

# AWARDS DASHBOARD

USDA | Agricultural Marketing Service

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## Keywords:

data pipeline, automated flows, data wrangling, live dashboard, interactive visualizations

## Summary:

Aishwarya developed an awards dashboard for all the programs in the Grants Division by importing live data connections from Grants Solutions to Tableau Prep. She automated data flow processes to clean and transform the data to be pushed into Tableau for dynamic visualization tools. This tool includes three separate dashboards that break down awards data by state, program, and descriptions of funded projects. Once connected live to the Enterprise Data Analytics Platform and Toolset, it will be used by internal teams and stakeholders to gain and share insights on grant funding recipients.

# AWARDS DASHBOARD

Agriculture Marketing Service, Local and Regional Foods Division  
U.S. Department of Agriculture  
Kamran Zendeheel — Research Branch Chief


coding it forward >



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B.S. Statistics & Data Science, B.S. Business Economics

# BACKGROUND

- AMS works with a variety of grant programs to support rural America and the United States' agricultural sector.
- However, there is not a **centralized dataset** that contains recipient information across the various fiscal years or a way for stakeholders to **easily visualize** this and gain actionable insights.

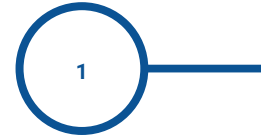
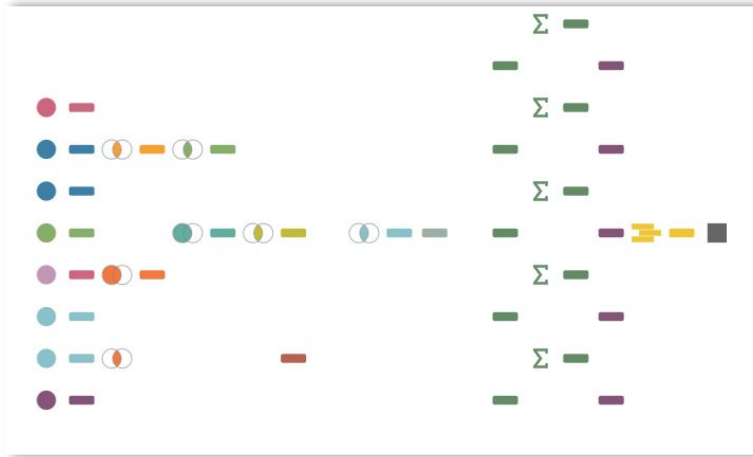
- [Acer Access and Development Program](#)
- [Dairy Business Innovation Initiative](#)
- [Farmers Market](#) and [Local Food Promotion Program](#) (implemented as FMPP and LFPP)
- [Farm and Food Worker Relief Grant Program](#)
- [Farm Labor Stabilization and Protection Pilot Program](#)
- [Federal State Marketing Improvement Program](#)
- [Indigenous Animals Grant Program](#) 
- [Local Agriculture Market Program](#)
- [Local Meat Capacity Grant](#)
- [Meat and Poultry Inspection Readiness Grant Program](#)
- [Micro Grants for Food Security Program](#)
- [Organic Market Development Grant](#)
- [Pandemic Response and Safety Grant Program](#)
- [Regional Food System Partnerships](#)
- [Resilient Food Systems Infrastructure Program](#)
- [Seafood Processors Pandemic Response and Safety Block Grant Program](#)
- [Sheep Production and Marketing Grant Program](#)
- [Specialty Crop Block Grant Program](#) (implemented as SCBGP and SCMP)
- [Tribal Seafood Processors Pandemic Response and Safety Grant Program](#)

# OBJECTIVES

- **Automate** data pull and transformation processes from database to dashboard
- Implement interactive dashboards that **visualize** award and project-level data

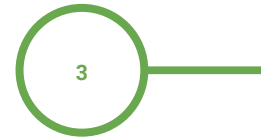


# DATA PIPELINE



- Adjust inconsistencies in the data and standardize format
- Scrub duplicate values
- Aggregate information

- Join data sets together, ensuring that there is a proper match of values
- Filter out unnecessary fields



- Import data into Tableau for visualization and analysis

\* Future changes made to the flow will be integrated into this automated cleaning process.

