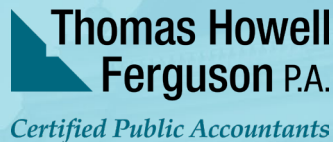


# A Study of the Annual Operating Report and the Data Used to Create It

## Florida Commission for the Transportation Disadvantaged

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**Contact: Jeff Barbacci, CPA**  
Thomas Howell Ferguson P.A.  
2615 Centennial Boulevard Ste 200  
Tallahassee, Florida 32308  
(850) 668-8100

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# Annual Operating Report (AOR) Study

## Executive Summary

Every year, Community Transportation Coordinators (CTCs) submit an Annual Operating Report (AOR) to the Florida Commission for the Transportation Disadvantaged (CTD) for each individual county in the state, pursuant to Chapter 427, Florida Statutes. From its inception, the AOR was intended to capture all of the coordinated transportation efforts in the state for the transportation disadvantaged (TD) population. AORs are meant to help CTD “accurately reflect each CTC’s operating data, provide a statewide operational profile of the Florida Coordinated Transportation System, and evaluate certain performance aspects of the coordinated systems individually and as a whole.”<sup>1</sup>

In State Fiscal Year 2022-2023, CTD contracted with Thomas Howell Ferguson P.A. to assist in conducting this study to improve the accuracy and analyses of performance data reported in the AOR. The study was given a stated purpose along with three objectives, which are laid out below:

## . Study Purpose and Objectives .

*The Commission for the Transportation Disadvantaged (CTD) is conducting a study to improve the accuracy and analyses of performance data reported in the AOR*



### Objective 1: ASSESS

The CTD will examine the current role of the AOR, including the process used to collect and report performance data each fiscal year. This will help identify both the strengths of the current system and the areas in need of future improvement.



### Objective 2: VERIFY

The CTD will identify strategies that can assist CTCs in reporting accurate and consistent data within the AOR. This is critical to the third objective of performing analyses and capturing accurate service trends year-over-year.



### Objective 3: ANALYZE

The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, “coordination” is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.

<sup>1</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 3 Available online at: [https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)

To aid in completing this study, CTD convened a study workgroup consisting of its own staff, a CTD commissioner, representatives from two CTCs, a representative from a local planning agency, and representatives from three State agencies—the Agency for Persons with Disabilities (APD), the Department of Elder Affairs (DOEA), and the Department of Transportation (DOT). The workgroup met on four separate occasions from November 2022 to July 2023. Thomas Howell Ferguson P.A. also provided updates on the study’s progress at Commission business meetings held in March and June of 2023. In May of 2023, Thomas Howell Ferguson P.A. and CTD hosted a public workshop where the study’s major themes were discussed and CTCs’ feedback on the study was then gathered for an additional three weeks before the study’s final drafting phase. The PowerPoint presentation from the public workshop and subsequent feedback from CTCs are provided in the study’s appendices.

In its current form, data collected through AOR submissions is summarized to present annual totals on passenger trips and corresponding miles, alongside other information including inventory on vehicles and financial data on revenues and expenses. The data collected and presented through the current AOR processes can be said to be highly “aggregated” due to the summarized format, which limits opportunities both for verifying the data’s integrity and extracting insights through analysis of it. By collecting data that is more “disaggregated” at the individual trip level (and not just annual totals), the CTD can improve the verifiability of the AOR and enhance its capacity to be used for deeper and more extensive analyses.

It is recommended that CTD pursue the collection of more disaggregated trip data from CTCs given the potential benefits to improving the accuracy and analyses of such data in the AOR. In addition to the benefits, however, a new process for the collection of more disaggregated data also introduces technical as well as potential legal complexities that should be demonstrably addressed first before attempting any major overhaul of existing processes. Therefore, the study provides the following three specific recommendations pertaining to the AOR moving forward in State Fiscal Year 2023-2024:

- 1) For the upcoming AOR submissions in 2023, the Commission should continue with the current processes and methods it has in place and collect the same information as it has in recent years.**
- 2) The Commission should develop a detailed plan to test run the additional collection of individual trip level data, as well as individual bus pass level data, from CTCs as part of the 2023 AOR submission cycle. This planned test run for collecting data on individual trips and bus passes should function separately from the existing processes referenced in Recommendation 1 and not be integrated within them.**
- 3) As part of the detailed plan in Recommendation 2, the Commission should conduct a comprehensive and thorough review of its legal options and authorities pertaining to the collection of data on individual trips and bus passes. The review should especially focus on the collection of potentially sensitive information, including potential personally identifiable details such as names or addresses. By proactively exploring**

**its legal options and authorities for collecting specific details, the Commission can ensure that its data collection practices align with legal requirements, protect privacy rights, and build a strong foundation for the ethical and responsible use of disaggregated data.**

## **Background**

The AOR is a report consisting of data which CTCs submit, via forms, to CTD every year. According to the Commission's most recent "Instructions for Completion of the Annual Operating Report (AOR):"<sup>3</sup>

*The CTD uses these forms to gather information needed to accurately reflect each CTC's operating data, provide a statewide operational profile of the Florida Coordinated Transportation System, and evaluate certain performance aspects of the coordinated systems individually and as a whole. The CTD also uses data collected in this report to substantiate the need to seek additional funds. All information submitted is subject to confirmation by the CTD. The CTC must be able to support all information submitted in this report with documentation, which substantiates the data's compliance with the requirements of these instructions.*

The forms used by CTCs to submit data break down along the following five major categories:

1. CTC Organization
2. CTC Coordinated System
3. CTC Trips
4. CTC Vehicles & Drivers
5. CTC Revenue Sources & Expense Sources

These five major categories span the range from basic information about the CTCs (categories 1 & 2) to their performance in providing core services (category 3) to the resources they employ in providing those same services (categories 4 & 5). Such breadth of information is consistent with efforts to paint complete operational profiles of the coordinated systems both individually and as a whole. Breadth in itself is not enough to meet CTD's stated aims behind the collection of AORs, however. The information is also "subject to confirmation by the CTD" to ensure that it "accurately" reflects actual operations.

Prior to State Fiscal Year 2021-2022, T&E Grant funding allocation amounts were determined in part based on total trips and miles reported by each county in the AOR. These same totals for trips and miles included those provided by CTCs, *and* also by coordination contractors or third-party agencies. The allocation methodology underwent a restructuring beginning in 2021-2022, however, following a comprehensive study<sup>4</sup> aimed at both exploring such changes and improving

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<sup>3</sup> "Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22" Florida Commission for Transportation Disadvantaged. p. 3 Available online at:

<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

<sup>4</sup> The final draft of the CTD Funding Allocation Study can be found at:

<<https://ctdallocationstudy.com/index.php/final-report/>>.

understanding the precise mechanics behind how allocation amounts are ultimately determined. Among other changes, this restructuring led to the removal of AOR data being used in the methodology to determine allocation amounts after the study identified concerns with the data's integrity. Data extracted from CTD invoices for its T&E Grant program ended up replacing the AOR data in the methodology due, in part, to the fact that that data could be tied to a more robust audit trail.

Despite these changes to the T&E allocation methodology, the AOR remains a statutory requirement for CTCs and is one of two primary datasets used in CTD's Annual Performance Report (APR), which the Commission officially delivers to the Florida Governor's Office and Legislature by January 1 every year. The other major set consists of data derived from CTD's Trip & Equipment (T&E) Grant invoices.

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### **ANNUAL PERFORMANCE REPORT (APR) EXECUTIVE SUMMARY**

*"Each year, CTD presents a report to the Governor and Legislature on the Coordinated System's performance in serving the TD population during the previous state fiscal year . . . The content and datasets within this report provide two distinct, but coinciding perspectives:*

- 1) A **macro-level, systemwide** overview of the services provided by the Coordinated System, captured in each county's Annual Operating Report (AOR); and*
- 2) A **micro-level, programmatic** overview of services funded by CTD, which support trips "not sponsored" by any other agency within the Coordinated System."*

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While T&E invoice data capture only trips being purchased directly by CTD using Transportation Disadvantaged Trust Fund (TDTF) dollars, the "macro-level" data from AORs is intended to capture all *coordinated* TD services across multiple purchasing agencies. In this role of producing the APR, the CTD functions as more than just a purchasing agency—it is also a statewide coordinator of TD services, for which the AOR data is critical.

### **Why CTD Collects AOR Data**

Although AOR data has been used in CTD's T&E Grant allocation methodology in the past to determine funding levels for each county, this was not the reason behind its establishment in the first place. Chapter 427, Florida Statutes—the same statute that also establishes the Commission itself—tasks CTD with responsibility as a statewide aggregator of all available information, or data, relating to the transportation disadvantaged. The very first directive given to CTD in carrying out its statutory purpose "to accomplish the coordination of transportation services provided to the transportation disadvantaged" is to "Compile all available information on the transportation operations for and needs of the transportation disadvantaged in the state." A more explicit statutory directive requires CTD to use this same information to "Make an annual report to the Governor, the President of the Senate, and the Speaker of the House of Representatives by January 1 of each year." For CTCs, section 427.0155(2), Florida Statutes directs these entities to "Collect annual operating data for submittal to the commission."

Despite these explicit directives, Chapter 427 is silent on the extent to which any data collected—by CTD or CTCs—should be summarized or broken down (that is, aggregated or disaggregated) at any step in the overall process. Nor does the statute provide detailed guidance on what specific data should be collected or what it should measure. In other words, statute does not stipulate what particular data points or data fields CTD needs to aggregate, and similarly is silent on what specifically CTCs must collect in terms of annual operating data to be submitted to CTD. This lack of specifics is not necessarily a defect of the statute, as it gives CTD more flexibility in determining what elements should be included and allows these same elements to more easily evolve whenever technology advances and new datasets become available—all of which are real strengths. The important takeaway from the lack of specific statutory guidance is that CTD exercises considerable self-determination in what it collects through the AOR.

## Study Purpose and Objectives

In the absence of specific statutory guidance, the responsibility for determining the precise sort of data to be collected for the AOR falls, by default, on CTD. Over the years, the AOR has evolved incrementally, often in reaction to situational needs. This study is an attempt at a more deliberate, all-encompassing evaluation of the optimal data collection required to vividly depict the Florida Coordinated Transportation System's operations and the needs of TD riders.

Hence this study's purpose and objectives. As an all-encompassing evaluation of what data should be collected for the AOR, this study pursues three objectives for the purpose of improving the accuracy, analyses, and data reported in the AOR. These three objectives—Assess, Verify, Analyze—are explained below:

### . Study Purpose and Objectives .

*The Commission for the Transportation Disadvantaged (CTD) is conducting a study to improve the accuracy and analyses of performance data reported in the AOR*



#### Objective 1: ASSESS

The CTD will examine the current role of the AOR, including the process used to collect and report performance data each fiscal year. This will help identify both the strengths of the current system and the areas in need of future improvement.



#### Objective 2: VERIFY

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#### Objective 3: ANALYZE

The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, "coordination" is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.



## Objective 1: ASSESS



The CTD will examine the current role of the AOR, including the process used to collect and report performance data each fiscal year. This will help identify both the strengths of the current system and the areas in need of future improvement.

The “Background” section of this report described how data submitted by CTCs to CTD for the AOR comprise five major categories. Data submitted across these categories range from basic information about the CTCs to more detailed information about their operations.

### *Category 1: CTC Organization*

The first AOR submission category consists of basic information about a CTC’s system, including its name, address, organization type (for-profit, not-for-profit, public, etc.), and contact information. Compared to the other categories, data submitted under this category tends to remain most consistent from year to year. As the most recent “Instructions for Completion of the Annual Operating Report (AOR)” states: “Some of this data may be completed for you based on last year’s report. Please make any necessary corrections.”<sup>5</sup>

### *Category 2: CTC Coordinated System*

The second AOR submission category is as simple and straightforward—or basic—as the first, as it is just a listing of the CTC’s Transportation Operators and Coordination Contractors. According to the AOR instructions manual, a Transportation Operator is, “a public, private for profit or private nonprofit entity engaged by the CTC to provide service to transportation disadvantaged persons,” while a Coordination Contractor is “an agency who receives transportation disadvantaged funds and performs some, if not all, of its own services, as well as services to others, when such service has been analyzed by the CTC and proven to be a safer, more effective and more efficient service from a total system perspective.” Just like the first CTC Organization category, the AOR instructions manual for this category also states: “Some of this data may be completed for you based on last year’s report. Please make any necessary corrections.”<sup>6</sup>

### *Category 3: CTC Trips*

The third AOR submission category is where the data moves beyond basic information and begins to represent actual operational (or performance) measures. Data on trips can be said to be the “crux” or “heart” of the AOR because services to TD persons are of primary interest to the

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<sup>5</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 7 Available online at: [https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)

<sup>6</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 9 Available online at: [https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)



Coordinated Transportation System, and the “trip” is the core unit of measurement for quantifying these services.

