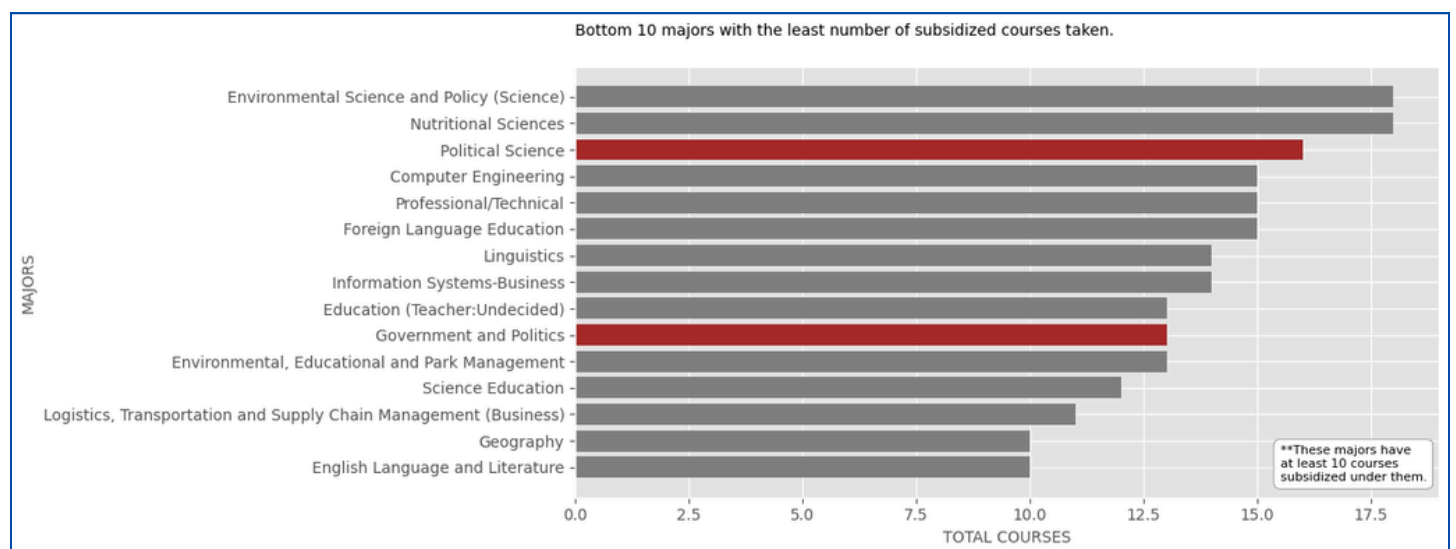
By extension, individuals can also major in social sciences highly focused on human research and interaction such as psychology or human resources. These majors may not be as popular as the business-admin majors, but they are still common and flexible enough that there are multiple departments that can make use of their universal skillsets.

But let a devil's advocate provide a contrarian advice at this juncture. Although business-admin may seem the most popular major in Montgomery's own ecosystem, individuals should consider other factors when considering their future aside from a major's current popularity. An overly popular major, despite being highly universal, suffers the ever-present risk of oversaturation. The slippery slope does not look as dangerous when you're just climbing up the hill.

Additionally, stuffing Montgomery's local government with business-admin majors may be destructive to some extent in terms of diversity. Synergy between ideas only occur when the ideas are different enough which often happens when the ideas are coming from individuals with varying background. Having a huge part of your workforce only talking the business-admin language may inadvertently produce an echo chamber that can paralyze growth. Diversity is not just a numbers game; it also contributes towards innovation and growth.

I call upon individuals to consider majoring in business-admin but also explore other options as well. For instance, Figure 1.D below shows the least common majors in Montgomery's tuition assistance program. Some majors here may be surprisingly low the same way that some majors were surprisingly high. For a tuition assistance program for local government employees, majors of Political Science and Government are **shockingly low**. Natural sciences, especially life and environmental sciences, and education majors are also present here and there but definitely not enough to hold a candle against the common ones. If these majors receive increased attention, they may be growth in Montgomery's local government's diversity and innovation.

