

# Supporting Stakeholders with Data-informed Decision Making: GaDOE's Lessons Learned with Georgia Insights

**Nicholas Handville**, Chief Data Officer, Data Collections, Analysis, and Reporting, Technology Services, Georgia Department of Education

**Adam Churney**, Data Analysis and Reporting Manager, Data Collections, Analysis, and Reporting, Technology Services, Georgia Department of Education

**Jeffrey Harding**, Senior Research and Data Scientist, Georgia Department of **Education**



# GaDOE's Data Visualization and Analytics Modernization Efforts

## **Supporting Stakeholders with Data-informed Decision Making: GaDOE's Lessons Learned with Georgia Insights**

**Carl Vinson Institute of Government  
University of Georgia**

**April 26, 2023**

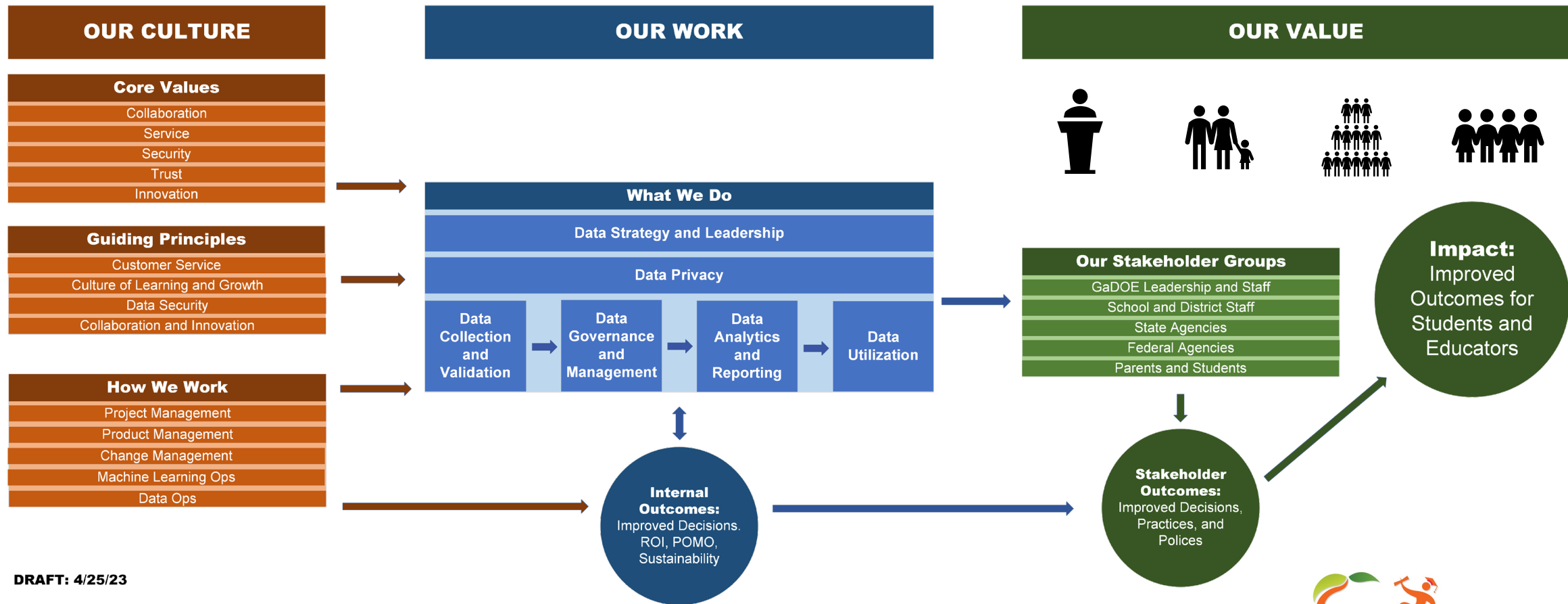
**Adam Churney**  
**Data Analysis and Reporting Manager**  
*Adam.Churney@doe.k12.ga.us*

**Dr. Jeffery Harding**  
**Senior Research and Data Scientist**  
*Jeffrey.Harding@doe.k12.ga.us*

**Nicholas L. Handville**  
**Chief Data Officer**  
*nhandville@doe.k12.ga.us*

# Data Collections, Analysis, and Reporting at GaDOE

## DCAR Services and Supports Framework



DRAFT: 4/25/23

# GaDOE's Data Modernization Initiative

- Meaningful data-informed decision making is more important than ever. We must support stakeholders in gaining insight from our data.
- DMI includes an overhaul of infrastructure, applications, and data systems
- Get data to stakeholders in ways that facilitate insight, self-service analytics, and data-informed decision making
  - Agency stakeholders – embed within Teams
  - School and district stakeholders – incorporate into MyGaDOE portal / GaConnects
  - Public – Georgia Insights website ([georgiainsights.gadoe.org](https://georgiainsights.gadoe.org))

# Data vs. Information vs. Insight

- **Data** are raw numbers that are collected with a standard way of measuring.
- **Information** is a collection of data points that can bring understanding to something being measured.
- **Insight** is using the data and information to gain a deeper underlying understanding of the data being measured.