The AOR instructions define a “one-way passenger trip” as “a unit of service provided each time a passenger enters the vehicle, is transported, then exits the vehicle . . . This number should not include personal care attendants or escorts.” “This number” on trips in the AOR is represented in annual totals. The AOR instructions require that these annual totals be broken down among standardized subcategories (though not broken down into any combination of the subcategories), with the specific instructions: “**All information provided in these sections should be mutually exclusive in each [sub]category and therefore should not be counted twice.**”<sup>7</sup> These subcategories are outlined below:

- Service Type
  - Fixed Route
  - Deviated Fixed Route
  - Complementary ADA
  - Paratransit
  - Transportation Network Company (TNC)
  - Taxi
  - School Board (School Bus)
  - Volunteers
- Provider Type
  - CTC
  - Transportation Operator
  - Coordination Contractor
- Funding (or Revenue) Source
  - Florida Commission for the Transportation Disadvantaged (CTD)
  - Florida Agency for Health Care Administration (AHCA)
  - Florida Agency for Persons with Disabilities (APD)
  - Florida Department of Elder Affairs (DOEA)
  - Florida Department of Education (DOE)
  - Other
- Passenger Type
  - Older Adults
  - Children At Risk
  - Persons With Disabilities
  - Low Income
  - Other

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<sup>7</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 9 Available online at:  
<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

- Trip Purpose
  - Medical
  - Employment
  - Education/Training/Day Care
  - Nutritional
  - Life-Sustaining/Other

For CTCs that distribute bus passes, the AOR instructions require that these be converted to trip counts in some manner, so the actual number of bus passes is not directly reflected in the AOR. CTCs can submit the actual number of trips provided by the bus passes “if an automated accounting system is in place or use the following methodology:

Daily Pass Trips: Counted as one (1) one-way passenger trip per pass (or token) and include single ride passes.

Weekly Pass Trips: Counted as three (3) one-way passenger trips per pass.

Monthly Pass Trips: Counted as twelve (12) one-way passenger trips per pass and include 30-Day passes.”<sup>8</sup>

These methods of converting bus passes to trip counts originate from when AOR data was used in the T&E Grant allocation methodology, which weighted trip totals but did not have a separate weighting for bus passes. Although AOR data is no longer used in the T&E Grant allocation methodology, the number of bus passes distributed still is not reported but instead converted to trip counts.

#### *Category 4: CTC Vehicles and Drivers*

The fourth AOR submission category contains a mix of performance/operational, inventory, and labor data. First are the annual vehicle mile totals associated with the annual trip totals reported in Category 3, but these are only broken down by Service Type (Fixed Route, Complementary ADA, etc.).

Next is “Vehicle Inventory” or “the total number of vehicles utilized by the CTC and/or any contracted Transportation Operator for services within the coordinated system.”<sup>9</sup> Vehicles used by TNCs or taxis are not supposed to be included in this total. The total number of vehicles reported is broken down so that, of the total, the precise number of wheelchair accessible vehicles is identified.

Finally, the number of full-time and part-time drivers employed by CTCs and/or transportation operators for services within the coordinated system is reported. Similar to vehicles, drivers utilized by TNCs or Taxis are not supposed to count towards this reported total. The total number of drivers reported is broken down so that, of the total, the number of volunteer drivers is identified.

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<sup>8</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 10 Available online at:

<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

<sup>9</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 16 Available online at:

<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

Volunteer drivers are defined as “persons who drive without compensation, but may receive mileage reimbursement.”<sup>10</sup>

#### *Category 5: CTC Revenue Sources and Expense Sources*

The fifth and final AOR submission category is comprised of financial data pertaining to the coordinated system’s operations. As is standard with financial data in general, the data reported in this category splits between revenues and expenses. Both revenues and expenses reported “shall reflect fully allocated cost figures for administrative and operating costs”<sup>11</sup> incurred within the coordinated system for the twelve-month reporting period. As annual totals, revenues and expense data reported in this category are supposed to correspond to the annual totals reported for trips in Category 3 and vehicle miles in Category 4. Revenues are broken down by the same funding sources in Category 3 (CTD, AHCA, etc.), while expenses are broken down by the following:

- Labor
- Fringe Benefits
- Services
- Materials and Supplies Consumed
- Utilities
- Casualty and Liability
- Taxes
- Miscellaneous
- Interest
- Leases and Rentals
- Capital Purchases
- Contributed Services
- Allocated Indirect Expenses
- Purchased Transportation Services
  - Bus Pass
  - School Board (School Bus)
  - TNC
  - Taxi
  - Contracted Services (Transportation Operators)

#### *Assessing all 5 categories:*

The data on reported trips in Category 3 is the most substantive piece of the AOR because it represents the coordinated system’s performance in providing transportation services to transportation disadvantaged persons. Categories 1 and 2 contain just basic information about the CTC and its contractors. At the same time, the trip data in Category 3 functions as a sort of nucleus

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<sup>10</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 16 Available online at:

<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

<sup>11</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. pp. 17 & 20 Available online at:

<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

around which the data reported in Categories 4 and 5 revolve. That is, data in Categories 4 and 5 are on resources employed in the performance of services captured by the data in Category 3.

This study's stated purpose "to improve the accuracy and analyses of performance data in the AOR" suggests an approach of focused improvement to the data reported in Category 3. Data on trips provided is essential to CTD's ability to "evaluate certain performance aspects of the coordinated systems individually and as a whole," and concerns over the opacity of AOR performance data were a primary motivation behind its removal from the T&E Grant allocation methodology.

The current limitations of AOR performance data with respect to accuracy and analyses stem from its high-level reporting, which lacks detail. As explained above, the number of trips reported in the AOR is represented in annual totals. Thus, AOR data on trips represent the sum of each one-way passenger trip provided to a transportation disadvantaged person for the given state fiscal year. Not only is this (annual totals) how trips are presented in the AOR, but it also is how the data is submitted by CTCs and collected from CTD's end. In other words, CTCs do not submit, and CTD does not collect, individual trip level data, but rather just reported annual totals of trips.

Annual totals are an example of data that is highly summarized, or aggregated. By contrast, individual trip level data are an example of data that is highly disaggregated. Disaggregated data is data that is more broken down, and when data is broken down it reveals more detail. For example, more detail is revealed about the total annual trips in the AOR when they are broken down along the standardized subcategories. In this sense, it is more accurate to understand the relationship between aggregated and disaggregated data in terms of relative differences than as an absolute difference. The excerpt below on aggregated and disaggregated data in education further illustrates this concept:

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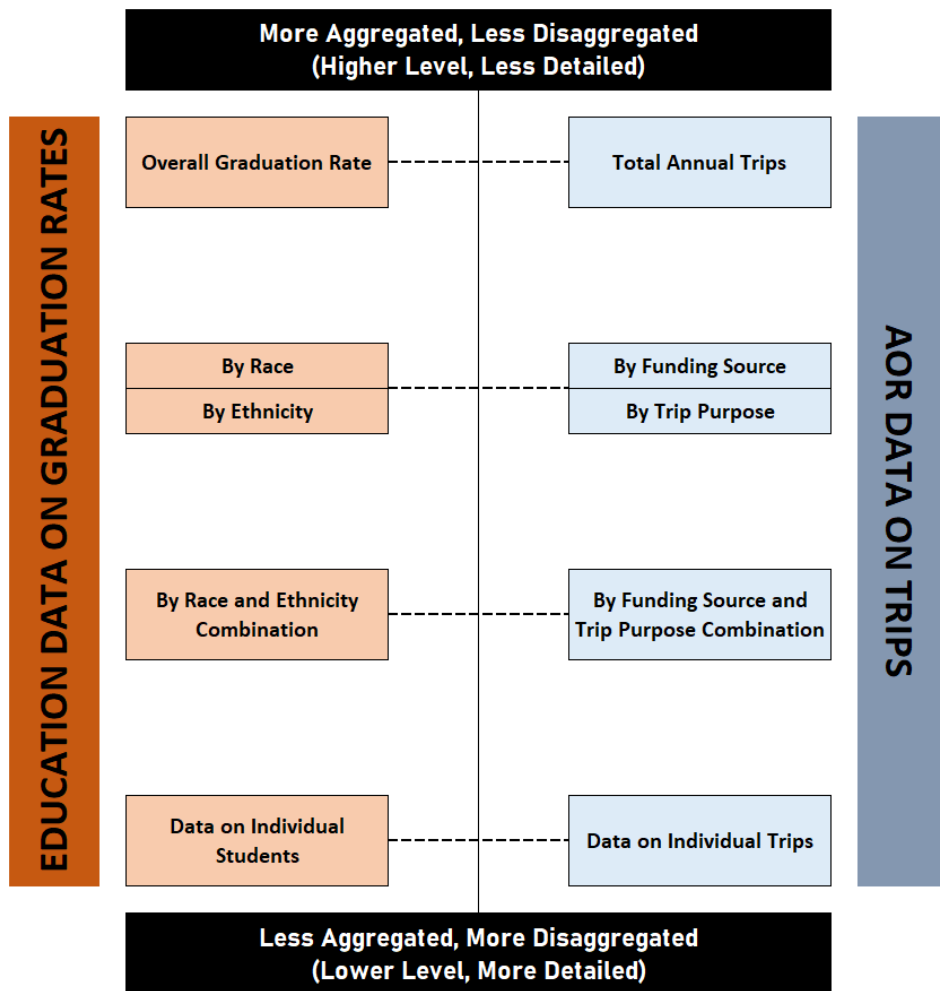
**[The Glossary of Education Reform: Aggregated vs. Disaggregated Data](https://www.edglossary.org/aggregate-data/)**

<https://www.edglossary.org/aggregate-data/>

*"To aggregate data is to compile and summarize data; to disaggregate data is to break down aggregated data into component parts or smaller units of data. While this distinction between aggregated and disaggregated data may appear straightforward, there is a nuance worth discussing here: a lot of "disaggregated" data in education is actually data that has been technically aggregated, at some level, from records maintained on individual students. For example, graduation rates are widely considered to be "aggregate data," while graduation rates reported for different subgroups of students—say, for students of different races and ethnicities—is typically considered to be "disaggregated data." Yet to produce reports that disaggregate graduation rates by race and ethnicity, data on individual students actually has to be "aggregated" to produce summary graduation rates for different racial subgroups."*

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The example of aggregated vs disaggregated data in education can be analogized (see diagram below) with the Coordinated Transportation System's trip data to get a better sense of how this concept applies to the AOR.



Just as a breakdown of graduation rates by race (or ethnicity, etc.) is data that is more disaggregated compared to a single reported overall graduation rate, a breakdown of total annual trips by funding source (or trip purpose, etc.) is more disaggregated compared to a single reported total of all annual trips. At the same time, data on individual students has to be aggregated to produce the summary graduation rates for different racial groups, just like data on individual trips has to be aggregated to produce the summary annual trip totals on trips by funding sources.

The 2<sup>nd</sup> and 3<sup>rd</sup> objectives of this report further examine the distinction between aggregated and disaggregated data and its impact on the accuracy and analyses of performance data in the AOR. By collecting data that is more disaggregated at the individual trip level (and not just annual totals), the CTD can improve the verifiability of the AOR and enhance its capacity to be used for deeper and more extensive analyses.

## Objective 2: VERIFY



At a fundamental level, verification is just another form of analysis in the sense that it is an effort to answer a question or set of questions about something. Therefore, the 2<sup>nd</sup> and 3<sup>rd</sup> objectives of this report explore similar themes in assessing some of the strengths and weaknesses of aggregated vs disaggregated data.

The top result of a Google search for “analysis definition” returns: “detailed examination of the elements or structure of something.”<sup>12</sup> Verification may be said to be analysis of the integrity of the elements or structure of “something”. In the case of the AOR (the something), verification would mean analysis of the integrity of the data (elements) itself and how it is organized (structure).


With the current AOR, data on annual trip totals is broken down, or disaggregated, in the county summaries in four different ways:

1. Service Type
2. Trip Purpose
3. Revenue (Funding) Source
4. Provider Type

Yet, to produce the disaggregated trip totals within each of these different methods, data on individual trips must be aggregated at some point in the overall submission and collection processes. As CTD does not currently collect individual trip level data for the AOR, checking to see that the totals equal across each of these methods is one way of verifying the data's integrity. The example of Indian River County below demonstrates this verification at work within the current AOR. Across all four methods, the total number of trips adds up to 61,377 trips for the year 2022.

