



Generating Reliable Collaboration Data:

A Proof-of-Concept Project Using Research Administration Data

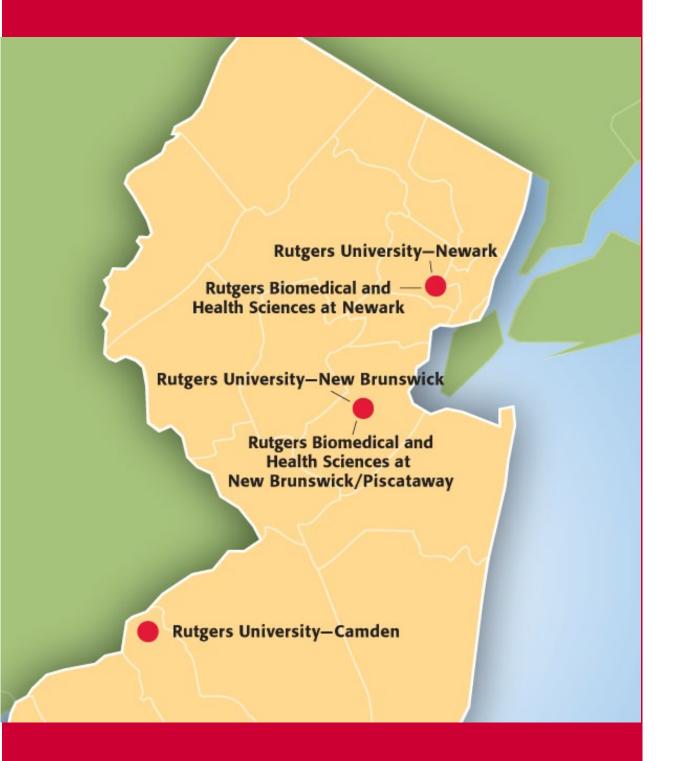
Christopher Perkins

Director, Data, Analytics & Business Intelligence

Julia Zappi

Senior Data Analyst, Data, Analytics & Business Intelligence

RUTGERS THE STATE UNIVERSITY OF NEW JERSEY



LEADER IN THE STATE

- First in New Jersey and 64th nationally on *Forbes*' list of 500 best large employers in America
- 6,000+ acres across New Jersey
- 900+ buildings spanning 30 million+ square feet
- 300+ research centers and institutions
- 29 decanal units
- 40+ research cores

INCLUSIVE AND DIVERSE

- Among the most ethnically diverse campuses in the nation and Big Ten
- 67,620 students representing all 50 states and over 120 countries
- 23,600+ full- and part-time faculty, full- and part-time staff, and international scholars

RESEARCH UNIVERSITY

- \$900+ million in sponsored awards funding annually
- \$12M in licensing revenue annually
- ~4,000+ sponsored awards annually
- ~1,600 Pls receiving awards annually
- 1,197 active issued worldwide patents
- 100+ active startups

Data, Analytics & Business Intelligence



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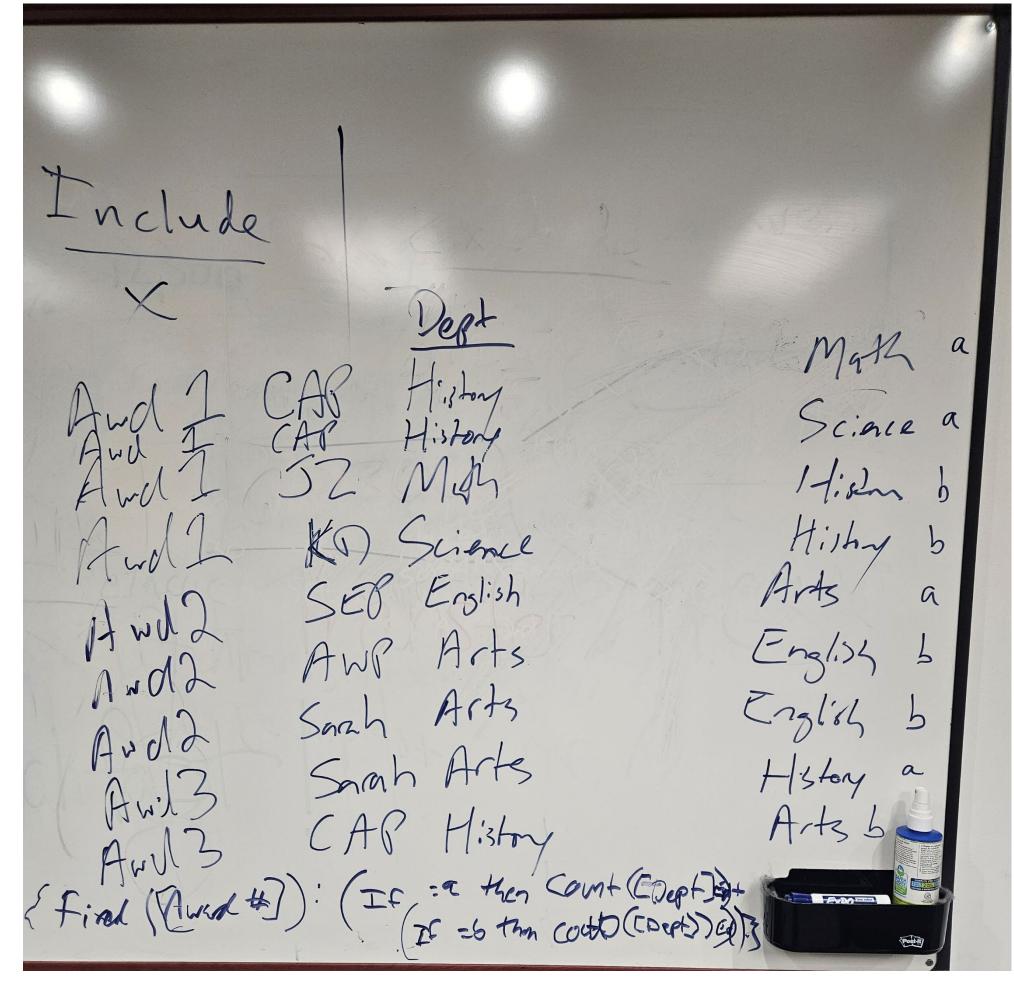
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Data Analyst
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Project Context

