

iNTD Webinar

August 24, 2023

National RTAP
Rural Transit Assistance Program

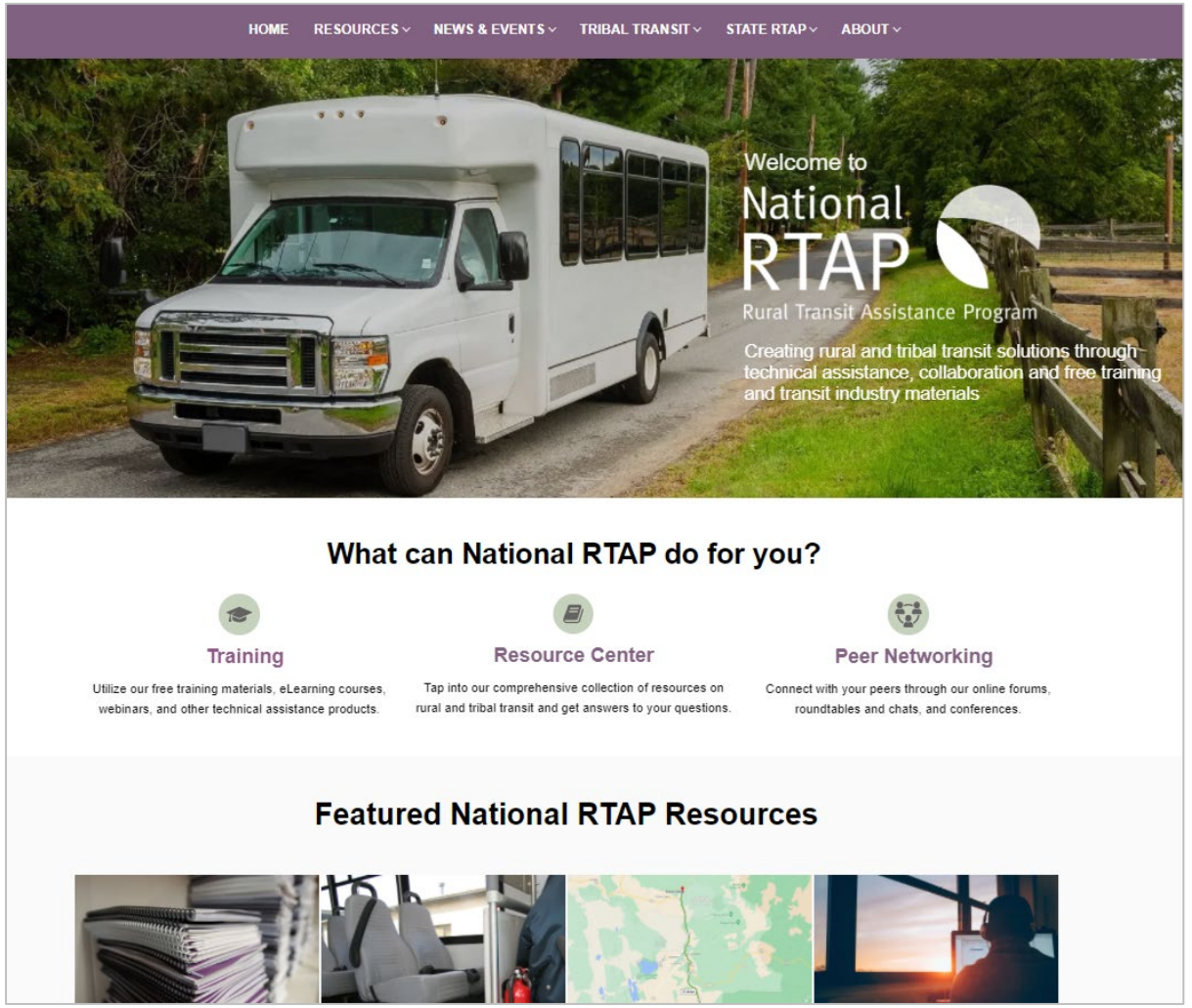
FTA
U.S. Department of Transportation
Federal Transit Administration

National Rural Transit Assistance Program

- Technical assistance center funded by FTA through Section 5311
- No-cost training and technical assistance resources and services

Vision: Safe, compliant, efficient and effective rural and tribal transit that reflects community needs and values.

- Guided by a 14-member Review Board
- Learn more at nationalrtap.org



National RTAP Resources and Services

Training

Manuals, videos, PPTs, eLearning, webinars

Information

Technical briefs, toolkits, eNews, research

Technology Tools

For procurement, GTFS, websites, cost allocation

Peer Networking

Conferences, roundtables, online forums

Assistance

Reference services – bring us your questions!

Speaker Introductions



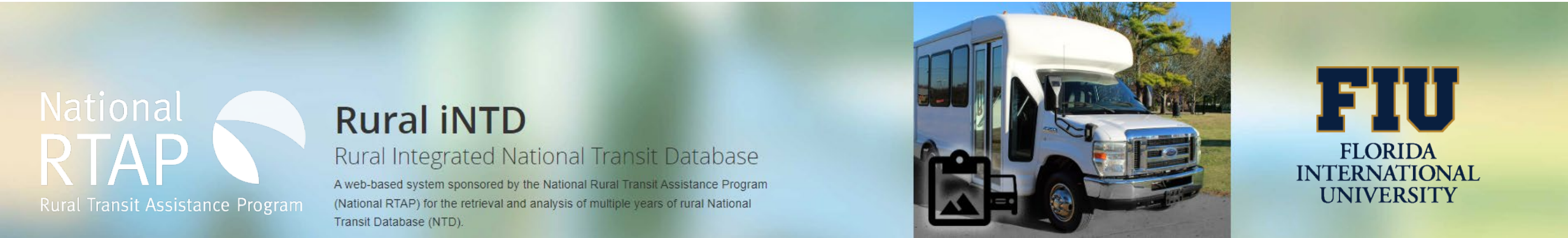
Dr. Albert Gan
Professor of Transportation Engineering
Florida International University