Figure 1.D



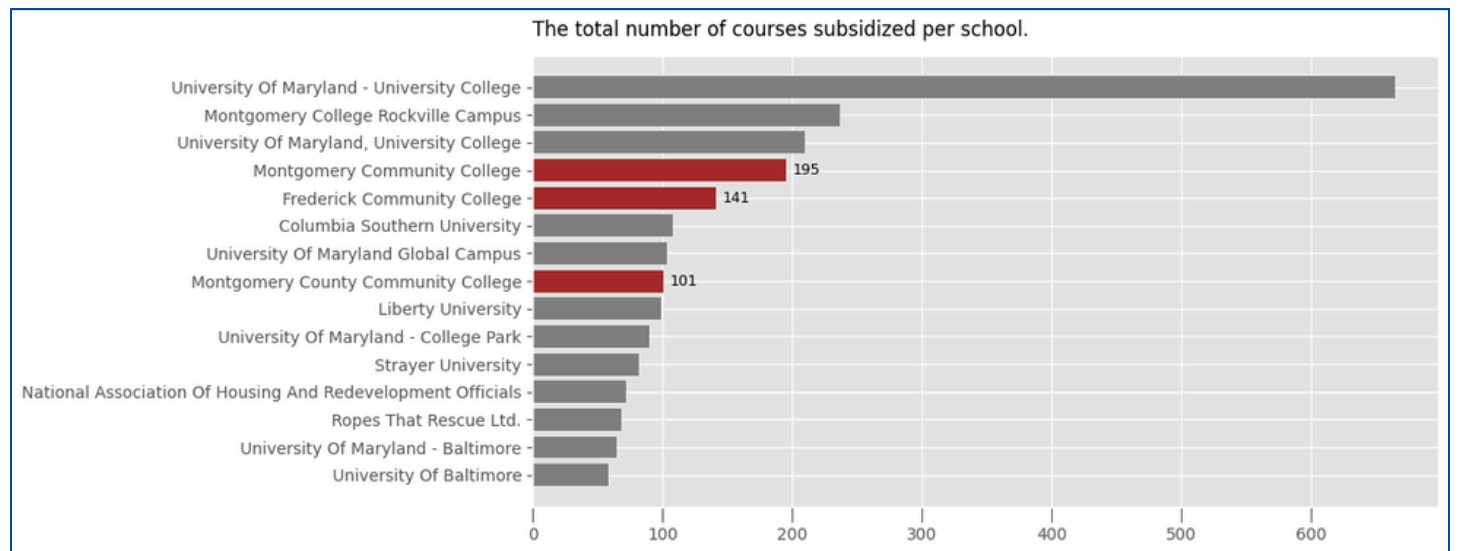
Enrolling in community colleges remains an affordable alternative to more mainstream state-based university education

The enduring legacy of community colleges despite all odds

A huge chunk of all the subsidized courses was offered by **the University of Maryland - University College**, a state-based university in Maryland. There is little wonder it has offered a total of **665** subsidized courses, a whopping **20%** of all the subsidized courses. Even more interesting is that the total courses subsidized by **community colleges** make up **15%** of the total number of courses.

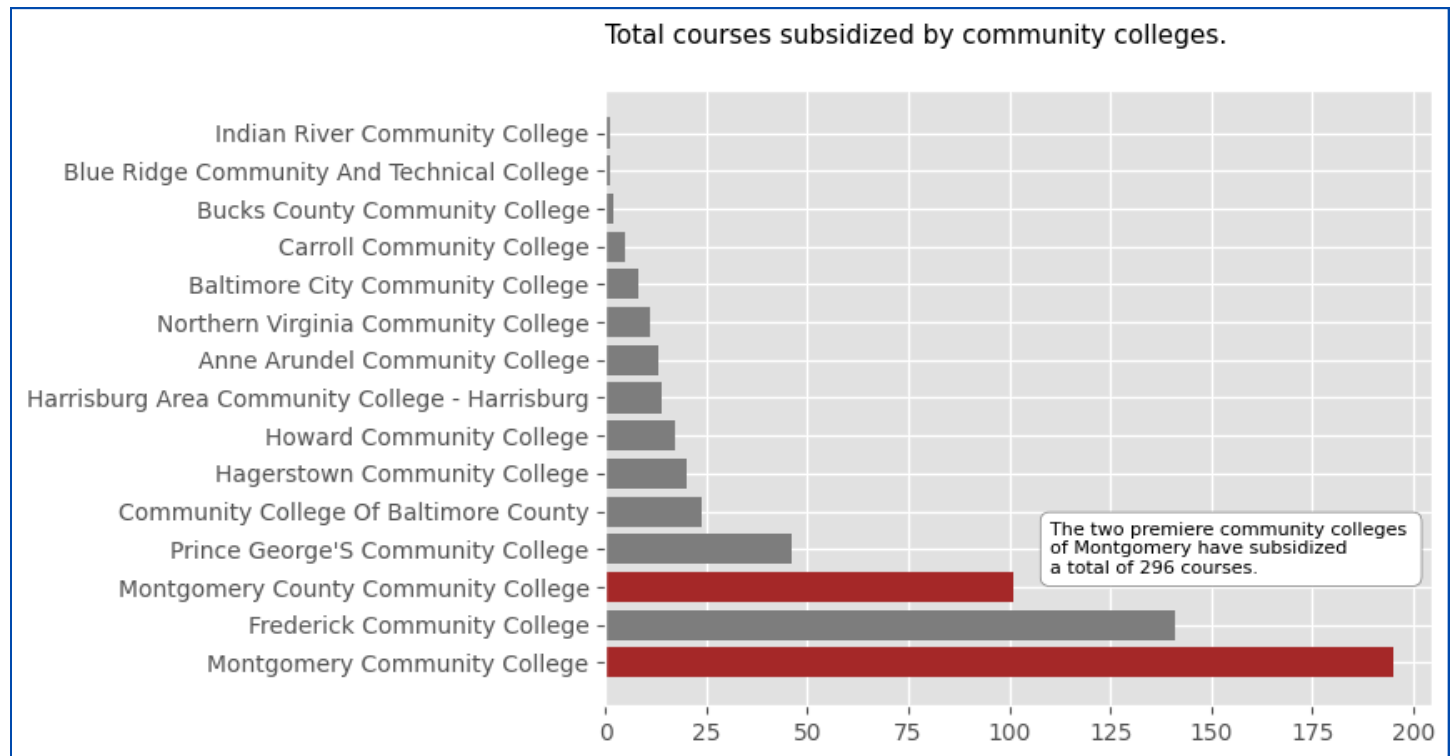
The United States education system has a strange relationship with community colleges. On the one hand community colleges are affordable oases in a desert of student debt and extremely expensive universities. On the other hand, community colleges often have a poor reputation of being “subpar” on just about everything. Whether or not this statement is valid is a matter for another day. What is pressing for this analysis is that Montgomery’s tuition assistance program apparently supports quite a number of courses and students in community colleges.