# What is Georgia Insights?

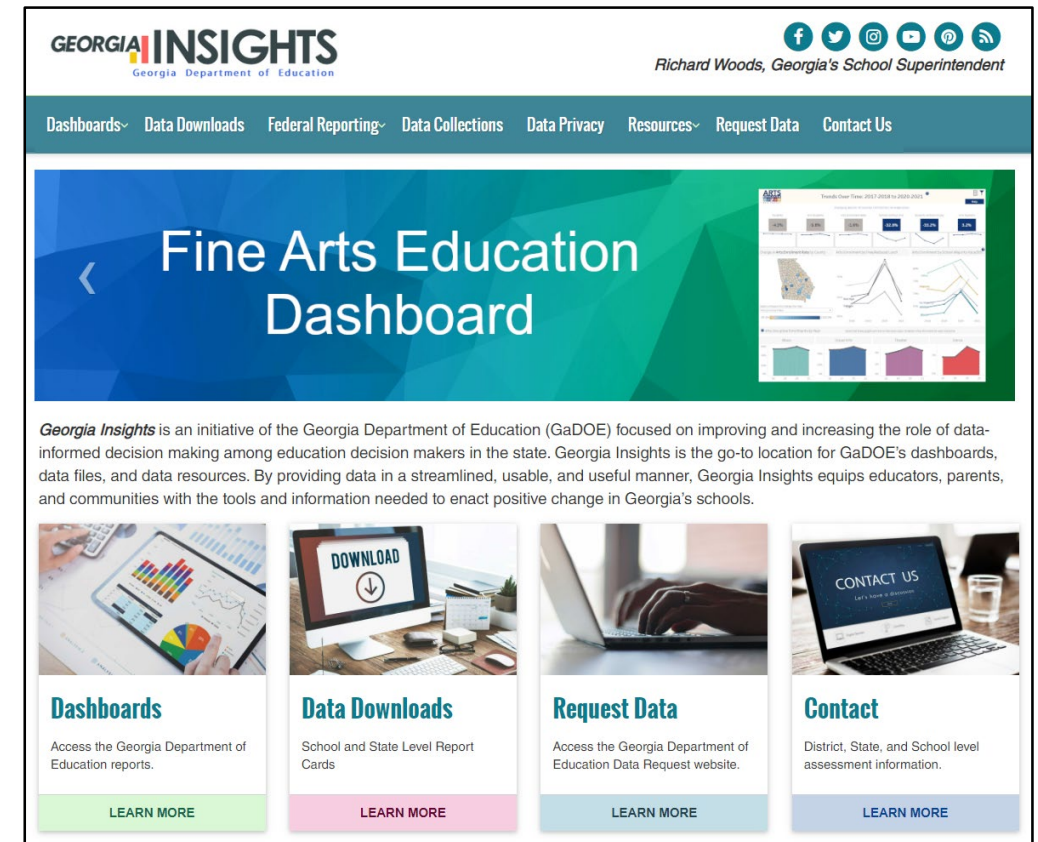
- Georgia Insights is an initiative of the GaDOE, focused on improving the clarity and accessibility of district and school-level data through public-friendly and easy-to-use dashboards.
- Georgia Insights utilizes the data the state already collects and presents it using clear, easy-to-understand visuals. By displaying the data in a streamlined, usable and useful manner, we hope to equip educators, parents, and communities with the tools they need to enact positive change in their schools.

