

n-catt

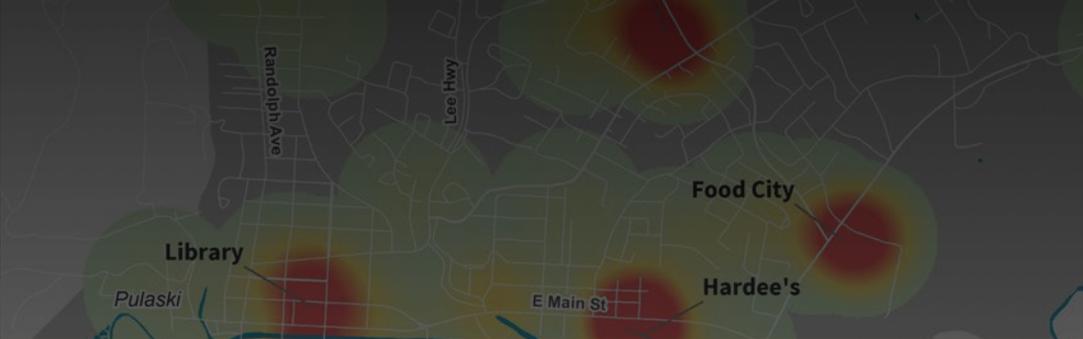


National Center
for Applied Transit
Technology

Data: Collecting, Managing, and Making Decisions

WEBINAR





Welcome and Introductions

COLLECTING, MANAGING, AND MAKING DECISIONS WITH DATA WEBINAR



National Center for Applied Transit Technology

- Walking small agencies through the technology landscape
- Producing resources on adopting emerging technologies
 - Zero-emission vehicles, green infrastructure, data management, new software decision-making
 - Lessons learned, trends, strategies
- Providing in-depth technical assistance to adopting new technologies
 - Strike Teams and State Summits
 - Enabling technology transfer
- Developing hands-on workshops to understand how different technologies can be applied
 - Data Management, Digital Tools for Redesigns

N-Catt Staff



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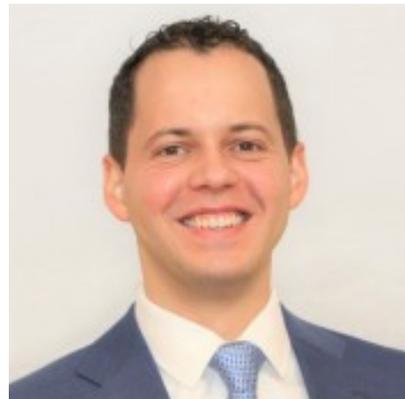
Marcela Moreno
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Presenters

- Foursquare ITP



Adam Recchia
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Manager



Reinaldo Germano
Senior
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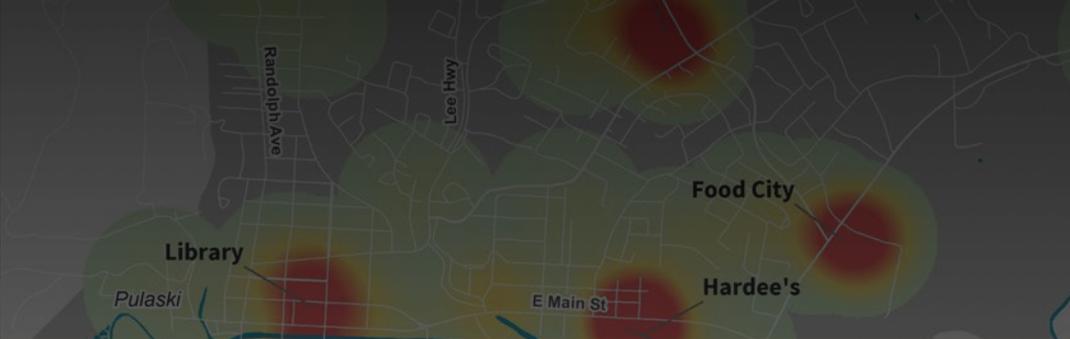
- Transit Agency Invitees