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[https://www.google.com/search?q=analysis+definon&rlz=1C1GCEU\\_enUS1048US1048&ei=o5ydZOvyI5zakPIP0JK0mAg&ved=0ahUKewir0Py63-\\_j\\_AhUcLUQIHVAJDYMQ4dUDCBA&uact=5&oq=analysis+definon&gs\\_lcp=Cgxdnd3Mtd2l6LXNlcnAQAzIKCAAQRCABBCxAZIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCAABDIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCABDDoKCAAQRxDWBBCwAzoHCAAQigUQQZoGCAAQFhAeOggIABAWEb4QDzoICAAQigUQHGM6CaGAIEIAEELEDOgUIABCABDOLCAAQigUQsQMqkQI6CaGAELoFEJECogUIIRCgAUOECEEYAfDYBlIDmC0EGGBcAB4AIABVygBjAOSAQE2mAEOAEbwAEBvAEI&sclient=gws-wiz-serp](https://www.google.com/search?q=analysis+definon&rlz=1C1GCEU_enUS1048US1048&ei=o5ydZOvyI5zakPIP0JK0mAg&ved=0ahUKewir0Py63-_j_AhUcLUQIHVAJDYMQ4dUDCBA&uact=5&oq=analysis+definon&gs_lcp=Cgxdnd3Mtd2l6LXNlcnAQAzIKCAAQRCABBCxAZIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCAABDIHCAAQDRCABDIHCAAQDRCABDIHCAAQDRCABDDoKCAAQRxDWBBCwAzoHCAAQigUQQZoGCAAQFhAeOggIABAWEb4QDzoICAAQigUQHGM6CaGAIEIAEELEDOgUIABCABDOLCAAQigUQsQMqkQI6CaGAELoFEJECogUIIRCgAUOECEEYAfDYBlIDmC0EGGBcAB4AIABVygBjAOSAQE2mAEOAEbwAEBvAEI&sclient=gws-wiz-serp)

County:	Indian River	Demographics	Number			
CTC:	Senior Resource Association, Inc.	Total County Population	158,002			
Contact:	Karen Deigl 694 14th St. Vero Beach, FL 32960 772-569-0111	Unduplicated Head Count	4,021			
Email:	<a href="mailto:kdeigl@sramail.org">kdeigl@sramail.org</a>					

Trips By Type of Service	2020	2021	2022
Fixed Route (FR)	0	0	0
Deviated FR	0	0	0
Complementary ADA	27,743	24,422	32,900
Paratransit	60,865	33,198	28,477
TNC	0	0	0
Taxi	0	0	0
School Board (School Bus)	0	0	0
Volunteers	0	0	0
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

Passenger Trips By Trip Purpose	2020	2021	2022
Medical	21,141	21,364	25,005
Employment	449	487	5,312
Ed/Train/DayCare	48,339	21,300	18,731
Nutritional	0	0	0
Life-Sustaining/Other	18,679	14,469	12,329
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Passenger Trips By Revenue Source	2020	2021	2022
CTD	15,401	16,767	13,834
AHCA	0	0	0
APD	45,044	14,747	12,480
DOEA	0	0	0
DOE	0	0	0
Other	28,163	26,106	35,063
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

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Miles between Roadcalls	81,796	132,366	102,881
Avg. Trips per Passenger	29.20	18.15	15.26
Cost per Trip	\$27.04	\$37.57	\$43.00
Cost per Paratransit Trip	\$27.04	\$37.57	\$43.00
Cost per Total Mile	\$4.88	\$5.45	\$5.13
Cost per Paratransit Mile	\$4.88	\$5.45	\$5.13

In fact, checking these totals against each other is the only way of verifying the AOR's data on reported trips. There is no audit trail to individual trip level data (the most disaggregated form of data) as part of the AOR submission process for backing up these totals.

This lack of an audit trail on AOR trip data contrasts sharply with CTD's invoices for its T&E and ISD<sup>13</sup> Grant programs. All invoices CTCs submit to CTD under these grants contain data that can be broken down along three general sections:

### 1. Invoice Sheet

- This sheet contains information on the total grant amount and calculations to determine monthly reimbursement depending on the total number of either trips or miles the CTC provides in services. These totals for trips and miles come from the Trip Summary Data Report (next section below).

### 2. Trip Summary Data Report

- This section may be viewed as highly analogous to the annual trip totals summary in the AOR, as it reflects the total number of trips, broken down by mode of transportation (Ambulatory, Wheelchair, etc.), alongside the corresponding total

<sup>13</sup> The Innovative Service Development (ISD) Grant is a competitive grant program administered by CTD. CTCs are eligible to apply for ISD grants whenever funding is available. Unlike the T&E Grant, the decision to award ISD grants is made on a case-by-case basis by CTD depending on its evaluation of how "innovative" the applicant CTC's proposed services are.



number of miles. Unlike in the AOR, however, these totals must match to back up documentation on individual trip level data also provided. As CTD’s invoicing procedures make clear, summarized (i.e., aggregated) data such as appears in this section is always a summary of more detailed (more disaggregated) data that exists somewhere else.

**Florida Commission for the Transportation Disadvantaged**  
Trip Summary Data Report

CTC: Thomas Howell Ferguson CTC

County(ies): Florida County

Dates of Services: April 1, 2023 to April 30, 2023

Mode	Number of Trips	Number of Miles
Ambulatory	500	2000
Wheelchair	300	700
Stretcher	50	100
Group Per Passenger	150	200
Group Per Group		
<b>Total</b>	<b>1000</b>	<b>3000</b>

Bus Pass Type	Number of Bus Passes Issued
Daily	
Weekly	
Monthly	

By submission of this form, Grantee certifies the information provided on this Trip Summary Data Report is accurate and accountable and corresponds with the supporting back-up documentation. All individuals included in the supporting back-up documentation have a Transportation Disadvantaged application on file and the individuals have been determined eligible for services rendered.

**“The Trip Summary Data Report provides a summary of the invoice back-up documentation. This report must be submitted with the invoice and detailed back-up documentation in order for the invoice to be processed by the Commission. Data provided on this form must match data provided on the back-up documentation.”**

— *COMMISSION FOR THE TRANSPORTATION DISADVANTAGED INVOICING PROCEDURES FOR THE PROVISION OF TRANSPORTATION AND CAPITAL EQUIPMENT. July 1, 2017. p. 6*

### 3. Back-up Data

- The back up documentation behind the totals in the Trip Summary Data Report appear in these sections (a separate back up documentation section is provided for each mode of transportation). The back up documentation is presented as individual trip level data—or data in its most disaggregated form. This individual trip level data serves as the audit trail that can be followed from the totals in the Trip Summary Data Report. That is, the totals in the Trip Summary Data Report (which are used to determine reimbursement on the Invoice Sheet) must be reconciled to the disaggregated data before they are accepted. In other words, the collection of disaggregated, individual trip level data is of fundamental importance to CTD’s verification of summarized totals for trips and miles in its invoices.

Thomas Howell Ferguson CTC				April 1, 2023 to April 30, 2023				Ambulatory		
Date	Name	Cost	Mode	Pick Up Time	Origin Address	Origin City	Drop Off Time	Destination Address	Destination City	Miles
4/1/2023	John Doe	40.00	Ambulatory	7:18	1234 Tally Way	Tallahassee	7:39	4321 Other Way	Tallahassee	14.54
4/1/2023	Jane Doe	40.00	Ambulatory	7:25	1234 Tally Way	Tallahassee	7:49	4321 Other Way	Tallahassee	1.30
4/1/2023	John Doe	40.00	Ambulatory	7:01	1234 Tally Way	Tallahassee	7:16	4321 Other Way	Tallahassee	0.32
4/1/2023	Jane Doe	40.00	Ambulatory	7:14	1234 Tally Way	Tallahassee	7:44	4321 Other Way	Tallahassee	0.78
4/1/2023	John Doe	40.00	Ambulatory	7:18	1234 Tally Way	Tallahassee	7:37	4321 Other Way	Tallahassee	1.40
4/1/2023	Jane Doe	40.00	Ambulatory	7:57	1234 Tally Way	Tallahassee	8:22	4321 Other Way	Tallahassee	0.45
4/1/2023	John Doe	40.00	Ambulatory	7:03	1234 Tally Way	Tallahassee	7:19	4321 Other Way	Tallahassee	0.87
4/1/2023	Jane Doe	40.00	Ambulatory	6:39	1234 Tally Way	Tallahassee	6:50	4321 Other Way	Tallahassee	0.07
4/1/2023	John Doe	40.00	Ambulatory	7:17	1234 Tally Way	Tallahassee	7:41	4321 Other Way	Tallahassee	0.33
4/1/2023	Jane Doe	40.00	Ambulatory	7:33	1234 Tally Way	Tallahassee	7:46	4321 Other Way	Tallahassee	0.79
4/1/2023	John Doe	40.00	Ambulatory	6:42	1234 Tally Way	Tallahassee	6:55	4321 Other Way	Tallahassee	0.83
4/2/2023	Jane Doe	40.00	Ambulatory	7:21	1234 Tally Way	Tallahassee	8:03	4321 Other Way	Tallahassee	0.92
4/2/2023	John Doe	40.00	Ambulatory	6:44	1234 Tally Way	Tallahassee	6:56	4321 Other Way	Tallahassee	1.14
4/2/2023	Jane Doe	40.00	Ambulatory	7:25	1234 Tally Way	Tallahassee	8:04	4321 Other Way	Tallahassee	0.82
4/2/2023	John Doe	40.00	Ambulatory	7:16	1234 Tally Way	Tallahassee	7:42	4321 Other Way	Tallahassee	0.09
4/2/2023	Jane Doe	40.00	Ambulatory	7:28	1234 Tally Way	Tallahassee	7:51	4321 Other Way	Tallahassee	1.48
4/2/2023	John Doe	40.00	Ambulatory	9:34	1234 Tally Way	Tallahassee	10:12	4321 Other Way	Tallahassee	0.07
4/2/2023	Jane Doe	40.00	Ambulatory	12:45	1234 Tally Way	Tallahassee	14:07	4321 Other Way	Tallahassee	0.53
4/2/2023	John Doe	40.00	Ambulatory	9:31	1234 Tally Way	Tallahassee	10:31	4321 Other Way	Tallahassee	1.37
4/2/2023	Jane Doe	40.00	Ambulatory	10:59	1234 Tally Way	Tallahassee	11:55	4321 Other Way	Tallahassee	0.67
4/2/2023	John Doe	40.00	Ambulatory	9:18	1234 Tally Way	Tallahassee	10:17	4321 Other Way	Tallahassee	0.68
4/2/2023	Jane Doe	40.00	Ambulatory	11:16	1234 Tally Way	Tallahassee	12:34	4321 Other Way	Tallahassee	0.44
4/2/2023	John Doe	40.00	Ambulatory	11:25	1234 Tally Way	Tallahassee	12:16	4321 Other Way	Tallahassee	0.95
4/3/2023	Jane Doe	40.00	Ambulatory	14:36	1234 Tally Way	Tallahassee	16:16	4321 Other Way	Tallahassee	0.93
4/3/2023	John Doe	40.00	Ambulatory	14:21	1234 Tally Way	Tallahassee	15:06	4321 Other Way	Tallahassee	0.38
4/3/2023	Jane Doe	40.00	Ambulatory	6:41	1234 Tally Way	Tallahassee	7:06	4321 Other Way	Tallahassee	1.49
4/3/2023	John Doe	40.00	Ambulatory	10:45	1234 Tally Way	Tallahassee	10:58	4321 Other Way	Tallahassee	0.74
4/3/2023	Jane Doe	40.00	Ambulatory	7:29	1234 Tally Way	Tallahassee	7:55	4321 Other Way	Tallahassee	0.47

**“The Grantee must provide the following supporting documentation for reimbursement which identifies specific trips designated as eligible for the Transportation Disadvantaged Trust Fund. The Grantee shall provide sufficient documentation for each cost or claims for reimbursement to allow an audit trail to ensure that the services rendered or costs incurred were for those that were provided.”**

— COMMISSION FOR THE TRANSPORTATION DISADVANTAGED INVOICING PROCEDURES FOR THE PROVISION OF TRANSPORTATION AND CAPITAL EQUIPMENT. July 1, 2017. p. 8

The existing contrast between requirements for an audit trail of CTD invoices and no similar trail for the AOR is most often attributed to the fact that the CTD invoices are explicitly tied to reimbursement. The premise that an audit trail is only necessary when direct reimbursement is involved, however, overlooks the broader purpose of collecting data on all services provided to TD persons by the coordinated system. The Florida Legislature’s ultimate aim behind the establishment of the coordinated system and CTD’s statutorily-required broader data collection efforts is to enhance transportation services across all the various programs available to the TD population. Being able to rely just on reimbursement-focused data collected leads to an isolated

view of services, missing opportunities for cross-program learnings and holistic improvements. Data integrity is paramount in any situation where data is used to inform and make decisions, not just in situations of deciding whether to reimburse.

While reimbursement-driven programs necessitate precision, a more comprehensive perspective acknowledges that well-informed decisions, holistic or even targeted improvements, public trust, and future planning depend on accurate and auditable data collection across the board. This study's motivation is making the AOR a more reliable and useful source of information to help with understanding and decisions about the coordinated system. If CTD is going to continue using AOR data to “evaluate certain performance aspects of the coordinated systems individually and as a whole,” and even “substantiate the need to seek additional funds”<sup>14</sup> then verifying the integrity of data in the AOR is of central importance.