Kristin Haar
Public Transit Director
Iowa Department of Transportation

Integrated National Transit Database for Rural Agencies (Rural iNTD)

Albert Gan, Ph.D., Professor
gana@fiu.edu
Florida International University

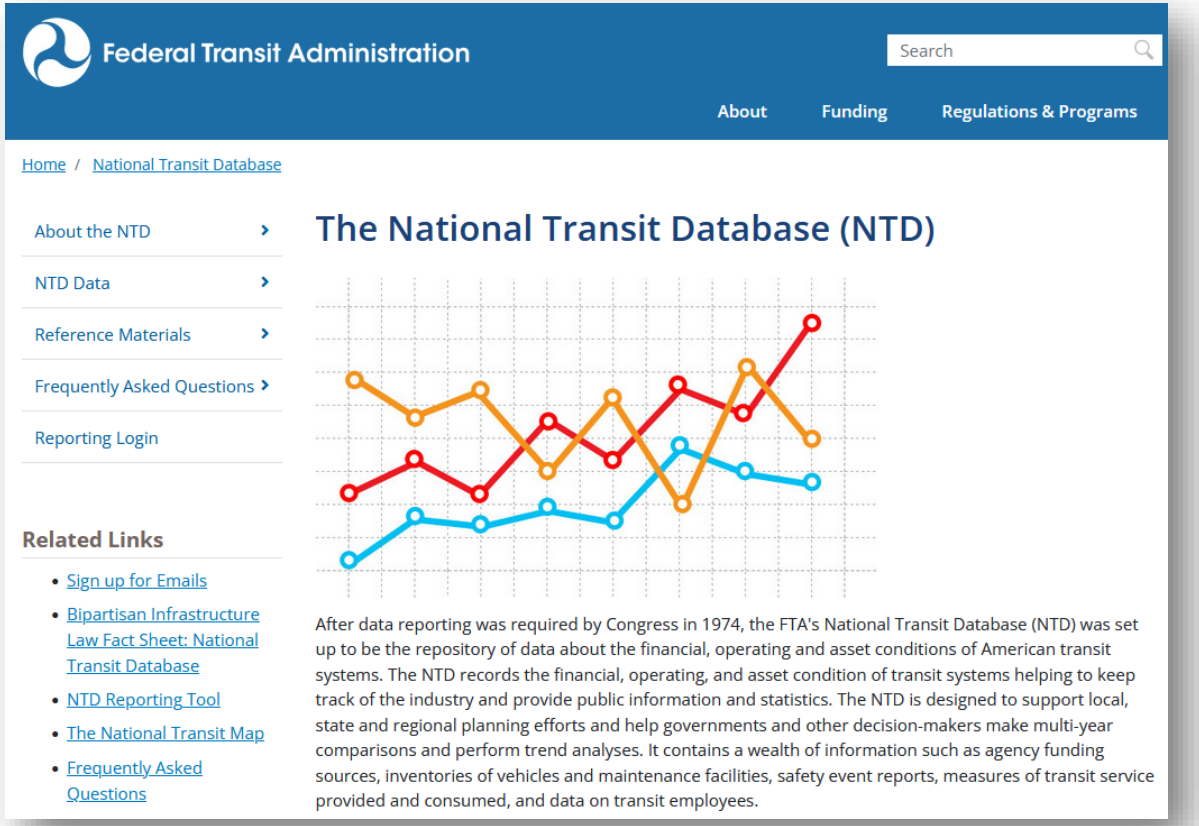


Outline

- Part 1: NTD Program
  - Overview
  - Data applications
  - Key timeline
  - Rural NTD data
- Part 2: iNTD System
  - Why iNTD?
  - iNTD data and functionalities
  - Peer grouping method
- Part 3: iNTD Demo
  - System access
  - Main system functionalities

National Transit Database (NTD)

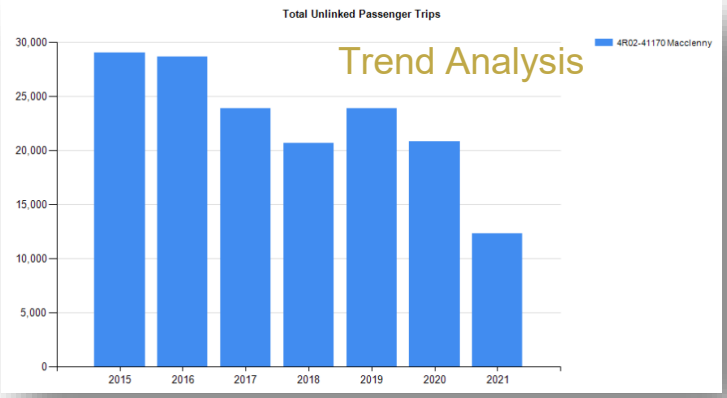
- Single most important national database for the U.S. transit industry
- Transit agencies are required to report data to NTD program to receive FTA grant funds
- Data collected and distributed by FTA
- Provide comprehensive data for transit performance analysis



https://www.transit.dot.gov/ntd

NTD Data Applications

- Look up data of interest
- Performance analyses
  - Identify areas doing well and areas needing improvement
  - Provide insights, help raise questions, leading to management actions
- Trend analysis
  - Compare year-to-year changes in key performance indicators
  - Show performance trend
- Peer comparison
  - Compare your performance trends to similar agencies
  - Are your trends similar, better, or worse?



