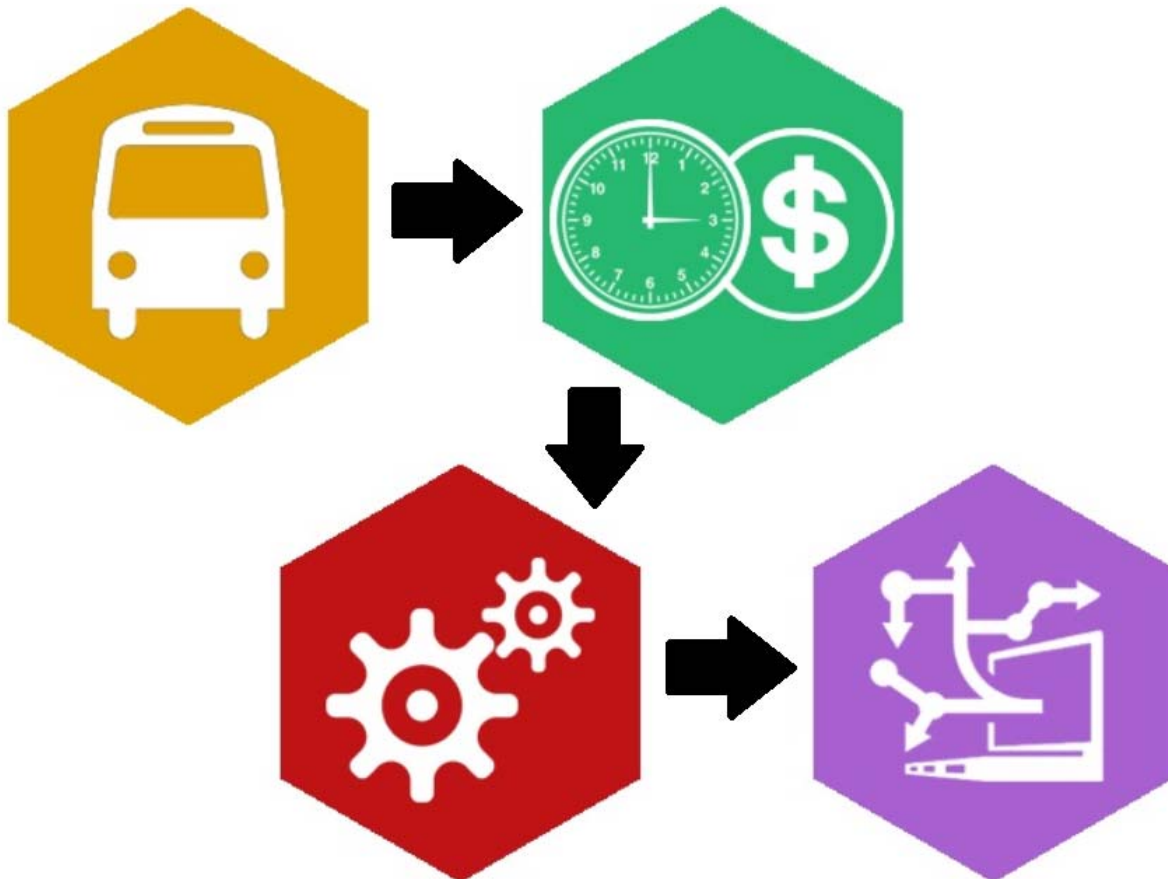# National RTAP
Two-Variable Cost Allocation Calculator

This manual provides instructions and useful tips for allocating costs using the two-variable cost allocation calculator available from National RTAP.

Learn how to:

1. Use the two-variable methodology.
2. Input service, financial, and operational data.
3. Work with the Excel and Access versions of the calculator tool.
4. Apply cost allocation results for further use.

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Introduction

Texas A&M Transportation Institute (TTI) and RLS & Associates, Inc. worked together to develop Microsoft Access and Excel application tools for National Rural Technical Assistance Program (RTAP) that enable rural and tribal transit agencies to allocate expenses using a two-variable methodology. The Cost Allocation Calculator tools guide user input of service, financial, and operational data to allocate expenses by routes, travel modes, jurisdictions, and other common transit designations. This instructional manual discusses the methodology used by the tool, data requirements for the user, step-by-step procedures for the Access and Excel versions, and ways to use the outputs from the tools.

Looking for Instructions?

Purpose of this Manual

Public transportation managers and finance officers encounter many situations on a day-to-day basis that may require the organization to allocate costs to a specific program, service, contract, or federal grant award. In most cases, the processes used to assign costs to a given program is relatively easy. The agency merely makes a journal entry in the organization's general ledger and assigns the cost to the program.

In some cases, however, the assignment of costs may be more complicated, particularly if the expenditure benefits not one, but two or more programs or activities of the transit agency. When this occurs, it is necessary to use an allocation procedure to equitably assign the cost, on a proportionate basis, to each benefiting program. This process is referred to as **cost allocation**.

The term "cost allocation" may refer to any number of technical or accounting issues. Over time, transit providers have used this term to describe multiple scenarios; it is useful in our understanding of cost allocation issues to classify these allocation issues as either "financial-based" cost allocation issues or "service-based" cost allocation issues.

Guidelines for addressing financial-based cost allocation issues are described in detail in new federal guidance issued by OMB.[1] These issues are more commonly known as central service cost allocation plans or indirect cost allocation plans.

Financial-Based Cost Allocation

Financial-based cost allocation techniques generally apply organization-wide; they apply to all grants received by the organization and are generally not the responsibility of the transit program. An example would be a situation where a city transit program benefits from the services of other governmental units (e.g., accounting, payroll, legal) and desires to claim costs incurred by these units under its various federal awards. The city will prepare a central service cost allocation plan.

Similarly, a nonprofit organization provides multiple program services, including transit. Certain overheard and administrative costs incurred by the entity benefit all programs and services, including public transit. The agency seeks to recoup these costs in their billings to various federal agencies. The entity requires an approved indirect cost allocation plans in order for such costs to be reimbursable by the federal government.

Methods for preparing such plans are described in detail in appendices to 2 CFR § 200.

Service-Based Cost Allocation

In the day-to-day operations of a public transit agency, there are other cost allocation issues that cannot readily be addressed or solved using the techniques in federal cost guidance. Some examples of service-based cost allocation issues include:

- A transit agency receives funding under both Federal Transit Administration's (FTA) Section 5307 Urban Formula Program and Section 5111 Rural Formula Program. FTA expects the recipient or subrecipient to develop a reasonable basis for allocating operating costs between the two funding sources that is related to the service provided. The agency requires a cost allocation method to distribute costs to the two different, but related, programs.

- A transit agency provides charter service in accordance with 49 CFR part 604. Deficits from charter operations, however, are not eligible operating expenses under either the Section 5307 or Section 5311 programs. The transit agency must demonstrate that it is fully recovering the cost of charter service as part of the Triennial Review or other compliance oversight process in order to comply with FTA regulations. The agency requires a cost allocation method to verify that it is not unduly subsidizing charter expenses with FTA funds.

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[1] See *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, issued by the Office of Management and Budget (OMB), codified at 2 CFR § 200 (December 26, 2013).

- A transit agency coordinates service with various human service agencies in the area. The transit provider has a policy that public transit funds cannot be used to subsidize human service agency client transportation. The transit agency needs a cost allocation method to determine how to price contract services to ensure full cost recovery.

- A transit agency serves multiple local jurisdictions that are responsible for making financial contributions to the organization to support transit operations and capital acquisitions, as well as meeting the local share of project costs under various federal grants received by the transit agency. The participating local governments only wish to contribute based on the levels of service provided in their community. The agency requires a cost allocation method to equitably distribute service costs to the participating local governments.

- A transit agency provides fixed route service in its community. By law, the entity must also provide complementary paratransit for those individuals who cannot use the accessible fixed route system. Under National Transit Database (NTD) requirements, the agency must report fully allocated costs, *by mode*. The agency requires a cost allocation method to assign shared operating and administrative costs to both the fixed route and paratransit modes.

- A transit agency has been requested by the governing board to prepare a report on the costs and revenues generated by each fixed route in the agency's 12-route system. Each route has different service characteristics (in terms of daily revenue-hours and revenue-miles) and the agency requires a method to assign costs to each route. The agency requires a cost allocation method to perform this task.

- A transit agency in a growing community seeks to expand service. While consequential, transit management has determined that the expansion can be undertaken from existing facilities, personnel, and vehicles. Management recognizes that only variable expenses (not fixed expenses) will be impacted by the expansion. The agency needs a cost allocation method to estimate the variable expenses of this new service.

These scenarios are illustrative of range of circumstances that require a service-based cost allocation solution. Unlike financial-based cost allocation methods, where there is substantial guidance and methods promulgated by the federal government, there is little in the way of guidance for transit agencies in the preparation of service-based.

Goals of This Project

The purpose of this document is to provide technical guidance to transit managers and finance directors in service-based cost allocation techniques contained in an easy-to-use, PC-platform that would enable transit managers to use consistent, equitable, and transparent techniques in their cost allocation practices.

Project Sponsors

This project is sponsored by the National RTAP, which operates today under a cooperative agreement between the FTA and the Neponset Valley Transportation Management Association. The overarching mission of the organization is to address the training and technical assistance needs of rural, and tribal transit operators across the nation, and to support the state RTAP programs. A comprehensive set of free technical assistance programs and resources includes training materials, webinars, newsletters and technical briefs, peer resources, research, and innovative technology initiatives. The goals of the RTAP program are to promote the safe and effective delivery of public transportation services in rural areas and to facilitate more efficient use of public transportation resources. To meet those goals, the program focuses on the following objectives:

- Improving the quality of training and technical assistance resources available to the rural transit industry

- Encouraging and assisting state, local, and peer networks to address training and technical assistance needs

- Promoting the coordination of transportation services

- Building a national database of information about the rural transit industry

The Two-Variable Cost Allocation Calculator

Recognizing a need in the industry to develop technical tools to assist transit agencies develop their own cost allocation tools, National RTAP contracted with the TTI and Subject Matter Expert Richard Garrity, RLS & Associates, Inc., to develop the "Two-Variable Cost Allocation Calculator." The calculator is built on two readily available software platforms – Microsoft Excel and Microsoft Access. The calculator performs identically on both platforms, with some slight differences with input screens based on the software.

The model requires no special skills in either Excel or Access; menu driven instructions will provide all the information required to successfully use the calculator. Moreover, the calculator relies on data that should be readily available to every urban, small urban, rural, or tribal transit agency – meaning that no new data collection will be necessary to use the calculator.

This model can be used to address all of the service-based cost allocation issues identified earlier:

- The calculator can be used to allocated cost to different federal grant programs that supports the transit agency.

- The calculator can be used to compute the fully allocated cost of any service provided under contract to a human service agency.

- The calculator can be used to allocate costs to different modes of service operated by the transit agency.

- The calculator can be used to develop costs of individual components of a service, such as a fixed route or a demand response run, thereby enabling the agency to conduct cost/benefit or breakeven analyses on individual service pieces.

What is a Two-Variable Calculator?

Some transit organizations use relatively simplistic costing techniques at present, simply dividing total costs by some total unit of service to arrive at what it cost the agency to deliver the service.

Consider the transit agency that has a total budget of $1,250,378 and operates 19,225 revenue-hours of service and 230,839 revenue-miles of service. Many agencies simply compute their cost per revenue-hour or cost per revenue mile in meeting cost allocation needs. This agency assumes its fully allocated cost of service is $64.04 per revenue hour or $5.42 per revenue-mile.

Consider the following examples:

- A route operates 12 revenue hours and 148 revenue-miles per day
- A route operates 12 revenue hours and 166 revenue-miles per day

Do these two routes cost the transit the same to operate?

Most would agree that the second route costs the agency more to operate due to increased mileage.

Now consider the following examples:

- A route operates 11.25 revenue hours and 166 revenue-miles per day
- A route operates 12.00 revenue hours and 166 revenue-miles per day

Do these two routes cost the transit the same to operate?

Again, we would agree that the second route costs the agency more to operate due to increased time of operation.

These simplistic examples illustrate a core principle in cost allocation – transit costs will vary based both on **time and distance**. Thus, any cost allocation tool must reflect both of these elements if it is to accurately assess the cost of a service. This use of time (typically measured by total vehicle-hours or revenue vehicle-hours) and distance (typically measured by total vehicle-miles or revenue-vehicle-miles) gives rise to the term "two-variable" cost calculator, as this model will use both time and distance in the computations.

Outcomes of the Calculator

Using the methodology of the Two-Variable Cost Allocation Calculator enables agencies with the tools to better achieve:

- Consistent and robust documentation for federal grant reimbursement requests.
- Regular and consistent reporting of data to meet FTA requirements for NTD reporting and state reporting
- Consistent and transparent treatment of costs.
- Elimination of duplicative or misallocation of costs.
- More accurate and equitable cost by transit program, mode, service type, and jurisdiction.
- Effective use of accounting software for financial reporting.
- Reliable cost by transit function—operations, fuel, vehicle maintenance, non-vehicle-maintenance, and administration.
- Accurate reporting and evaluation of service performance.
- Basis for budgeting and projecting transit service.