Chelsea Youngs
Planning Specialist at
Crawford Area
Transportation Authority



Brad Rader
Operations Supervisor at
Pullman Transit



Data Practices Guidebook

OVERVIEW



214 Pine St, Meadville, PA 16335

Meadville Medical Center, 751 Liberty S

Depart at: 8:56 AM Thu, Feb 4

Send directions to your phone

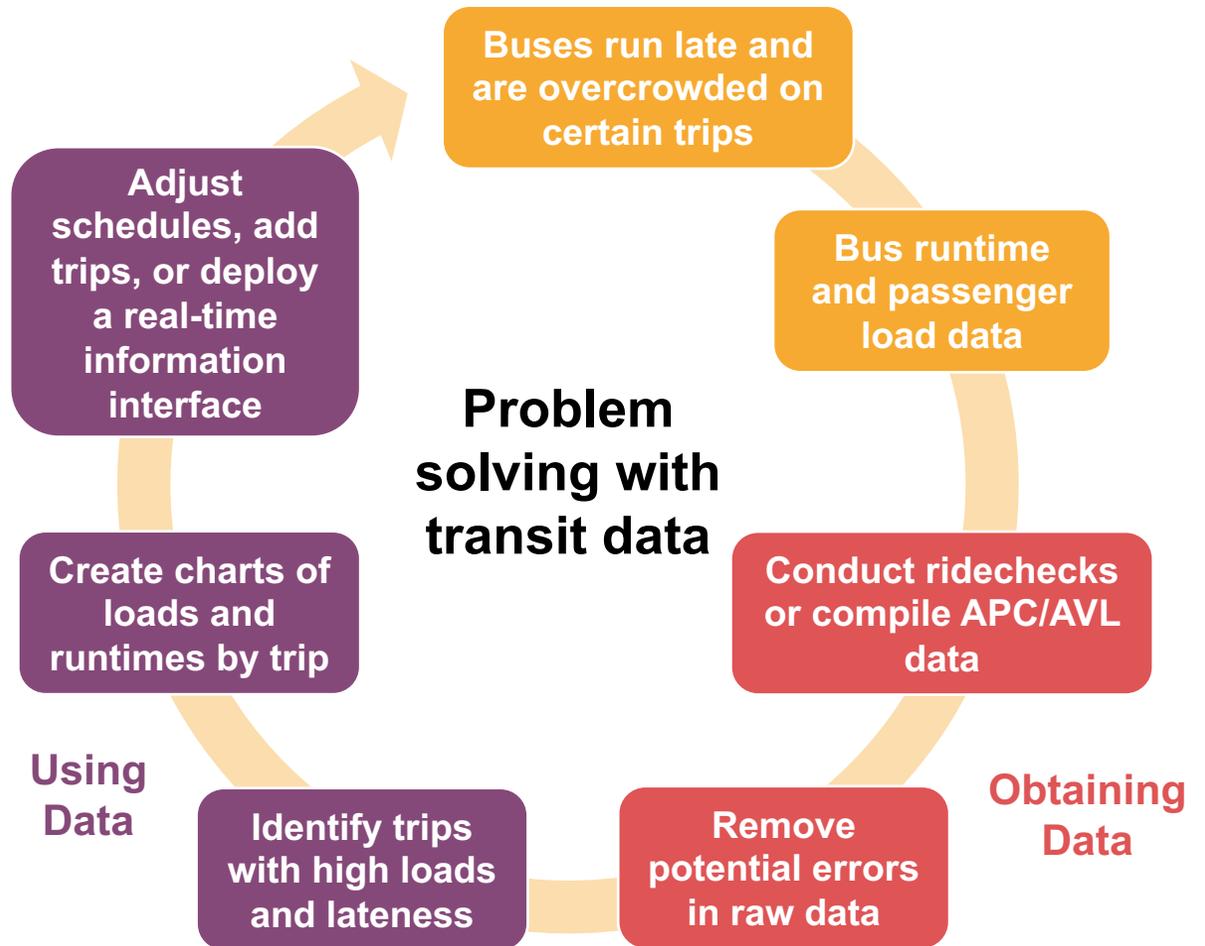
Time	Route	Duration
8:57 AM - 9:13 AM	Titusville to Meadville	16 min
9:02 AM - 9:20 AM	Blue A	18 min

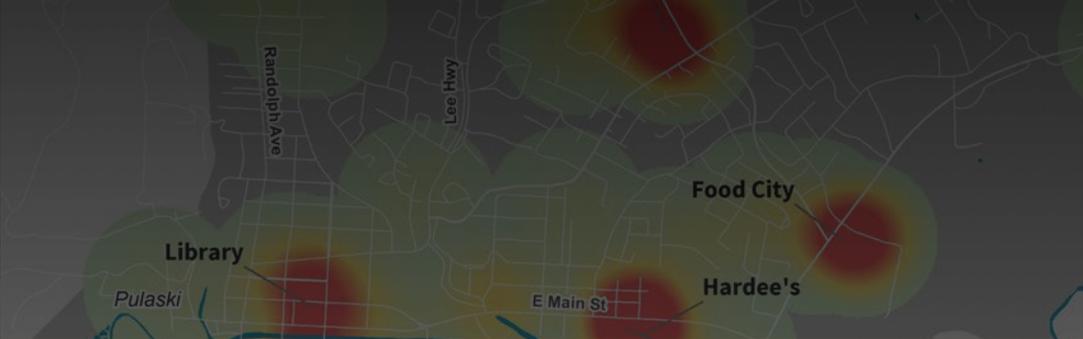
9:02 AM from CATA Office Meadville 12 min



What is the Data Practices Guidebook?

- The Data Practices Guidebook outlines how agencies can **obtain data** and how to **use data** for planning and monitoring service, leveraging partnerships, and increasing access and equity.
- Several case studies demonstrate how small transit agencies are **already implementing good data practices**.





Obtaining Data

DATA SOURCES AND DATA STANDARDS



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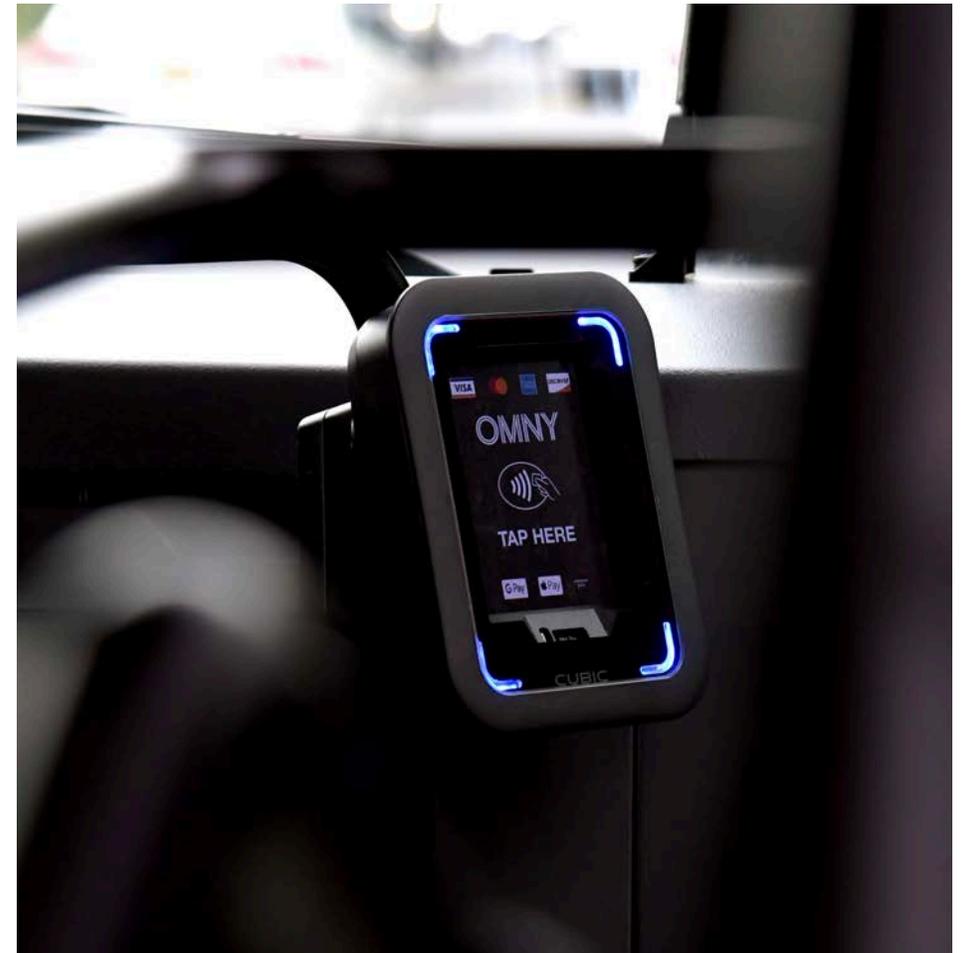
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Adoption of New Technologies