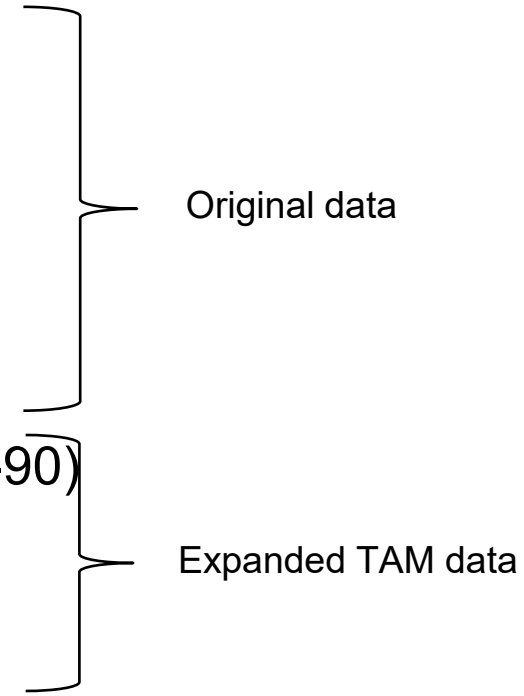


Key NTD Program Timeline

- NTD program started in 1978
- Requires all Section 5307 recipients to file a Section 15 report
- Data first collected for 1979 and published in 1981
- Section 15 data renamed to NTD in 1995
- Rural data first collected for 2006
- First year of rural data release: 2007
- Expanded Transit Asset Management (TAM) data: first collected for 2018