# DASHBOARD

- Navigator which breaks down awards data by state, program, and description of funded projects
- Contains filters that modify information based on the following metrics: state, program type, organization entity, fiscal year, project type, and project keyword (extracted from either the project title or abstract)
- Generates insights geographically (state, county, and zip code), temporally (fiscal year), and by unique project characteristics.
- Primarily highlights funding award amounts and project counts.

Navigation  
Tabs

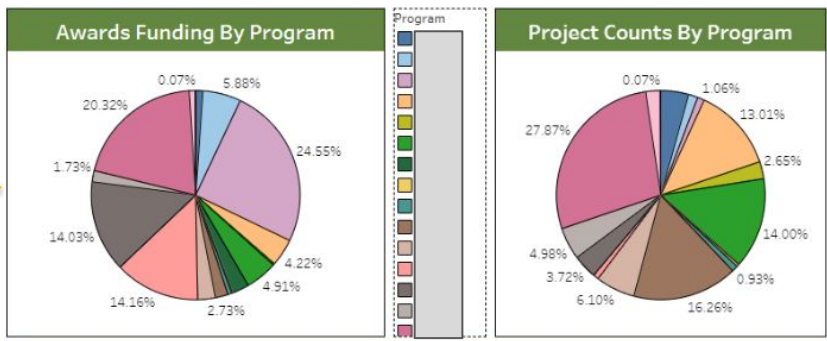
- State Breakdown
- Program Breakdown
- Description of Funded Projects

Awards Dashboard 2: Program Breakdown

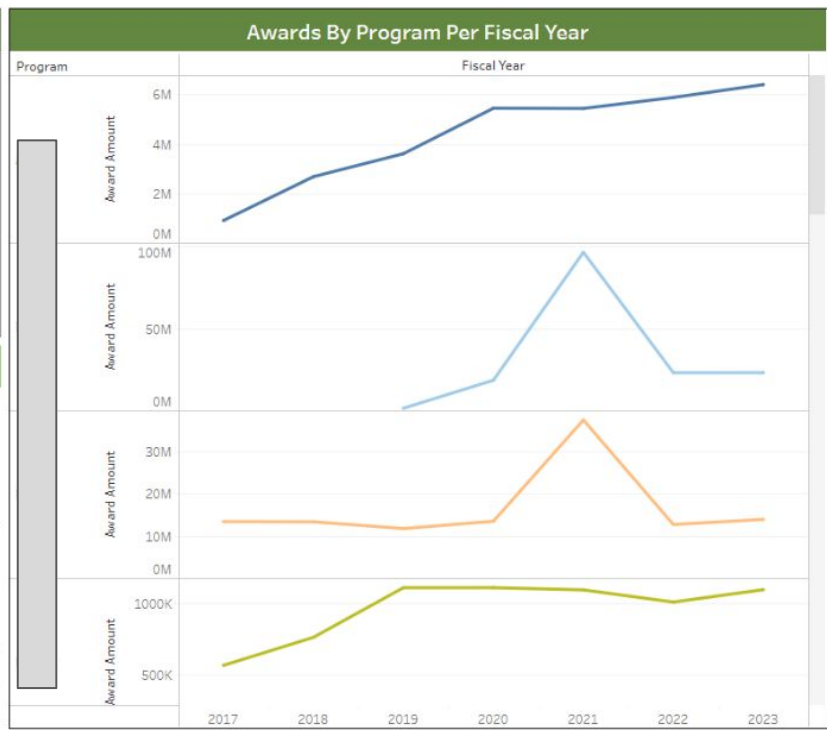
Filters

State: (All) Program: (All) Fiscal Year: (All) Project Type: (All) Organization Entity: (All) Project Keyword Search:

Dynamic  
Visuals



Detailed  
Tooltips  
(when  
hovering over  
visuals)



# NEXT STEPS

Data Validation: ensure that values are accurate by cross-referencing with the data source and program teams

Publish dashboard for public stakeholder access and funding transparency



Live Connection: connect the dashboard to the Enterprise Data Analytics Platform and Toolset so that data is automatically loaded



# ADDITIONAL PROJECTS

Supported multiple projects with Fellow Stella Koh

# 2024 USDA TECH HACKATHON

Used R Shiny and 2022 Ag Census Data to develop model of funding for State Grant Programs

# MOTIVATION



## Issues

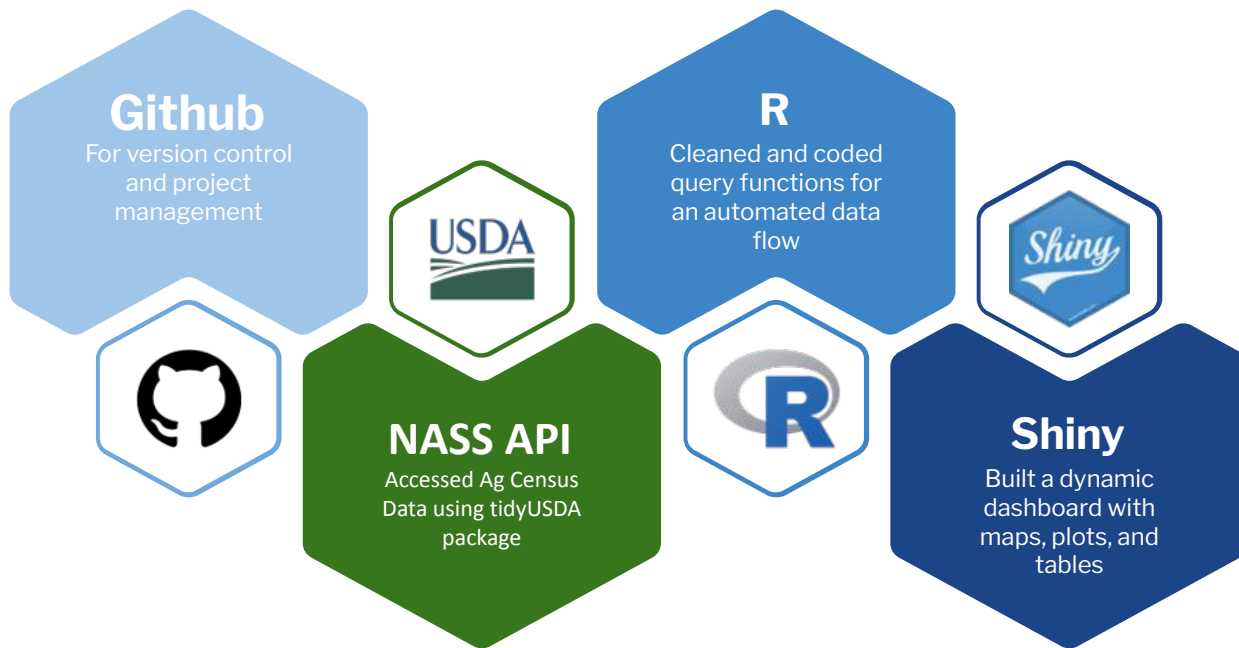
- No easy way for the AMS Grants Division to **pull AgCensus** data, **calculate** funding models for noncompetitive grants programs, and **report** results to stakeholders



## Objectives

- Utilize sales data by commodity to produce State % share of sales with socio-demographic data to **identify funding** gaps
- **Reduce burden** of manually pulling, calculating, and reporting on data