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<sup>14</sup> “Instructions for the Completion of the Annual Operating Report (AOR): FY 2021-22” Florida Commission for Transportation Disadvantaged. p. 3 Available online at:  
<[https://ctd.fdot.gov/docs/AORAPRDocs/CTC\\_AOR\\_Reporting\\_Instructions\\_20220707.pdf](https://ctd.fdot.gov/docs/AORAPRDocs/CTC_AOR_Reporting_Instructions_20220707.pdf)>

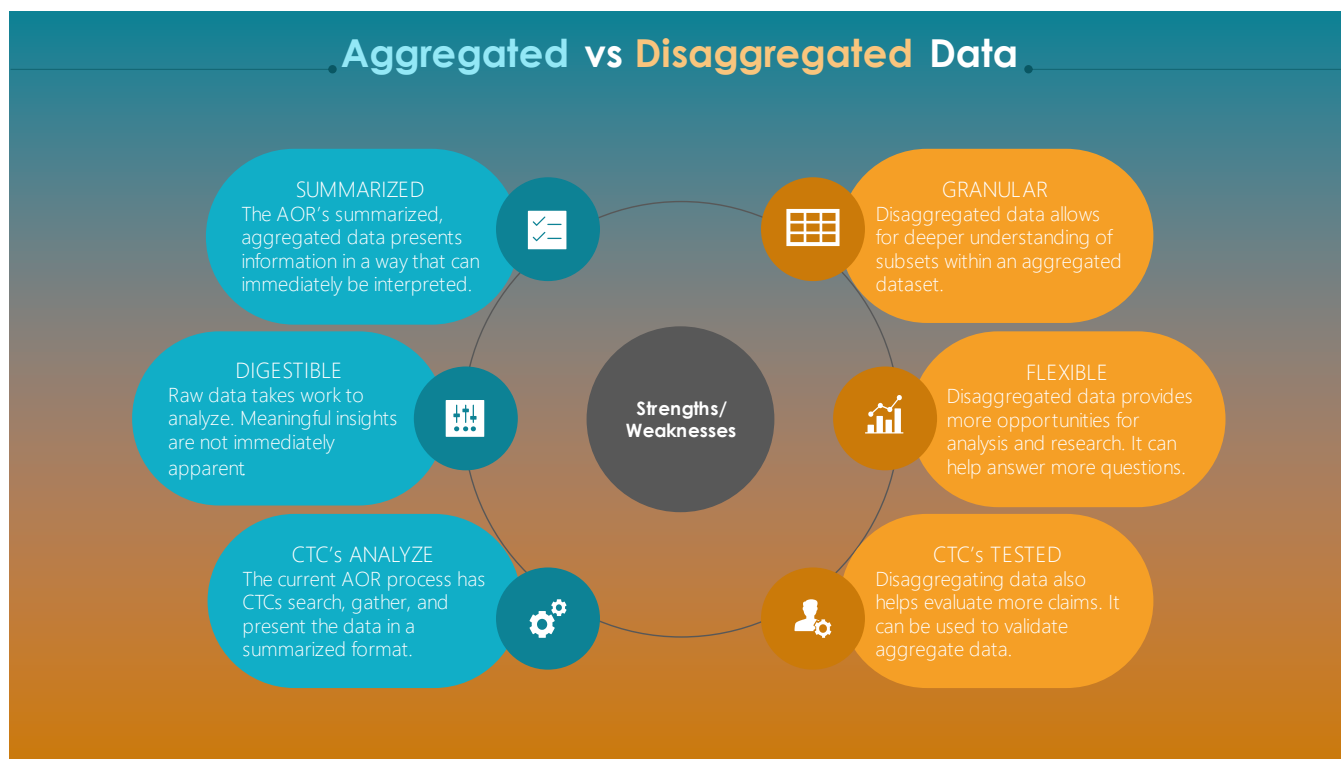
### Objective 3: ANALYZE



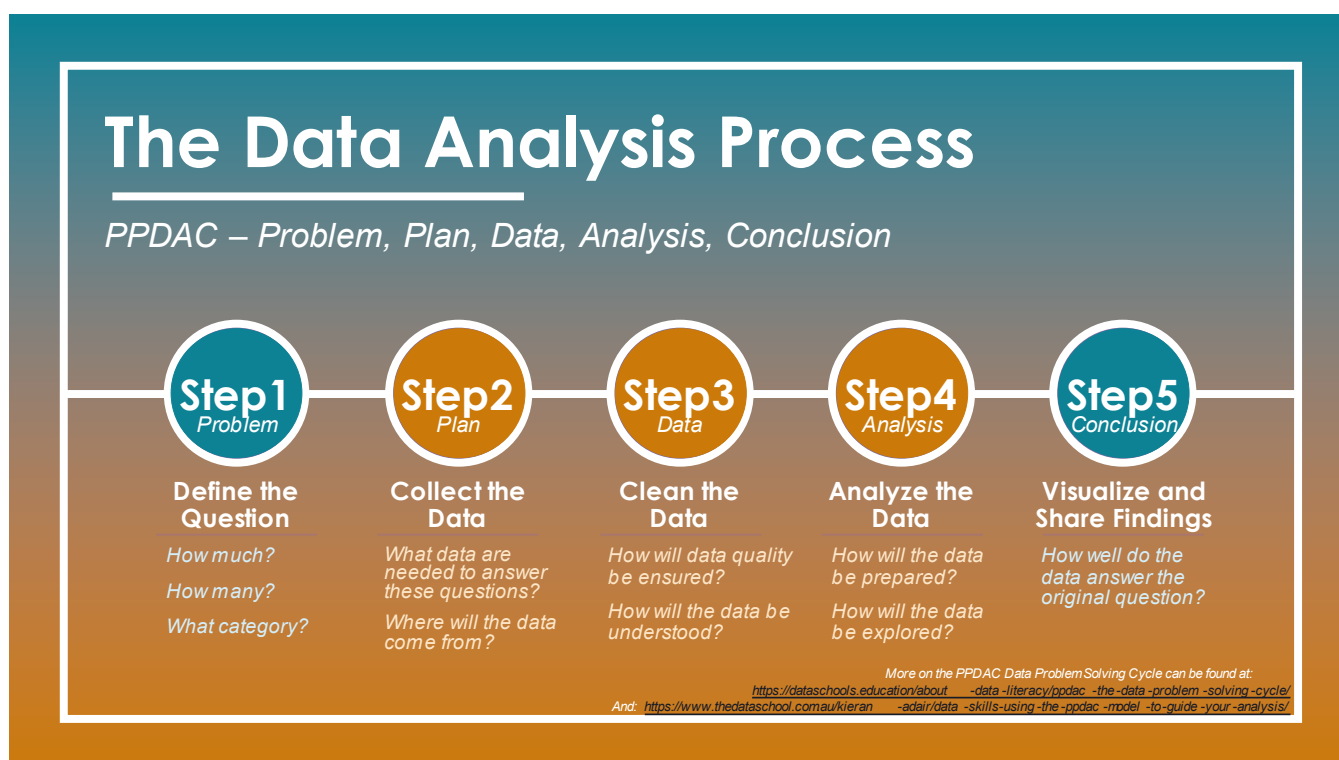
The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, “coordination” is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.

The AOR is similar to many other traditional data collection and analysis methods in the way it summarizes the various elements of the coordinated system into a single representation, as exemplified with Indian River’s county summary above. This approach is often taken because it provides a quick overview that is easily and immediately digestible in terms of absorbing information. This capacity to provide a quick overview and immediately extract some insights is a key strength of aggregated data.

Aggregated data’s primary strength lies in its presentation of information. Every strength has its weakness, however. What aggregated data offers in quick and easy takeaways, it lacks in the depth and richness necessary for more comprehensive and in-depth analysis. The opposite can be said for disaggregated data in that its primary weakness is the fact that it is not immediately presentable, whereas its biggest strength lies in what it allows in terms of insights that may be masked by data in a more summarized form.



When deciding on what data needs to be collected—and the extent to which it should be aggregated or disaggregated—it is valuable to keep in mind the full data analysis process. This process, which is also known by the acronym PPDAC and is shown below, is a widely accepted process in the fields of statistics and data science. The process consists of 5 steps, starting with the question to be answered or problem to be solved. Next come steps 2 through 4, which together are concerned with building and preparing a dataset to be used in solving the question or problem from step 1. Last comes the presentation of findings, or what answers were found in the dataset that was constructed and used to answer the initial question.



The data analysis process illustrates that decisions on what data to collect and organize (steps 2-4) should be driven by what questions the data is supposed to help answer (step 1)—not by how it is to be presented (step 5). In keeping with the purpose of this study to improve the analyses of performance data reported in the AOR, the capacity to being able to answer more questions with a dataset is equivalent to improving its analytical capacity. Put another way, the usefulness of a dataset may be determined by the number and types of questions that can be answered with it.

## Anticipate questions data should answer



*\* Not every potential question can be anticipated, but the more datapoints that are collected, the more prepared the dataset will be to answer all possible questions*

Aggregated data is built from disaggregated data, so disaggregated data is inherently capable of answering more questions by comparison. This is because disaggregated data contains more datapoints, which allows for analysis to delve into more intricate details and answer a broader array of questions.

## What is a datapoint?

Concept:

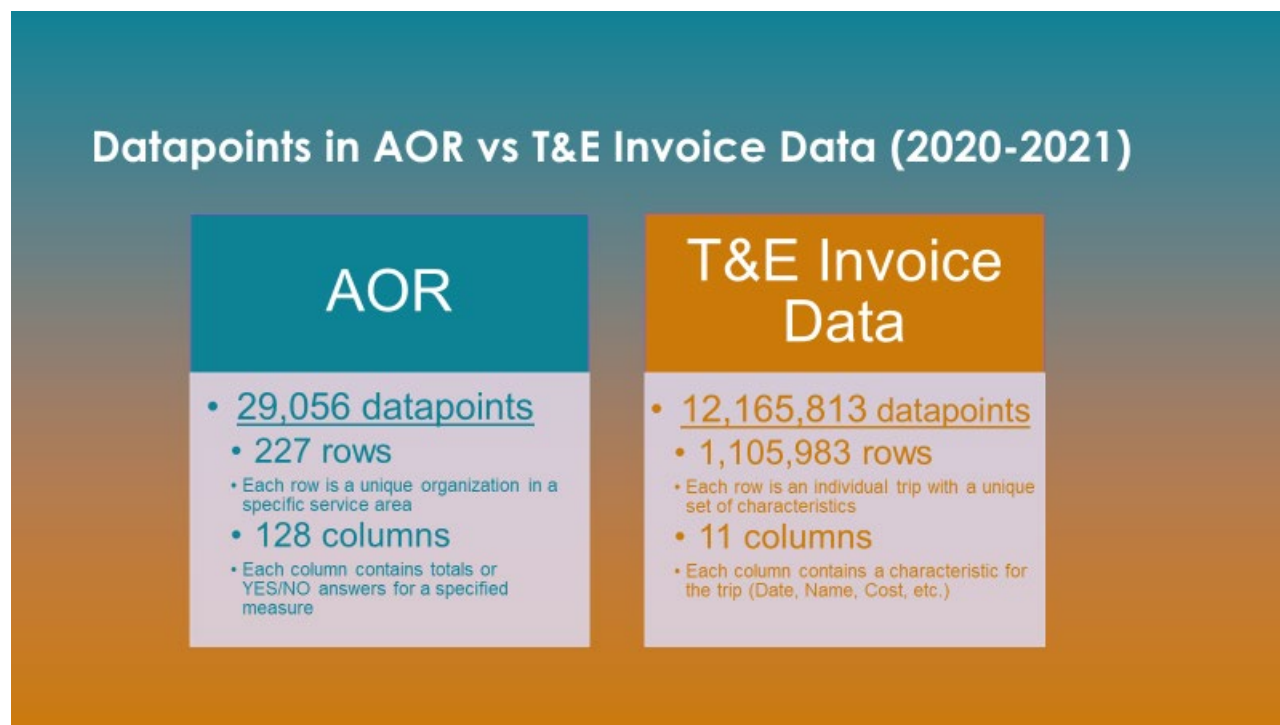
	Field	Field	Field	Field	Field	Field
Observation	Data Point	Data Point	Data Point	Data Point	Data Point	Data Point
Observation	Data Point	Data Point	Data Point	Data Point	Data Point	Data Point
Observation	Data Point	Data Point	Data Point	Data Point	Data Point	Data Point
Observation	Data Point	Data Point	Data Point	Data Point	Data Point	Data Point
Observation	Data Point	Data Point	Data Point	Data Point	Data Point	Data Point

Example: *\* The dataset below contains 30 different datapoints (5 rows \* 6 columns)*

	Date	Name	Cost	Origin City	Destination City	Miles
Row 1	1/1/2023	Bob	\$10.00	Orlando	Orlando	20
Row 2	1/2/2023	Beth	\$15.00	Tampa	St. Pete	30
Row 3	1/3/2023	Carl	\$30.00	Jacksonville	St. Augustine	45
Row 4	1/3/2023	Kara	\$10.00	Pensacola	Pensacola	10
Row 5	1/4/2023	Mike	\$20.00	Miami	Hialeah	24



Once again, it helps to contrast the AOR's data with data extracted from CTD's invoices. Whereas the AOR contains annual trip totals, the back up documentation in CTD's invoices contains data at the individual trip level—a much more granular unit of observation. Because of this, the invoice data contains many more datapoints, even though it collects data on far fewer variables (columns) compared to the AOR.



The example below gives some example of the types of questions that can be answered using CTD's invoice data which cannot be answered with the AOR's data. Because the AOR only collects total annual figures and basic information on YES/NO questions, it is only able to answer these types of questions. By contrast, data from the back up documentation in CTD's invoices can answer these types of high-level questions *and also* more precise questions such as how many trips occur on a specific date or how many trips cross county lines.