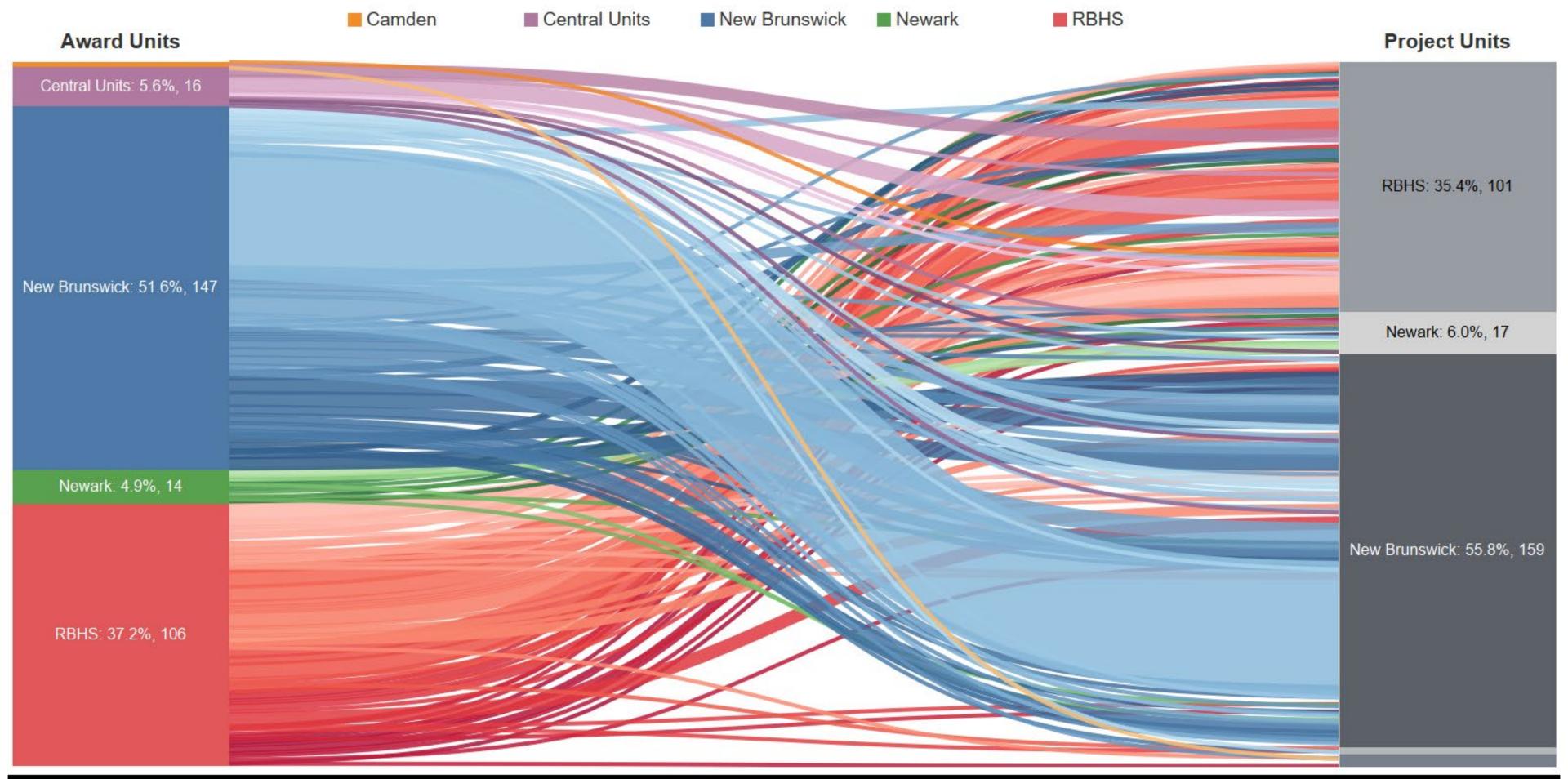
Request: Count collaborations across the university to identify potential areas for cluster hiring.

Brainstorming

What even is this?



FY 2023 Collaborations Between Different Departments Within a Single ORACLE Award



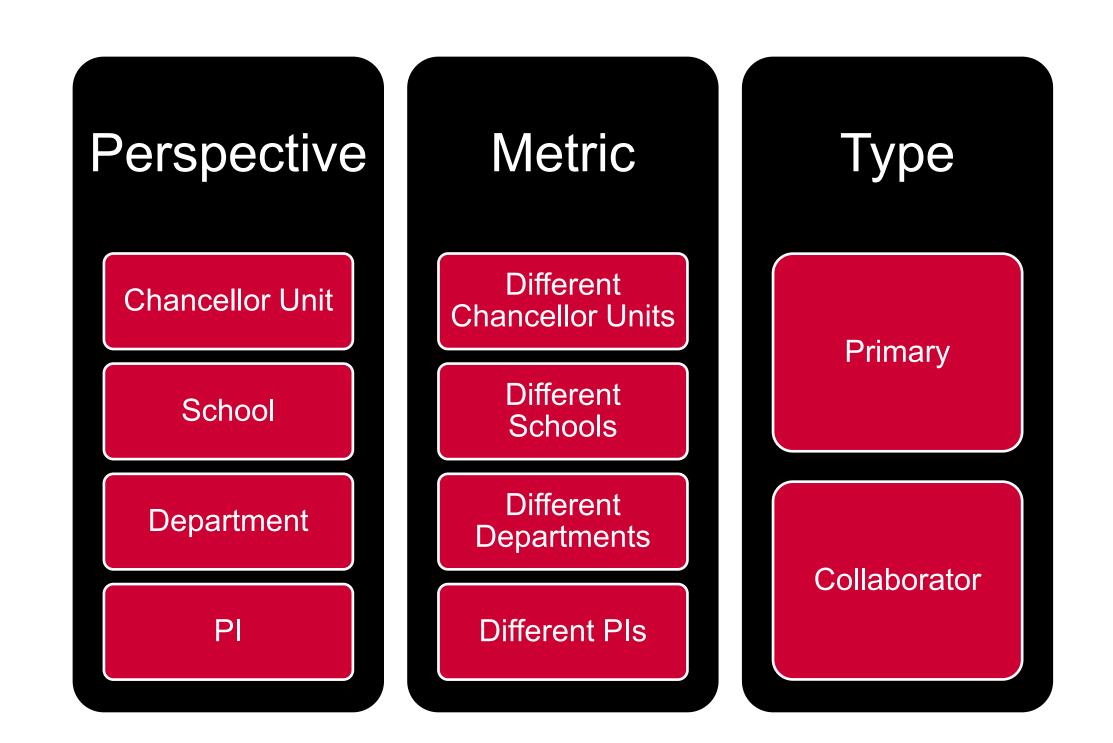
Defining Key Metrics

Standardizing <u>unit</u> definitions

Identifying collaboration <u>projects</u> by source

- Differentiate <u>levels</u> of collaboration
- Identify <u>dates</u> for change over time evaluations