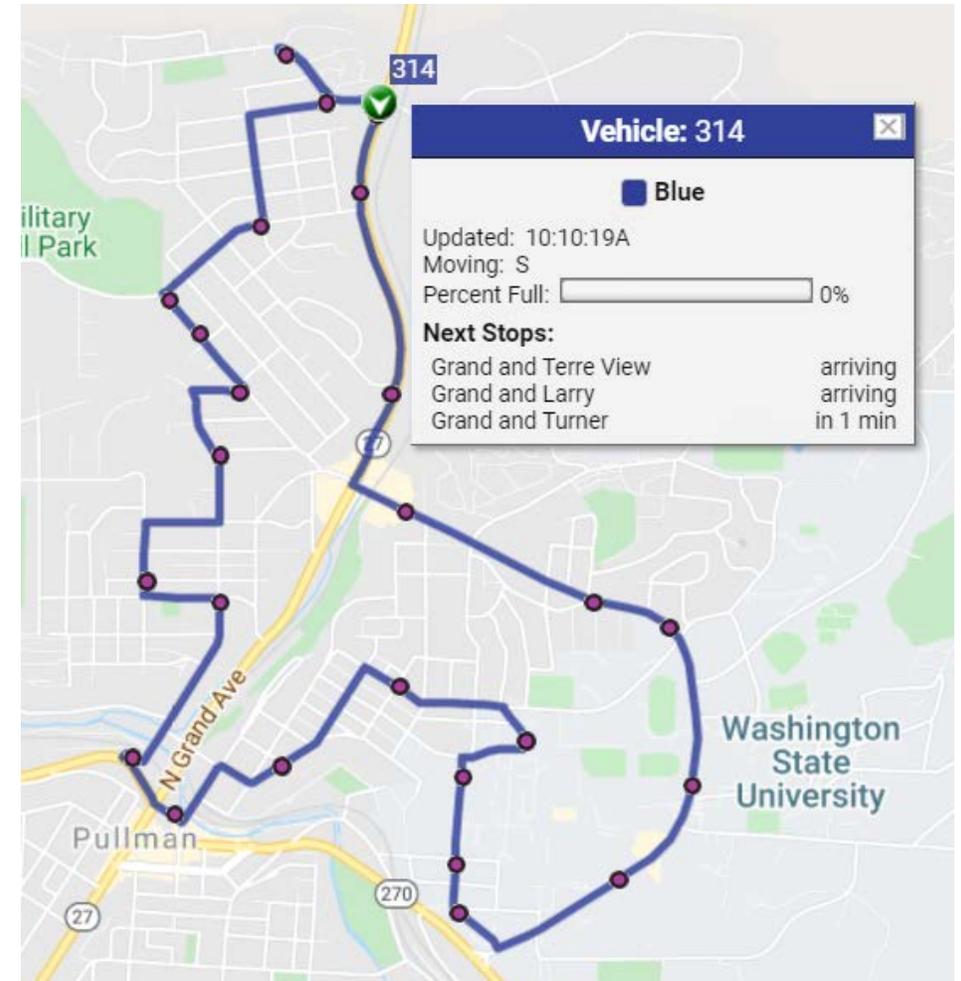
- New data sources can provide agencies with **more data** and **better data**.
- New technologies offer **passive data sources** which collect data automatically using installed hardware and connected devices.
 - Automatic passenger counting (APC)
 - Automatic vehicle location (AVL)
 - Automatic fare collection (AFC)
- These technologies increase the **reliability of data** and the **amount of data collected**.



Automatic Fare Collection (AFC) Farebox

Customer Information

- The adoption of new data collection technologies can also improve **customer access** to data.
- Agencies have used **AVL** data to implement online bus trackers, real-time arrival signage, and texting services with real-time arrival information.
- Similarly, **APC** systems can in some cases disseminate real-time passenger load data to customers.



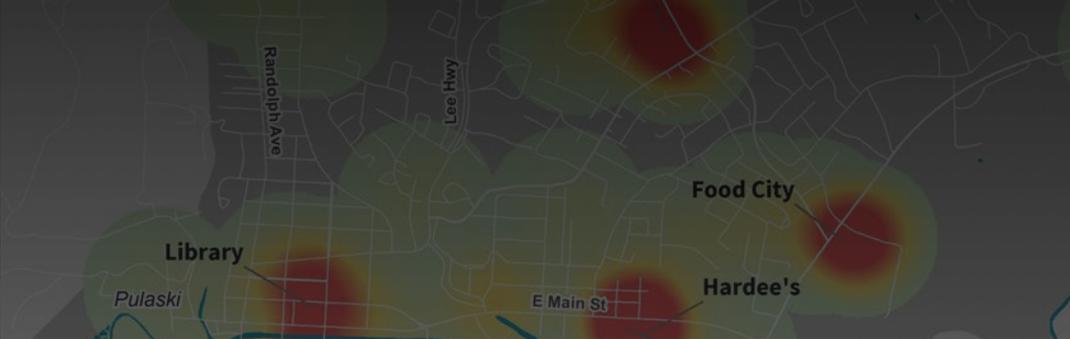
Pullman Transit real-time bus tracker

Industry Data Standards

- Managing, analyzing, and sharing transit data is **easier** and **faster** when agencies use internal or industrywide data standards.
- Data standards specify **which information should be included** in a dataset and **how it should be formatted**.
- Formal data standards, such as **GTFS**, **GTFS-Realtime**, or **GTFS-Flex** allow agencies to use tools that require such data, like Google Maps.