# Old Site



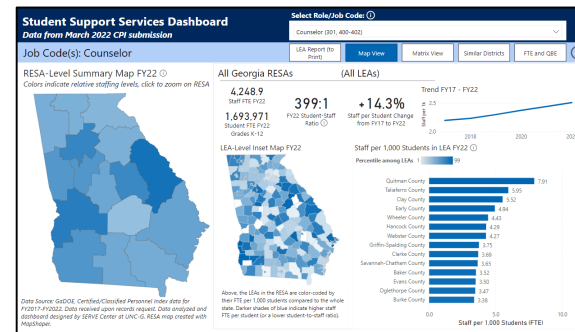
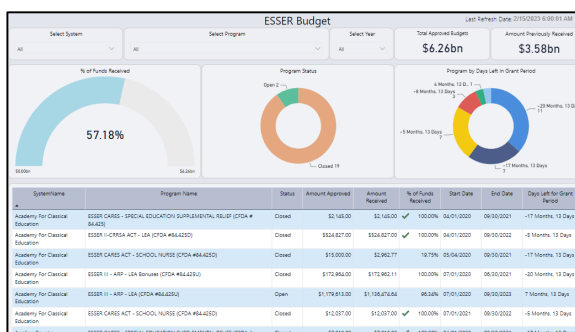
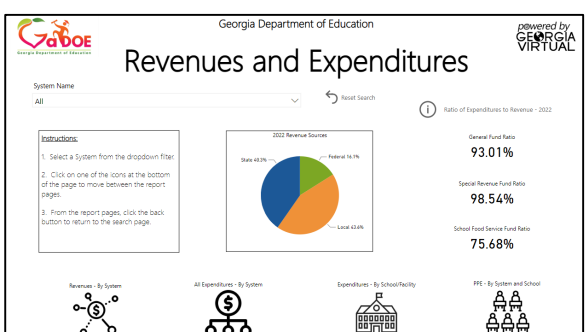
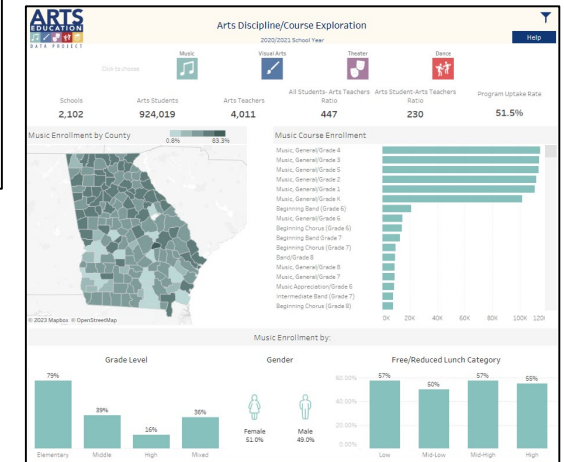
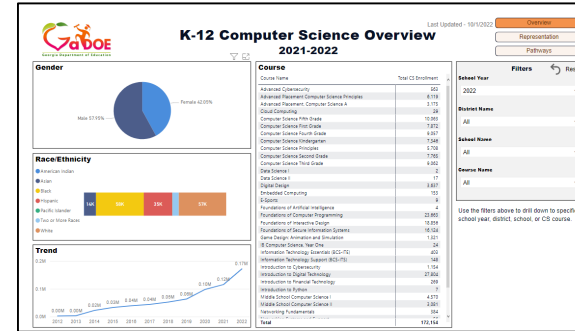
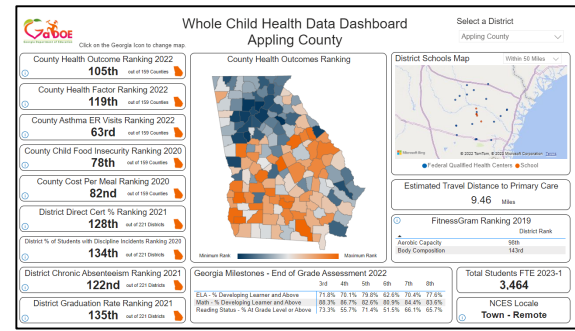
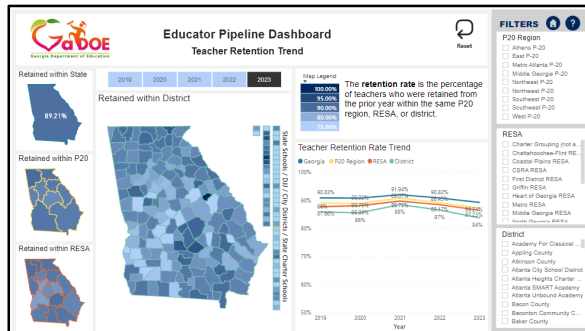
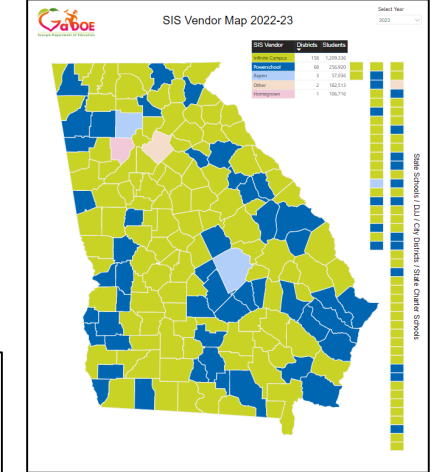
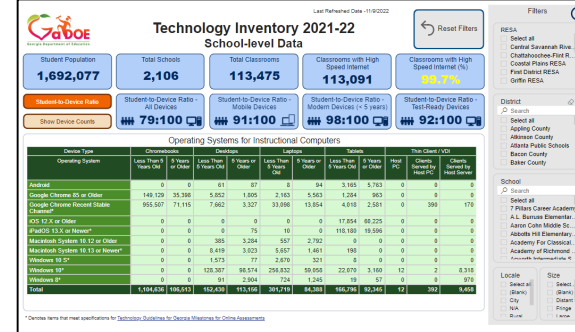
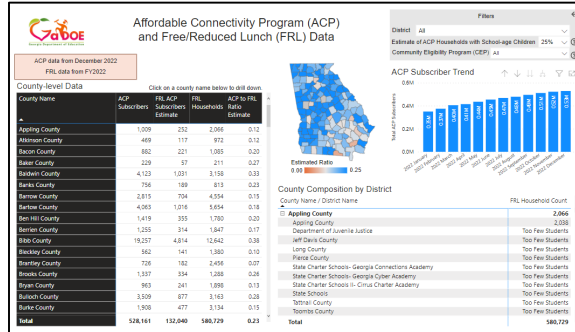
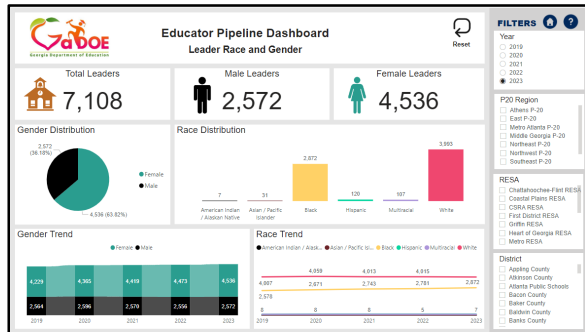
# Need for a Redesigned Georgia Insights