The two-variable methodology used by the calculator tool described provides a mechanism to meet the NTD, FTA, and OMB reporting requirements. This methodology distributes transit system operating costs by individual routes, service types, modes, sponsored services, and jurisdictions.

Examples of Various Applications of the Two-Variable Cost Allocation Calculator

To illustrate the potential uses of the Two-Variable Cost Allocation Calculator, the following actual documented uses of forerunners to the Calculator were documented.

North Carolina Department of Transportation: Urban/Rural Grant Allocation

North Carolina, as a state growing in population, saw many of its Section 5311 subrecipients transition to urbanized areas as a result of the 2010 Census. Exercising authority provided in FTA Circular 9030.1E, the Governor exercises authority to apportion Section 5307 funds to these entities. As most of the entities still operate in nonurbanized areas, these organizations

become recipients to both urban and rural transit funding. FTA Circular 9040.1G, Chapter III § 2 notes that "FTA expects the subrecipient to develop a reasonable basis related to the service provided, for allocating operating costs between the two FTA funding sources." During a State Management Review (SMR) conducted by FTA, the state was cited as deficient for not monitoring these entities with respect to the cost allocation requirement.

To resolve this compliance finding, developed a cost allocation model that was predicated on the ability to have financial data entered into the model consistent with the accounting practices of the majority of these dual recipients. The model enabled the transit provider to enter all direct costs attributable to urban and rural operation, respectively, and then assign "shared" costs (cost not readily assignable to one geographic area or the other) to a shared cost center. These costs were then allocated to the two respective grant programs using revenue-hours and revenue-miles. This model embraced the very principles at the heart of the National RTAP Cost Calculator.

More importantly, FTA, in reviewing the State's remedial action to close this compliance finding, called together a team consisting of the FTA Regional Office, SMR consultants, and NTD Specialists to evaluate the procedures used in the model and determine whether NCDOT met its obligation to ensure that recipients or subrecipients has a reasonable basis for allocating costs. After demonstration and review, FTA determined that the model was an excellent example for both cost allocation among its programs and for NTD reporting.

State Established Rate Models

As noted in TCRP Report 144:

> *Adopting fully allocated cost accounting practices strongly supports federal grants management goals. First, many federal programs contain regulatory or program guidance that indicates that for funds expended on third party contracts and vendors, due diligence must be exercised to ensure that the lowest cost service is obtained most appropriate to client needs. Second, in situations where an organization is purchasing service from a third party, the purchasing organization needs assurance that it is only paying for services rendered to its own clientele.[2]*

This second factor is particularly relevant when a human service organization opts to contract with a transportation provider that coordinates services in the local community. When such broad coordination occurs, purchasers need to be assured that they pay only their fair share of program costs.

Previously, Florida and North Carolina developed tools to assist transportation providers in accumulating data on the full cost of transportation services and translating this cost information

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[2] Burkhardt, *op. cit.*, Volume II, p. 49.

into rates to charge to third parties who may be interested in purchasing service from the transit provider organization. Despite being developed independently, both cost allocation and rate-setting models have commonalities. In addition to using simple and commonly understood computer spreadsheet software (e.g., Microsoft Excel), both models:

- Require the transportation provider to report all costs as part of the model's input, using a standardized and comprehensive chart of accounts.

- Require the transportation provider to specify projected units of services to be consumed (i.e., vehicle miles and vehicle hours).

- Take into account potential subsidies that may be directed toward a specific client population or program from other than federal sources.

- Compute unit rates for service.

The National RTAP Cost Allocation Calculator also incorporates these features.

Important Definitions

Here are a few terms that are important to understanding cost allocation.

- *Cost Allocation:* the act of taking a sum of operating costs and distributing that sum to individual transit routes, transit services, or jurisdictions.

- *Fully Allocated Cost:* a fully allocated cost means a cost that represents the full cost of a transit route or service, including all costs incurred by the transit agency—both variable and fixed. For example, if a transit system calculates the cost of a route using only average fuel consumption and driver wages, the cost estimate ignores other costs (e.g., administration, planning, maintenance, etc.) and therefore is NOT fully allocated. Estimating the fully allocated cost of the route will apportion a relative share of all agency operating costs to the route using a consistent methodology.

- *Variable Costs:* costs that are mainly a function of the amount of service provided. For example, the cost of fuel, parts, and driver wages are variable costs. They change with the amount of service provided.

- *Fixed Costs:* costs that do not change with the amount of service provided (in the short run). For example, the cost of facility maintenance, administration salaries, or

management computers do not change with the amount of service provided. There are two main types of fixed costs:

- o *Direct Costs*: direct fixed costs are those costs associated with assets and functions owned by the transit agency. For example, a transit agency that has its own human resources, IT, and facilities has direct fixed costs associated with these functions. The transit agency incurs and pays for these functions directly.

- o *Indirect Costs*: indirect fixed costs are those associated with functions or assets utilized (but not directly managed by) the transit agency. For example, a transit agency may be part of a city government and thus utilizes the city's human resources, IT, and facilities. Because these resources are also used by other departments of city government, the costs to the transit agency are indirect (and it may be difficult to quantify the exact portion of city staff time spent on transit agency needs).

Methodology Schematic

The methodology is based on a full year of operating data and operations expenses to capture the *total* operating cost of transit services and then allocate expenses using the two variables of **Vehicle Hours** and **Vehicle Miles**. Total vehicle hours and total vehicle miles are used rather than revenue vehicle hours and revenue vehicle miles to capture the differences in deadhead time and miles (time and miles to move the vehicle into and out of revenue service).

Variable Costs

There are three transit functions in the calculator that are classified as Variable Costs: operations, operations-fuel, and vehicle maintenance functions. The costs associated with these three functions are driven by the total vehicle miles or hours of service.

Operating costs excluding fuel are allocated using vehicle hours because operating expenses are mostly driver and dispatch labor costs that correlate to vehicle hours operated.

Vehicle maintenance and operations-fuel costs are allocated using vehicle miles because they correlate with the number of miles operated by transit vehicles. Vehicle maintenance is driven by mileage thresholds, and fuel is purchased based on miles per unit.

Fixed Costs

Non-vehicle maintenance and administration are considered fixed costs because expenses associated with these functions do not vary when service changes. To equitably distribute administration and non-vehicle maintenance costs across services, fixed costs are allocated using the proportion of variable cost.

Example Diagram

The example below shows a simple schematic of how the Two-Variable Cost Allocation Calculator takes financial information of operational expenses and allocates it according to fixed and variable costs. The application will calculate the proportions of hours and miles as well as variable costs based on the financial and operational data input by the user.

- First, expenses are assigned to categories of variable costs or fixed costs.

- Variable costs are determined based on either the number of vehicle hours or vehicle miles, depending on the transit function.

- The proportion of hours or miles determines the proportion of variable costs that are allocated to the routes/services.

- Next, the proportion of variable costs is used to allocate the proportions of fixed costs to the routes/services.

- The subtotals of variable costs and fixed costs are added together to get the total allocated costs for each route/service.
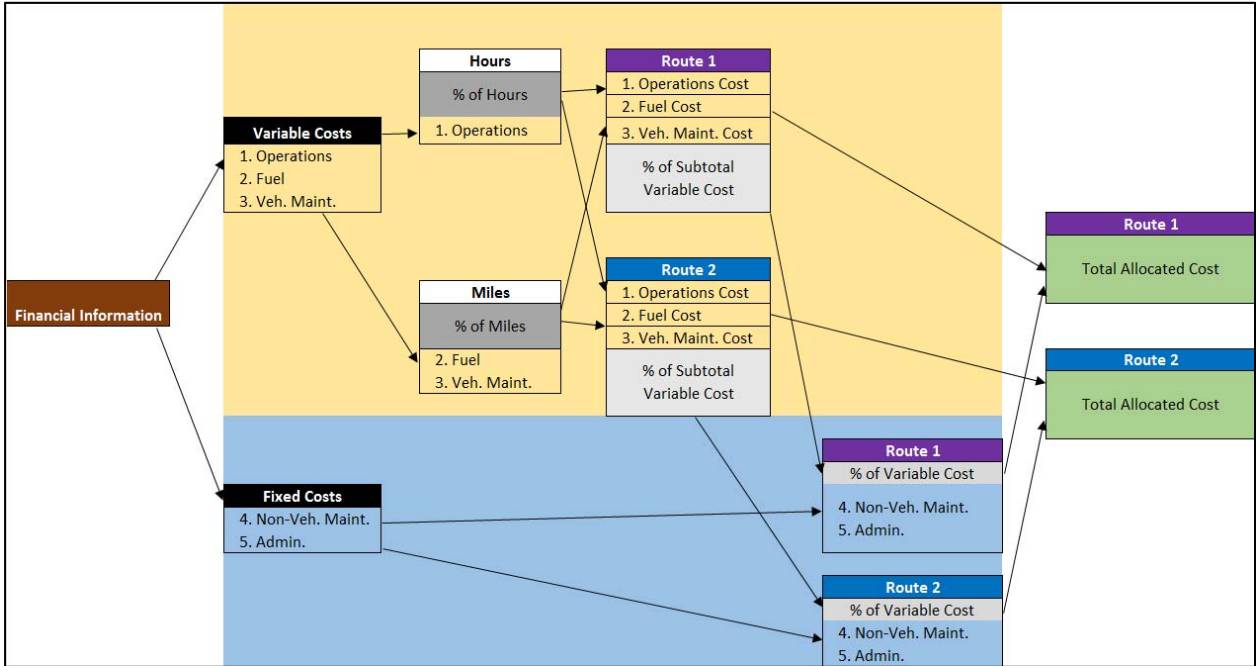
Four Steps of the Application

Both versions of the Two-Variable Cost Allocation Calculator applications follow the same four-step process for inputting data information and allocating costs.

Step 1. Enter Service Data

Users are required to enter information for all of the routes/services their agency oversees. The characteristics needed in the Service Data section include route/service name, NTD mode, NTD jurisdiction, service type, sponsored type, and federal funding source. The applications provide dropdown windows with pre-defined options for the data categories. Options for NTD jurisdictions/geographies and funding sources can be customized to allow for additional choices not already available in the application. More information on definitions of service data items as options for selection in the applications is available in Appendix A.

Step 2. Enter Financial Data

The Financial Data tab requests data from users on their total operational expenses that they wish to allocate to routes/services according to USOA object classes used in a chart of accounts and required for by NTD for full reporting agencies. The expenses information must be classified into the appropriate object class in order for the expense to be sorted by the application into the accurate cost function category. NTD requires that agencies report using the USOA accounting structure and that expenses are done through the accrual method of accounting.

Each expense type is also then classified into subclass corresponding to its transit function. For example, "salaries and wages" could have separate entries for drivers, administrators, dispatchers, and mechanics. The applications have included all of the USOA object classes application to transit operational expenses and have corresponding transit function subclasses that are useful for each object class. More information on definitions of USOA object classes and subclasses is available in Appendix B. Be sure to input a full twelve-month period of all costs associated with transit is needed to ensure all costs are represented.

Step 3. Enter Operational Data

The Operational Data tab requests data from users on hours, miles, and passenger trips for each route/service input previous in the Service Data tab. Users will also have the option to input passenger hours and miles data for any route/service classified as demand response, demand response taxi, vanpool, or volunteer driver program. This option will be useful for agencies with shared rides on demand responsive modes. The application will use the passenger hours and miles data to sub-allocate costs according to each sponsor.

Shared-Ride Demand-Response Cost Allocation

Within Step 3, transit agencies can sub-allocate expenses for shared-ride demand responsive service. Using vehicle miles and hours to allocate demand-response costs to different demand-response programs *is only valid if customers from different programs do not share vehicles.* If the agency has customers from different sponsored programs sharing vehicles, then costs cannot be accurately allocated to programs using vehicle miles and hours because a single vehicle hour and mile may be shared.

The applications allow costs in cases of sponsored shared-ride demand response to be allocated according to *passenger miles* and *passenger hours* instead of vehicle miles and hours. Passenger miles/hours describe how far/long *customers* ride in the vehicle. Thus, passenger miles/hours per trip provide the average trip distance *each consumer* traveled on average in a shared-ride service. This service-based cost allocation model apportions costs based on the proportion of passenger miles and passenger hours by trip type.

To gather information on passenger hours and passenger miles in shared-ride demand responsive service, follow the general steps listed below. More information on this sampling and estimation method can be found in the Cost Allocation mode of the *Making Dollars and Sense of Transit Finance* course materials available online from TTI.[3]

1. Take a sample of driver manifests to determine average trip length by service area or type. For example, general public trips may average 10 miles and veterans' trips may average 20 miles.

2. Estimate total annual passenger miles and passenger hours by multiplying total annual passenger trips times average trip lengths.