## Going back to the example dataset . . .

Example: \* The dataset below contains 30 different datapoints (5 rows \* 6 columns s)

	Date	Name	Cost	Origin City	Destination City	Miles
Row 1	1/1/2023	Bob	\$10.00	Orlando	Orlando	20
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Row 4	1/3/2023	Kara	\$10.00	Pensacola	Pensacola	10
Row 5	1/4/2023	Mike	\$20.00	Miami	Hialeah	24

Question	AOR	Invoice Data	
How many total trips?	Answerable	Answerable	5
How many trips on January 3 <sup>rd</sup> ?	Not Answerable	Answerable	2
Total cost of trips?	Answerable	Answerable	\$85
Total trips costing less than \$20	Not Answerable	Answerable	3
Trips provided across county lines?	Answerable	Answerable	Yes
How many trips across county lines?	Not Answerable	Answerable	1

By moving beyond summary statistics, disaggregated, individual trip level data can equip CTD (and others) with more granular, or detailed, information that enhances the precision of questions it can answer, expands the types of analyses it can conduct, and deepens understanding of the coordinated system. Another simple example with Indian River's AOR county summary demonstrates this further.

This aggregated format can tell us how many CTD trips there are (13,834) and how many trips were for the purpose of employment (5,312). But it can't tell us how many CTD trips were for the purpose of employment.

County: Indian River

CTC: Senior Resource Association, Inc.

Contact: Karen Deigl

694 14th St.

Vero Beach, FL 32960

772-569-0111


Email: [kdeigl@srmail.org](mailto:kdeigl@srmail.org)

Demographics

Total County Population 158,002

Unduplicated Head Count 4,021

Florida Commission for the



Transportation

Disadvantaged

Trips By Type of Service	2020	2021	2022
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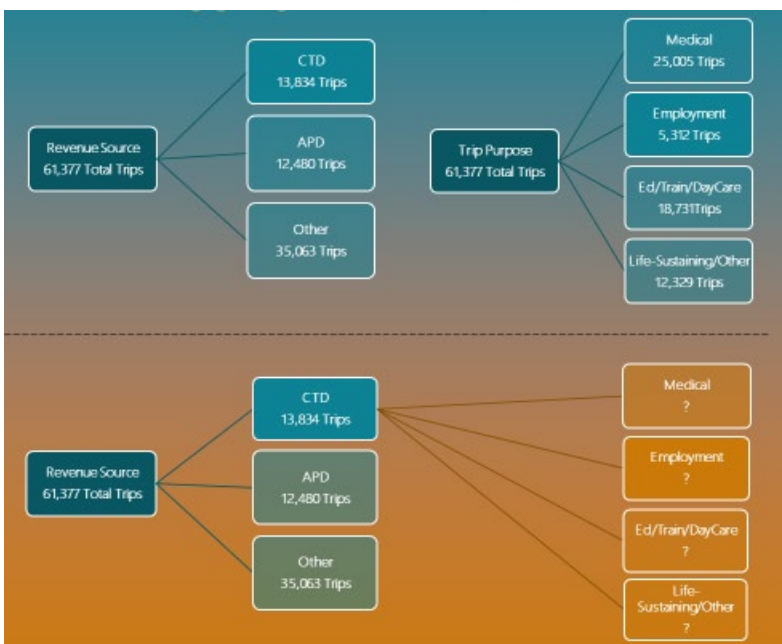
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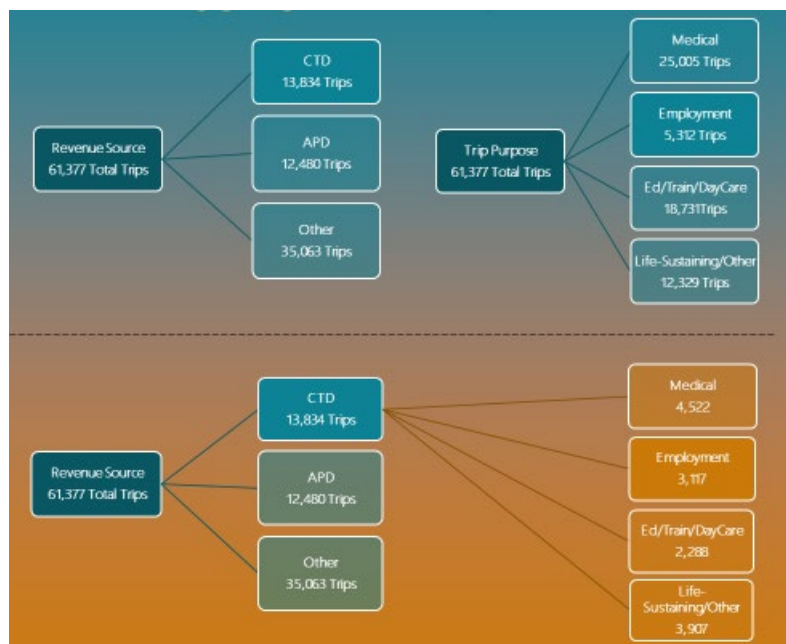
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Avg. Trips per Passenger	29.20	18.15	15.26
Cost per Trip	\$27.04	\$37.57	\$43.00
Cost per Paratransit Trip	\$27.04	\$37.57	\$43.00
Cost per Total Mile	\$4.88	\$5.45	\$5.13
Cost per Paratransit Mile	\$4.88	\$5.45	\$5.13

An example strength of the AOR's aggregated form of data is how (in Indian River's case in 2022) it is immediately apparent how many trips were funded by CTD (13,834 trips) and how many trips there were for the purpose of employment (5,312 trips). An example weakness of the AOR's lack of disaggregation of data is how (again, in Indian River's case) it is impossible to determine how many trips funded by CTD were for the purpose of employment. Data is aggregated by Funding Source and by Trip Purpose, but not disaggregated by any combination of the two (left example). However, using back up, individual trip level data provided by Indian River (right example), it then becomes possible to answer this particular question of how many CTD trips were for the purpose of employment, as well as others like it.

## Without back up data



## With back up data



## **Discussion and Recommendations**

Florida Statutes tasks CTD with the role of a statewide aggregator of data on the transportation disadvantaged coordinated system, which it performs by collecting AORs from each county across the state. “To aggregate data is to compile and summarize it,” but when it comes to data on trips and bus passes provided by CTCs, the current AOR process does not “compile and summarize” so much as it compiles information, or data, that is already summarized by CTCs before it is submitted to CTD. This leads to data already being highly aggregated by the time it is submitted to CTD, which greatly limits the data’s ability to be verified or used for analysis.

Since all aggregated data is produced from (and backed up by) disaggregated data that exists at a more granular level, the AOR can improve the verifiability and analytical usefulness of its data by collecting from CTCs the more disaggregated data at the individual trip and bus pass levels. Not only could the disaggregated data on individual trips and bus passes serve as an audit trail and be used to make the same types of summaries currently presented in the AOR, but it additionally would permit many more types of analyses to be conducted on the coordinated system which simply are not possible with the current limitations. This enhanced analytical capacity offers the potential to answer many more questions about the coordinated system and deepen understanding of the services it provides for Florida’s TD population.

The major themes of this study and even some of the specific examples used in this report were shared in multiple public forums throughout State Fiscal Year 2022-2023. To aid in completing this study, CTD convened a study workgroup consisting of its own staff, a CTD commissioner, representatives from two CTCs, a representative from a local planning agency, and representatives from three State agencies—the Agency for Persons with Disabilities (APD), the Department of Elder Affairs (DOEA), and the Department of Transportation (DOT). The workgroup met on four separate occasions from November 2022 to July 2023. Thomas Howell Ferguson P.A. also provided updates on this study’s progress at Commission business meetings held in March and June of 2023.

In May of 2023, Thomas Howell Ferguson P.A. and CTD hosted a public workshop where the study’s major themes were discussed and CTCs’ feedback on the study was then gathered for an additional three weeks before the study’s final drafting phase. Also, during these three weeks, Thomas Howell Ferguson P.A. hosted a website, AORUpload.com, where CTCs could test the uploading of their specific trip data behind the reported summarized totals in the AOR.

It is recommended that CTD pursue the collection of more disaggregated trip and bus pass data from CTCs given the potential benefits to improving the accuracy and analyses of such data in the AOR. In addition to the benefits, however, a new process for the collection of more disaggregated data also introduces technical as well as potential legal complexities that should be demonstrably addressed first before attempting any major overhaul of existing processes. Therefore, this study provides the following three specific recommendations pertaining to the AOR moving forward in State Fiscal Year 2023-2024:

**Recommendation 1: For the upcoming AOR submissions in 2023, the Commission should continue with the current processes and methods it has in place and collect the same information as it has in recent years.**

This study conducted throughout State Fiscal Year 2022-2023 was one of exploring possible changes to data collected for the AOR. While a specific conceptual proposal emerged in collecting disaggregated individual trip and bus pass level data, the specific tools and mechanisms for collecting these more detailed data still need to be decided on and tested. While these are being worked out, there is no reason to disrupt the existing AOR processes already in place.

**Recommendation 2: The Commission should develop a detailed plan to test run the additional collection of individual trip level data, as well as individual bus pass level data, from CTCs as part of the 2023 AOR submission cycle. This planned test run for collecting data on individual trips and bus passes should function separately from the existing processes referenced in Recommendation 1 and not be integrated within them.**

As noted above, Thomas Howell Ferguson P.A. did host the AORUpload.com website in June 2023 where CTCs could test the uploading of their specific trip data behind the reported summarized totals in the AOR. The site was built with the intention of aiding understanding of how disaggregated data may be collected and its relation to what is currently in the AOR, but it did not constitute a complete working template and instructions, and it also did not save any data uploaded by CTCs. A complete working template that actually saves submissions is needed first before undertaking any official collection of disaggregated trip and bus pass data from CTCs. State Fiscal Year 2023-2024 can build off of the work in this study from 2022-2023 with the development of such a working template and successfully test-running it.

The detailed plan to test run this collection should also focus on data for trips provided CTCs and their transportation operators, but not trips provided by coordination contractors. While "transportation operator" data falls under the purview (i.e., contract) of the CTC, "coordination contractor" data are compiled by third-party entities that are outside of the CTC's control. For example, an ARC chapter may receive federal 5310 funding to serve individuals with developmental disabilities and report data to the CTC in their area, but the CTC has no direct oversight of the ARC and is limited in its ability to verify the accuracy of that coordination contractor's data. The difficulty in trying to obtain trip-level data from coordination contractors was cited by multiple CTCs who provided feedback on the study (see Appendix B).

**Recommendation 3: As part of the detailed plan in Recommendation 2, the Commission should conduct a comprehensive and thorough review of its legal options and authorities pertaining to the collection of data on individual trips and bus passes. The review should especially focus on the collection of potentially sensitive information, including potential personally identifiable details such as names or addresses. By proactively exploring its legal options and authorities for collecting specific details, the Commission can ensure that its data collection practices align with legal requirements, protect privacy rights, and build a strong foundation for the ethical and responsible use of disaggregated data.**

While CTD does collect individual trip and bus pass level data for its own grant programs, doing the same for the AOR would mean collecting potentially identifiable information on individuals receiving services in other programs. Conducting a thorough legal review of its authorities and options for collecting this potentially new information will help guide CTD in a responsible manner and ensure that any data it collects as a statewide coordinator of services is handled properly.

**APPENDIX – A**

Public Workshop  
Presentation



## Florida Commission for the Transportation Disadvantaged

Public Workshop  
May 25, 2023



# Workshop Objectives

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- Provide an overview of the Annual Operating Report (AOR) and current challenges.
- Discuss objectives of the AOR Study and explore an alternative concept of collecting data for future reports.
- Gather public input.



# Meeting Rules

- This is a **public** meeting under Florida's Government in the Sunshine Act.
- This meeting is being recorded.
- All audio and phone lines are muted.
- Following the presentation, participants are invited to provide public comments.
- Webinar speakers must unmute their line when called on by the facilitator.
- Phone participants will be instructed on unmuting their phone lines.
- All public comments are limited to 5 minutes per speaker.



# Annual Operating Report (AOR) Study

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Presented by Thomas Howell Ferguson

“In God we trust. All others  
must bring data.”

W. Edwards Deming





## The Assembly Line: A Case Study of Quantity vs Quality

**Efficiency** was the primary goal of the American assembly line in the 1950s:

- Workers were instructed to “keep the line moving”
- Quality was the responsibility of management and inspectors

**Quality** was the primary goal of the Japanese assembly line in the 1950s:

- All employees were responsible for the quality of the product
- Workers were instructed to stop the line if there was a problem with the product

# Background on AOR

## Annual

Each year, CTD collects data on transportation operations related to serving the TD population.

## CTCs

The data is reported by Community Transportation Coordinators (CTCs) to CTD

## System

Data includes trip totals across the TD system and other performance indicators from the previous state fiscal year.

## Report

CTD compiles AOR data within its Annual Performance Report (APR), submitted to the Governor and Legislature each year.



# Why does CTD collect AOR data? Statute

## Annual

“CTD must submit an annual report to the Governor, Speaker of the House, and President of the Senate by January 1st of each year (427.013(12)).”

