Presentation Notes:

Slide 1

Hello, my group looked at the USS University dataset estimating the covid 19 outcomes for US universities designating whether they would perish, struggle, survive or thrive. To thrive, schools have low vulnerability and high value to cost ratio. Conversely, To perish, schools have high vulnerability and low value to cost ratio.

In our initial look into the dataset, we noticed that for some variables there were clusters formed when grouped by categories. For example, in student life grade with a range of A+ to D, universities designated to thrive were clustered at the A+ to A - values while there were no thrive schools at grade D.

Thus we started to wonder if the thrive and survive schools contained insights on where perish and struggle schools could improve to increase their prospects of stability.

We created a category profile on each of the 4 categories by filtering institutions based on IQR values gathered from looking at education score, experience score, credential score, and tuition that make up the value score and

endowment per full time student and percentage of International students for each category.

This created a representational list of schools for each category. For example, Loyola University Chicago for Perish, Coe College for Struggle, Temple University for Survive, and Howard University for Thrive.

Slide 2

With this representational data for each category we were able to analyze more closely the thresholds between each category and see how a school might move from one outcome to the next.

For the Category VS Value metrics chart, we can see that the widest gaps exist for education score, with survive and thrive schools having a score double that of perish and struggle.

For category vs vulnerability metrics chart, we can see that thrive schools have endowments about double perish and survive schools while a 2x difference for international students is between survive and struggle and thrive schools.

Slide 3

Based on those two charts, we delved even further to see which specific metric had the most impact on improving their stability based on their value and vulnerability scores by using trend lines that generated r^2 values, a linear equation, and a p value. Understanding that generated r^2 values measure the “fit” of the trend line and the p value measures the statistical significance of the trend line, and positive linear slope represents the rate of increase, we made the following conclusions by comparing them within each category and identifying the lowest p value, highest r^2 and highest slope:

To move from perish or struggle to a positive outcome of either survive or thrive, we found that the most impactful metric was the education score. So these schools should invest in improving it’s coursework and hiring more revered professors.

Slide 4

To maintain status as survive or thrive, or even to move from survive to thrive, it is most impactful to reduce dependence on a percentage of international students and replace expected tuition from international students with different revenue.