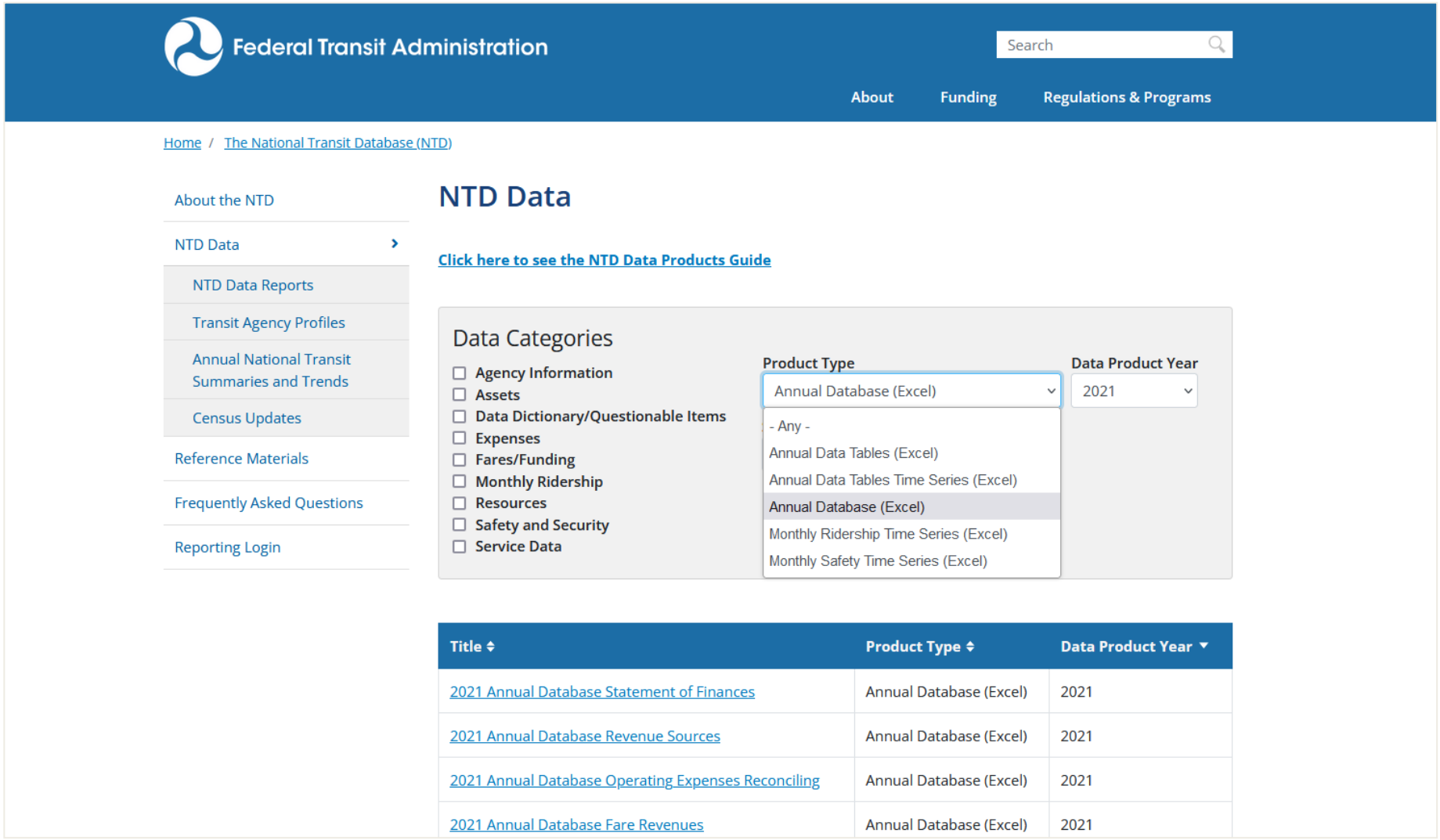
Rural NTD Data

- Available at recipient and subrecipient levels
  - Recipients: States, Tribes, and Asset Group Sponsors (asset-only)
  - Subrecipients: Transit service providers
- Data categories:
  - Agency identification
  - Operating expenses
  - Revenue sources
  - Service
  - Safety
  - Revenue vehicles
  - Maintenance facilities
  - Transit stations (A-10)
  - Facility inventory (A-15)
  - Service vehicles (A-35)
  - Asset performance targets (A-90)



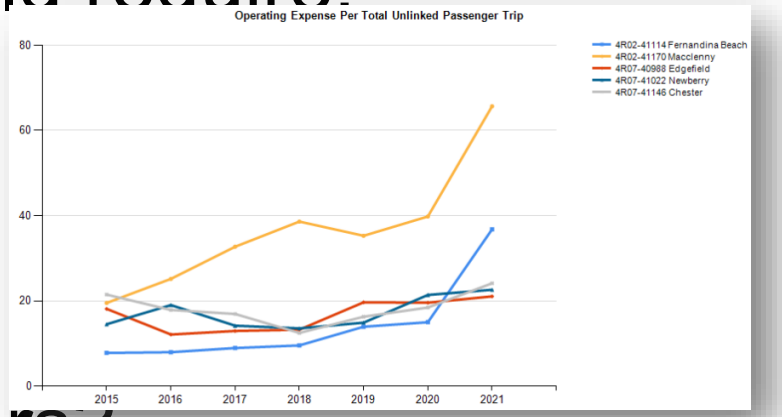
FTA NTD Data Site

https://www.transit.dot.gov/ntd/ntd-data



Data Access Challenges

- Data from different years are stored in separate files
- Data format may change from year to year and not easily understood
- To perform a ridership trend analysis would require:
  1. Download file for each data year
  2. Open each file and understand the data format
  3. Identify agency and data item
  4. Copy and paste data
  5. Analyze data



- What if to compare with several other peers?
- What if to compare operating expense per passenger trip?

Rural iNTD to the rescue!

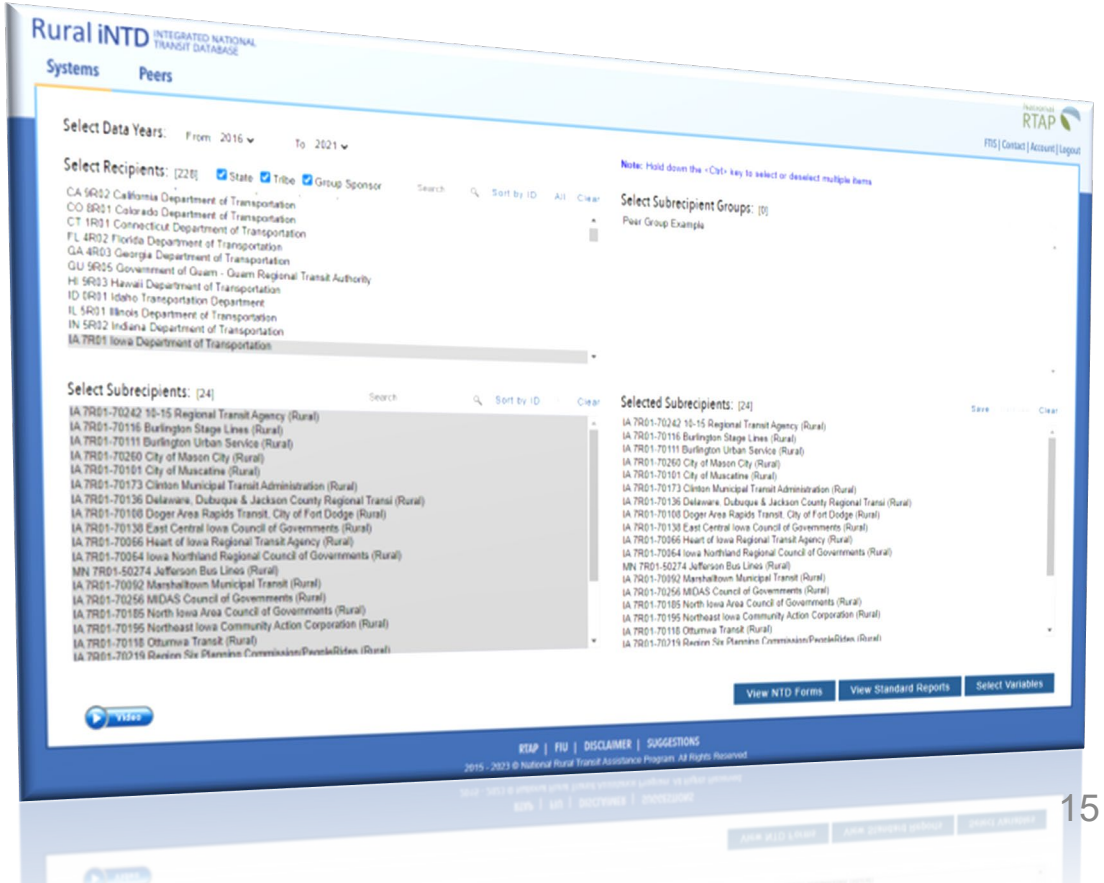
- Integrates multiple years of rural NTD data
- Quick identification and selection of agencies and data variables
- Data visualization tools:
  - NTD forms
  - Reports
  - Tables and crosstabs
  - Charts
- Data export, data sorting, inflation adjustment, variable definitions, etc.
- Includes both original variables and calculated performance measures