## CTCs

CTCs must “collect annual operating data” and submit to the CTD (427.0155(2)).

## System

CTD must “compile all available information on the transportation operations for and needs of the transportation disadvantaged in the state” (427.013(1)).

## Report

The Annual Performance Report (APR) currently satisfies this statute



# Study Purpose and Objectives

*The Commission for the Transportation Disadvantaged (CTD) is conducting a study to improve the accuracy and analyses of performance data reported in the AOR*



## Objective 1: ASSESS

The CTD will examine the current role of the AOR, including the process used to collect and report performance data each fiscal year. This will help identify both the strengths of the current system and the areas in need of future improvement.



## Objective 2: VERIFY

The CTD will identify strategies that can assist CTCs in reporting accurate and consistent data within the AOR. This is critical to the third objective of performing analyses and capturing accurate service trends year-over-year.



## Objective 3: ANALYZE

The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, “coordination” is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.

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# Indian River 2021-2022 AOR (Example)

County: Indian River  
 CTC: Senior Resource Association, Inc.  
 Contact: Karen Deigl  
 694 14th St.  
 Vero Beach, FL 32960  
 772-569-0111  
 Email: [kdeigl@sramail.org](mailto:kdeigl@sramail.org)

Demographics	Number
Total County Population	158,002
Unduplicated Head Count	4,021



Trips By Type of Service	2020	2021	2022
Fixed Route (FR)	0	0	0
Deviated FR	0	0	0
Complementary ADA	27,743	24,422	32,900
Paratransit	60,865	33,198	28,477
TNC	0	0	0
Taxi	0	0	0
School Board (School Bus)	0	0	0
Volunteers	0	0	0
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

Passenger Trips By Trip Purpose	2020	2021	2022
Medical	21,141	21,364	25,005
Employment	449	487	5,312
Ed/Train/DayCare	48,339	21,300	18,731
Nutritional	0	0	0
Life-Sustaining/Other	18,679	14,469	12,329
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

Passenger Trips By Revenue Source	2020	2021	2022
CTD	15,401	16,767	13,834
AHCA	0	0	0
APD	45,044	14,747	12,480
DOEA	0	0	0
DOE	0	0	0
Other	28,163	26,106	35,063
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

Trips by Provider Type	2020	2021	2022
CTC	32,218	24,422	32,900
Transportation Operator	10,926	16,767	13,834
Coordination Contractor	45,464	16,431	14,643
<b>TOTAL TRIPS</b>	<b>88,608</b>	<b>57,620</b>	<b>61,377</b>

Vehicle Data	2020	2021	2022
Vehicle Miles	490,779	397,098	514,407
Roadcalls	6	3	5
Accidents	1	0	1
Vehicles	116	83	62
Drivers	97	68	58

Financial and General Data	2020	2021	2022
Expenses	\$ 2,395,524	\$ 2,164,752	\$ 2,639,210
Revenues	\$ 2,293,677	\$ 2,296,872	\$ 3,166,256
Commendations	5	15	16
Complaints	29	13	13
Passenger No-Shows	1,409	819	207
Unmet Trip Requests	34	21	7

Performance Measures	2020	2021	2022
Accidents per 100,000 Miles	0.20	0.00	0.19
Miles between Roadcalls	81,796	132,366	102,881
Avg. Trips per Passenger	29.20	18.15	15.26
Cost per Trip	\$27.04	\$37.57	\$43.00
Cost per Paratransit Trip	\$27.04	\$37.57	\$43.00
Cost per Total Mile	\$4.88	\$5.45	\$5.13
Cost per Paratransit Mile	\$4.88	\$5.45	\$5.13

The AOR collects aggregated trip data by fields such as "Trip Purpose" and "Revenue Source", among others.

Aggregated data is just a set of calculations on top of raw data that exists at a more granular level. In this sense, data submitted by CTC's in the AOR is more analysis than it is pure data.

Aggregated data represents a summary of disaggregated data. In this case, 61,377 individual trips (the disaggregated data) are aggregated (summarized) by:

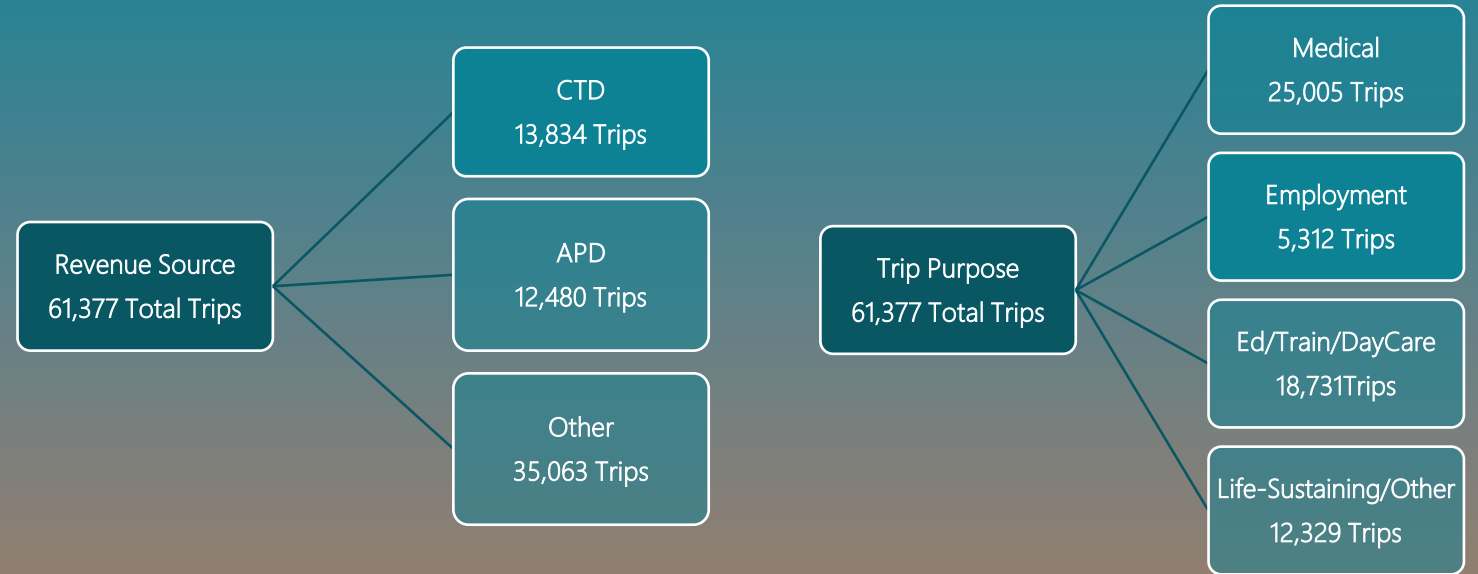
1. Type of Service
2. Trip Purpose
3. Revenue Source
4. Provider Type

# Aggregated vs Disaggregated Data

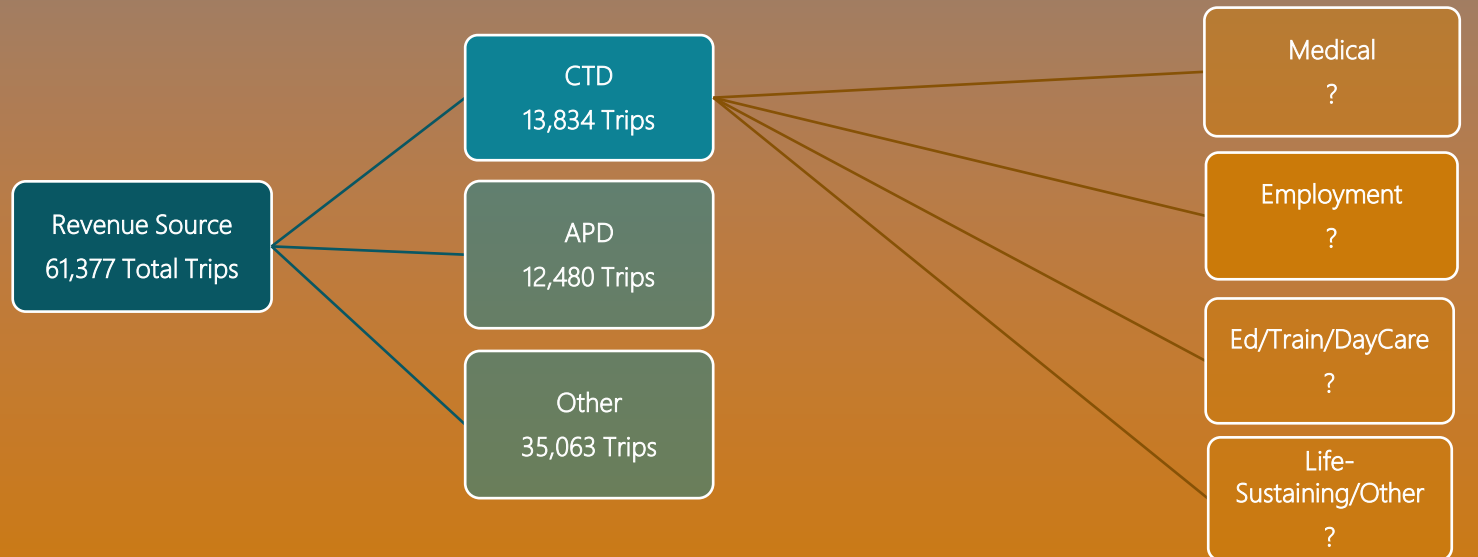


# Aggregated vs Disaggregated Data

An example strength of the AOR's aggregated form of data is how (in Indian River's case in 2021-2022) it is immediately apparent how many trips were funded by CTD (13,834 trips) and how many trips there were for the purpose of employment (5,312 trips).



An example weakness of the AOR's lack of disaggregation of data is how (again, in Indian River's case) it is impossible to determine how many CTD trips were for the purpose of employment. Data is aggregated by Funding Source and by Trip Purpose, but not disaggregated by any combination of the two.



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Cost per Total Mile	\$4.88	\$5.45	\$5.13
Cost per Paratransit Mile	\$4.88	\$5.45	\$5.13

The only figures that can be verified for accuracy within the AOR itself are the summary totals against one another. But there is no audit trail for these summarized totals.

# Using CTD Invoices as Analogy

Florida Commission for the



Transportation  
Disadvantaged

Florida Commission for the Transportation Disadvantaged

Trip Summary Data Report

CTC:

Thomas Howell Ferguson CTC

County(ies):

Florida County

Dates of Services:

April 1, 2023 to April 30, 2023

Mode	Number of Trips	Number of Miles
Ambulatory	500	2000
Wheelchair	300	700
Stretcher	50	100
Group Per Passenger	150	200
Group Per Group		
Total	1000	3000

Bus Pass Type	Number of Bus Passes Issued
Daily	
Weekly	
Monthly	

*By submission of this form, Grantee certifies the information provided on this Trip Summary Data Report is accurate and accountable and corresponds with the supporting back-up documentation. All individuals included in the supporting back-up documentation have a Transportation Disadvantaged application on file and the individuals have been determined eligible for services rendered.*

Revised 07/01/2021

“The Trip Summary Data Report provides a summary of the invoice back-up documentation. This report must be submitted with the invoice and detailed back-up documentation in order for the invoice to be processed by the Commission. Data provided on this form must match data provided on the back-up documentation.”