Defining & Counting Collaborations



Viable and Available Data







Sponsored Award Expenditure Data

Human Subject Protocols

Publications

Financial System

eIRB

Research With Rutgers

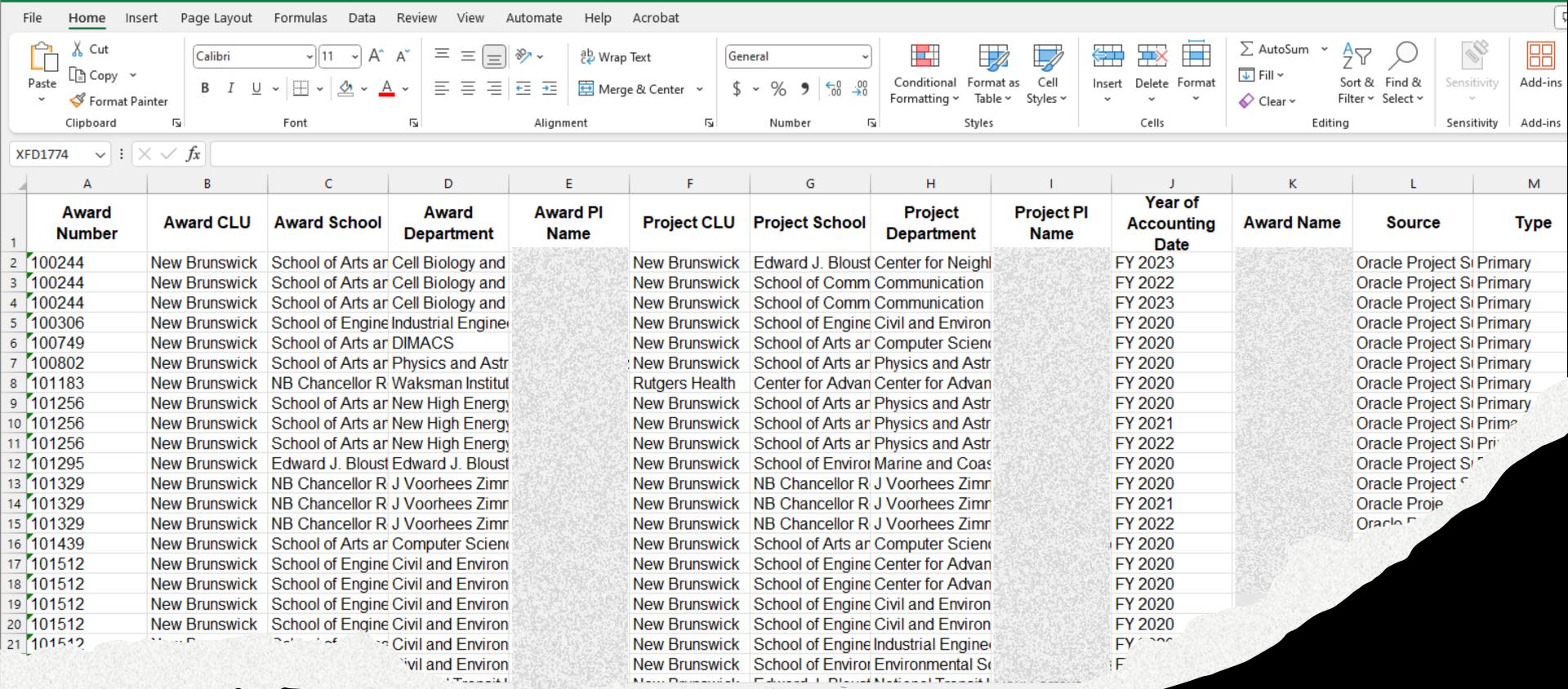
Data Structure

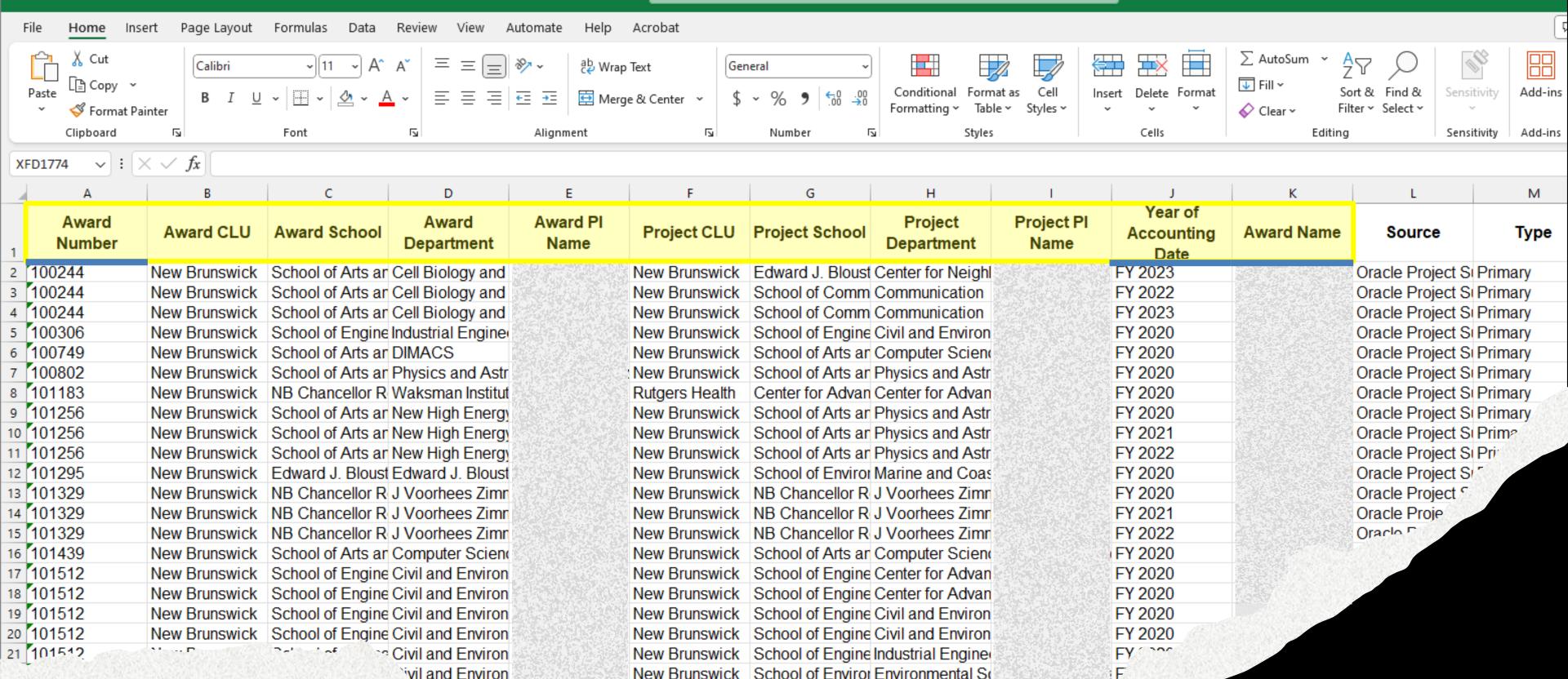
Simple but expandable