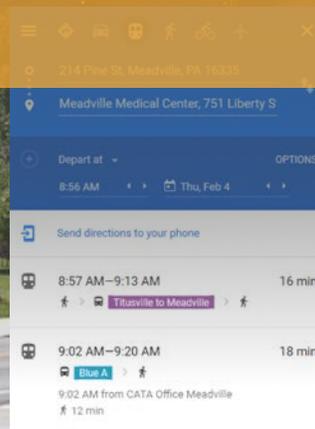
	A	B	C	D	E	F	G
1	Routes	route_id	service_id	direction_id	trip_headsign	stop_id	stop_desc
124	Bus Route: BlueA_Weekday						
125		BlueA	mtwtf	1	DOWNTOWN MALL	1	Downtown Mall
126		BlueA	mtwtf	1		4	CATA Office Meadville
127		BlueA	mtwtf	1		5	Active Aging
128		BlueA	mtwtf	1		6	Holland Towers
129		BlueA	mtwtf	1		34	Willow St & Park Ave
130		BlueA	mtwtf	1		105	Willow St & S Cottage Ave
131		BlueA	mtwtf	1		106	S Main St & Davis St
132		BlueA	mtwtf	1		107	S Main St & Poplar St
133		BlueA	mtwtf	1		108	Poplar St & Liberty St
134		BlueA	mtwtf	1		109	Poplar St & East Al
135		BlueA	mtwtf	1		110	Poplar St & Fairmont Ave
136		BlueA	mtwtf	1		111	Fairview/Fairmont Apts
137		BlueA	mtwtf	1		112	Meadville Medical Center Grove St
138		BlueA	mtwtf	1		113	Pine St & Spencer Alley
139		BlueA	mtwtf	1		114	Pine St & East St
140		BlueA	mtwtf	1		115	Liberty St & Poplar St
141		BlueA	mtwtf	1		116	Liberty St & Willow St
142		BlueA	mtwtf	1		117	Liberty St & Lamont Dr
143		BlueA	mtwtf	1		118	Liberty (Near Ranz)
144		BlueA	mtwtf	1		119	Liberty St & Arthur St
145		BlueA	mtwtf	1		120	Forest Green Apts
146		BlueA	mtwtf	1		121	Graff St & Talon St
147		BlueA	mtwtf	1		122	Meadowland Dr & Neason St
148		BlueA	mtwtf	1		123	Williamson Rd & St. Brigids Cemete
149		BlueA	mtwtf	1		124	Williamson Rd & Neelson Hill Eleme
150		BlueA	mtwtf	1		125	Morgan St & Ravine St

RTAP GTFS Builder tool



Crawford Area Transportation Authority (CATA) Use of the RTAP GTFS Builder

AGENCY PROFILE



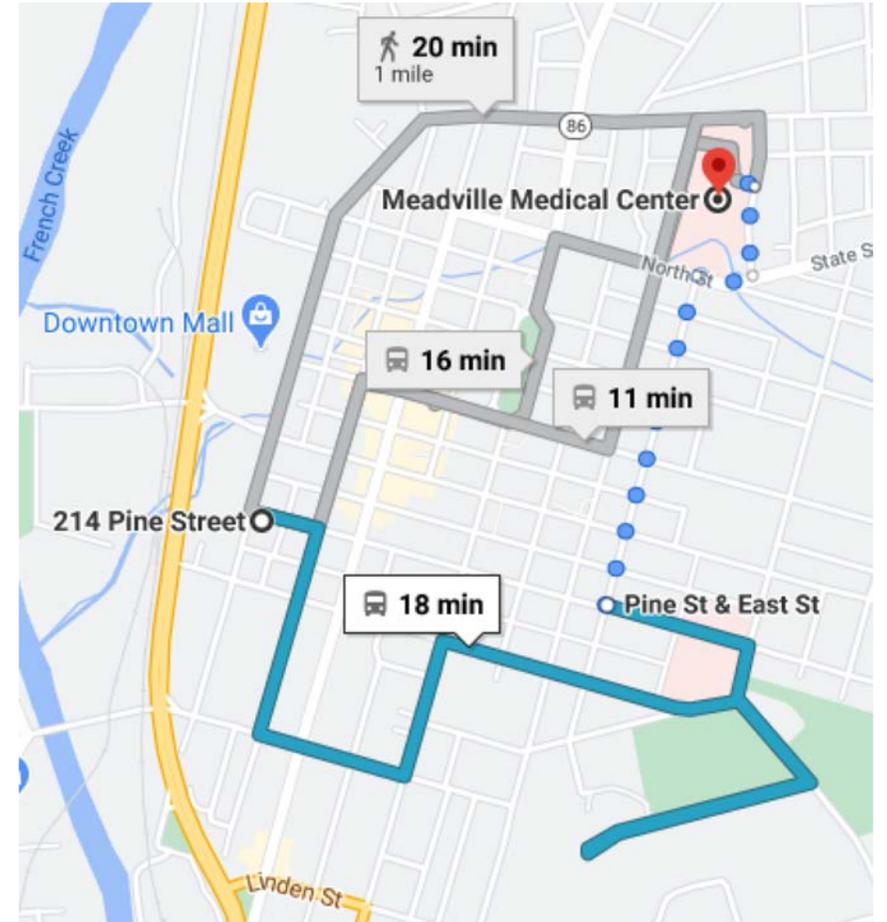
CATA Use of the RTAP GTFS Builder

- Creating a GTFS feed is a great way to organize your agency's schedule data to provide trip planning services for your customers.
- Once feeds are created, they are easy to maintain using the Builder and can lead to new efficiencies with creating schedule brochures and other tasks.

