Getting the U.S.A.+ for Education
AN ANALYSIS OF HOW U.S. FEDERAL FUNDING IS – AND SHOULD BE – ALLOCATED FOR EDUCATIONAL PURPOSES

Background

Meat, Noodle, etc... a 17 year-old boy whose passion for baseball landed him a scholarship to a high school in the suburbs of Los Angeles.

Step 1: Analysis of Current Situation

How can the government use the insight gained from available data to make appropriate funding decisions?

Historical data for federal funding, educational attainment, and per capita income were analyzed using regression analysis.

For states with lower educational attainment, federal funding was positively correlated with educational attainment. The same can be observed for per capita income. This indicates that states receiving more federal funding have higher educational attainment and per capita income levels.

Step 2: Analysis of Funding Benefits

Why should the Department of Education get more funding from the federal government?

Regression analyses were performed to determine the effect of federal funding on educational attainment and per capita income. These analyses showed a statistically significant effect on educational attainment and per capita income.

Step 3: Budget Optimization

How best should the Department of Education allocate their funds?

To incorporate more data, the study was expanded to include states with higher educational attainment. The relationship between educational funding, educational attainment, per capita income, and state prosperity was further investigated.

Conclusions

Descriptive analytics show that states with higher education funding tend to have higher educational attainment and per capita income.

Using regression analysis, it is evident that there is a statistically significant relationship between educational funding, educational attainment, and per capita income.

This relationship is corroborated by similar findings from external research on studies conducted by reputable third parties.

Predictive analytics show that educational funding dollars have a higher impact on states with lower educational attainment than states with higher educational attainment.

We suggest investing more federal funding towards states with low educational attainment to optimize the impact on educational attainment per funding dollar spent.

SAS Used

2017 Business Analytics Competition @ Manhattan College - University of Waterloo - Florence Ip, Vincent Hong, Samantha Tjong, Evan Wei, & Kien Ng (Faculty Advisor)