Following the Flow of U.S. Federal Funding
an analysis of the distribution of educational support

- OBJECTIVE
With multiple funding programs circulating throughout the United States, we want to gain insights on how educational funding is distributed. This may provide direction toward improving allocations.

- METHODOLOGY
Inspired by the interests of Mr. Digits, our team looked to discover a story from the federal funding data. Identifying an appropriate process for this exploration allowed for the use of analytical tools.

**OUR PROCESS**

<table>
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<tr>
<th>Identify Questions</th>
<th>Create Visualizations</th>
<th>Reduce Data</th>
<th>Produce Relationships</th>
<th>Answer Questions</th>
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This five-step process was essential in answering the following questions about education allotment:
- How equally is funding distributed throughout the United States?
- What determines the amount and type of funding that certain locations receive?

**OUR TOOLS**

The use of R allowed for the dataset to be reduced into relevant subsets to further explore. Tableau Public and Excel supplemented our ability to create and display the relationships among the different types of funding.

**FINDING #1**
16 of 44 Data Fields had potential relevance toward interpreting federal funding

**FINDING #2**
A significant number of grants going toward education is sent to states' capital cities
- This data, however, does not show where funding is being dispensed after this point
- A heavily weighted portion of funding programs is headed toward the eastern part of the U.S.

**FINDING #3**
Project grants showed a similar trend of funding toward capital cities, but it was more equally dispersed
- Research shows that lower-income areas are less likely to compete for project grants because of the restrictions on resources
- Regression analysis further demonstrates the significance of population on funding allotment. For each person counted in the U.S. Census, a state receives an estimated additional $14.00

**FINDING #4**
Demonstration of focus on administrative objectives rather than educational ones
- Majority of funding heading toward specialized programs, such as post-secondary education, rather than general public education
- The analysis of formula grants suggests a priority of allocation is based on population and need

**FINDING #5**
- Healthcare is nearly three times as large as education, the second largest funding category, making its scalability problematic
- Excluding healthcare, CFDA spending on education is approximately half of Federal funding
- Understanding that project grants represent a lower portion of the education-based funding and that competition is high, administrators are spending less time applying for them
- The algorithms behind formula grants may not be appropriate to maximize the efficiency of federal funding allocation

**CONCLUSIONS**
- Funding is not necessarily unequally distributed, but the data can only answer some straightforward questions
- Current Federal funding data does not show how money is being used, but rather where it is going
- Due to the specialization of funding programs, such as SPED, Pell Grants, and nutrition, assistance is not distributed to educate the general public
- The merit-based process behind project grants should provide better insight behind appropriate funding recipients.

**FURTHER STUDIES**
With limitations on governmental data, we suggest exploring the following:
- The investigation of the effects of infrastructure on educational success
- A historical look on the funding process to education, particularly how funding allocation has changed over time
- The understanding of the effects of other governmental sectors on educational funding