- New content management system (SharePoint) that provides more sophisticated features and functionality
- Need for a single go-to location for all public-facing data at GaDOE
- Expectation that more public-facing dashboards will be developed in the coming years
- Single place for accessing data files

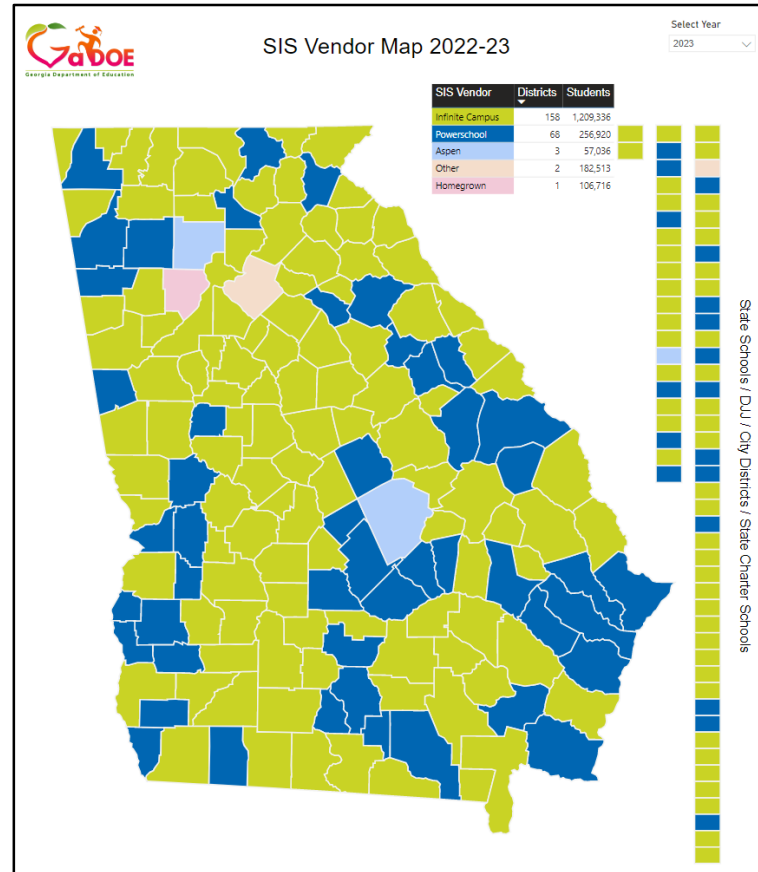




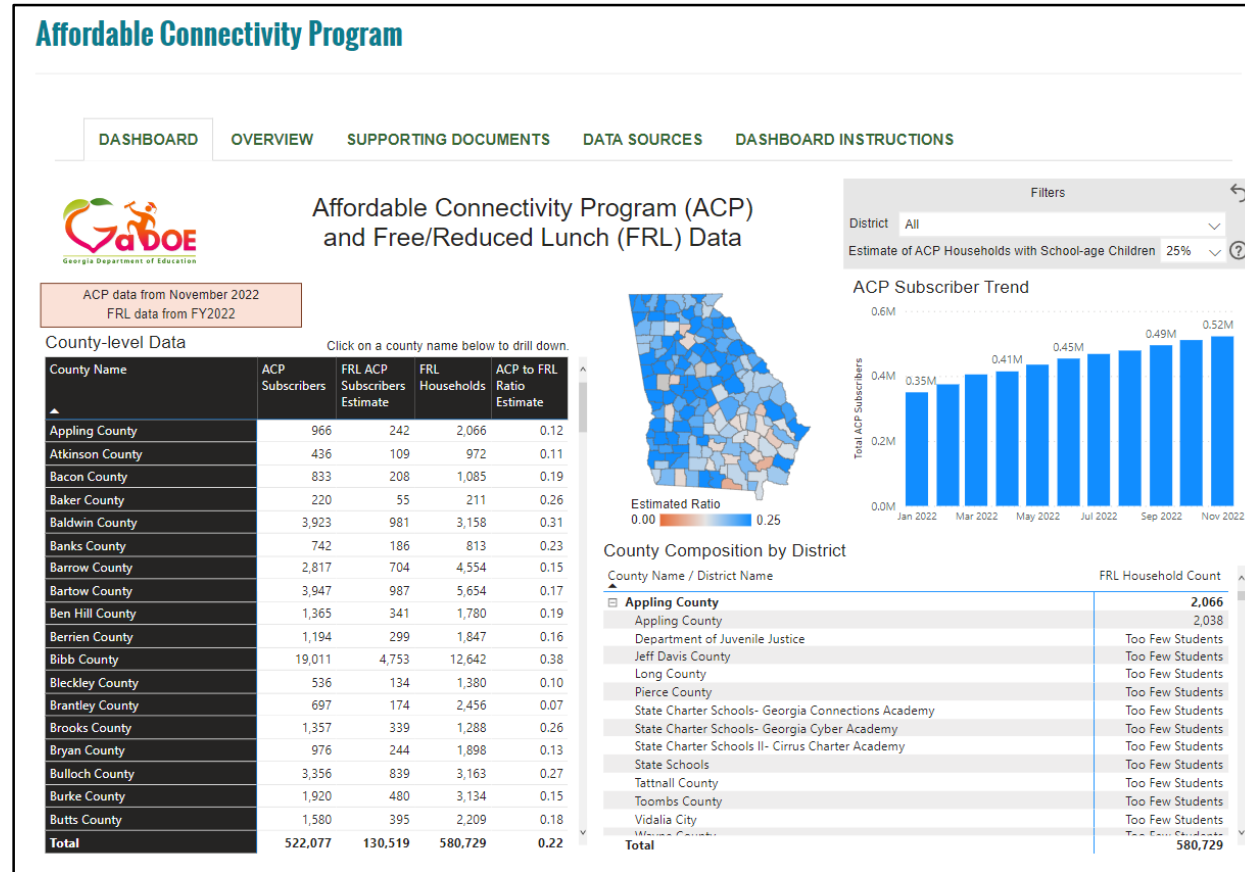