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[3] https://groups.tti.tamu.edu/transit-mobility/resources/making-dollars-and-sense-of-transit-finance/

3. Calculate the percent of passenger miles and passenger hours by area or trip type.

4. Multiply the percent of passenger hours times the total hours-based cost of demand response. Multiply the percent of passenger miles times the miles-based cost of demand response. Then allocate the fixed costs relative to the proportion of variable costs associated with each trip type.

Step 4. Allocate Costs

The Cost Allocation tab uses the data input into the previous three tabs to allocate variable and fixed costs by vehicle hours and miles data (or passenger hours and miles for shared ride demand responsive service). The allocation process is performed for individual routes and services as well as groups of routes such as NTD modes or funding programs using the characteristics entered initially in Step 1.

The application then produces summary reports with the fully allocated costs for routes/services, along with costs by transit function and performance metrics calculated from the cost and operational data. Both applications allow users to print the summary reports in the PDF format. The Access version of the application can also export data inputs and cost allocation outputs in an Excel download format.

Directions for Excel Application

The Excel version of the Cost Allocation Calculator is available for download from the National RTAP website. The application allows users to input annual data for their transit service and expenses and produces output reports on fully allocated costs. The application stores data for a single time period and is designed to be used annually. For each time period you should save a new version of the application before clearing old data.

Overview of Excel Functionality

The Excel application has consistent features in each tab to go from page to page, save and update data, or delete unneeded items. Below is a list of basic features to understand while using the application.

- **Navigation** – there are two ways to move from page to page. Either use the buttons on the Navigation Menu page *or* click on the tab names at the bottom of the workbook tabs to go from page to page.

- **Saving Data** – The application uses data entry pop-up menus for data input and actively saves your data each time you close a given menu.

- **Data Entry Menu** – Below are the common action buttons in the menu:

  - Add a data record to the data list by clicking **Add** button

  - Clear all records by clicking the **Clear** button

  - Delete a data record by selecting it, then clicking the **Delete** button

  - Exit the data entry menu once you are finished using the **Save & Exit** button

- **Help Text** – Within each Data Entry Menu, hover over the ⓘ icons to reveal helpful tips and definitions about terminology for the data types in the application.

- **Deleting Data** – The application also allows you to clear all records on the page by clicking the 🗑 button next to the data list.

- **Exporting Data** – The application allows users to export data into PDF reports from each of the data entry tabs by clicking the ⤴ button next to the data list.

- **Print** – The application enables users to print reports of cost allocation results to a PDF file or a printer on your network by clicking on one of report option buttons to the right of the 🖨 icon near the top of the Summary Reports tab.

- **Return to Start** – Click on the **Finish and Back to Menu** in each page to return to the Navigation Page.

Enable Content

When you first open the Excel application, you may see a security warning banner appear near the top of the window prompting you to "Enable Content". Simply click the **Enable Content** button to enable the macros needed for the application to run.
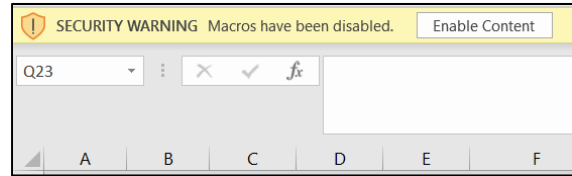
Navigation Menu

The application opens on the Navigation Menu page, which has four icon buttons linking to each step of the allocation process. You can either use the buttons on the Navigation Menu page or the tabs at the bottom of the Excel workbook to go from page to page. The application requires that Steps 1 through 3 be completed in order before allowing you to Allocate Costs in Step 4.
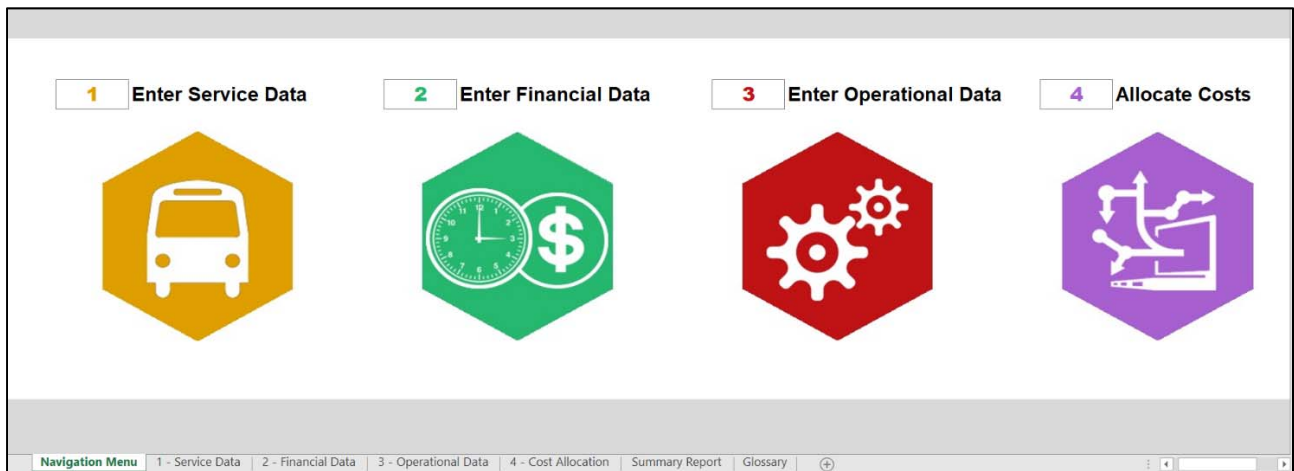
- Clicking the yellow **Enter Service Data** button takes you to the 1 – Service Data page
- Clicking the green **Enter Financial Data** button takes you to the 2 – Financial Data page
- Clicking the red **Enter Operational Data** button takes you to the 3 – Operational Data page
- Clicking the purple **Allocate Costs** button takes you to the 4 – Cost Allocation page

1 – Service Data

First, enter Service Data by either clicking the yellow button on the Navigation Menu tab *or* clicking to the 1 – Service Data tab in the workbook. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the data entry menu.

Enter Data

To start, click on the **Click to Enter Service Data** button at the top of the page. A menu will pop up to input data. The Data List in the menu shows the routes/services currently saved in the application – it will appear blank the first time you use the application.

For each route/service, select or write in the information using the available blanks and dropdown windows, then click the **Add** button to add the route/service to the Data List below. If

needed, hover over the ⓘ icons or click on the **View Glossary** hyperlink to learn more about data terminology. Each of the following attributes must be completed to add the route/service to the Data List in the application.

- **Route / Service Name**: Write in the Route/Service Name
  - o If you would like to allocate costs for a route that operates in two different areas, such as service connecting a rural area and an urbanized area, input the route name twice with an applicable sub-description. An example would be "Route 1 – Rural" and "Route 1 – Urban".

  > Note: This method of naming your routes/services should only be used if you have already separated out hours, miles, and trips data for each portion of the single route/service.

- **NTD Mode**: Select the NTD travel mode that fits the service definition. Options include Motorbus, Commuter Bus, Bus Rapid Transit, Trolleybus, Demand Response, Demand Response Taxi, Vanpool, Ferryboat, or Volunteer Driver Program. <u>See Appendix A for a list of NTD Travel Mode definitions</u>.

- **NTD Jurisdiction**: Enter the UZA, non-UZA, or other geographic area where the service operates. Prefilled options include Urbanized Area (UZA) and Rural Area (non-UZA).
  - o There is also the option to write in a custom UZA or geographic name in this blank. Click within the window, then type in the name applicable to the route. This may be useful if you provide service in more than one UZA or would like to allocate costs for routes according to certain cities or counties.

- **Service Type**: Select whether the service is operated by the agency or purchased from another public/private entity. Options include Directly Operated or Purchased Transportation.

- **Sponsored Type**: Select whether the service is available to the general public or supported through a sponsored service contract. Options include General Public Service or Sponsored.
  - o Selecting "Sponsored" for the route/service will allow you to sub-allocate expenses in cases when passengers from multiple sponsored service contracts travel together on the same vehicle. The names of the sponsored services will be entered during Step 3 in the application.

- **Primary Funding Source**: Select the FTA funding source that is the primary source of funding (usually federal) or most represents the primary service area for the route/service. Prefilled options include 5307-Urbanized, 5311-Non-Urbanized, and 5310-Elderly & Disabled.
  - o There is also the option to write in a custom funding source name in this blank. Click within the window, then type in the name of the main funding source for the

route. This may be useful if the route is chiefly supported through a different FTA, state grant program, or local funding source than the available three options.

Other Commands

- **Clear All Routes/Services** – To clear all existing route/services in the Data List, click the **Clear** button.

- **Delete a Route/Service** – To delete a route/service from the Data List, click on the route/service to highlight it, then click the **Delete** button.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the **Save & Exit** button to exit the Data Entry Menu.

- **View Glossary Definitions** – To view the full glossary definitions for the terminology and data types in the Data Entry Menu, click on the View Glossary hyperlink to jump to the Glossary tab.

Main Page Options

- **Deleting Data** –To clear all records on the page without launching the Data Entry Menu, click on the 🗑 **trash can** button next to the data list. This may be useful when starting over with the application.

- **Exporting Data** – To export a PDF report of all records on the page, click on the ↗ **export** button next to the data list.

- **Navigation** – To return to the Navigation page, click the **Finish and Back to Menu** button.
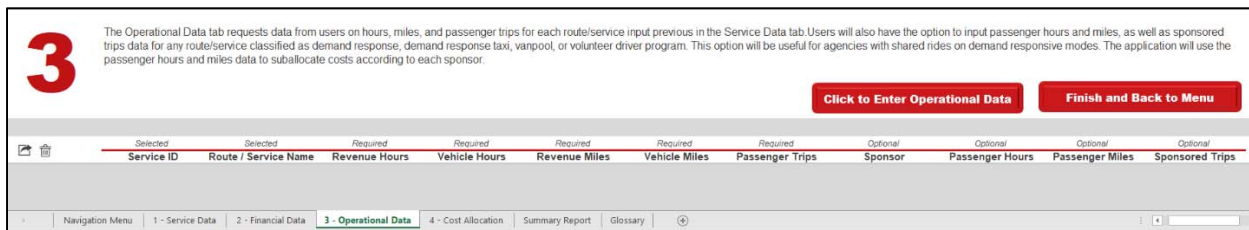
2 – Financial Data

After completing your Service Data, the next step is to enter the total operational costs information into the Financial Data page. You should enter all allowable and unallowable cost information into the application in order to produce accurate fully allocated cost information for your routes and services. The application is intended to show calculated costs for an annual time period, but you can use a different time period such as a month or quarter if you desire and are consistent with the time period of your expenses. Remember to use accrual accounting principles for entering expenses information applicable to the year you are using for your service data.

Enter Financial Data by either clicking the green button on the Navigation Menu tab or clicking to the 2 – Financial Data tab in the workbook. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the data entry menu.

STOP!

If you attempt to use the Data Entry Menu on the Financial Data page *before* entering your routes/services data in Step 1, you will get a pop-up alert directing you to go back to the Service Data tab. The Excel application requires that at least two routes/services are entered in Step 1 in order to perform the cost allocation methodology. Once you have two or more routes/services entered in the application, you will be able to proceed with entering financial data.

Enter Data

To start, click on the **Click to Enter Service Data** button at the top of the page. A menu will pop up to input data. The Data List in the menu shows the expenses currently saved in the application – it will appear blank the first time you use the application. The menu of routes/services is automatically populated with the data entered during Step 1.

For each expense, select or write in the information using the available blanks and dropdown windows, then click the **Add** button to add the expense to the Data List below. If needed, hover over the 🛈 icons or click on the **View Glossary** hyperlink to learn more about data terminology. Each of the following attributes must be completed to add the expense to the Data List in the application.

- **Choose USOA Object Class**: Select the appropriate USOA Object Class for the expense from the available options. The application requires expenses to be categorized into an object class category. Examples might be "Salaries and Wages" for labor expenses or "Fuel and Lubricants" for vehicle fuel. See Appendix B for a full list of definitions of USOA Object Classes in the application.

- **Subclass**: Select the appropriate subclass for the expense according to the use of the expense by the transit agency. There are six total available subclasses: Operations, Dispatch, Fuel, Vehicle Maintenance, Non-Vehicle Maintenance, and Administration. Some subclass names are not available for certain USOA Object Class categories.

- **Enter Amount ($)**: Write in the amount of the expense using numeric text only. No commas are necessary.

- **Select Applicable Service**: Select the route/service or group of routes that the expense is applicable to.
  - Select the routes/services that the expense is applicable to by clicking the check box for each route; if the expense is applicable to all routes use the **Select All** check box.
  - To unselect a route/service, click the check box again to make the selection unchecked. To unselect all routes, click the **Select All** check box once again.

Other Commands

- **Clear All Expenses** – To clear all existing expenses in the Data List, click the **Clear** button.