Scalable

Ready for interactive dashboards



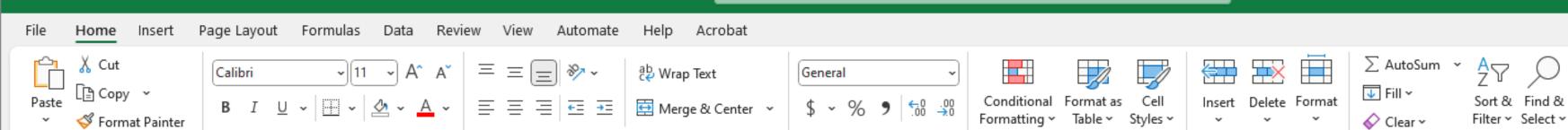




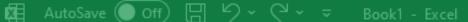
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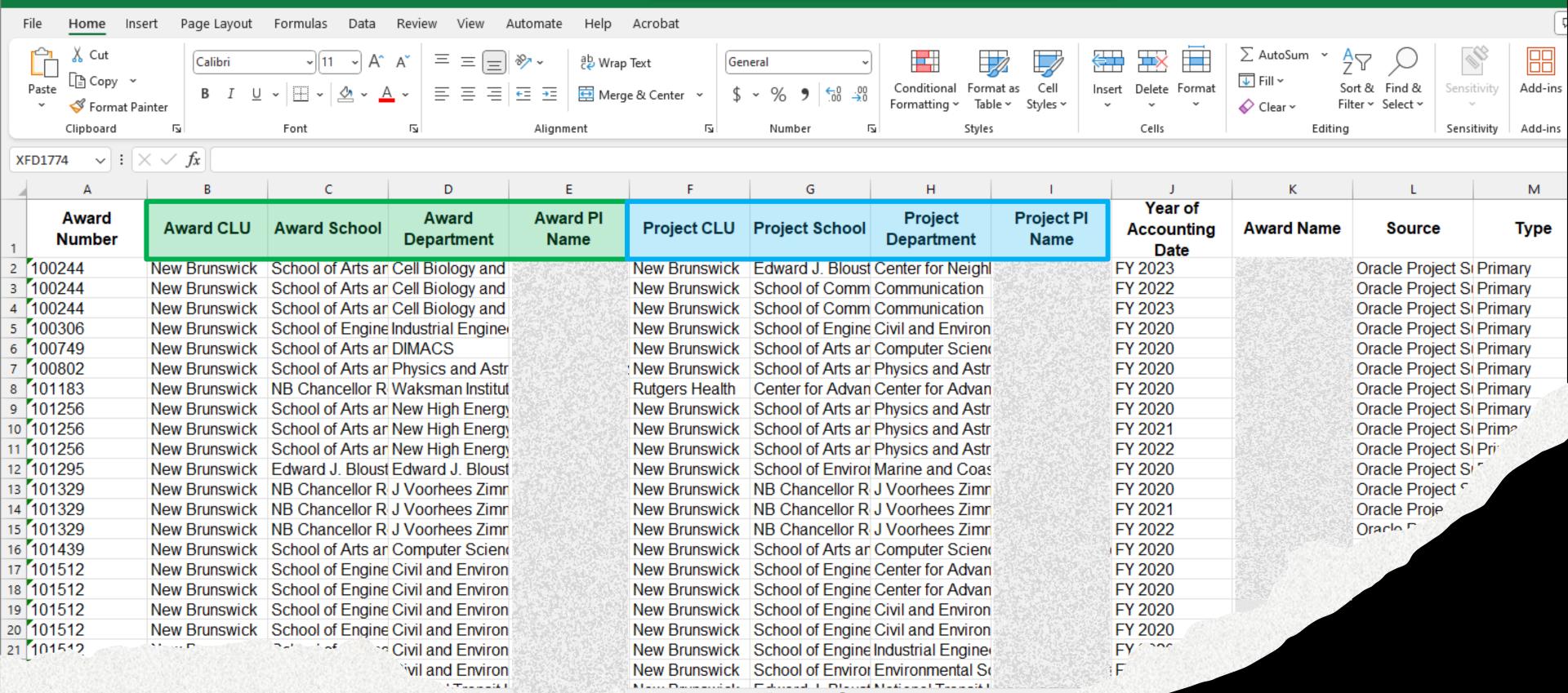
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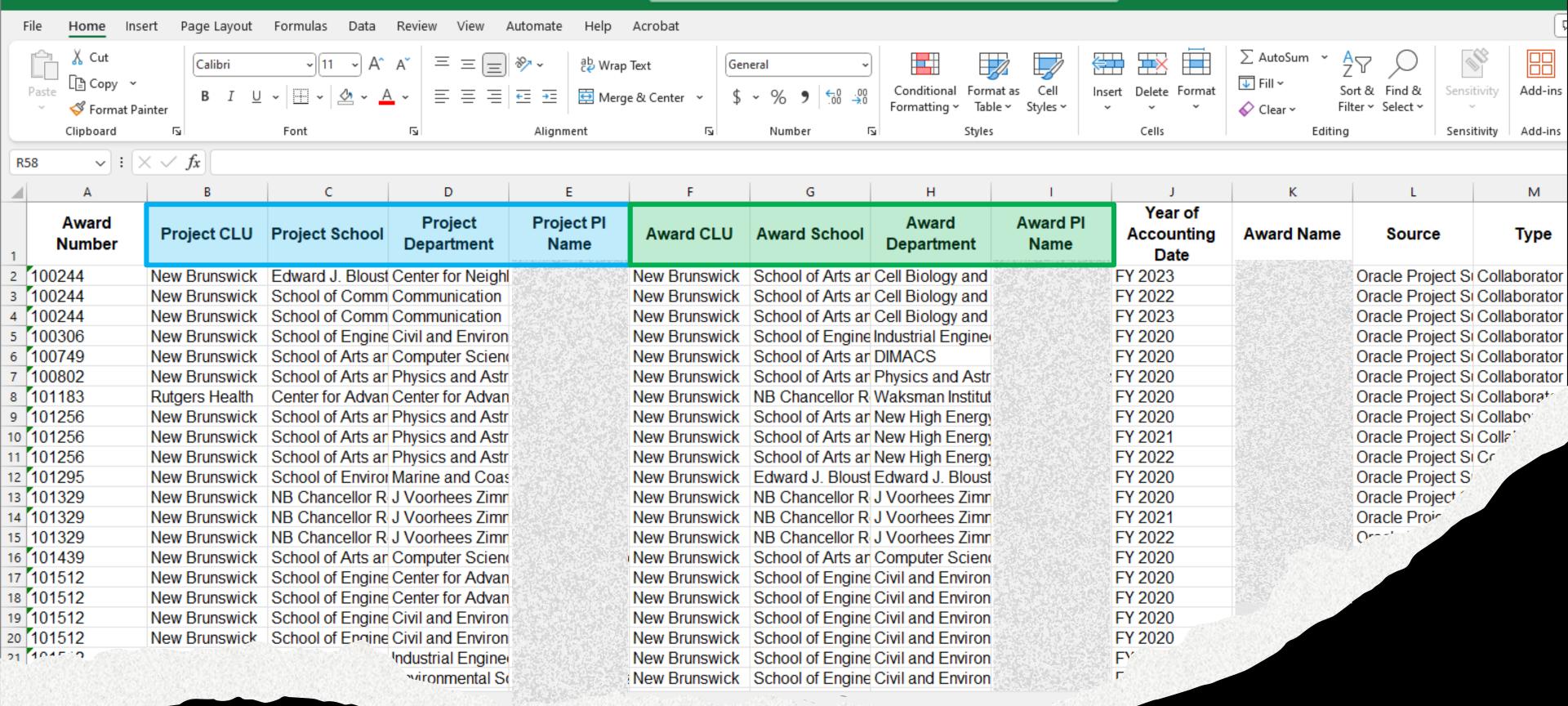


