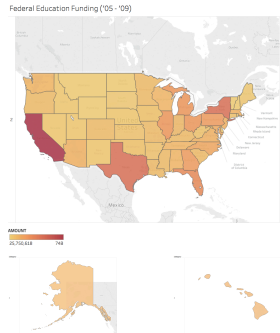


Analysis of Federal Education Funding Distribution

INTRODUCTION

There is an obvious disparity in federal education funding between states.

It is important to first define educational funding. Our data is not limited to spending solely by the Department of Education. As shown in the pie chart below, other Federal Departments sponsor their own educational programs. All of our data reflects this.

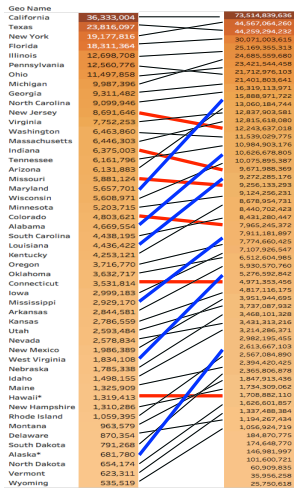
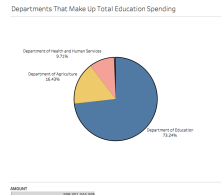


All of our data is also adjusted to represent the years 2005 through 2009. This is done to maintain accuracy, as not all of our data can account for years outside of this range.

With this data our goal is to discover the factors that influence the discrepancy in state educational funding?

The most obvious correlation to be made is that of funding-to-population. Naturally it would make sense for a state with more people to need more educational resources.

In the accompanying diagram, a red line signifies a state that is under-funded based on the size of its population. Conversely, a blue line represents a state that is over-funded based on the size of its population.



Underfunded States	Overfunded States
New Jersey	Maryland
Indiana	Alabama
Missouri	Louisiana
Colorado	Mississippi
Connecticut	West Virginia
Hawaii	Alaska



ANALYSIS

Low-Risk Programs



Over-funded are made up of 43.4% low-risk educational programs.

Under-funded states are comprised of 35.4% low-risk educational programs

Under-Funded States

Geo Name	46,759
Connecticut	49,436
New Jersey	40,533
Colorado	39,833
Hawaii*	35,170
Missouri	33,353
Indiana	

Over-Funded States

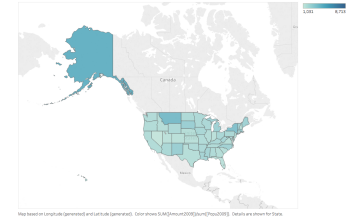
Maryland	46,954
Alaska*	43,614
Louisiana	34,511
Alabama	31,953
West Virginia	29,401
Mississippi	28,777

Over-funded states average 7.71% less than the national average.

Under-funded states average 9.4% greater than the national average.

U.S. Average

Geo Name	38,865
United States	



Major to Minor Program Ratio

Major programs make up 59.3% of over-funded state programs. In comparison, under-funded states contain 67% major programs.



METHODOLOGY

By comparing the states that are under-funded with those that are over-funded, the contrast reveals the factors that cause the most difference in funding. To analyze this data we first needed to clean the data through file conversions, data joins, and filtering of specific years. This was all accomplished through our use of Tableau and Excel.

We also made use of decision trees and graphical models in R for some of our background analysis of the data.

CONCLUSION

Federal education funding is determinant upon 4 major factors:

- Population of the State
Logically, the more persons are located in a state, the more funding would be necessary in order to educate them. This appears in the form of more schools and more educational programs.
- Whether the Programs are Considered Major or Minor
Federal budget distributors are more inclined to fund minor programs that require fewer personnel and carry little risk if they are unsuccessful. Which brings us to the next point.
- The Number of Low-Risk Programs Sponsored
A high risk program is unlikely to get funded. This accounts for why states that have a large amount of them receive less funding.
- The Per Capita Income of the State
State with low income compared to the national average may have residents in need of federally paid for education as opposed to more costly private education.

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