Figure 2.A



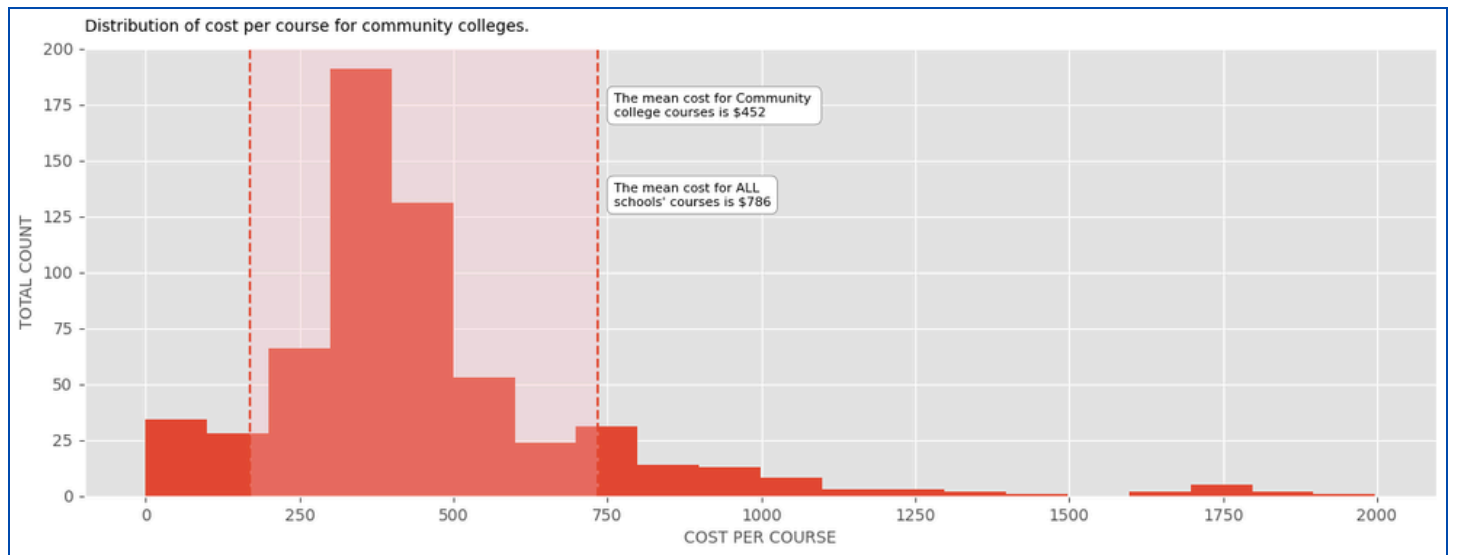
There has been a total of 612 courses subsidized by community college which Figure 2.B breaks down. Given that the rest of the courses were either subsidized by state universities or trade schools, 612 is not a low number.

Figure 2.B



This is an important testament to the enduring need for community colleges. Poor reputation aside, they offer a more affordable alternative to individuals who are financially strapped for education. With the county of Montgomery offering tuition assistance for its government employees, more people should feel incentivized to take courses in community colleges.

Taking things further, community colleges can use the data in this analysis as a springboard for marketing and student acquisition initiatives. This data should allow them to realize that they are extremely important in the education ecosystem of Montgomery. On average, community college offer courses that cost **\$450**, \$200 cheaper than the average cost per course from non-community college institutions. As student loans become pricier, stricter, and more prevalent in the US, community colleges combined with Montgomery's tuition assistance offer a more accessible path towards higher education.



The insights published in this research is not just helpful for the students and any individual already working in Montgomery's internal government. For Montgomery's community college circuit, they can utilize the insights for marketing or public relations initiatives. They can market their relationship with the Montgomery local government's tuition assistance program to increase student acquisition.