Performance Measure Data

- *Service Efficiency Measures (33):* How much resources were consumed to achieve an output level, e.g.:
  - Operating expense per trip
  - Operating expense per revenue hour
  - Farebox recovery
- *Service Effectiveness Measures (11)*: How well the service-related goals were achieved, e.g.:
  - Average speed
  - Average age of fleet
  - Vehicle revenue miles between accidents

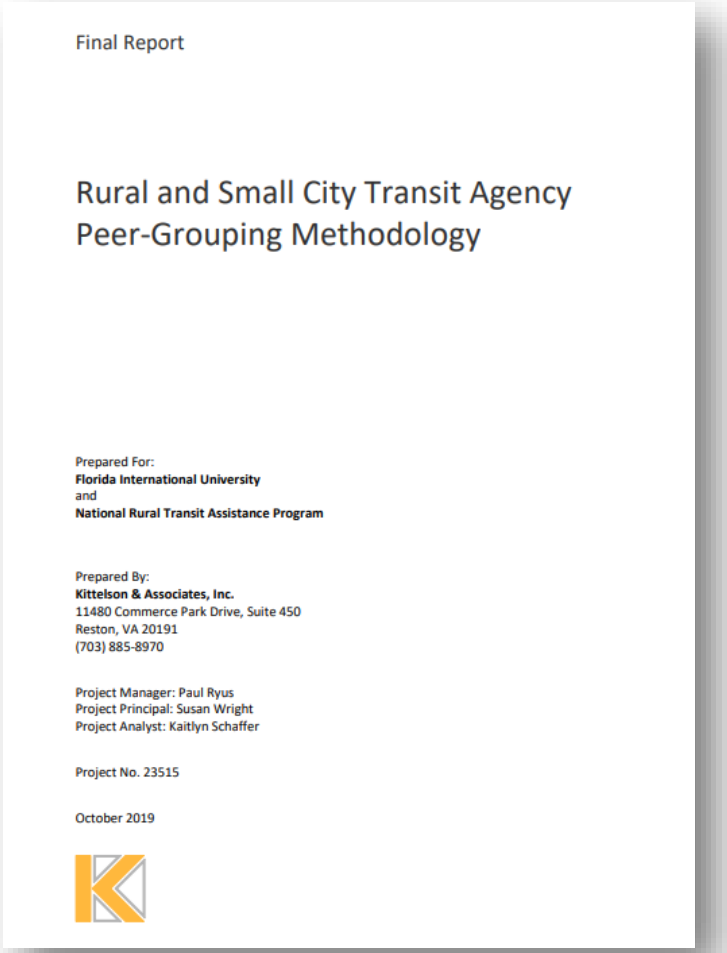
Rural iNTD

- A component of *Florida Transit Information System (FTIS)*, sponsored by Florida DOT from 2000
- Initially for urban agencies only
- National RTAP sponsored development of Rural version in 2014
- First released in 2015
- Added peer grouping method in 2019
- Added expanded TAM data and asset-only agencies in latest release



Peer Grouping Method

- Developed by *Mr. Paul Ryus* and his team from *Kittelson and Associates. Inc.*
- Identify peers by calculating an average likeness score based on nine factors:
  - ❑ Agency type
  - ❑ Operates commuter bus?
  - ❑ Percent revenue hours operated by motorbus modes
  - ❑ Headquarters city in an urbanized area?
  - ❑ Annual vehicle miles operated
  - ❑ Percent funding §5310
  - ❑ Percent local funding
  - ❑ Headquarters city population
  - ❑ Proximity


Final Report

Rural and Small City Transit Agency Peer-Grouping Methodology

Prepared For:
Florida International University
and
National Rural Transit Assistance Program

Prepared By:
Kittelson & Associates, Inc.
11480 Commerce Park Drive, Suite 450
Reston, VA 20191
(703) 885-8970

Project Manager: Paul Ryus
Project Principal: Susan Wright
Project Analyst: Kaitlyn Schaffer