— COMMISSION FOR THE TRANSPORTATION DISADVANTAGED INVOICING PROCEDURES FOR THE PROVISION OF TRANSPORTATION AND CAPITAL EQUIPMENT. July 1, 2017. p. 6

# Using CTD Invoices as Analogy

Thomas Howell Ferguson CTC					April 1, 2023 to April 30, 2023				Ambulatory		
Date	Name	Cost	Mode	Pick Up Time	Origin Address	Origin City	Drop Off Time	Destination Address	Destination City	Miles	
4/1/2023	John Doe	40.00	Ambulatory	7:18	1234 Tally Way	Tallahassee	7:39	4321 Other Way	Tallahassee	14.54	
4/1/2023	Jane Doe	40.00	Ambulatory	7:25	1234 Tally Way	Tallahassee	7:49	4321 Other Way	Tallahassee	1.30	
4/1/2023	John Doe	40.00	Ambulatory	7:01	1234 Tally Way	Tallahassee	7:16	4321 Other Way	Tallahassee	0.32	
4/1/2023	Jane Doe	40.00	Ambulatory	7:14	1234 Tally Way	Tallahassee	7:44	4321 Other Way	Tallahassee	0.78	
4/1/2023	John Doe	40.00	Ambulatory	7:18	1234 Tally Way	Tallahassee	7:37	4321 Other Way	Tallahassee	1.40	
4/1/2023	Jane Doe	40.00	Ambulatory	7:57	1234 Tally Way	Tallahassee	8:22	4321 Other Way	Tallahassee	0.45	
4/1/2023	John Doe	40.00	Ambulatory	7:03	1234 Tally Way	Tallahassee	7:19	4321 Other Way	Tallahassee	0.87	
4/1/2023	Jane Doe	40.00	Ambulatory	6:39	1234 Tally Way	Tallahassee	6:50	4321 Other Way	Tallahassee	0.07	
4/1/2023	John Doe	40.00	Ambulatory	7:17	1234 Tally Way	Tallahassee	7:41	4321 Other Way	Tallahassee	0.33	
4/1/2023	Jane Doe	40.00	Ambulatory	7:33	1234 Tally Way	Tallahassee	7:46	4321 Other Way	Tallahassee	0.79	
4/1/2023	John Doe	40.00	Ambulatory	6:42	1234 Tally Way	Tallahassee	6:55	4321 Other Way	Tallahassee	0.83	
4/2/2023	Jane Doe	40.00	Ambulatory	7:21	1234 Tally Way	Tallahassee	8:03	4321 Other Way	Tallahassee	0.92	
4/2/2023	John Doe	40.00	Ambulatory	6:44	1234 Tally Way	Tallahassee	6:56	4321 Other Way	Tallahassee	1.14	
4/2/2023	Jane Doe	40.00	Ambulatory	7:25	1234 Tally Way	Tallahassee	8:04	4321 Other Way	Tallahassee	0.82	
4/2/2023	John Doe	40.00	Ambulatory	7:16	1234 Tally Way	Tallahassee	7:42	4321 Other Way	Tallahassee	0.09	
4/2/2023	Jane Doe	40.00	Ambulatory	7:28	1234 Tally Way	Tallahassee	7:51	4321 Other Way	Tallahassee	1.48	
4/2/2023	John Doe	40.00	Ambulatory	9:34	1234 Tally Way	Tallahassee	10:12	4321 Other Way	Tallahassee	0.07	
4/2/2023	Jane Doe	40.00	Ambulatory	12:45	1234 Tally Way	Tallahassee	14:07	4321 Other Way	Tallahassee	0.53	
4/2/2023	John Doe	40.00	Ambulatory	9:31	1234 Tally Way	Tallahassee	10:31	4321 Other Way	Tallahassee	1.37	
4/2/2023	Jane Doe	40.00	Ambulatory	10:59	1234 Tally Way	Tallahassee	11:55	4321 Other Way	Tallahassee	0.67	
4/2/2023	John Doe	40.00	Ambulatory	9:18	1234 Tally Way	Tallahassee	10:17	4321 Other Way	Tallahassee	0.68	
4/2/2023	Jane Doe	40.00	Ambulatory	11:16	1234 Tally Way	Tallahassee	12:34	4321 Other Way	Tallahassee	0.44	
4/2/2023	John Doe	40.00	Ambulatory	11:25	1234 Tally Way	Tallahassee	12:16	4321 Other Way	Tallahassee	0.95	
4/3/2023	Jane Doe	40.00	Ambulatory	14:36	1234 Tally Way	Tallahassee	16:16	4321 Other Way	Tallahassee	0.93	
4/3/2023	John Doe	40.00	Ambulatory	14:21	1234 Tally Way	Tallahassee	15:06	4321 Other Way	Tallahassee	0.38	
4/3/2023	Jane Doe	40.00	Ambulatory	6:41	1234 Tally Way	Tallahassee	7:06	4321 Other Way	Tallahassee	1.49	
4/3/2023	John Doe	40.00	Ambulatory	10:45	1234 Tally Way	Tallahassee	10:58	4321 Other Way	Tallahassee	0.74	
4/3/2023	Jane Doe	40.00	Ambulatory	7:29	1234 Tally Way	Tallahassee	7:55	4321 Other Way	Tallahassee	0.47	

“The Grantee must provide the following supporting documentation for reimbursement which identifies specific trips designated as eligible for the Transportation Disadvantaged Trust Fund. The Grantee shall provide sufficient documentation for each cost or claims for reimbursement to allow an audit trail to ensure that the services rendered or costs incurred were for those that were provided.”

— *COMMISSION FOR THE TRANSPORTATION DISADVANTAGED INVOICING PROCEDURES FOR THE PROVISION OF TRANSPORTATION AND CAPITAL EQUIPMENT. July 1, 2017. p. 8*

# AOR History with T&E Grant Funding

Prior to FY21-22, CTD Trip & Equipment (T&E) Grant funding was allocated based on total trips and miles in the AOR, including coordination contractors and third-party agencies.

In 2020, a CTD study identified concerns with inconsistencies in gathering and reporting AOR data from 60 different sources.

As a result, the CTD removed the AOR from the funding methodology and replaced it with invoice data collected through the T&E Grant.

The study recommended re-evaluating the role of the AOR in measuring the performance of the broader Coordinated TD System.

The AOR remains a statutory requirement for CTCs and is compiled in the CTD's Annual Performance Report.

# AOR History with T&E Grant Funding

“In my several years in Business Development for MV Transportation as well as Senior Staff member of the Commission for the Transportation Disadvantaged, I have reviewed countless Annual Operating Reports and have been dismayed at the lack of consistent, accurate data that is submitted. Particularly in smaller, not for profit agencies serving as the Community Transportation Coordinator (CTC), I have observed wide swings in reporting data from year to year and disparities on how certain categories are interpreted for submission of data . . . There does not exist a thorough examination or audit of this data, and disparities are not aggressively challenged by the CTD. The result of this is that when using AOR data for two of the four subsets of TD allocation distribution we are relying on data that has not been clearly vetted and verified, making the process inherently flawed.”

— *Florida Commission for the Transportation Disadvantaged Funding Allocation Study, Fiscal Year 2020, APPENDIX – E (PUBLIC FEEDBACK) p.92*

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## Objective 3: **ANALYZE**

The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, “coordination” is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.

# Study Purpose and Objectives

*The Commission for the Transportation Disadvantaged (CTD) is conducting a study to improve the accuracy and analyses of performance data reported in the AOR*



## Objective 1: ASSESS

The CTD will examine the current role of the AOR, including the process used to collect and report performance data each fiscal year. This will help identify both the strengths of the current system and the areas in need of future improvement.



## Objective 2: VERIFY

The CTD will identify strategies that can assist CTCs in reporting accurate and consistent data within the AOR. This is critical to the third objective of performing analyses and capturing accurate service trends year-over-year.



## Objective 3: ANALYZE

The CTD will explore ways AOR data can be used to evaluate coordination of TD services. For purposes of this study, “coordination” is defined as the services being delivered directly by CTCs (in addition to what are funded by the T&E Grant), including paratransit trips and bus pass programs serving TD riders.



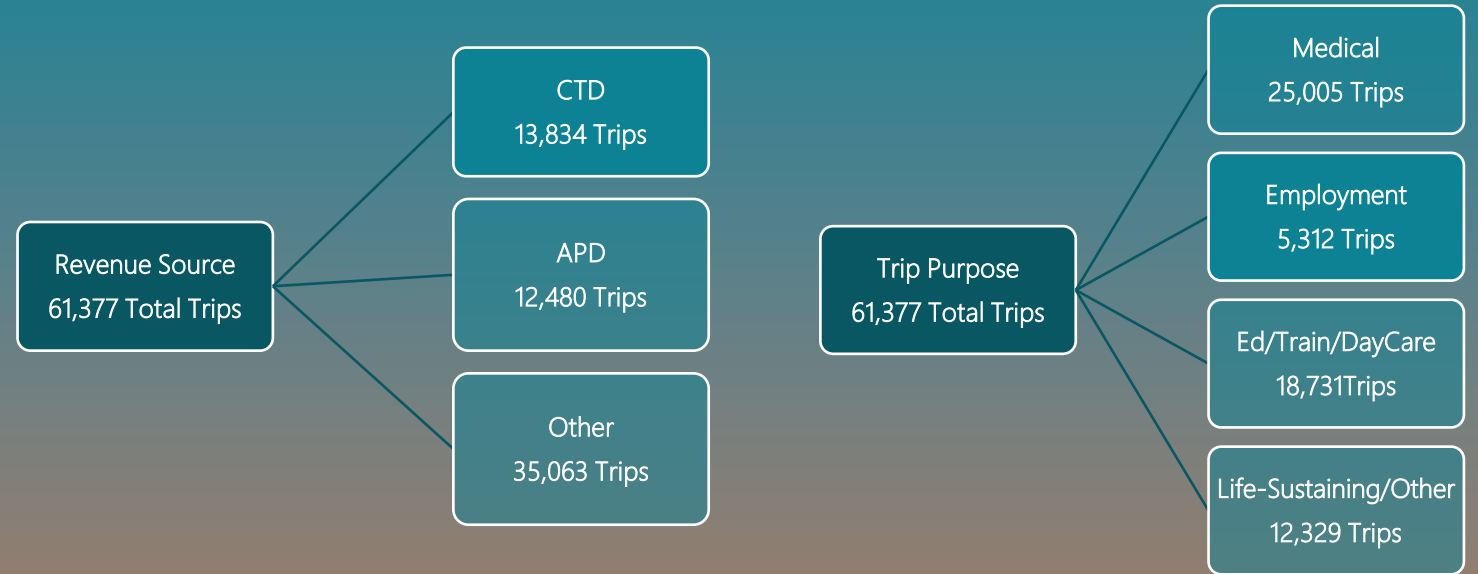
# Annual Performance Report Executive Summary

“Each year, CTD presents a report to the Governor and Legislature on the Coordinated System’s performance in serving the TD population during the previous state fiscal year . . . The content and datasets within this report provide two distinct, but coinciding perspectives:

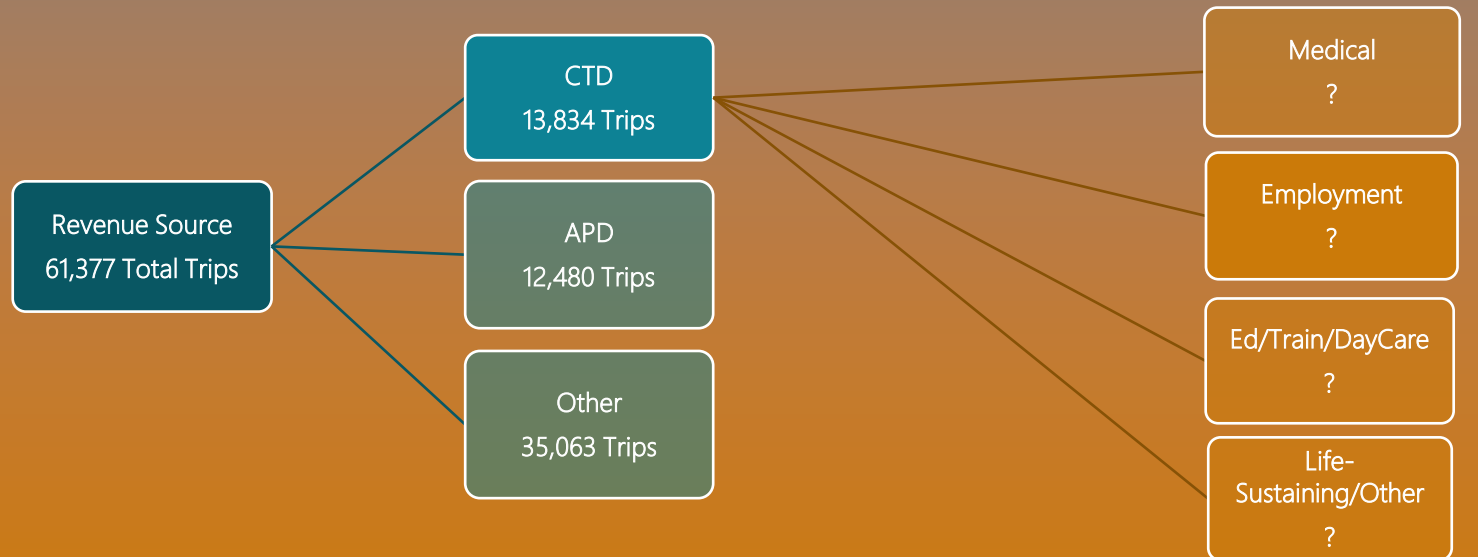
- 1) A macro-level, systemwide overview of the services provided by the Coordinated System, captured in each county’s Annual Operating Report (AOR); and
- 2) A micro-level, programmatic overview of services funded by CTD, which support trips “not sponsored” by any other agency within the Coordinated System.”

# Aggregated vs Disaggregated Data

An example strength of the AOR's aggregated form of data is how (in Indian River's case in 2021-2022) it is immediately apparent how many trips were funded by CTD (13,834 trips) and how many trips there were for the purpose of employment (5,312 trips).