- **Delete an Expense** – To delete an existing expense from the Data List, click on the expense to highlight it, then click the **Delete** button. For expenses that apply to more than one route/service, you only need to click on a single expense record for the set of routes/services. Clicking the **Delete** button will delete all expense records associated with the highlighted row in the Data List.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the **Save & Exit** button to exit the Data Entry Menu.

- **View Glossary Definitions** – To view the full glossary definitions for the terminology and data types in the Data Entry Menu, click on the **View Glossary** hyperlink to jump to the Glossary tab.

Main Page Options

- **Deleting Data** –To clear all records on the page without launching the Data Entry Menu, click on the 🗑 **trash can** button next to the data list. This may be useful when starting over with the application.

- **Exporting Data** – To export a PDF report of all records on the page, click on the ↗ **export** button next to the data list.

- **Navigation** – To return to the Navigation page, click the Finish and Back to Menu button.

3 – Operational Data

After completing entry of Financial Data, the third step is to enter operational data on hours, miles, and trips information into the Operational Data page. You should enter the total actual data for the period rather than scheduled service information. The application is intended to show calculated costs for an annual time period, but you can use a different time period such as a month or quarter if you desire and are consistent with the time period for all routes and the expenses information entered in Step 2.

The Operational Data tab will also allow you to enter passenger hours and miles information for sponsored services within each shared ride demand responsive route/service. Passenger miles and hours for the sponsored service should be estimated based on a consistent sampling method (as described in the Background section of this manual), while sponsored trips entered should be the total amount of trips for the route/service. The option to enter sponsored service data will only be available for routes/services categorized as Sponsored Service during Step 1.

Enter Operational Data by either clicking the red button on the Navigation Menu tab or clicking to the 3 – Operational Data tab in the workbook. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the data entry menu.

STOP!

If you attempt to use the Data Entry Menu on the Operational Data page *before* entering your routes/services data in Step 1 and financial data in Step 2, you will get a pop-up alert directing you to go back to the previous tabs. Once you have two or more route/services and at least one financial expense entered in the application, you will be able to proceed with entering operational data.
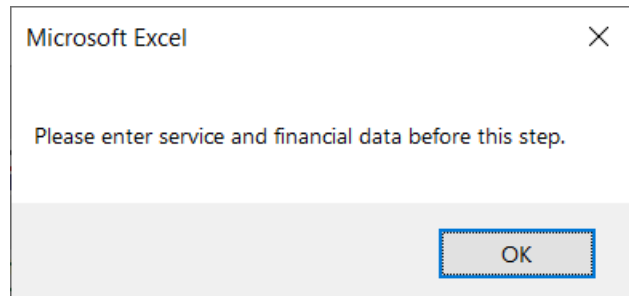
Enter Data

To start, click on the **Click to Enter Operational Data** button at the top of the page. A menu will pop up to input data. The applicable services window will be pre-loaded with the routes/services entered previously in Step 1. The Data List in the menu shows the routes/services with hours, miles, and trips currently saved in the application – it will appear blank the first time you use the application.

Select the route/service in the applicable service window using the circular buttons in the left column of the menu. Data entry blanks will then appear for you to enter hours, miles and trips for the route/service selected. If needed, hover over the ⓘ icons or click on the **View Glossary** hyperlink to learn more about data terminology.

Enter whole numbers without any commas for each data entry blank, then click the **Add** button to add the route/service to the Data List below. Each of the following attributes must be completed to add the route/service to the Data List in the application.

- **Revenue Hours**: Enter the number of revenue hours for the route/service. Revenue hours should not include deadhead hours.

- **Vehicle Hours**: Enter the number of total vehicle hours for the route/service. Vehicle hours must be greater than or equal to the number of revenue hours for the route/service.

- **Revenue Miles**: Enter the number of revenue miles for the route/service. Revenue miles should not include deadhead miles.

- **Vehicle Miles**: Enter the number of total vehicle miles for the route/service. Vehicle miles must be greater than or equal to the number of revenue miles for the route/service.

- **Passenger Trips**: Enter the number of passenger trips for the route/service.

Sponsored Service

If the route/service is characterized as a Sponsored Service in the Service Type category, a check box will appear asking **Would like further allocation sponsor?** Click the check box to view a pop-up menu for the further allocation of expenses for each sponsored service within the overall route/service. Within the pop-up menu enter information in the data entry blanks and click the **Add** button for each sponsor on the route/service (the button will change to read **Add Another** after you enter the first sponsor information).

- **Name**: Enter the name of the sponsored service.

- **Passenger Hours**: Enter the number of passenger hours for the sponsored service.

- **Passenger Miles**: Enter the number of passenger miles for the sponsored service.

- **Sponsored Trips**: Enter the number of passenger trips for the sponsored service. The sum of passenger trips for each sponsored service should equal the total number of passenger trips for the route/service.

Click the **Complete** button once you have finished entering all sponsors for the route/service. A pop-up alert will appear asking if you have completed data entry for sponsors and want to exit. Click **No** to return to the Sponsor menu or click **Yes** to return to the main Data Entry Menu.

IMPORTANT!

Once you click **Yes** and return to the Data Entry Menu, click the **Add** button to finish adding the overall hours, miles, and trips data for the Sponsored route/service. The route/service will appear as multiple entries in the Data List and have the saved information for each sponsor for each row.

Other Commands

- **Clear All Routes/Services** – To clear all existing hours, miles, and trips information in the Data List, click the **Clear** button.

- **Delete a Route/Service** – To delete hours, miles, and trips information for a single route/service from the Data List, click on the route/service to highlight it, then click the **Delete** button.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the **Save & Exit** button to exit the Data Entry Menu.

- **View Glossary Definitions** – To view the full glossary definitions for the terminology and data types in the Data Entry Menu, click on the **View Glossary** hyperlink to jump to the Glossary tab.

Main Page Options

- **Deleting Data** –To clear all records on the page without launching the Data Entry Menu, click on the 🗑 **trash can** button next to the data list. This may be useful when starting over with the application.

- **Exporting Data** – To export a PDF report of all records on the page, click on the ⬈ **export** button next to the data list.

- **Navigation** – To return to the Navigation page, click the Finish and Back to Menu button.

4 – Cost Allocation

Once you have completed the all data entry in Steps 1 through 3, the final step is to allocate expenses information entered for each route/service. The application will do this step on command and calculate the fully allocated cost for every route/service according to the number of hours and miles associated with them.

The application will use the percentage of hours and miles for the route/service compared to total hours and miles to the calculate the portion of variable costs under Operations, Operations-Fuel, and Vehicle Maintenance. Then the application will calculate the portion of fixed costs under Non-Vehicle Maintenance and Administration for each route/service according to portion of variable costs for each.

Allocate Costs by either clicking the purple button on the Navigation Menu tab or clicking to the 4 – Cost Allocation tab in the workbook. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page after you press the **Click to Allocate Costs** button.

The Cost Allocation tab uses the data input into the previous three tabs to allocate variable and fixed costs. Users click the "Click to Allocate Costs" button to allocate total operational expenses by vehicle hours and miles data (or passenger hours and miles for shared ride demand responsive service), and then click the "Generate Summary Report" button to view results. Users must reclick the "Click to Allocate Costs" and "Generate Summary Report" buttons if any data point in the previous three tabs is changed.

| | Click to Allocate Costs | Generate Summary Report | Finish and Back to Menu |

| Expense ID | Service ID | Route/Service Name | Sponsor | GenAdmin_Alloc | NonVehMaint_Alloc | VehMaint_Alloc | VehOps_Alloc | VehOpsFuel_Alloc |

| Navigation Menu | 1 - Service Data | 2 - Financial Data | 3 - Operational Data | 4 - Cost Allocation | Summary Report | Glossary |

STOP!

If you attempt to use the **Click to Allocate Costs** button on the Cost Allocation page *before* entering your routes/services data in Step 1, financial data in Step 2, and operational data in Step 3, you will get a pop-up alert directing you to go back to the previous tabs. Once you have two or more

Microsoft Excel ✕

Please enter service, financial, and operational data before this step.

OK

routes/services with operational data and at least one financial expense entered in the application, you will be able to proceed with entering allocating costs.
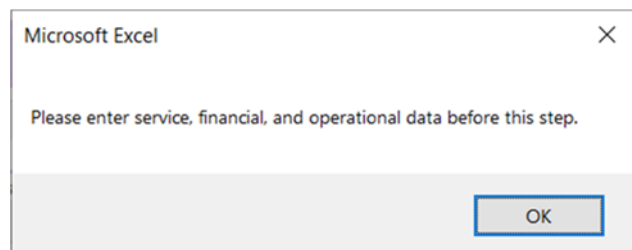
Allocate Costs

To execute and calculate fully allocated costs, click on the **Click to Allocate Costs** button at the top of the page. After a few seconds the route attributes and allocated cost information will populate in the columns on the page.

If you find you need to enter information for an additional route/service or expense during the same annual period, you will need to use the **Click to Allocate Costs** button again once you have that additional data entered. The application will then recalculate the allocated cost information and update the table accordingly.

Generate Summary Report

To view reports, click on the "**Generate Summary Report**" button at the top of the page. The application will navigate to the summary report tab to show the cost allocation tables. An example of the generated table in the summary report is shown below.

Summary Report

The Summary Report tab will show a summary table with costs allocated and performance measures calculated by 1) Route/service name, 2) NTD mode, 3) NTD jurisdiction (or other geography), 4) Service type, 5) Sponsored type, and 6) Funding program. Individual reports for each of these categories can be printed or copied and pasted to new Excel spreadsheet. A report for suballocated costs for routes/services categorized as sponsored service according to sponsor names is only available if sponsored services data is entered in Step 3.

- **Print** – To print a report to a PDF file or a printer on your network, click on one of the buttons to the right of the 🖶 icon near the top of the Summary Reports tab.

  - **Summary Table** – Prints summary report table for all route characteristics as shown in the Summary Report tab

  - **By Route/Service** – Prints a report for allocated costs according to individual routes/services

  - **By NTD Mode** – Prints a report for allocated costs according to NTD travel modes

  - **By NTD Jurisdiction** – Prints a report for allocated costs according to NTD jurisdiction or other geographic areas

  - **By Service Type** – Prints a report for allocated costs according to directly operated or purchased transportation service

  - **By Sponsored Type** – Prints a report for allocated costs according to general public or sponsored service

  - **By Funding Program** – Prints a report for allocated costs according to specified federal, state, or local primary funding programs

  - **By Sponsor** – Prints a report for suballocated costs for routes/services categorized as sponsored service according to sponsor names *(Note: This report option appears only if sponsored services data is entered in Step 3)*

- **Copy to New Excel Spreadsheet –** To copy data from the Summary Report tab and paste to a new Excel spreadsheet, highlight the Summary Table (or other table within the hidden columns) and select "Copy". The tab is a protected worksheet, meaning data cannot be altered directly in the application file.

- **Navigation** – To return to the Navigation page, click the Finish and Back to Menu button.

Glossary

The Glossary tab is a reference point for definitions on the terminology used for data elements in the application. The tab includes definitions organized by section for the Service Data, Financial Data, Operational Data, and Sponsored Service data elements found in Steps 1, 2, and 3. The terms are organized alphabetically within each data element section. The buttons at the top of the page allow you to filter the terms according to the data element sections.

ReferenceForm	Term	Definition
	All Terms	**Service Data**	**Financial Data**	**Operational Data**	**Sponsored Service**
Service Data	5307 - Urbanized Formula	A Primary Funding Source: The Federal Transit Administration formula funding program that makes federal funds available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.
Service Data	5310 - Mobility for Seniors and Individuals with Disabilities	A Primary Funding Source: The Federal Transit Administration formula funding program that makes federal funds available to states for the purpose of assisting private nonprofit groups in meeting transportation needs of the elderly and persons with disabilities.
Service Data	5311 - Rural Formula	A Primary Funding Source: The Federal Transit Administration grant program which provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000.
Service Data	Bus Rapid Transit	guideway. These systems also have defined passenger stations, traffic signal priority or preemption, short headway bidirectional services for a substantial part of weekdays and weekend days; low-floor vehicles or level-platform boarding, and separate branding of the service.
Service Data	Commuter Bus	central city. Characterized by a motorcoach (aka over-the-road bus), multiple trip tickets, multiple stops in outlying areas, limited stops in the central city, and at least five miles of closed-door service.
Service Data	Demand Response	An NTD Mode: Transit mode comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations.
Service Data	Demand Response Taxi	An NTD Mode: A special form of the demand response mode operated through taxicab providers. This mode is always a purchased transportation type of service.
Service Data	Directly Operated	employees to supply the necessary labor to operate the revenue vehicles. This includes instances where an agency's employees provide purchased transportation services to the agency through a contractual agreement.
		An NTD Mode: A transit mode comprised of vessels carrying passengers over a body of water

Navigation Menu | 1 - Service Data | 2 - Financial Data | 3 - Operational Data | 4 - Cost Allocation | Summary Report | **Glossary**
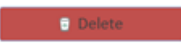
- **All Terms** – Removes filters on the page to show the terms and definitions for all sections

- **Service Data** – Activates filter to show only Service Data terms and definitions

- **Financial Data** – Activates filter to show only Financial Data terms and definitions

- **Operational Data** – Activates filter to show only Operational Data terms and definitions

- **Sponsored Service** – Activates filter to show only Sponsored Service terms and definitions

Directions for Access Application

The Access version of the Cost Allocation Calculator is available for download from the National RTAP website. The application allows users to input annual data for their transit service and expenses and produces output reports on fully allocated costs. The application stores data for a single time period and is designed to be used annually. For each time period you should save a new version of the application before clearing old data.