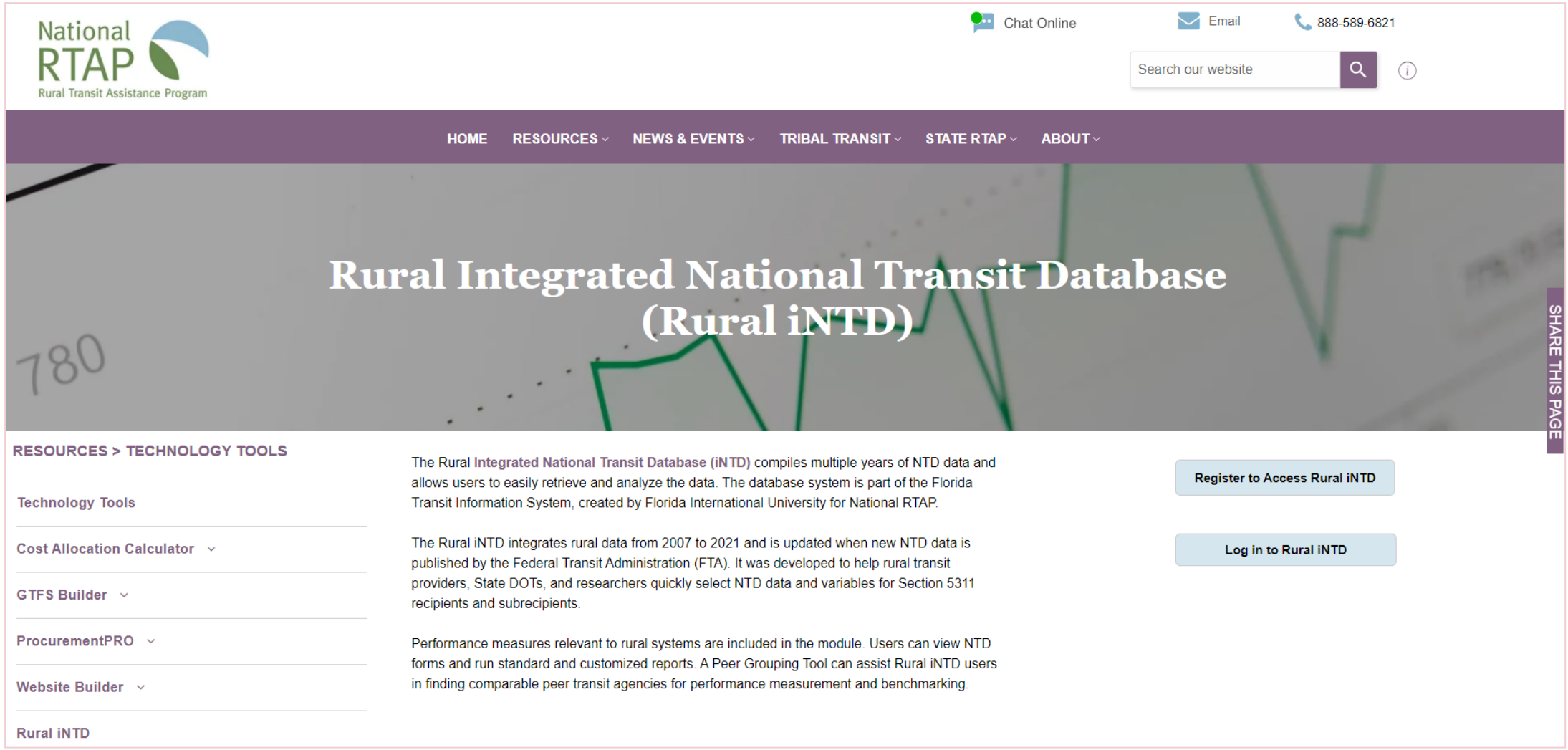
Project No. 23515

October 2019

https://ftis.org/iNTD-Rural/Rural-Peer-Grouping-Methodology-Final-Report.pdf

iNTD Dem

https://www.nationalrtap.org/Technology-Tools/Rural-iNTD or https://ftis.org/



Project Team

- Project Managers
  - *Nancy Doherty*, P.E., Analyst
  - *Rob Tassinari*, Senior Technical Director (former)



- FIU Software Development Team
  - *Albert Gan*, Project Manager
  - *Haifeng Wang*, Senior Software Engineer
  - *Kaiyu Liu*, Senior Software Engineer (former)
  - *Atiosis Blanco*, Web designer (former)



- Kittelson and Associates, Inc. (Peer Grouping Method)
  - *Paul Ryus*, Project Manager
  - *Susan Wright*, Project Principal
  - *Kaitlyn Schaffer*, Project Analyst