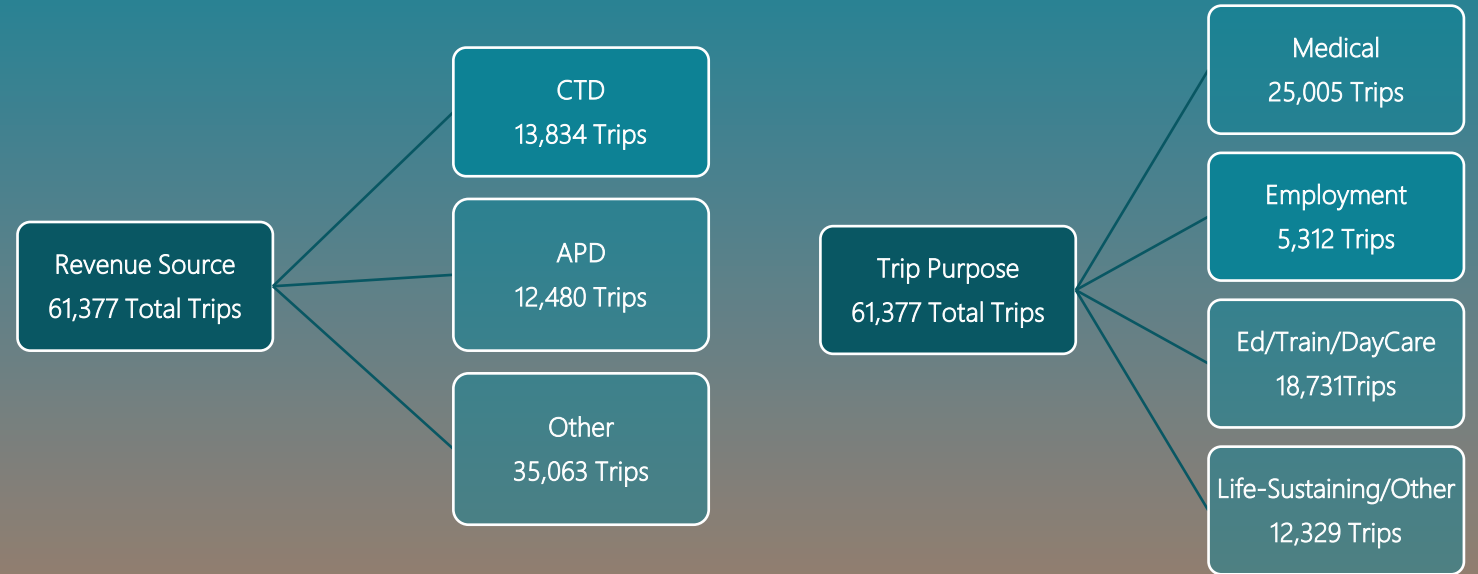


An example weakness of the AOR's lack of disaggregation of data is how (again, in Indian River's case) it is impossible to determine how many CTD trips were for the purpose of employment. Data is aggregated by Funding Source and by Trip Purpose, but not disaggregated by any combination of the two.

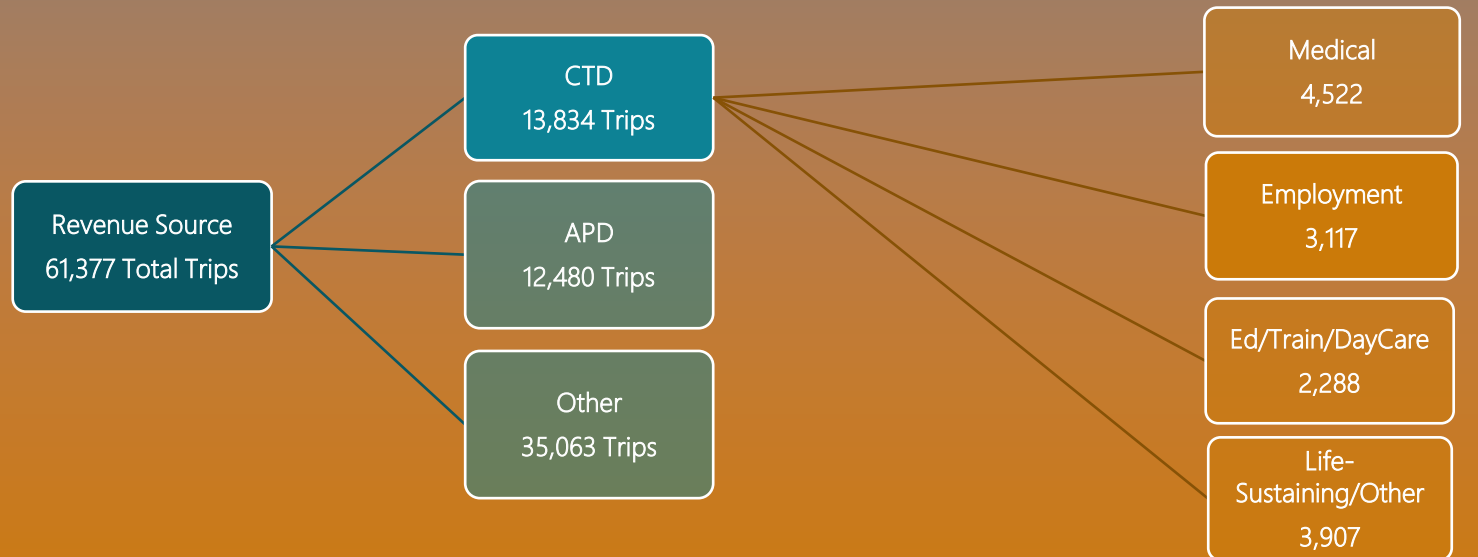


# Aggregated vs Disaggregated Data

An example strength of the AOR's aggregated form of data is how (in Indian River's case in 2021-2022) it is immediately apparent how many trips were funded by CTD (13,834 trips) and how many trips there were for the purpose of employment (5,312 trips).



With the raw AOR data provided by Indian River, Thomas Howell Ferguson was able to answer this particular question of how many CTD trips were for the purpose of employment, as well as others like it.





# Study Deliverables

- Present an alternative approach to report data in a disaggregated format.
- Request CTC representatives test this approach using their AOR data from FY21-22 (July 1, 2021 – June 30, 2022).
  - Upload data on trips provided by CTCs (do NOT include Coordination Contractors)
  - Data uploaded will NOT be collected by the CTD or saved on the website.
- Request feedback on data test and info presented in this workshop be provided to David Darm by June 16, 2023.
- Compile feedback in a final report and present findings to CTD in August 2023.



# Questions to Consider for Stakeholders

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1. As a CTC, how does the reporting requirements of the AOR compare to the current reporting requirements of the Trip & Equipment Grant?
2. If the CTD were to require AOR data be submitted in a raw (disaggregated) format (similar to the T&E invoices), what would the impact be on CTCs?
3. Should the AOR data (on CTC trips) be revisited for future study as part of the funding methodology of the Trip & Equipment Grant?

# Public Comments

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Speakers will be called on in the order requests are received.

Comments are limited to five minutes.

Participants may email their comments to David Darm at: [David.Darm@dot.state.fl.us](mailto:David.Darm@dot.state.fl.us).





# Next Steps

- The CTD will post the disaggregated data test page on its website.
- Stakeholders may provide feedback to CTD Executive Director David Darm at: [David.Darm@dot.state.fl.us](mailto:David.Darm@dot.state.fl.us), by June 16, 2023.
- Thomas Howell Ferguson will compile feedback in a final report.
- The final report will be presented at the August Commission Business Meeting.





## **APPENDIX – B**

# Feedback Following Public Workshop

## **Feedback following May 25<sup>th</sup> Public Workshop**

Thomas Howell Ferguson P.A. and CTD hosted a virtual public workshop on this study of AOR data on May 25, 2023. The purpose of the workshop was to introduce to CTCs across the state the major themes being studied and begin the process of receiving feedback from the field. To facilitate and organize feedback, the workshop concluded by asking that CTCs submit responses to six specific questions. These questions are numbered below, with answers different CTCs submitted to each question bulleted out. CTCs had until June 22 to submit their responses and any other feedback.

### **Questions and Feedback**

#### **1. As a CTC, how are the reporting requirements of the AOR? Would a simple upload of raw trip data be more work or less work by comparison?**

- An upload of raw data would be much easier, but you won't be able to capture all of the fields that are currently within the AOR.*
- The reporting requirements of the AOR are fine. A simple upload of the data should be less work, but some of the data requested in the sample upload is currently tracked manually. We will need to develop a methodology to include it within our existing software to make the upload complete. We DO NOT have trip information data for Coordination Contractors readily available. They do not utilize the same system.*
- They are ok. It depends on how you track your trip data (see prior email below for issues) and whether your raw data is updated for any corrections made along the way to specific fields.*
- CTCs may have confidentiality disclosure issues uploading raw trip data to the CTD with identifiable client information (home address, client id, destination) for trips funded by other agencies, such as Area Agency on Aging, Medicaid, and other healthcare agencies, Agency for Persons with Disabilities, etc. Including summarized data on trips for these riders in the AOR is acceptable, because it is not identifiable to specific riders.*
- The reporting requirements of the AOR are reasonable in general. The exception would be the breakdown of trips by demographic group which was changed a few years ago so that the reporting categories are no longer mutually exclusive (low income, elderly, disabled). This results in completely arbitrary assignment of trips to a category when it fits multiple categories, making that portion of the report meaningless (for example a person with a disability and low income is assigned to just one category). This type of demographic breakdown would be meaningful*

*information and should be included, but should be broken out correctly. The non-financial portion of the AOR is a few hours' work annually. An upload of "raw" trip data does not appear to reduce work in a meaningful way. It would not actually be raw data; it is trip-by-trip data in a very specific format. Because each agency uses different fields and categories in their databases, work still has to be done to create the upload file. In addition the data for vehicles, accidents, complaints and compliments, drivers, etc. must still be reported as they are not part of the "raw" trip data.*

**2. Should the summarized AOR data on trip totals for non-CTD programs continue to be reported?**

- *Depends on how many non-CTD programs you have. It would be easier if only CTD programs were reported, but it depends on where this fits in with the APR and how the data on non-CTD trips is being utilized.*
- *Absolutely. If non -CTD trips are not included, then this is just a report of TD grant funded trips, not a report about transportation for transportation disadvantaged persons in Florida. The CTD already has a record of the grant-funded trips with the invoices. The AOR is meant to be a report of the coordinated system of service.*
- *Yes, as it captures the entire coordinated system and shows where funding is coming from and who/what it's going towards.*
- *It really doesn't matter if the additional data is included. We already compile the data at the same time as the CTD-program data. Is it truly necessary to include it if it has no bearing on anything CTD related?*

**3. Should factors reported in the AOR (like trip purpose and passenger type) be added as part of the back-up documentation in CTD invoices?**

- *Based on the study request, we had to create a new report in our Transit Software in order to include all the columns in one spreadsheet. We now have that capability to use add it to the CTD invoices should that be added.*
- *Only if it is necessary and/or would be used. It shouldn't be collected just because it can be. Also be aware that many CTCs have many more categories of passenger type or trip purpose than are used for reporting to the CTD because they are functional or meaningful for the CTC. These are summarized in reports to the CTD. For example we use approximately eight specific mobility types so that schedulers and drivers are better able to assign and provide these trips; CTD reports summarize these into three. We use about 15 different trip purposes which are more specific and allow us to look at our trips in more detail. They would either need to*

*be summarized into categories used by the CTD for each invoice, creating extra work, or the CTD would have to accept data as it is available from each CTC.*

- *If the documentation is relevant to the reimbursement, then fine. If not, why include it?*
- *Passenger type is already on the invoice. Only include additional information on the invoice backup if you're using the invoices to compile the AOR/APR data. The Comptroller's Office doesn't care about the additional information.*

**4. How important is it for the AOR data to have an audit trail? Should back-up documentation of specific trips be required, similar to what is required for CTD invoices?**

- *AOR data should already have an audit trail (financial and within your transit software). No, this is already included in the CTD invoices, but can add additional fields to the CTD invoices. All TD trips should have a TD eligibility application on file.*
- *Submitted AOR data should be able to tie to the system data. Back-up documentation could be available as needed. I do not believe that it should be "required", but more on an "as needed" or "audit" basis.*
- *Only if the AOR data is being used for something fiscally related, such as grant allocations. Again, coordination contractors and TNC data will not likely be available at a detailed level.*
- *Backup documentation for each trip should not be required to be submitted with the report. Backup documentation should be maintained by each CTC.*

**5. Are there alternative ways of verifying the AOR data's integrity? That is, different from collecting back-up documentation on specific trips?**

- *Not that readily come to mind.*
- *Nope. Even for those agencies that report to NTD, the reporting is on the agency's fiscal year rather than the CTD grant year and doesn't provide the level of detail that the AOR requests.*
- *There are certainly ways to confirm a report is correct other than the CTD collecting all the individual trip data and running its own report. Include spot checks of specific reporting components or procedures in the biannual reviews of CTC or ask for the same of a sample of CTCs each year after their reports are submitted.*

- *If you add the fields required on the CTD invoices that tie into the AOR, then the invoice data should match the AOR data. In that case, the AOR reporting should be limited to CTD programs.*

**6. Should the AOR data (on CTC trips) be revisited for future study as part of the funding methodology of the Trip & Equipment Grant?**

- *Since the funding methodology has only recently been updated, and the Covid-19 pandemic impact its implementation, revisiting the formula at this time seems premature.*
- *That would have us going full circle. The purpose of the last effort to adjust the funding methodology was to remove AOR data from the funding formula that could not be audited.*
- *Not sure about the question. If using AOR data to look at the funding levels, then that could pose problems, especially if your population is growing at a high rate and you are adding TD trips quickly. It would need to be in conjunction with the CTD invoices (for example, if the more recent invoices are meeting or close to the maximum monthly rate).*
- *Possibly. It would depend on how it would impact the methodology.*