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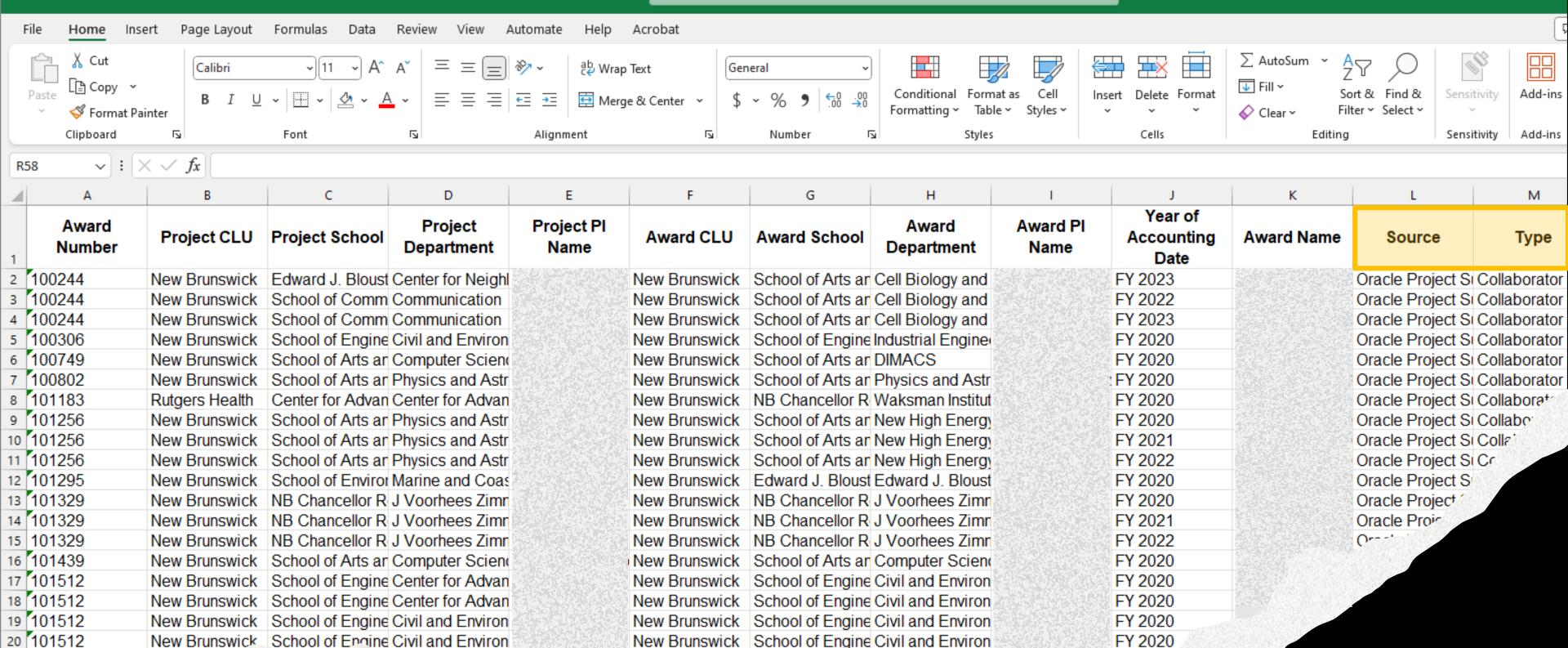