# Dashboards



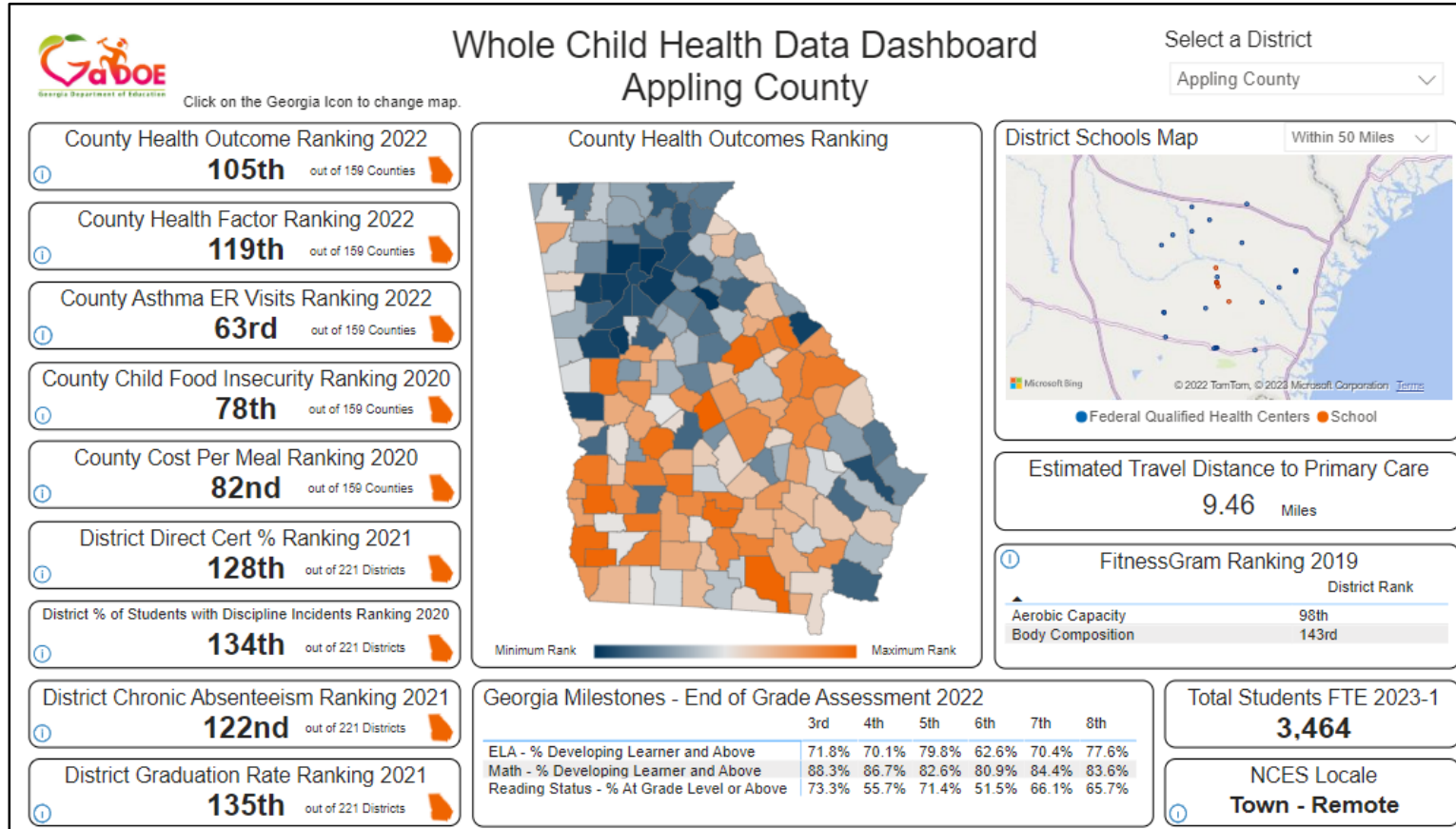
# Dashboards: SIS Vendor Map



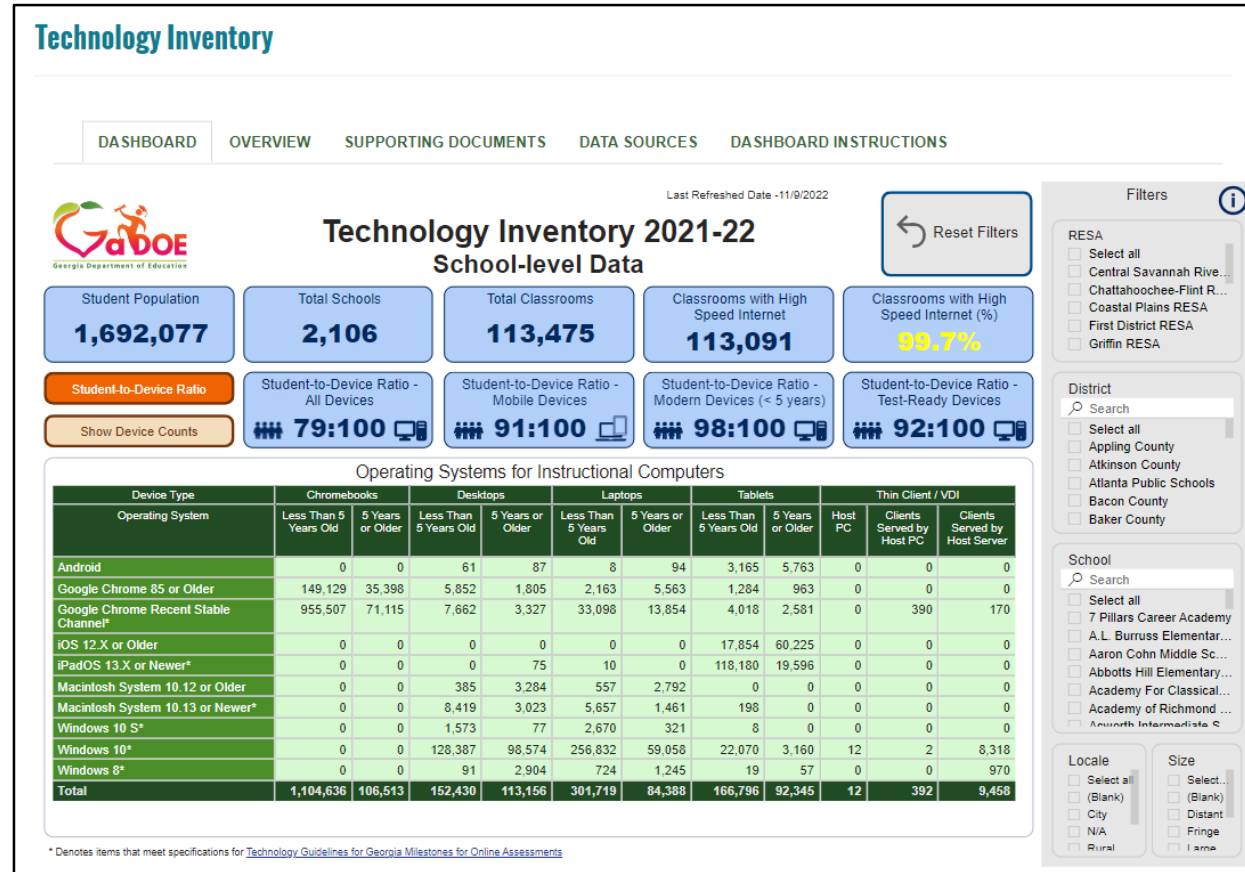
# Dashboards: Affordable Connectivity Program