Overview of Access Functionality

The Access application has consistent features in each tab to go from page to page, save and update data, or delete unneeded items. Below is a list of basic features to understand while using the application.

- **Navigation** – The Access database tabs for the cost allocation calculator are accessible through the main Navigation Menu. Use the buttons on the form to open the tab in the database you need to view.

- **Saving Data** – The application is an active database that saves data as you enter it. The save buttons on each tab will also save the database as currently updated.

- **Status** – The status column on the Navigation Menu will show you the total number of data points entered in the Service, Financial, and Operational tabs as currently updated.

- **Data Selection** – there are multiple ways to select and edit data within Steps 1 through 3.

  - Move between selections using the [◄] **left arrow** and [►] **right arrow** buttons

  - Click on a selection in the data list on the page

- **Deleting Data** – There are multiple methods to delete data in the database.
  - Delete a data record by selecting it and clicking the [🗑 Delete] Delete button

  - Clear all records within the database by clicking the **Reset Data for a New Year's Allocation** button on the Navigation Menu

  - Clear select batches of records within the database by clicking the **Delete Data Batches** button on the Navigation Menu to open the selection tab

- **Return to Start** – Click the **Save & Close Form** button on the tab to return to the Navigation Menu

Software License

The Access application can be used by users who do not have a current software license for the program by downloading an extension available online from Microsoft. The extension needed is depended on the version of MS Office installed on your computer. These extensions are only needed if you do not have a current version of MS Access 2016 or MS 365 Access installed on your computer.

Older Versions of MS Office

Search for "Microsoft Access 2016 Runtime" online (or click the link below) to go to the extension webpage. Click the **Download** button and then select the box for the extension type based on the version of MS Office on your computer.

- Select the box for "accessruntime_4288-1001_x86_en-us.exe" if you have the *32-bit version* of MS Office
- Select the box for "accessruntime_4288-1001_x64_en-us.exe" if you have the *64-bit version* of MS Office

Go to the link here to download Microsoft Access 2016 Runtime:
https://www.microsoft.com/en-us/download/details.aspx?id=50040

MS Office 365

Search for "Office 365 Access Runtime" online (or click the link below) to go to the extension webpage. Click on the language you want for the extension in the **language dropdown window** (e.g. "English") and then click the download button for the extension type based on the version of MS Office 365 on your computer.

- Click the **32-bit Download** button if you have the *32-bit version* of MS Office 365
- Click the **64-bit Download** button if you have the 64-bit version of MS Office 365

Go to the link here to download Office 365 Access Runtime:

https://support.office.com/en-us/article/download-and-install-office-365-access-runtime-185c5a32-8ba9-491e-ac76-91cbe3ea09c9

Enable Content

When you first open the Access application, a security warning banner may appear near the top of the window prompting you to "Enable Content". Simply click the **Enable Content** button to enable the active content needed for the application to run.
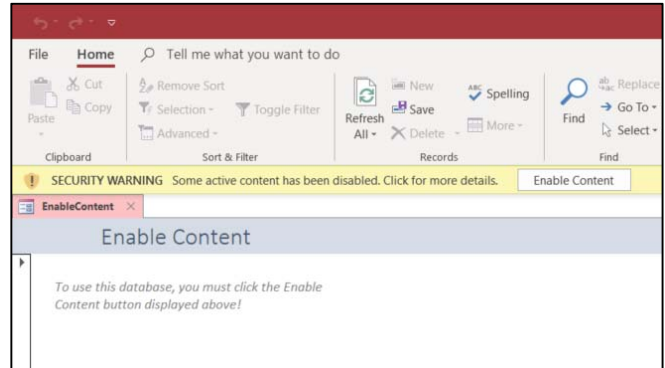
Navigation Menu

The application opens on the Navigation Menu, which has buttons linking to each step of the allocation process. The buttons on the Navigation Menu page are used to open the tabs in the Access database.

The application opens on the Navigation Menu page, which has buttons alongside guiding icons linking to each step of the allocation process. Use the buttons on the Navigation Menu to open the tab for your current allocation step. The application requires that Steps 1 through 3 be completed in order before allowing you to Allocate Costs in Step 4.

- Clicking the **Step 1: Enter Service Data** button opens to the 1 – Service Data tab
- Clicking the **Step 2: Enter Financial Data** button opens to the 2 – Financial Data tab
- Clicking the **Step 3: Enter Operational Data** button opens to the 3 – Operational Data tab
- Clicking the **Step 4: Run Cost Allocation** button runs the cost allocation calculations and opens to the Allocation Results tab
- Clicking the **View Cost Allocation Reports** button opens the Reports tab

Database Management

- Clicking the **Manage Reference Data** button opens the Reference Data tab
- Clicking the **Export Data** button opens the Export Data tab

- Clicking the **Reset Data for a New Year's Allocation** button clears the Financial and Operational data in the database
- Clicking the **Calculator Helps** button opens the Help tab
- Clicking the **Delete Data Batches** button opens the Delete Data Batches tab
- Clicking the **Exit** button closes the application

Status

The Status feature on the Navigation Menu allows you to see how many data records you have entered in Steps 1 through 3 in the database.

The number of services or expenses entered and shown in the Status windows will update automatically as you edit records in each tab. This may be helpful checking that you've entered all of the information for your routes/services at a summary viewpoint rather than going into each data entry tab. If any records in Steps 1, 2, or 3 do not have information entered in all required fields, the Status window for that step will list how many incomplete records need to be corrected.

The Status window for Step 4 will state whether you can "GO IF READY" to allocate cost information or "STOP" and go back to complete data entry in the previous steps. Similarly, the Status window for View Reports will show if the reports are ready to view or if you need to go back and allocate costs in Step 4.

Status

10 service(s) entered

21 expense(s) entered
Total value: $1,448,400.00

10 service(s) have complete operational data

GO IF READY
Service and financial data exist

GO IF READY
You have allocation results ready for reporting

Step 1: Enter Service Data

First, enter Service Data by clicking the **Step 1: Enter Service Data** button on the Navigation Menu tab. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the tab.

Enter Data

To start, begin entering information about each route/service into the available blanks and dropdown boxes. Click the **Save & Add a New Service** button to save the route/service and enter in the next route/service, simultaneously clearing the data entry blanks. The Data List in the menu shows the routes/services currently saved in the application – it will appear blank the first time you use the application.

Each of the following attributes must be completed to add the route/service to the Data List in the application.

- **Route / Service Name**: Write in the Route/Service Name

o If you would like to allocate costs for a route that operates in two different areas, such as service connecting a rural area and an urbanized area, input the route name twice with an applicable description. An example would be "Route 1 – Rural" and "Route 1 – Urban".

> Note: This method of naming your routes/services should only be used if you have already separated out hours, miles, and trips data for each portion of the single route/service.

- **NTD Mode**: Select the NTD travel mode that fits the service definition. Options include Motorbus, Commuter Bus, Bus Rapid Transit, Trolleybus, Demand Response, Demand Response Taxi, Vanpool, Ferryboat, or Volunteer Driver Program. See Appendix A for a list of NTD Travel Mode definitions.

- **NTD Jurisdiction/Area**: Select the NTD jurisdiction or geographic area for the route/service from the available options in the form.
  o To edit the NTD jurisdictions available, click on the **View / Edit Areas** button to open the Service Areas tab (see instructions for the tab further below in this section).

- **Service Type**: Select whether the service is operated by the agency or purchased from another public/private entity. Options include Directly Operated or Purchased Transportation.

- **Sponsored Type**: Select whether the service is available to the general public or supported through a sponsored service contract. Options include General Public Service or Sponsored.
  o Selecting "Sponsored" for the route/service will allow you to sub-allocate expenses in cases when passengers from multiple sponsored service contracts travel together on the same vehicle. The names of the sponsored services will be entered during Step 3 in the application.

- **Primary Funding Source**: Select the FTA funding source that is the primary source of funding or most represents the primary service area for the route/service. Prefilled options include 5307-Urbanized, 5311-Non-Urbanized, and 5310-Elderly & Disabled.
  o There is also the option to select a custom funding source name in this blank. Click the **View / Edit Funding Prog.** button window to open the Funding Program tab (see instructions for the tab further below in this section). This may be useful if the route is chiefly supported through a different FTA program, state grant program, or local funding source than the prefilled available options.

Incomplete Data

All six fields for each route/service entered in Step 1 must be completed in order to proceed to entering financial data records in Step 2. If there are any records for a route/service that do not have all six fields completed, a popup message will appear when you click on the
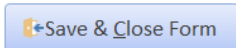
[Save & Close Form]   Save & Close Form button to return to the Navigation Menu. You can either correct and complete the empty data fields immediately by clicking "Cancel" or return to the Navigation Menu by clicking "OK".

Data Entry Error ×

Data Entry Error

1 of your services has incomplete information. Incomplete service information may be from missing data in ANY of the service data fields. ALL fields must be filled out for cost allocation to work.

Click Cancel to return to your service data to input the missing data. Click OK to ignore this error and continue. WARNING: if you do not correct this error, you cannot continue beyond Step 1!

[OK]   [Cancel]
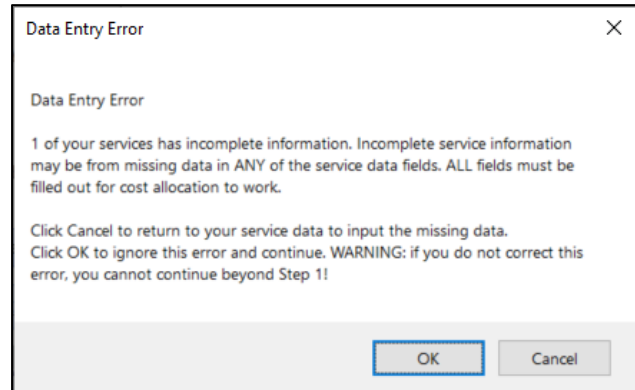
Other Commands

- **Edit A Route/Service** – To edit a route/service in the Data List, navigate to the record using the [◄] **left arrow** and [►] **right arrow** buttons *or* click on the route/service to highlight it, then change the attributes as needed.

- **Delete A Route/Service** – To delete a route/service from the Data List, navigate to the record using the [◄] **left arrow** and [►] **right arrow** buttons *or* click on the route/service to highlight it, then click the [🗑 Delete] **Delete** button.

- **Saving Records** – Each time you complete data entry for a route/service, click the [✓ Save & Add a New Service] **Save & Add a New Service** button to save the route/service and reset the data entry blanks for the next entry.
  - You can also click the [💾 Save] button at any time.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the [Save & Close Form] **Save & Close Form** button to return to the Navigation Menu.
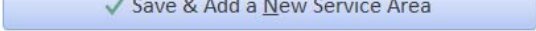
Service Areas

Within the Service Areas tab you can save and edit the available service areas available to categorize for each route/service.

The default Rural Area (non-UZA) and Urbanized Area (UZA) choices are automatically available in the database. Other service areas may be specifically-named urbanized areas (UZAs), cities, counties, or other geographic areas that can be specified according to the areas you operate.
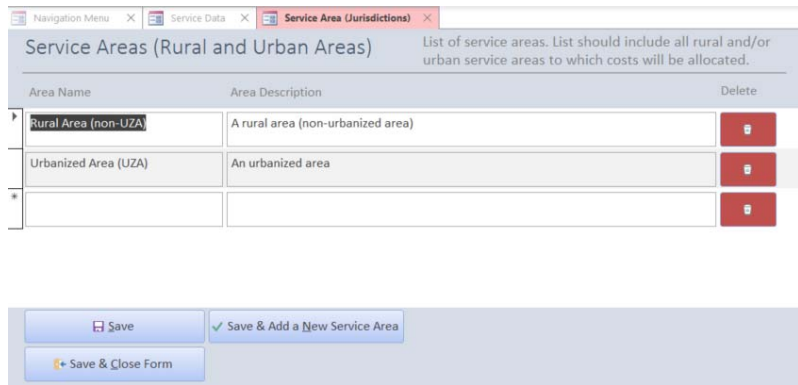
To add a service area, click on the [✓ Save & Add a New Service Area] **Save & Add a New Service Area** button, then enter the UZA/geography name in the **Area Name** blank. You can optionally add a description of the area in the **Area Description** blank.

- **Area Name**: Name of the UZA or non-UZA according to NTD. Users can also choose to enter a geography name here.
- **Area Description**: Optional description

Click the [🗑] **red trash can** button to delete an available service area name.
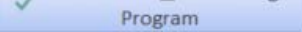
Click the [← Save & Close Form] **Save & Close Form** button once you have completing entering information on service areas.