# TECHNICAL APPROACH





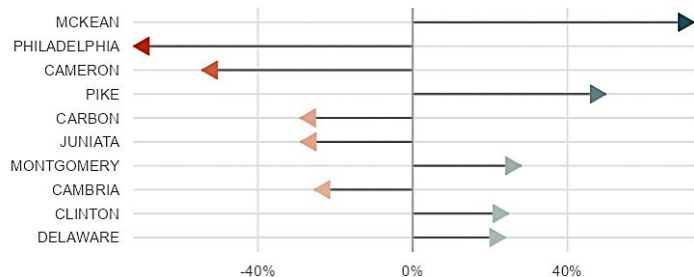
State:  
PENNSYLVANIA

Data category:  
Sales totals Sales proportions Demographics

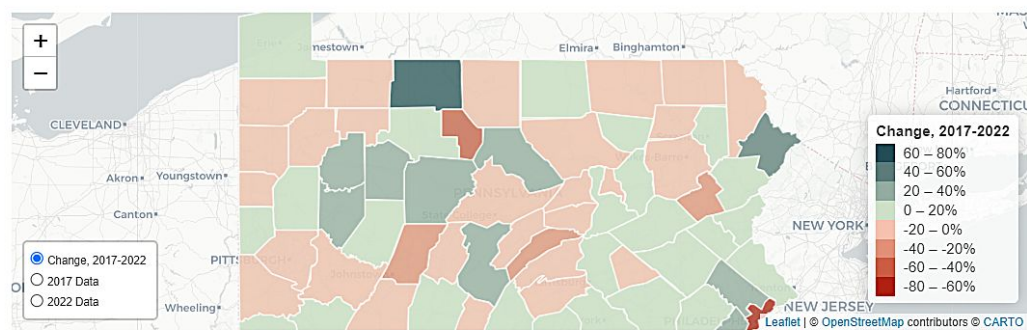
Metric to view:  
PRODUCERS, (ALL), FEMALE - NUMBER OF PRODUCERS

☐ Show results for small farms only

10 counties in PENNSYLVANIA with the greatest change in PRODUCERS, (ALL), FEMALE - NUMBER OF PRODUCERS, 2017-2022



Total PRODUCERS, (ALL), FEMALE - NUMBER OF PRODUCERS per county in PENNSYLVANIA



PRODUCERS, (ALL), FEMALE - NUMBER OF PRODUCERS: County-level data for 2017 and 2022 for PENNSYLVANIA

County	Farm Size	2017 Value	2022 Value	Change	Change %
All	All	32,065	32,495	430	1.34%
LANCASTER	All	3,091	3,135	44	1.42%
YORK	All	1,352	1,354	2	0.15%
BERKS	All	1,162	1,267	105	9.04%
CHESTER	All	1,164	1,220	56	4.81%
WASHINGTON	All	1,145	1,123	-22	-1.92%
FRANKLIN	All	873	908	35	4.01%

1-10 of 68 rows

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# REFLECTION

- Learning About the Data
  - Leveraged AgCensus data to address **specific** use cases
  - Showcases **importance** and **usage** of the AgCensus data to stakeholders
- Real-World Issues
  - Tool will continue to be **developed** for the Grants Division to visualize and calculate funding
  - Can help **communicate** with parties such as lawmakers and producers

# LRFD PROJECTS

Environmental Scan Report, LFPA Dashboard, VegU Analysis

- Created 3-page infographic of the 2024 **Environmental Scan Report** which identified farmers' market typologies, and contains data visualizations
- Built a state-level dashboard of **Local Food Purchase Assistance Cooperative Agreement Programs (LFPA Purchases)** with hex maps, KPIs, and relevant charts
  - Identified data indicators to substantiate case studies selection
- Visualized the 2024 **Farmers' Market survey** data in Excel
  - Set up formulas and charts to easily incorporate new data in the upcoming months
  - To be used in Annual Report



# THANK YOU!

Special shoutout to the “Goonies Never Say Null” Team and everyone else who has supported my work this summer!