Rural iNTD Data Use

National RTAP iNTD Webinar

24 August 2023

Public Transit in **Iowa**

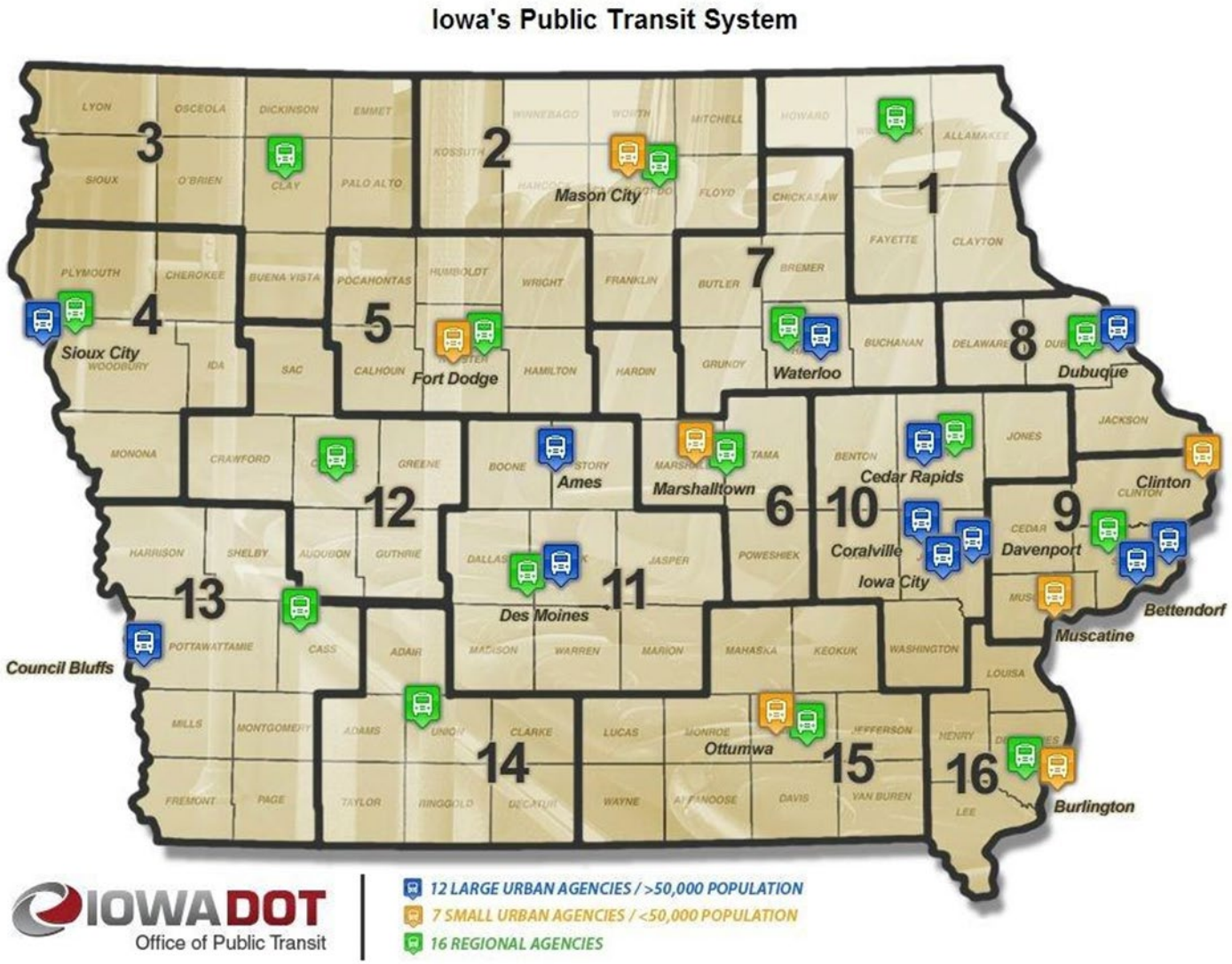


Public Transit in Iowa

- 35 public transit systems, covering all 99 counties
- Iowa DOT reports to the National Transit Database (NTD) for:
  - ✓ 14 of the 16 multi-county, regional demand response transit systems
    - ➢ Two regional systems provide services in and out of large urban areas, therefore they report directly to the NTD
  - ✓ 7 small urban fixed route transit systems serving populations under 50,000

- FY 2022 statewide ridership was 15.1 Million
  - ✓ 13.1 Million rides provided by 19 urban systems
  - ✓ 2.0 Million rides provided by 16 regional systems
- *By comparison*, FY 2019 statewide ridership was over 23.8 Million
  - ✓ 21.1 Million rides provided urban systems
  - ✓ 2.7 Million rides provided regional systems
- 36.5% drop in ridership over three years due to the pandemic
- Went as low as a 57% drop in ridership in FY 2021 due to the pandemic

Public Transit in Iowa



Types of **Data Collected and Why**



Service Statistics Collected

- Total Rides
  - Elderly Rides
  - Disabled Rides
- Vehicle Miles
- Revenue Miles
- Revenue Hours
- Operating Costs
- Passenger Revenue
- Contract Revenue
- Other Revenue
- Local Tax

- # of Volunteer Drivers
- Reportable Incidents
- Fatalities
- Major Injuries



Vehicle Statistics Collected:

- VIN
- Property ID
- Type of Vehicle
- Model Year
- ADA Accessiblity
- Annual Odometer Reading
- Annual Preventive Maintenance Cost
- Annual Corrective Maintenance Costs
- Current Vehicle Condition
- Vehicles Operated in Maximum Service
- Personal Vehicles in Service

Types of Data Collected and Why

Iowa DOT reports annually to the NTD on behalf of its FTA Section 5311 funding subrecipients, with most of the data listed on the previous two slides being reported for each transit agency.

All of the data must be compared to payment records for accuracy and to the previous year's statistics for reasonability. This process takes several months.

Much of the data serve a dual purpose…



Funding Formulas

To distribute the FTA Section 5311 funds and the rural and urban FTA Section 5310 funds, Iowa DOT uses a formula based on ridership and revenue miles.

Iowa transit agencies receive funding from the state each year to support public transit. State Transit Assistance is distributed by the Iowa DOT using a formula with ridership, revenue miles, operating expenses, and locally determined income factors.

Vehicle Replacement

Iowa DOT has a process called the Public Transit Management System for determining when public transit vehicles will be replaced. All vehicles in the state are included in a statewide vehicle inventory. A formula using vehicle age and mileage collected from annual vehicle statistical reports is used to select vehicles to receive FTA funding for replacement.

Transit Asset Management

Annually, Iowa's transit agencies report on vehicle condition for each bus in their fleet. This information is utilized for the quadrennial update of the Transit Asset Management Plan.