> *Note:* The information for service areas can also be edited by clicking on the **Manage Reference Data** button in the main Navigation Menu. See the Database Management section of this part of the Manual for more details.

Funding Programs

Within the Funding Programs tab you can save and edit the available funding programs available to categorize for each route/service. The default 5307-Urbanized Formula, 5310-Mobility for Seniors and Individuals with Disabilities, and 5311-Rural Formula options are automatically available in the database. Other funding programs may be additional types of federal/state funding programs or direct service contracts.
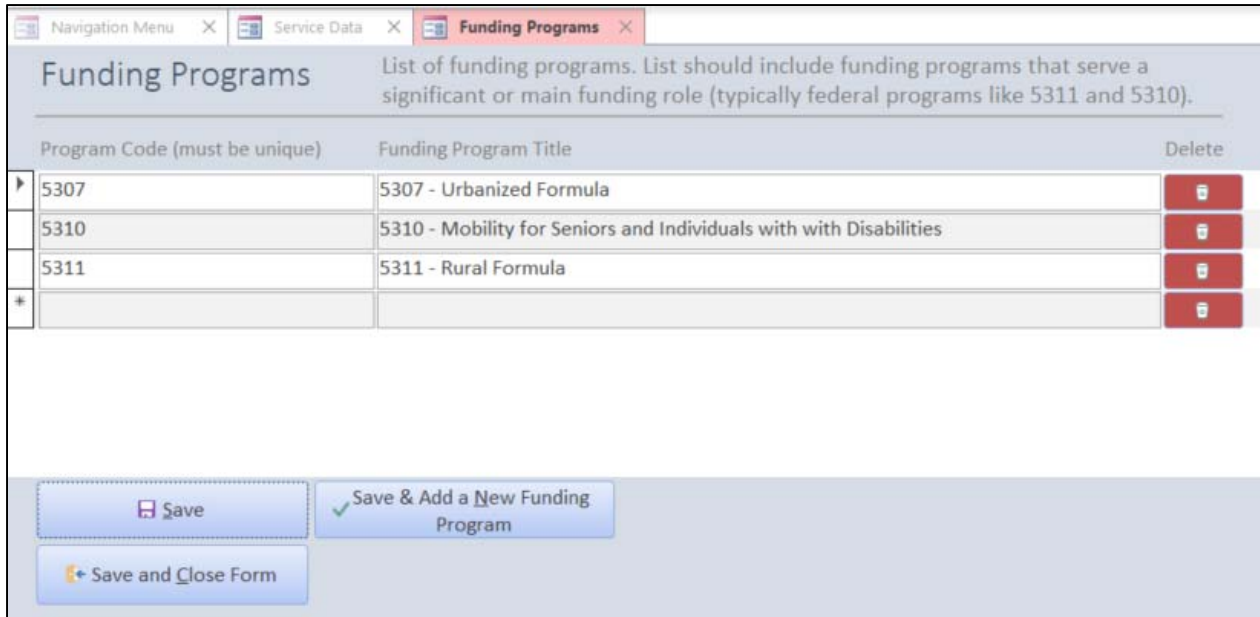
To add a new funding program, click on the [Save & Add a New Funding Program] **Save & Add a New Funding Program button**, then enter a unique number in the Program Code blank and add a name or description of the funding source in the Funding Program Title blank. Each funding program code must be unique from the other codes in the column. You can either use an existing funding code number (such as codes for other FTA programs) or make up a number that you see fit.

Once you have finishing coding and naming the new funding program, an additional row will appear below allowing the entry of more funding program. You can also click the

[Save] **Save Record** button at the bottom of the tab to save your progress.

- **Program Code**: Number associated with the funding program. Can either correspond with an FTA program or be made up by the user.
- **Funding Program Title**: Name of the funding program or local funding source.

Click the [trash can icon] **red trash can** button to delete an available funding program name.

Note: The information for funding programs can also be edited by clicking on the **Manage Reference Data** button in the main Navigation Menu. See the Database Management section of this part of the Manual for more details.

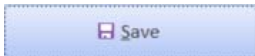Click the [Save & Close Form] **Save & Close Form** button once you have completing entering information on funding programs.

Step 2: Financial Data

After completing your Service Data, the next step is to enter the total operational costs information into the Financial Data page. You should enter all allowable and unallowable cost information into the application in order to produce accurate fully allocated cost information for your routes and services. The application is intended to show calculated costs for an annual time period, but you can use a different time period such as a month or quarter if you desire and are consistent with the time period of your expenses. Remember to use accrual accounting principles for entering expenses information applicable to the year you are using for your service data.

STOP!

If you attempt to use the navigate to the Financial Data tab before entering your routes/services data in Step 1, you will get a pop-up alert directing you to go back to the Service Data tab. Once you have at least one route/service entered in the application, you will be able to proceed with entering financial data.

Step 2 Error   ✕

❌ You cannot add financial data without first providing your services. Please go back and complete Step 1

OK
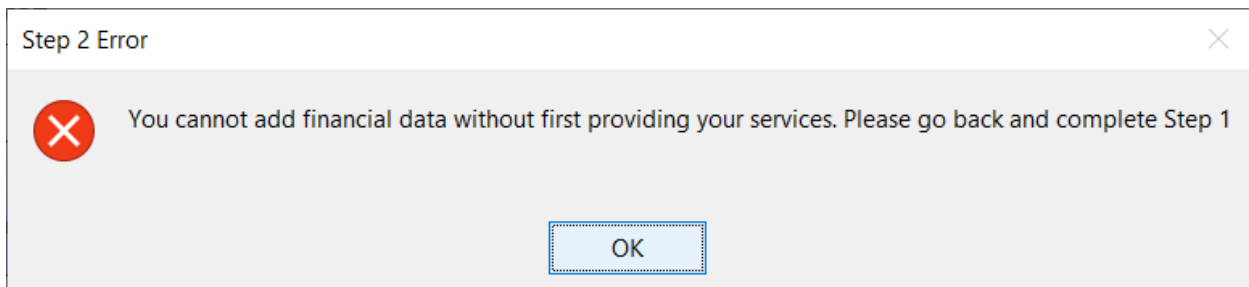
Enter Financial Data by clicking the **Step 2: Enter Financial Data** button on the Navigation Menu tab. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the tab.

Enter Data

To start, begin entering information about each expense into the available blanks and dropdown boxes. Click the **Save & Add a New Cost Entry** button to save the record and enter in the next expense, simultaneously clearing the data entry blanks. The Data List in the menu shows the cost entries currently saved in the application – it will appear blank the first time you use the application.

For each expense, select or write in the information using the available blanks and dropdown windows, then click the **Add** button to add the expense to the Data List below. Each of the following attributes must be completed to add the expense to the Data List in the application.

- **USOA Object Class**: Select the appropriate USOA Object Class for the expense from the available options. The application requires expenses to be categorized into an object class category. Examples might be "Salaries and Wages" for labor expenses or "Fuel and Lubricants" for vehicle fuel. See Appendix B for a full list of definitions of USOA Object Classes in the application.

- **USOA SubClass**: Select the appropriate subclass for the expense according to the use of the expense by the transit agency. There are six total available subclasses: Operations, Dispatch, Fuel, Vehicle Maintenance, Non-Vehicle Maintenance, and Administration. Some subclass names are not available for certain USOA Object Class categories.

- **Annual Cost**: Write in the amount of the expense using numeric text only. No commas are necessary.

- **Cost Applicability**: Select the routes/services that the expense is applicable to by clicking the multiple-choice button in the Cost Applicability box that corresponds with the service;

  If the expense is applicable to all routes use the "**All Services**" choice. Instructions for other options are found in the section immediately below.

Cost Applicability

For all other options selected, an additional dropdown window will appear as you click on the given option. Highlight the option in the dropdown window to which expense should be specifically assigned.

- If the expense is applicable only to a certain NTD mode, select "**A specific mode**" and choose the mode.

- If the expense is applicable only to a certain funding program, select "**A specific funding program**" and choose the program.

- If the expense is applicable only to a certain NTD jurisdiction/service area, select "**A specific service area**" and select the area.

- If the expense is applicable only to a specific operations types, select "**A specific operations type (DO or PT only)**" and select the type.

- If the expense is applicable only to certain individual services, select "**A specific service (or services)**" and choose the service(s) in the drop-down. You can select one single service or multiple services as needed.

Incomplete Data

All three fields for each expense entered in Step 2 must be completed in order to execute the cost allocation processes in Step 4. If there are any records for an expense that do not have all three fields completed, a popup message will appear when you click on the

[Save & Close Form] Save & Close Form button to return to the Navigation Menu. You can either correct and complete the empty data fields immediately by clicking "Cancel" or return to the Navigation Menu by clicking "OK".
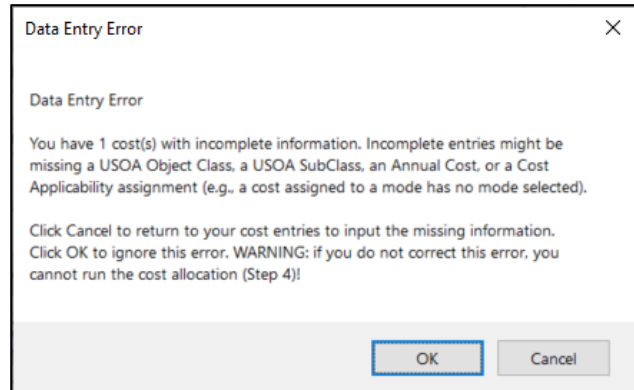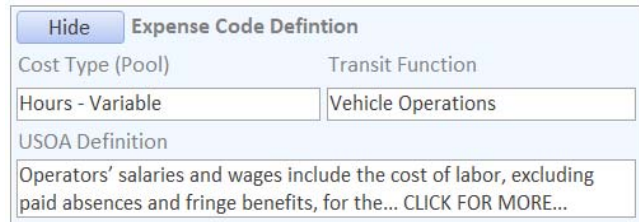

Expense Code Definition

The Expense Code Definition window provides helpful information on the definition of the current USOA Object Class selected. The Cost Type, Transit Function, and USOA Definition information in the window will change automatically as you change the USOA Object Class and SubClass selections from the dropdown windows. To hide the Expense Code Definition window, click the

[Hide] **Hide** button. To subsequently unhide the window, click the [Unhide] **Unhide** button.
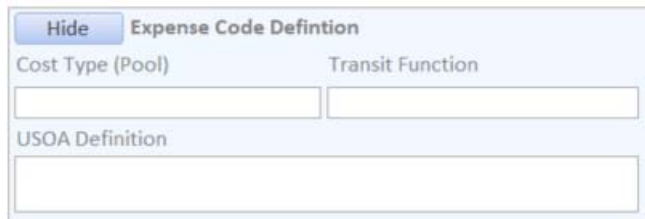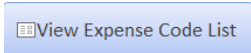
When an USOA Object Class and SubClass are selected from the dropdown windows in the Financial Data tab, the associated Cost Type, Transit Function, and USOA Definition windows will automatically show the corresponding information associated with the selections. In the definition window, you can click on the cell to see the remaining text in the definition and open the Expense Code Details tab.
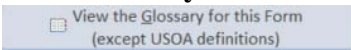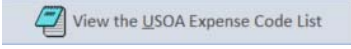
Expense Code Details
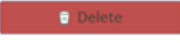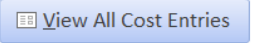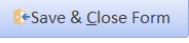
The Expense Code Details tab shows the corresponding details for the current selection in the Financial Data tab, including the cost code number, title, subtitle, definition, transit function as well as the assigned cost type, group, and subgroup in the Cost Allocation Calculator. Users can also navigate between different cost entries already entered in Step 2 to review the differences in cost code definitions and assignments.

Expense Code Details

The full definition of each expense code used in the Cost Allocation Calculator is shown below.
You cannot make changes to this information.

Code	5011.1
Title	Operators Salaries and Wages
Subtitle	Operations
Definition	Operators' salaries and wages include the cost of labor, excluding paid absences and fringe benefits, for the transit agency's employees who are classified as revenue vehicle operators or crewmembers.
Transit Function	Vehicle Operations
Cost Type (Pool)	Hours - Variable
Code Group	5010 - Labor
Code Sub Group	5011 - Operators' Salaries and Wages

- To navigate between cost entries, click on the **left arrow** or **right arrow** buttons.

- To view the full list of USOA Expense Codes, click on the **View Expense Code List** button to open the Expense Code List pop-up window.

- When you are finished, click the **Close Form** button at the bottom of the page to return to the Financial Data tab.

Other Commands

- **View Glossary for Financial Terms** – At any point you can click on the **View Glossary for this Form** button to open a pop-up window with terms and definitions for Financial Data. See more information on the application Glossary within Calculator Helps in the Database Management section of this manual.

- **View USOA Expenses Codes** – At any point you can click on the **View the USOA Expense Code List** button. See more information of the Expense Code List within Calculator Helps in the Database Management section of this manual.