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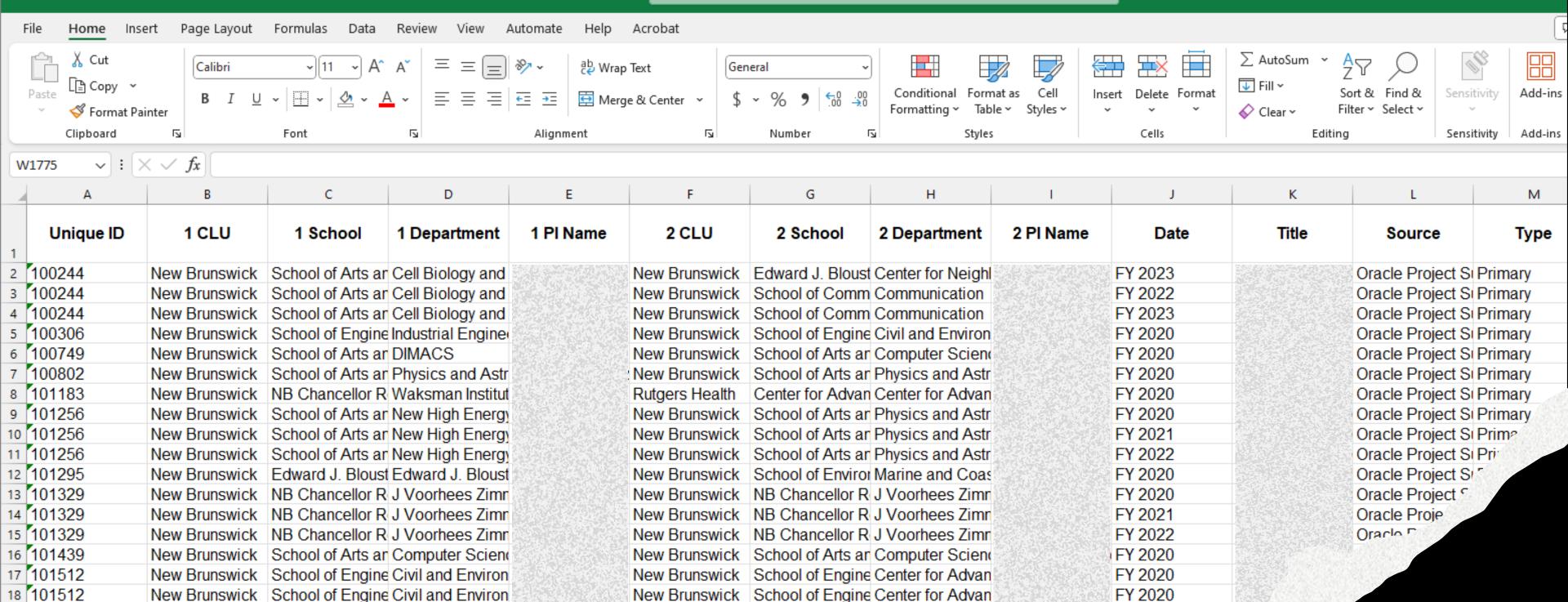
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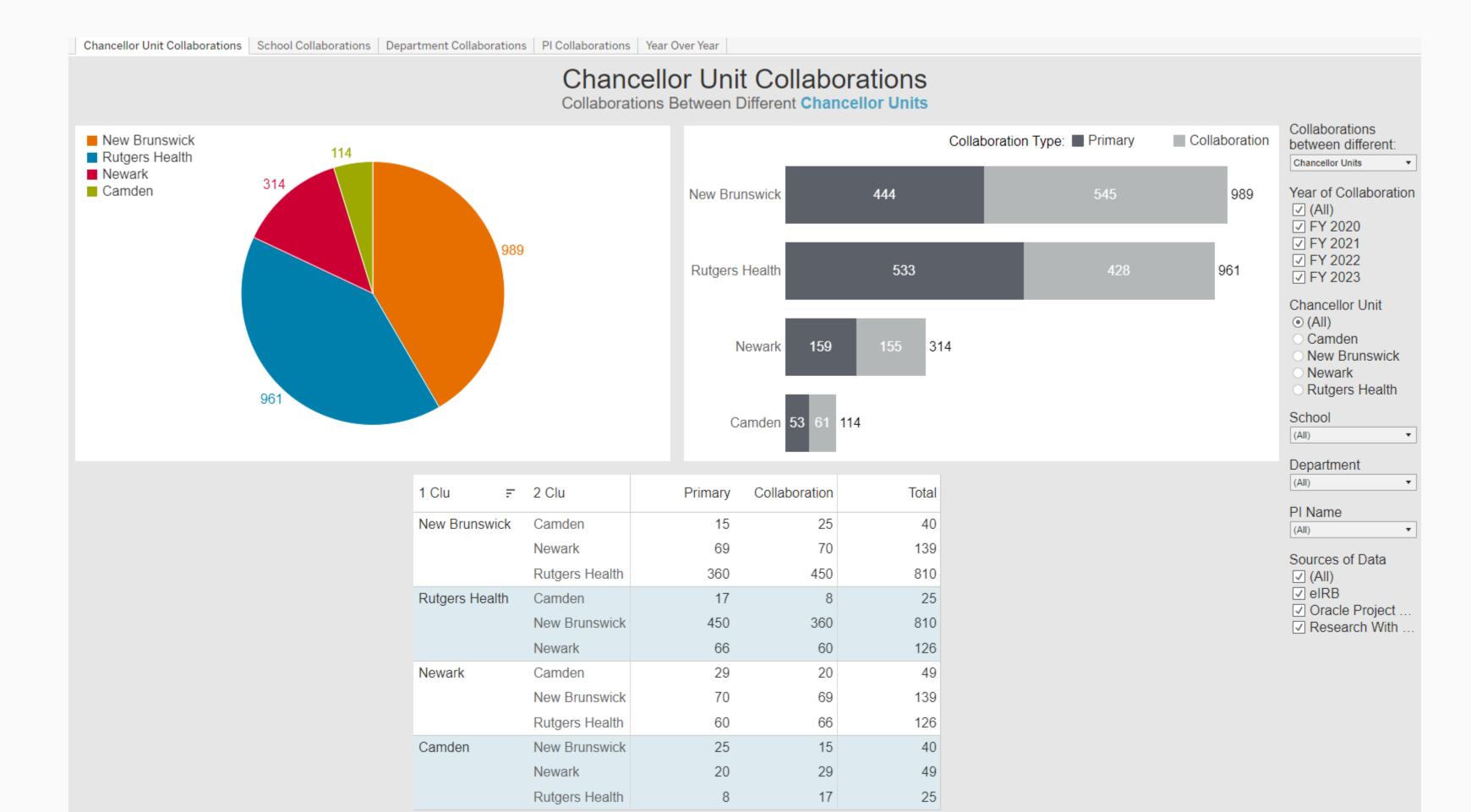
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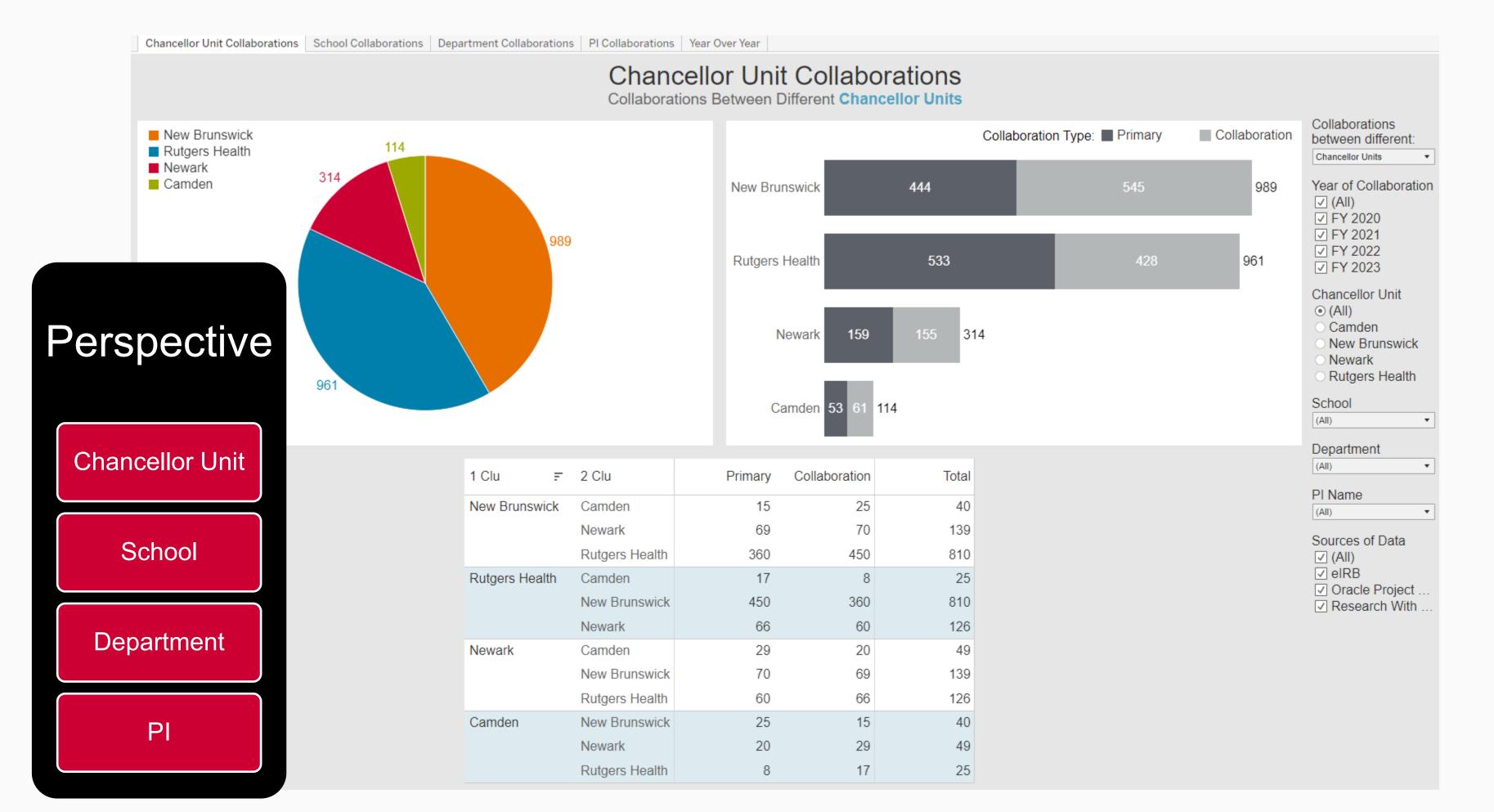
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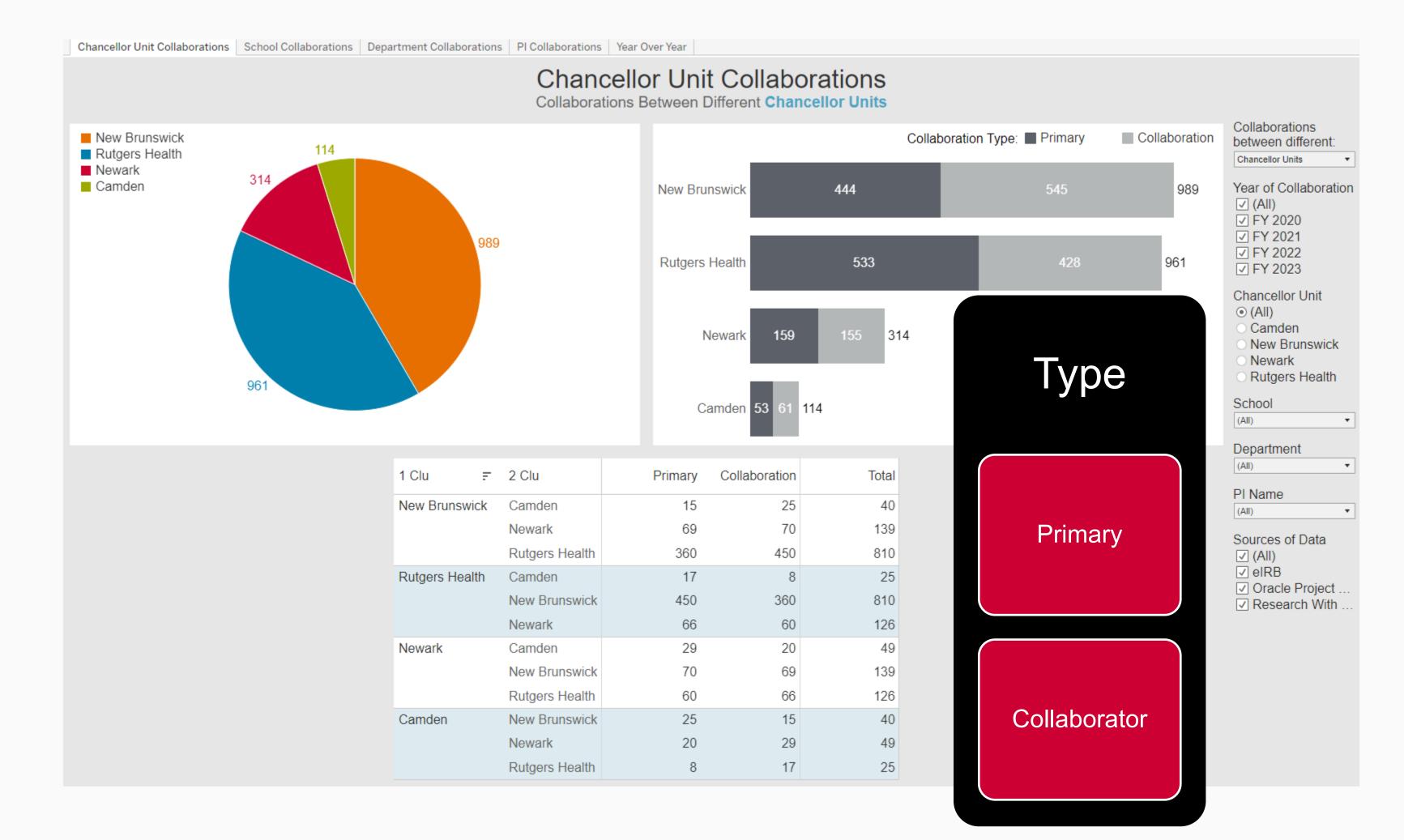