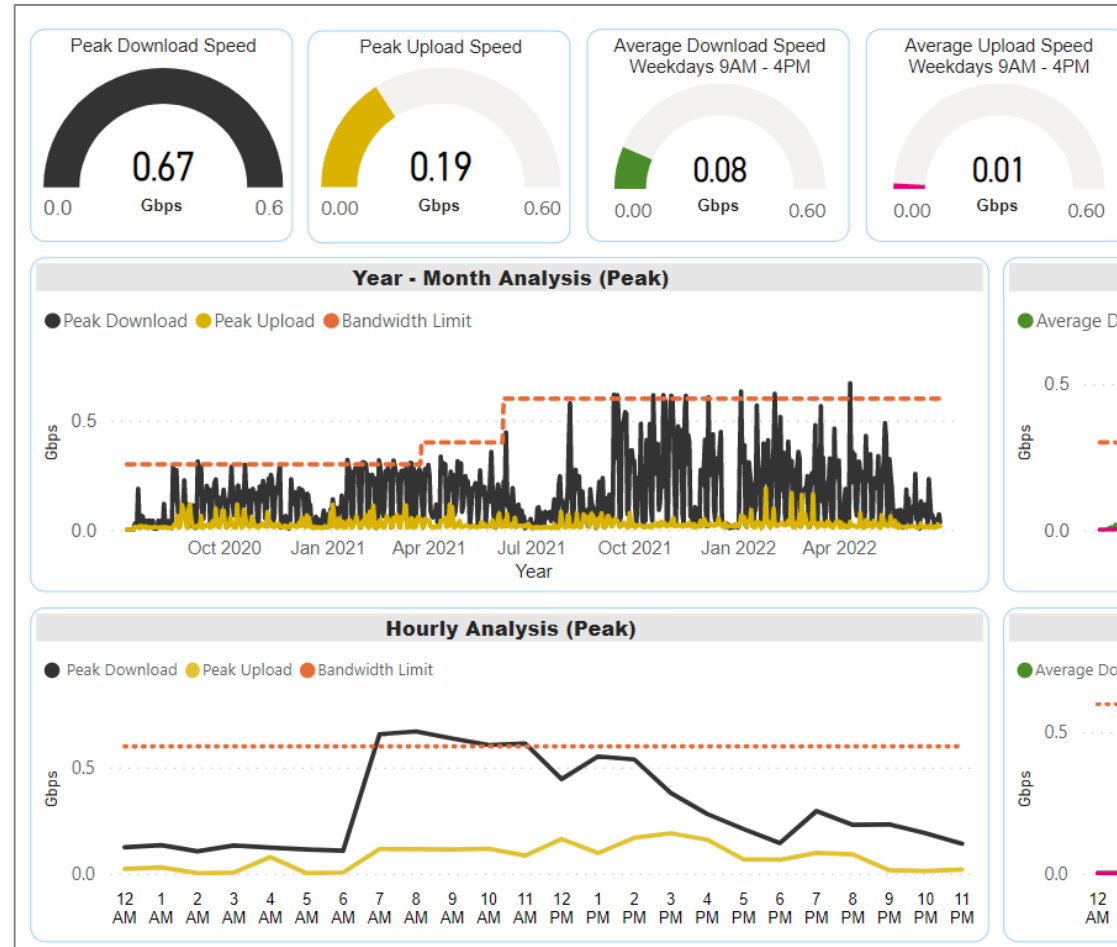
# Dashboards: Whole Child Health Data



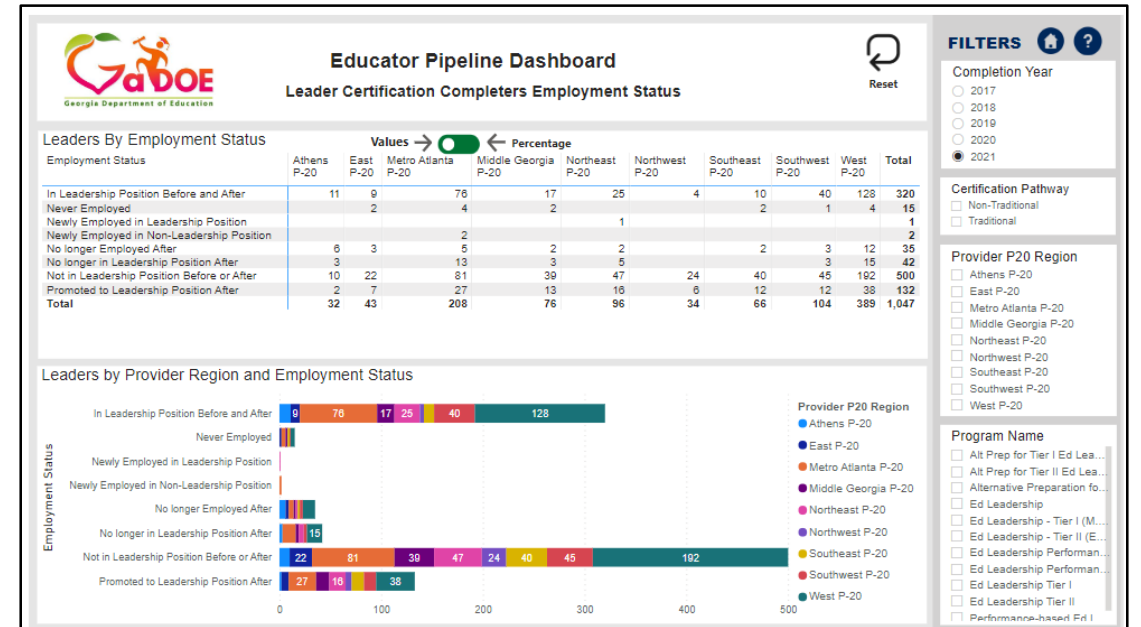
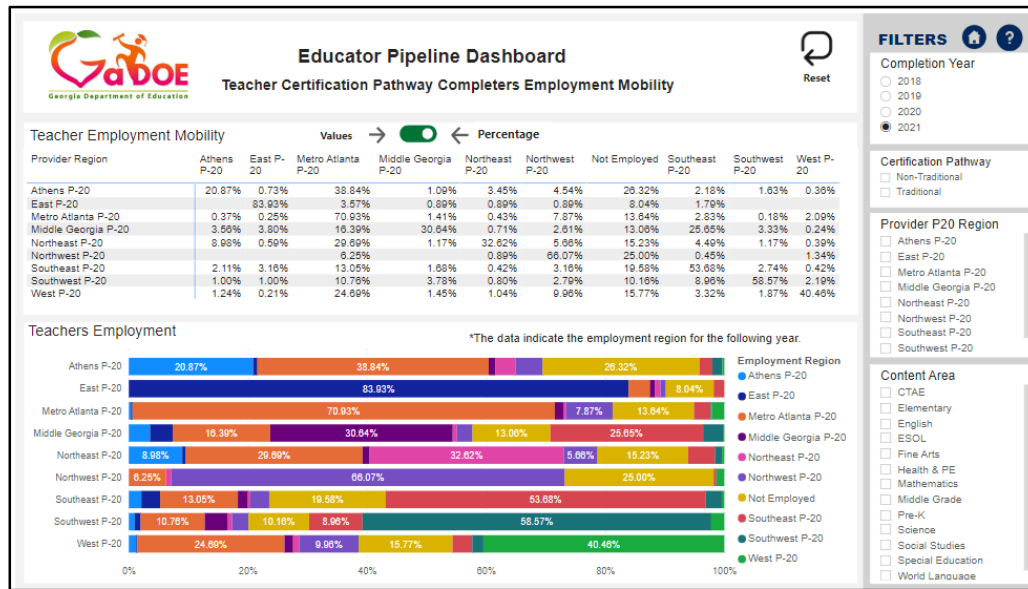
# Dashboards: Technology Inventory