- **Edit A Cost Entry** – To edit a cost entry in the Data List, navigate to the record using the [◄] **left arrow** and [►] **right arrow** buttons *or* click on the cost entry to highlight it, then change the attributes as needed.

- **Delete A Cost Entry** – To delete a cost entry from the Data List, navigate to the record using the [◄] **left arrow** and [►] **right arrow** buttons *or* click on the route/service to highlight it, then click the [🗑 Delete] **Delete** button.

  o In the Financial Data section there is also the option to delete records by clicking the [▦ View All Cost Entries] **View All Cost Entries** button. See more information in the section further below.

- **Saving Records** – Each time you complete data entry for a cost entry, click the [✓ Save & Add a New Cost Entry] **Save & Add a New Cost Entry** button to save the expense and reset the data entry blanks for the next entry.

  o You can also click the [🖫 Save] button at any time.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the [↵ Save & Close Form] **Save & Close Form** button to return to the Navigation Menu.
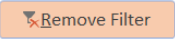
View All Cost Entries
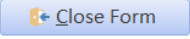
Within the Cost Entries List tab you can view the existing cost entries currently entered in the Financial Data of the application. This list allows you to view each separate expense entry rather than aggregated expenses by transit cost function in Summary of Entered Costs list. The bottom of the form displays the grand total of expenses entered.

- To edit a cost entry, click on the [✎] **editing** button next to the Cost ID column. The application will take you back to the Financial Data tab and isolate the specific cost entry

you want to edit. When you are finished editing the record, click the **Remove Filter** button to show all entries.

- To delete cost entries, click the check boxes in the rightmost column for each entry you wish to delete, then click the **Delete Selected** button at the top of the column.

- When you are finished, click the **Close Form** button at the bottom of the page to return to the Financial Data tab.
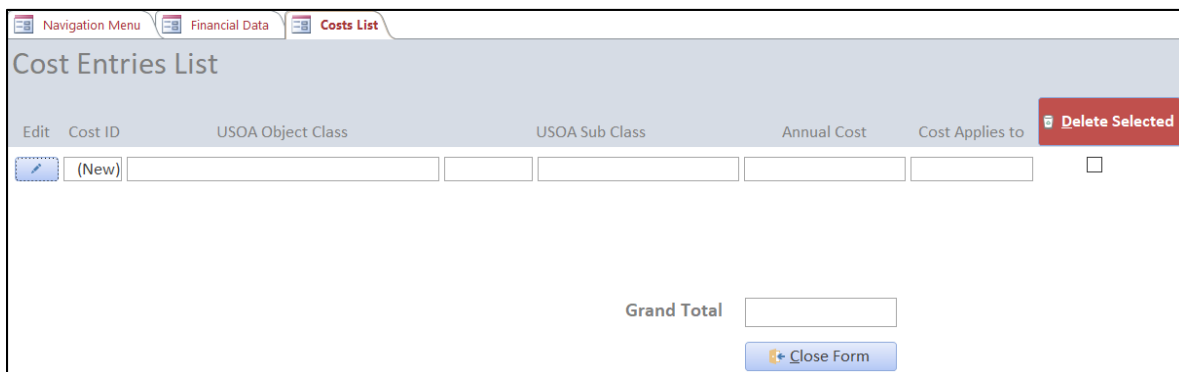
Step 3: Operational Data

After completing entry of Financial Data, the third step is to enter operational data on hours, miles, and trips information into the Operational Data tab. You should enter the total actual data for the period rather than scheduled service information. The application is intended to show calculated costs for an annual time period, but you can use a different time period such as a month or quarter if you desire and are consistent with the time period for all routes and the expenses information entered in Step 2.

The application will also allow you to enter passenger hours and miles information for sponsored services within each shared ride demand responsive route/service. Passenger miles and hours for the sponsored service should be estimated based on a consistent sampling method (as described in the Background section of this manual), while sponsored trips entered should be the total amount of trips for the route/service. The option to enter sponsored service data will only be available for routes/services categorized as Sponsored Service during Step 1.

Enter Operational Data by clicking the **Step 3: Enter Operational Data** button on the Navigation Menu tab. When using the application for the first time the page will appear like the image below. The data will populate in the columns of the page as you enter and save them in the tab.

Enter Data

To start, begin entering operational data for each route/service into the available blanks and dropdown boxes. Click the **Save & Go to New Service** button to save the operational data for that route/service and move on to the next route/service, simultaneously clearing the data entry blanks. The Data List in the menu shows the data for routes/services currently saved in the application – it will appear blank the first time you use the application.

Enter whole numbers without any commas for each data entry blank. Each of the following attributes must be completed to assign operational data to the routes/services in the application.

- **Revenue Hours**: Enter the number of revenue hours for the route/service. Revenue hours should not include deadhead hours.

- **Vehicle Hours**: Enter the number of total vehicle hours for the route/service. Vehicle hours must be greater than or equal to the number of revenue hours for the route/service.

- **Revenue Miles**: Enter the number of revenue miles for the route/service. Revenue miles should not include deadhead miles.

- **Vehicle Miles**: Enter the number of total vehicle miles for the route/service. Vehicle miles must be greater than or equal to the number of revenue miles for the route/service.

- **Passenger Trips**: Enter the number of passenger trips for the route/service.

Incomplete Data

The vehicle hours and vehicle miles fields for each route/service must be completed in Step 3 order to execute the cost allocation processes in Step 4. If there any routes/services that do not have the vehicle hours and miles fields completed, a popup message will appear when you click on the [Save & Close Form] Save & Close Form button to return to the Navigation Menu. You can either correct and complete the empty data fields immediately by clicking "Cancel" or return to the Navigation Menu by clicking "OK".
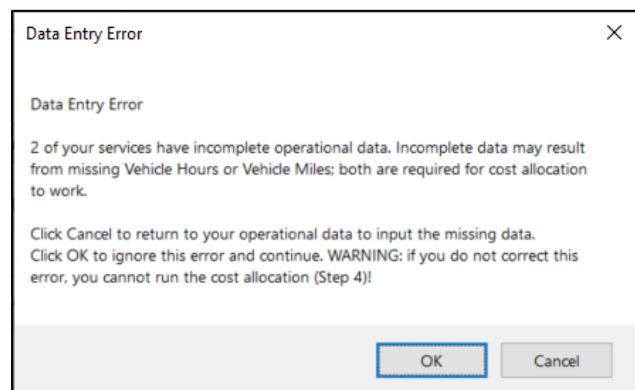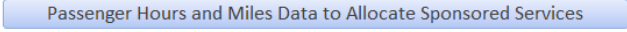
Other Commands

- **View Glossary for Operational Terms** – At any point you can click on the [View the Glossary for this Form] **View Glossary for this Form** button to open a pop-up window with terms and definitions for Operational Data. See more information on the application glossary within Calculator Helps in the Database Management section of this manual.

- **Edit A Route/Service** – To edit data for a route/service in the Data List, navigate to the record using the [◄] **left arrow** and [►] **right arrow** buttons *or* click on the route/service to highlight it, then change the attributes as needed.

- **Saving Records** – Each time you complete data entry for a route/service, click the [✓ Save & Go to Next Service] **Save & Go to Next Service** button to save the operational data for the route/service and reset the data entry blanks for the next entry.
  - You can also click the [🖫 Save] button at any time.

- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the [◄Save & Close Form] **Save & Close Form** button to return to the Navigation Menu.

Sponsored Services Data

If the route/service is characterized as a Sponsored Service in the Service Type category, a button will appear underneath the Passenger Trips

Revenue Hours		Vehicle Hours	
Revenue Miles		Vehicle Miles	
Passenger Trips			
Passenger Hours and Miles Data to Allocate Sponsored Services			

blank titled **Passenger Hours and Miles Data to Allocate Sponsored Services**. Click the button and the application will navigate to the Sponsored Services data tab. Here you can further allocate expenses for each sponsored service within the overall route/service.

- **Sponsor**: Select the name of the sponsored service. See additional instructions below for adding sponsor names to the application.

- **Passenger Hours**: Enter the number of passenger hours for the sponsored service.

- **Passenger Miles**: Enter the number of passenger miles for the sponsored service.

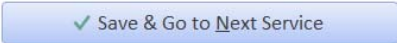- **Passenger Trips**: Enter the number of passenger trips for the sponsored service. The sum of passenger trips for each sponsored service should equal the total number of passenger trips for the route/service.

Sponsor Names

Click on the [Edit / View Sponsors] **Edit / View Sponsors** button to name the available sponsors to choose from for the route/service. The application will take you to the Sponsors tab as shown below.

To enter in a sponsor, type in the bottom row of the Sponsor Name column, then type in the name of the sponsor. If desired, you can also add a description in the next column for the sponsor.

Once you have finished naming and describing the sponsor for the route/ service, an additional row will appear below allowing the entry of more sponsor names. You can also click the

⊟ Save **Save** button at the bottom of the tab to save your progress.
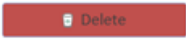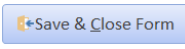
- **Sponsor Name**: Name of the sponsor(s) for the route/service.
- **Description**: Helpful description on the sponsor (if desired).

Click the 🗑 **red trash can** button to delete an available sponsor name.

Click the **⏎ Save & Close Form** **Save & Close Form** button once you have completed entering information on sponsor names.

Note: The information for sponsor names can also be edited by clicking on the **Manage Reference Data** button in the main Navigation Menu. See the Database Management section of this part of the Manual for more details.

Other Commands for Sponsored Services
- **Edit A Route/Service Sponsor** – To edit data for a route/service sponsor in the Data List, navigate to the record using the ◄ **left arrow** and ► **right arrow** buttons *or* click on the route/service sponsor to highlight it, then change the attributes as needed.

- **Saving Records** – Each time you complete data entry for a route/service, click the ✓ Save & Add Another Sponsor for this Route or Service **Save & Add Another Sponsor for this Route or Service** button to save the operational data for the route/service sponsor and reset the data entry blanks for the next entry.
  - You can also click the ⊟Save button at any time.
- **Delete A Route/Service Sponsor** – To delete a route/service sponsor from the Data List, navigate to the record using the ◄ **left arrow** and ► **right arrow** buttons *or* click on the route/service sponsor to highlight it, then click the 🗑 Delete **Delete** button.
- **Finished with Data Entry** – Once you are finished editing and want to return to the page, click the ⏎Save & Close Form **Save & Close Form** button to return to the Financial Data tab.

Step 4: Run Cost Allocation

Once you have completed all data entry in Steps 1 through 3, the final step is to allocate expenses information entered for each route/service. The application will do this step on command and calculate the fully allocated cost for every route/service according to the number of hours and miles associated with them.

The application will use the percentage of hours and miles for the route/service compared to total hours and miles to calculate the portion of variable costs under Operations, Operations-Fuel, and Vehicle Maintenance. Then the application will calculate the portion of fixed costs under Non-Vehicle Maintenance and Administration for each route/service according to portion of variable costs for each.

Allocate Costs by clicking the **Step 4: Run Cost Allocation** button on the Navigation Menu tab. The application will run the necessary calculations and then take you to the Cost Allocation Results tab.

If you have already run the cost allocation for the data entered in the application, you can simply click on the **View Cost Allocation Reports** button on the Navigation Menu tab. This will take you to the Cost Allocation Results tab without re-running the cost allocation.

STOP!

If you attempt to click the **Step 4: Run Cost Allocation** button *before* entering your routes/services data in Step 1, financial data in Step 2, and operational data in Step 3, you will get a pop-up alert directing you to go back to the previous tabs. Once you have at least one route/service with operational data and one financial expense as a variable cost entered in the application, you will be able to proceed with entering allocating costs.

Step 4 Error ✕

❌ Data Incomplete:

Sorry! You have not yet entered any variable costs in your financial data. Cost allocation will not work without variable costs.

Please check your financial data.

OK
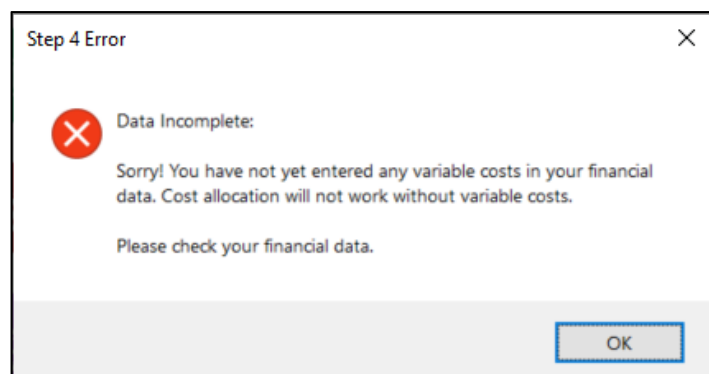
Similarly, if you attempt to click the **View Cost Allocation Reports** button *before* entering all necessary data in Steps 1 through 3, you will get a pop-up alert directing you to go back to the previous tabs. Once you have at least one route/service with operational data and one financial expense entered in the application, you will be able to proceed to the Cost Allocation Results tab.