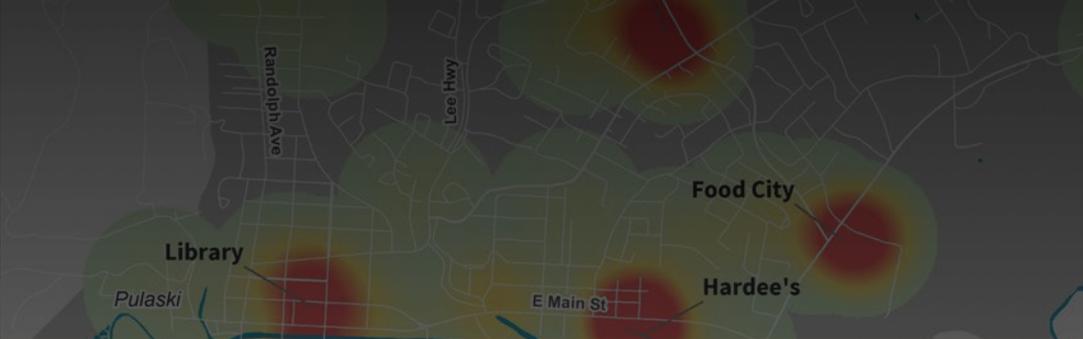


CATA Use of the RTAP GTFS Builder

- This process allowed CATA to **review the accuracy of all timetables** printed on their website.
- By publishing the schedule data to Google Maps and CATA's online trip planner, **phone calls** requesting trip planning assistance **were drastically reduced**.
- Creating the new GTFS feed also forced CATA to **better organize their data**, particularly for stop locations and route alignments.
- Now that their data is fully recorded in the GTFS format, it is **easy to update** the feed to reflect new schedule changes.



CATA trip planning in Google Maps



Using Data

PARTNERSHIPS, PERFORMANCE MONITORING, AND DECISION MAKING

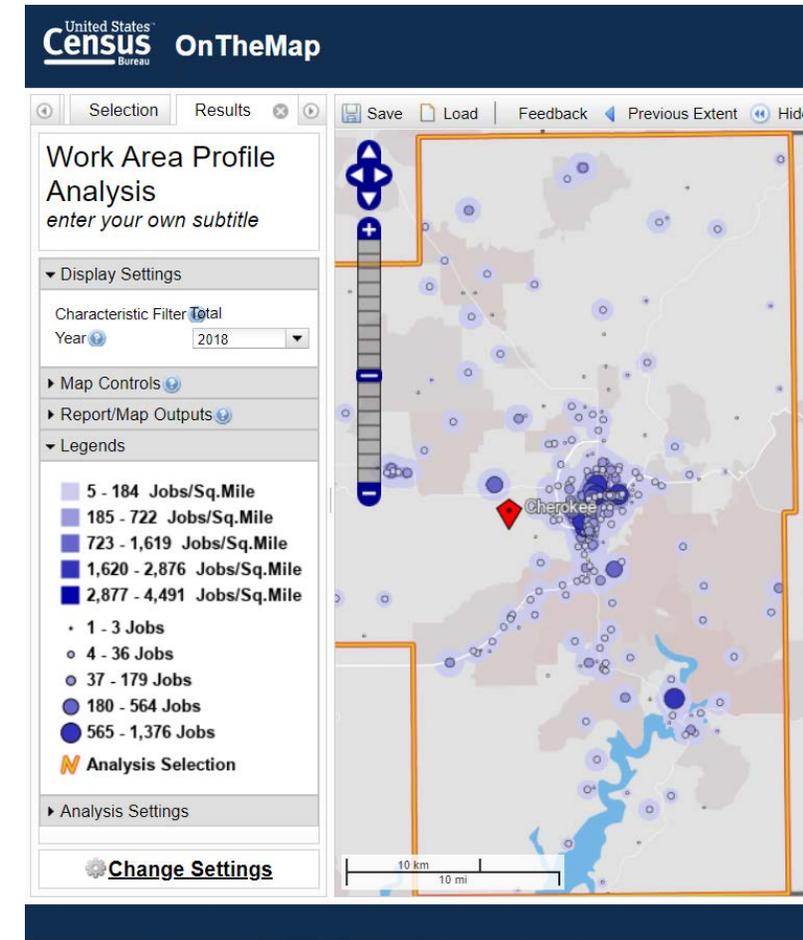


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External Data and Partnerships