# Dashboards: Bandwidth in GaDOE Portal



# Dashboards: Teacher and Leader Pipeline



# Dashboards: Arts Dashboard

The screenshot displays the 'Arts Education Data Project Georgia Data Dashboards Table of Contents' website. At the top, there is a navigation menu with tabs: TOC, Overview, County Level Arts, District-Level Arts, Arts Disciplines, Trends Over Time, Course Finder, Disciplines Offered, Comparisons, and School Profile. The main header includes the 'ARTS EDUCATION DATA PROJECT' logo, the title 'Arts Education Data Project Georgia Data Dashboards Table of Contents', and a 'Demo Video' button. A note states 'Some student counts duplicate'. Below the header, a grid of 12 dashboard tiles is presented, each with a blue header and a small thumbnail image. The tiles are: 'Instructions & Info' (Icons, Definitions, Navigation Tips, etc.), 'Arts Disciplines' (Arts Discipline Exploration), 'Comparisons' (Select Districts/Schools to Compare Metrics), 'Overview' (State-Level Overview of Key Metrics), 'Trends Over Time' (Key Metric Trends with Adjustable Years), 'School Profile' (Key Metrics for a Selected School), 'County-Level Arts' (County-Level Exploration), 'Course Finder' (Find Specific Courses Offered by Schools), 'No Arts' (Schools and Students Without Access to Arts Ed), 'District-Level Arts' (District-Level Exploration), and 'Disciplines Offered' (Disciplines Offered by School). At the bottom, a footer contains a paragraph about the project's partnership with the State Education Agency and Quadrant Research, and the year '© 2023 Quadrant Research'. Navigation icons and a 'Share' button are located at the very bottom of the page.



# Data Downloads Functionality

- Under Construction
- Goal to minimize clicks and wait time to get data
- Provide a user-friendly interface

The screenshot shows the 'Georgia Insights' website interface. At the top, the logo 'GEORGIA INSIGHTS' is displayed with the tagline 'Georgia Department of Education'. To the right, there are social media icons for Facebook, Twitter, Instagram, YouTube, and LinkedIn, along with the name 'Richard Woods, Georgia's School Superintendent'. A navigation menu includes 'Dashboards', 'Data Downloads', 'Federal Reporting', 'Data Collections', 'Data Privacy', 'Resources', 'Request Data', and 'Contact Us'. The main content area is titled 'Data Downloads' and features a 'Data Reports' section with a list of reports: 'Enrollment by Ethnicity/Race and Gender', 'Free and Reduced Price Meal Eligibility', 'Graduation Rates', 'School Counts', 'Student Enrollment by Disability', and 'Student Enrollment by Grade Level (PK-12)'. Below this, there is a 'Data Downloads' section with the text 'Coming Soon'.

# Data Science at GaDOE

- Large amounts of administrative data provide unique opportunities to leverage emerging technologies and methodologies.
- Large does not necessarily mean good.
- Expectations management is very important.
- Errors and uncertainty are features and not bugs.

# Data Science at GaDOE

$$\hat{y} = \alpha + \hat{\beta} + \epsilon$$

$\hat{y}$  Outcomes

$\hat{\beta}$  Explainers

# Data Science at GaDOE

Most people tend to want to know about explainers.

- Which textbook is best?
- What intervention has the highest return on investment?
- What teaching strategies improve test scores the most?

# Data Science at GaDOE

- It much easier to predict outcomes than it is to evaluate interventions.
- Evaluating interventions requires a great deal of planning and comprehensive data tracking and reporting.
- These are unusual at the state level, despite the wide access we have to administrative data.

# Data Science at GaDOE

## Challenges to the work:

- Local control presents many challenges for state level work. LEAs have a great deal of autonomy.
- Constant, even planned, changes to policy, practice, assessment, etc... causes many complications in data analysis work, especially when relying on longitudinal data.

# Questions and Answers



## GaDOE's Data Visualization and Analytics Modernization Efforts

### **Supporting Stakeholders with Data-informed Decision Making: GaDOE's Lessons Learned with Georgia Insights**

Carl Vinson Institute of Government  
University of Georgia

April 26, 2023

**Adam Churney**  
Data Analysis and Reporting Manager  
*Adam.Churney@doe.k12.ga.us*

**Dr. Jeffery Harding**  
Senior Research and Data Scientist  
*Jeffrey.Harding@doe.k12.ga.us*

**Nicholas L. Handville**  
Chief Data Officer  
*nhandville@doe.k12.ga.us*