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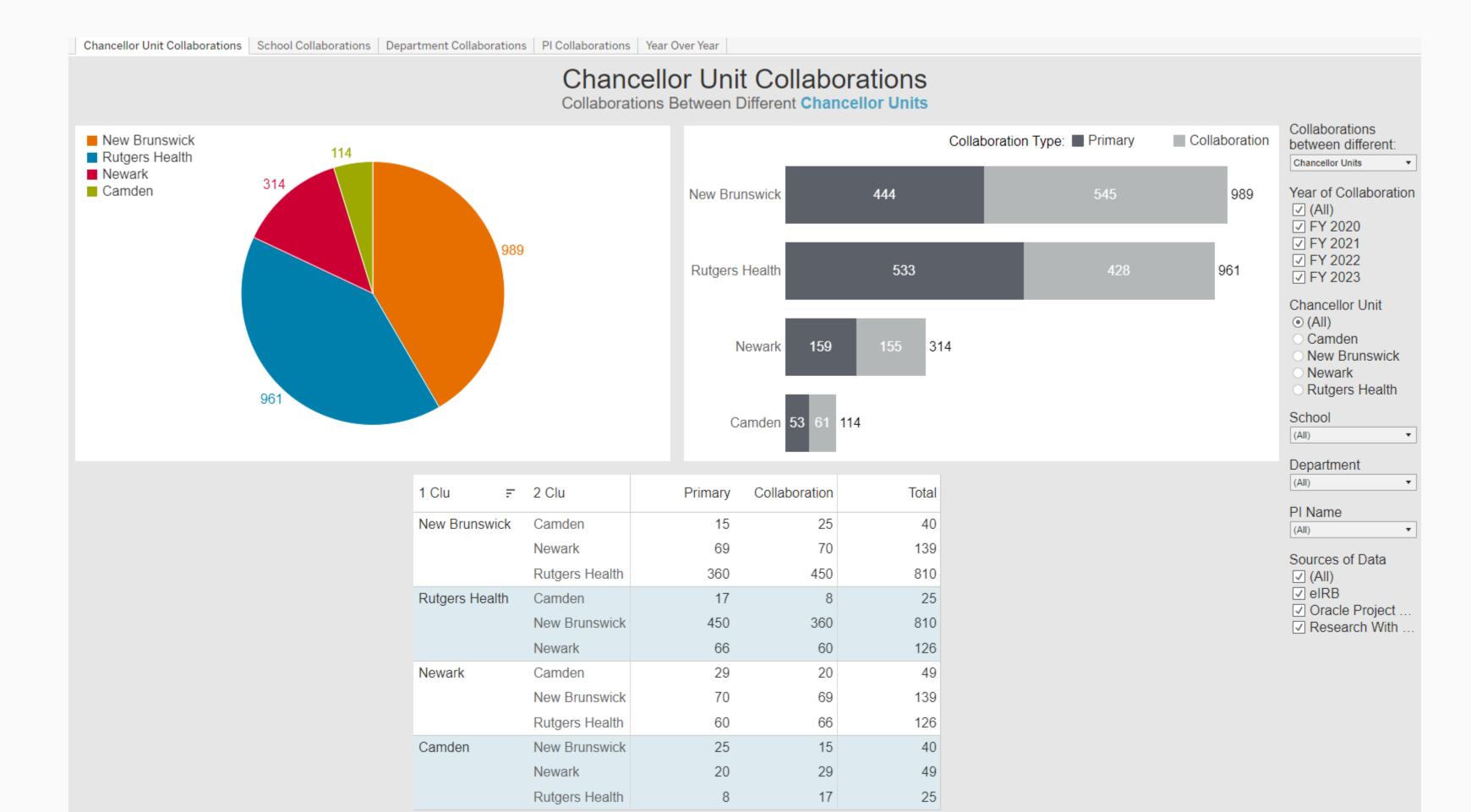
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Limitations and Next Steps

- There are more ways for people to collaborate on grants
- How does Effort Reporting factor in?
- Expenditures on grants can occur after the project is completed
- What happens when a researcher changes units?
- Underrepresentation in sources used
- MORE DATA
 - Office for Research data (IACUC protocols, Inventions, Patents, Licenses)
 - Academic data from Institutional Research
- Streamline the data setup process using Tableau Prep
- Incorporate fields of study
- Account for projects/outputs that do not have collaborations X% of Department Y's activities have collaborators

Questions?

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