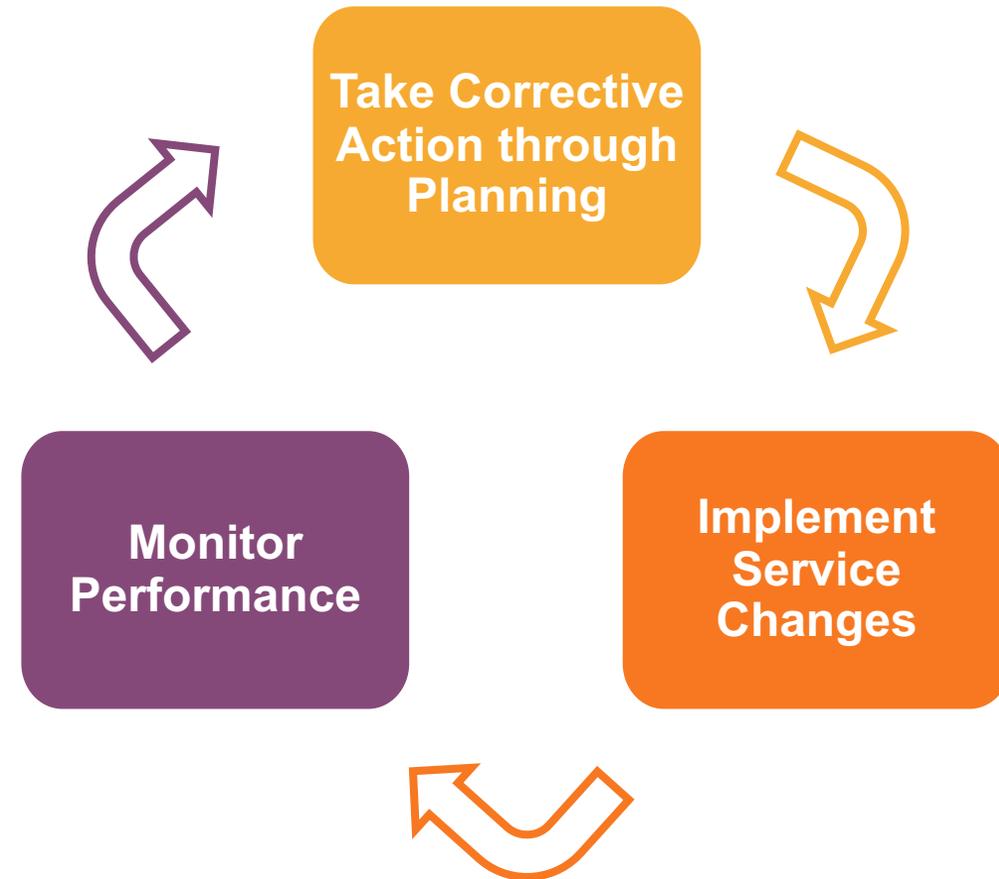
- **Data collected or created by other entities** can be useful to transit agencies when planning new routes or making service modifications.
- **Partnerships** with regional planning organizations, state DOTs, businesses, and universities can **increase an agency's access to data** such as travel demand data and information on employees or students.
- Agencies with limited resources can also use partners for **assistance with data analysis and decision making.**

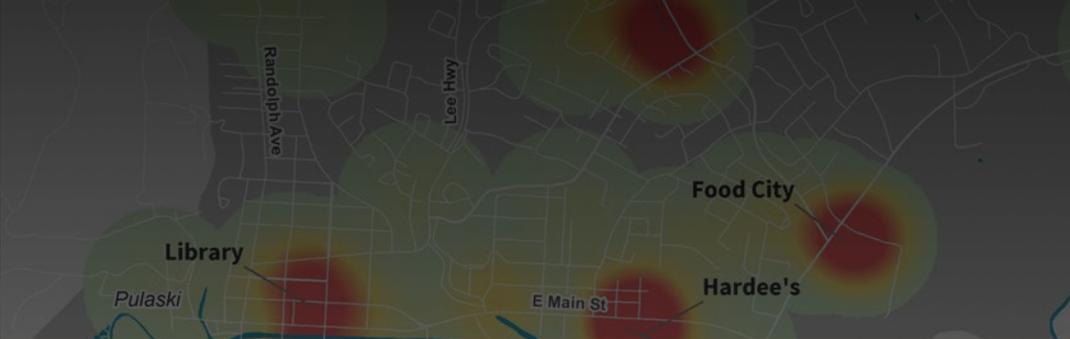


U.S. Census OnTheMap platform

Performance Monitoring and Decision-Making

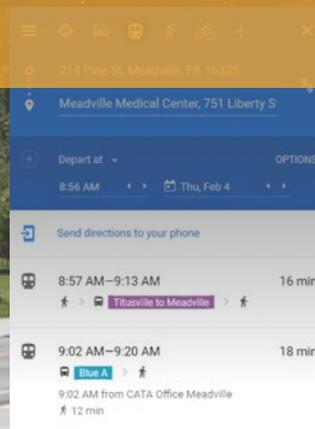
- The cycle of planning, implementation, and performance monitoring is **best supported by data**.
- Data can help agencies monitor ridership, schedule adherence, customer satisfaction, and financial performance. This data **feeds directly back into the planning process**.
- Data-driven planning and performance monitoring require both **technology investments** and **staff know-how**.