iNTD Uses
A State Perspective



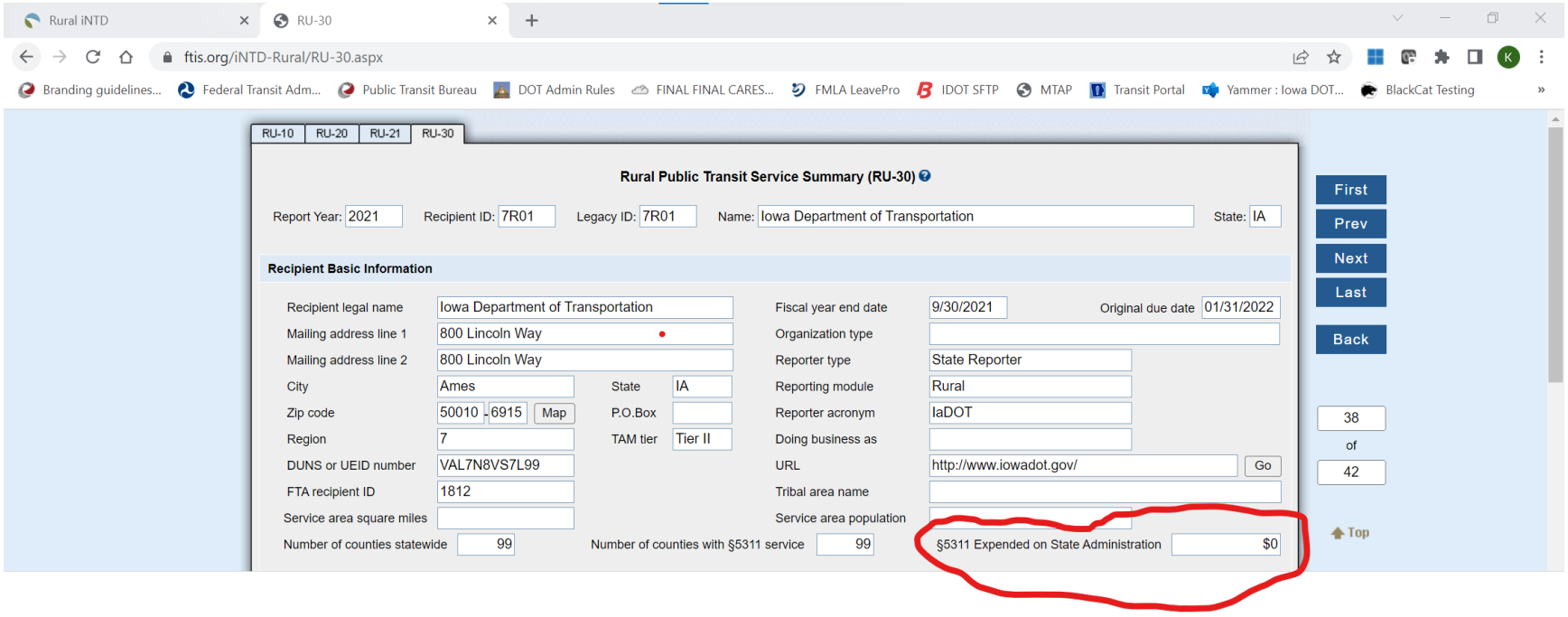
iNTD Uses, A State Perspective

The iNTD has 15 years of data in one place. This makes it easy to scroll through to compare year by year statistics for states or individual transit agencies.

Additionally, if a state wants to compare itself to other states for a variety of reasons, it is simple to select the comparable states and view the data.

iNTD Uses, A State Perspective

As an example, all of Iowa's neighboring states utilized a portion of their FTA Section 5311 dollars for state administration in reporting year 2021, while Iowa did not.



Thank **YOU!**

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iowadot.gov/transit



Questions?

Upcoming and Recent National RTAP Events

UPCOMING:

Client Self -Advocacy Training

September 28, 2023, 2:00-3:30 PM ET

Transit Manager Peer Roundtable - Training Focus

August 30, 2023, 2:00-3:00 PM ET

RECENT:

Intercity Bus 101: State of the Industry

Challenges and Successes with Shared-Use Mobility in Rural, Frontier, and Tribal Areas – Virtual Workshop

U.S. DOT Drug & Alcohol Regulation Update (49 CFR Part 40) - Oral Fluid Drug Testing & More!

To register or to access recordings, slides, or summaries, go to:

nationalrtap.org/Training/Peer-Roundtables-and-Chats and nationalrtap.org/Webinars.

TACL: The Transportation Technical Assistance Coordination Library



http://transportation-tacl.org

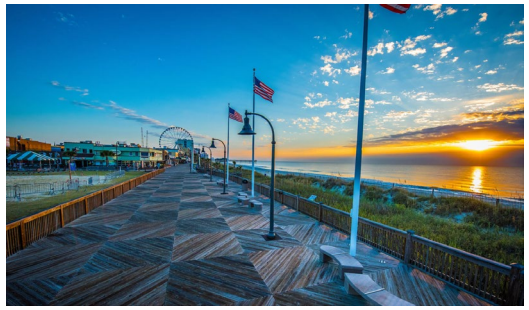
TACL provides access to transportation coordination resources from the Federal Transit Administration (FTA) and a diverse range of transportation technical assistance centers, including:

- National Aging & Disability Transportation Center (NADTC)
- National Center for Applied Transit Technology (NCATT)
- National Center for Mobility Management (NCMM)
- National Rural Transit Assistance Program (National RTAP)
- Shared-Use Mobility Center (SUMC)
- Transit Workforce Center (TWC)

Learn about TACL Resources

View Recording:
nationalrtap.org/Webinars

5th National RTAP Conference
Navigating the Tides of Change with Rural & Tribal Transit





December 3-6, 2023

Marriott Myrtle Beach Resort & Spa

Hotel booking is open

NationalRTAP.org/News/Conference/2023-Myrtle-Beach

Registration and agenda are coming soon!

Tribal Transit Awards nominations and Student Poster Contest are open.

Join us for training, networking & peer information sharing



Thank You!

National RTAP
Rural Transit Assistance Program

National Rural Transit Assistance Program

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FTA

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