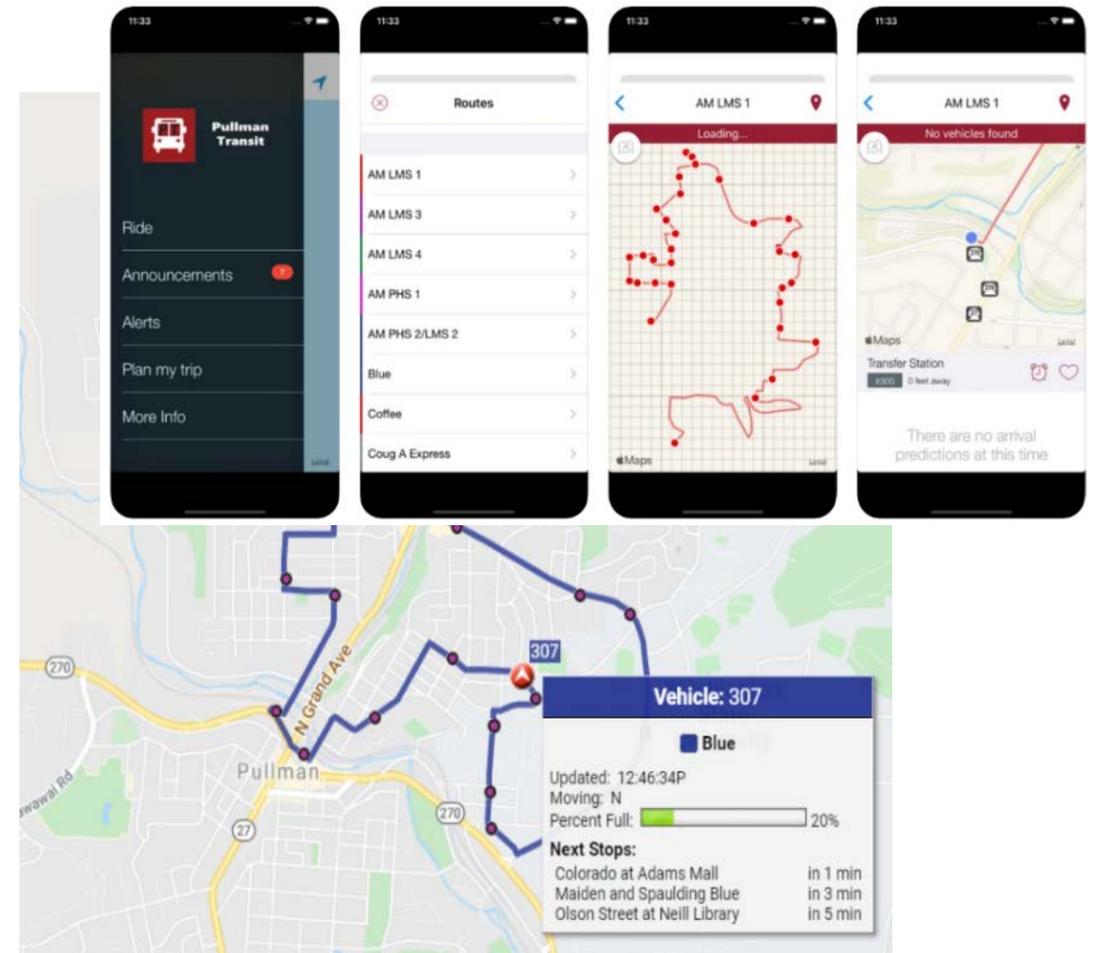
Pullman Transit Mobile App

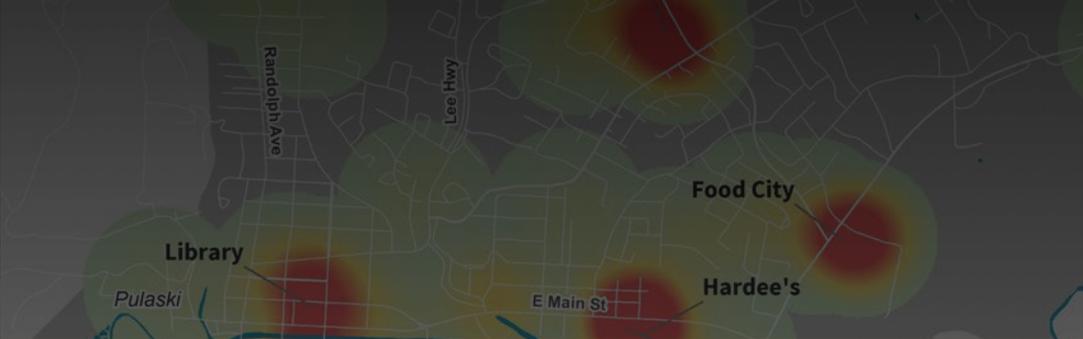
AGENCY PROFILE



Pullman Transit Mobile App

- App provides:
 - Real-time bus location information
 - Real-time passenger loads on buses
 - Announcements
 - Rider alerts
 - Trip planning
- By providing better customer information, the app drastically cut down on customer service calls
- Staff noted importance of observing technology installation for future troubleshooting





What can you do with the Data Practices Guidebook?



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What can you do with this Guidebook?

- Chances are **your agency already has data!**
- Incorporating good data practices at your agency requires a wide array of strategic considerations:

Data Needs

Data Collection

Data Availability

Data
Granularity

Data Sharing

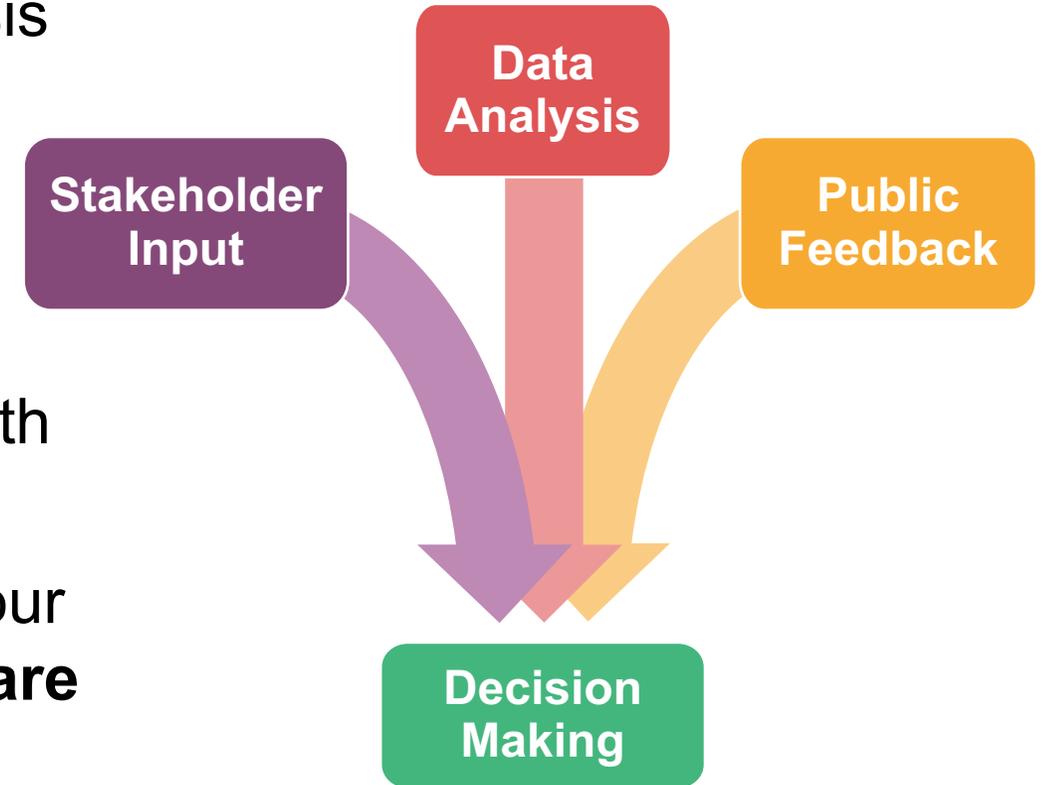
Communication

Resources

Needed Skills

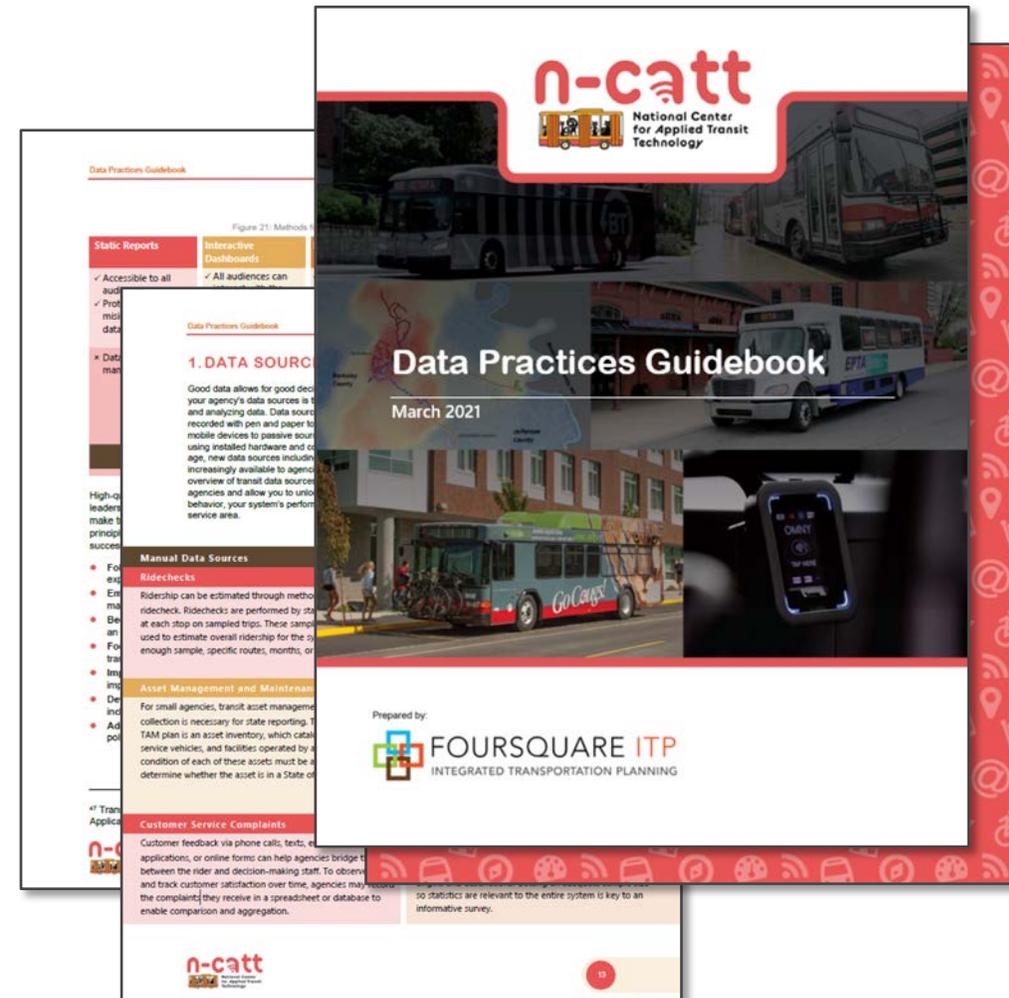
Data's role in decision-making processes?

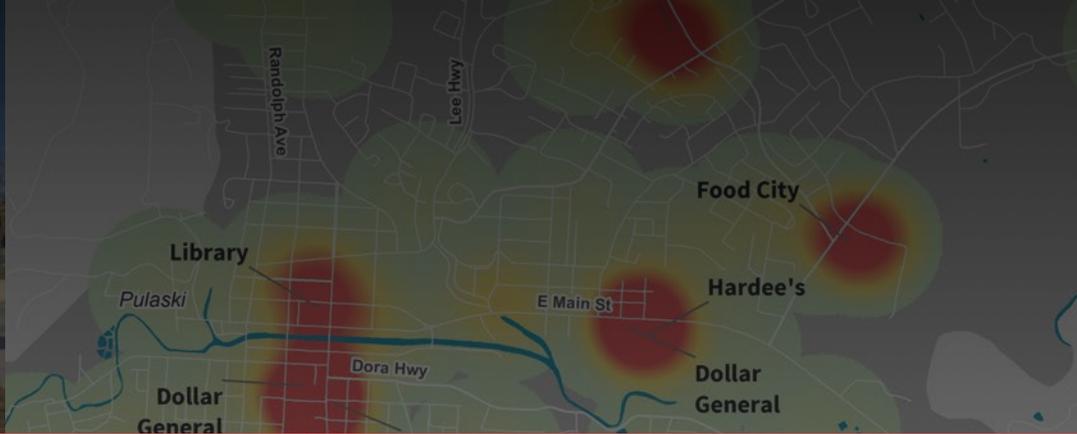
- **Data does not have all the answers.** Especially in aggregate form, data analysis may miss key outliers that the public or stakeholders know about.
- The Guidebook aims to show how data can become a **central part of your decision-making process**, integrated with other forms of input.
- **See the possibilities** for using data at your agency and **learn what other agencies are doing!**



Learn More!

Visit n-catt.org to access more resources and soon download the **Data Practices Guidebook** to learn more!





THANK YOU



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