Step 3 Incomplete ✕

❌ Steps Incomplete:

Sorry, but you must have complete data in Step 3.
Make sure that you have revenue and vehicle hours and miles entered for each service.

OK
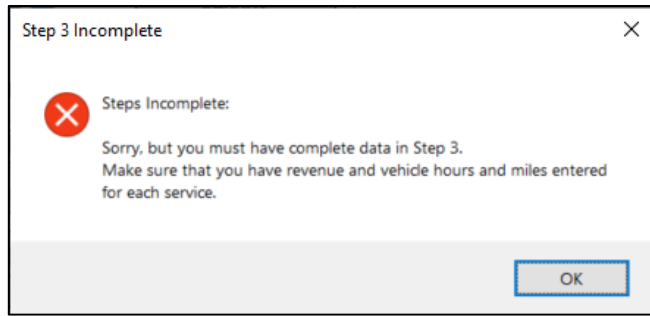
Sponsored Data

The application also checks whether passenger hours and miles data has been entered in Step 3 for routes/service categorized as Sponsored Transportation in Step 1 upon clicking the **Step 4: Run Cost Allocation** button. Cost allocation calculations can be run without entering data for

sponsored services, but suballocation of expenses for sponsored services will not be calculated without this data. If there are no sponsors along with passenger hours and miles data, a Missing Data warning box will appear.

- Click the **OK** button to proceed with the cost allocation process without sponsored services data
- Click the **Cancel** button to not proceed with the process
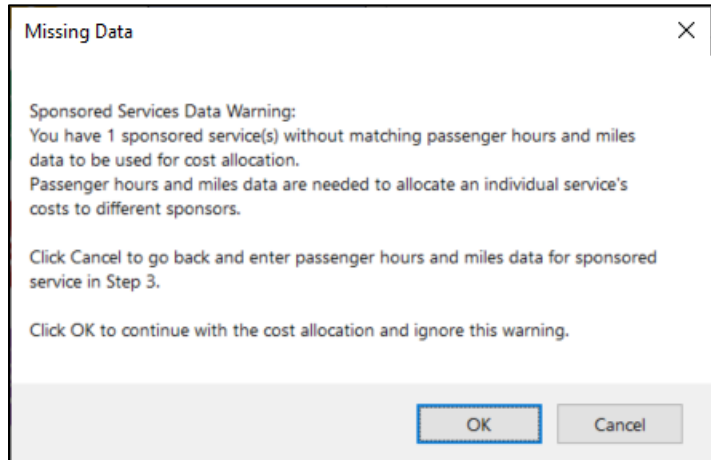
If you click **Cancel**, you will then be directed to a report data tab which shows the sponsored services entered in Step 1 without completed sponsor names and passenger hours and miles data in Step 3. This tab only shows the applicable routes/services without data for sponsors entered – the data for any routes/services shown cannot be edited in the tab.

In order to edit the sponsored service data, go to Step 3 from the Navigation Menu after clicking

the **Close** button to close the tab.
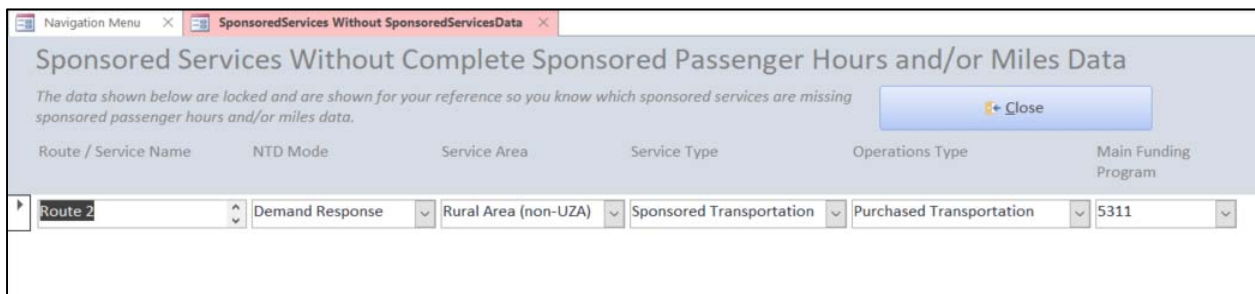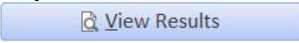
Viewing Reports

The Cost Allocation Results tab allows users to view reports according to the available dropdown windows underneath the **Select Cost Allocation Type** prompt. The options are:

- **By Mode**: shows cost allocation results by NTD travel mode

- **By Area**: shows cost allocation results by NTD jurisdiction/geography

- **By Funding Source**: shows cost allocation results by funding source

- **By Individual Services**: shows cost allocation results for each route/service

- **By Sponsored Services**: shows cost allocation results for each sponsored service name

- **View All**: shows cost allocation results for all of the above groups

Once you select a cost allocation type in the dropdown window, you must then select an output type from the menu below. More information on the output options is found in the following section. Make a selection for the output type and click the [🔍 View Results] **View Results** button to run the output, which will either open a new tab(s) or launch an export prompt.

Click the [↩ Close Form] **Close Form** button to return to the Navigation Menu.

Report and Export Options

There are four options for viewing or exporting data from the application.

- **View Report**: opens a pop-up window on the fully allocated cost and performance measures for the selected option.
  - To view a combined report for all groups of cost allocation results, select **View All** in the dropdown window, then click on the checkbox to the left of "**Combine into a single report**".

- **Export Report (PDF)**: launches a prompt to save a PDF version of the report for the selected option.
    o To export a combined PDF report for all groups of cost allocation results, select **View All** in the dropdown window, then click on the checkbox to the left of "**Combine into a single PDF**".

- **View Results Table**: opens a tab on the fully allocated costs and performance measures in a table format rather than a report. The example below shows a table of allocation results by Mode.
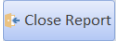
NTD Mode	Vehicle Operations	Vehicle Operations - Fuel	Vehicle Maintenance	General Administration	Non-Vehicle Maintenance	Total Allocated Cost	Pass
Demand Response	$9,666.67	$2,117.65	$2,117.65	$4,448.63	$3,780.39	$22,130.98	
Motor Bus	$7,333.33	$1,882.35	$1,882.35	$3,551.37	$2,219.61	$16,869.02	
Total	$17,000.00	$4,000.00	$4,000.00	$8,000.00	$6,000.00	$39,000.00	

- **Export Results Table (Excel)**: launches a prompt to save an Excel version of the allocation results table for the selected option.

View Report

The pop-up window shows the cost allocation results and performance measures for the selected group of routes in a formatted report output. The example below shows a report for Allocation Results by Mode.

AllocationResults_Mode — □ ×

Allocation Results by Mode   Print Report   Close Report   Friday, May 29, 2020   12:19:54 PM

NTD Mode	Vehicle Operations	Vehicle Operations - Fuel	Vehicle Maintenance	General Administration	Non-Vehicle Maintenance	Total Allocated Cost	Pass. per Revenue Hour	Pass. per Revenue Mile	Cost per Revenue Hour	Cost per Revenue Mile	Cost per Total Vehicle Hour	Cost per Total Vehicle Mile	Cost per Pass. Trip
Commuter Bus	$189,765.43	$16,666.67	$26,190.48	$28,638.70	$15,273.97	$276,535.24	3.00	0.13	$92.18	$4.01	$79.01	$3.95	$30.73
Demand Response	$77,486.42	$15,952.38	$27,394.42	$14,876.05	$7,933.89	$143,643.16	0.57	0.03	$47.88	$2.87	$42.25	$2.14	$84.50
Motor Bus	$581,148.15	$107,380.95	$176,415.11	$106,485.25	$56,792.13	$1,028,221.59	7.86	0.43	$48.96	$2.70	$40.32	$2.28	$6.23
Grand Total	$848,400.00	$140,000.00	$230,000.00	$150,000.00	$80,000.00	$1,448,400.00	6.51	0.35	$53.64	$2.90	$44.70	$2.46	$8.24

Friday, May 29, 2020   Page 1 of 1

- **Print** - To print a report to a PDF file or a printer on your network, click the [Print Report] **Print Report** button to select the desired printing options.
- **Close** – When you are finished viewing the report, click the [Close Report] **Close Report** button to return to the Cost Allocation Results tab.

Database Management

The Database Management section on the Navigation Menu allows users to manage reference data, export data, reset data for the entire database, view helpful resources, or delete specific batches of data.

Manage Reference Data
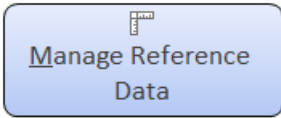
To manage the reference data saved in the application, click on the **Manage Reference Data** button on the Navigation Menu tab. On the Calculator Reference Data tab, there are three data category tabs available for Service Areas, Funding, and Sponsors. Users can edit the data names and descriptions for these data elements here in order for the same reference data categories to be made available in Steps 1 and 3. Click on the cells the edit the names and description for each reference data category as needed.
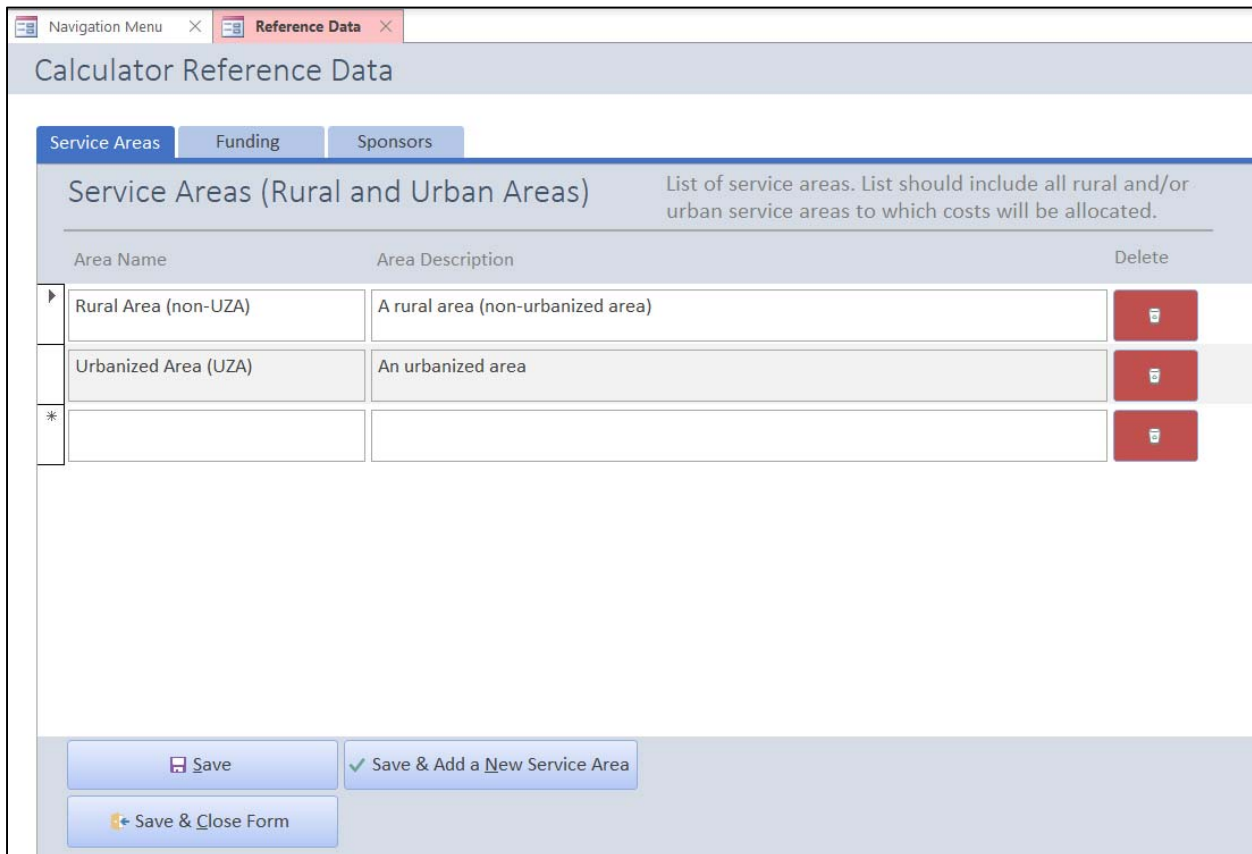
- Click the red trash can button to delete an available reference data name.
- Click the Save button at the bottom of the tab to save your progress.
- Click the **Save & Add** button under a given menu tab to save the entry and move to the bottom row of the entry list.

- Click the [Save & Close Form] **Save & Close Form** button when you are finished to return to the Navigation Menu.

Export Data
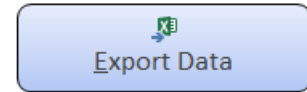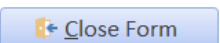
To export data entered into the application during Steps 1 through 3 or the allocation results for the routes/services, click on **Export Data** button on the Navigation Menu tab.
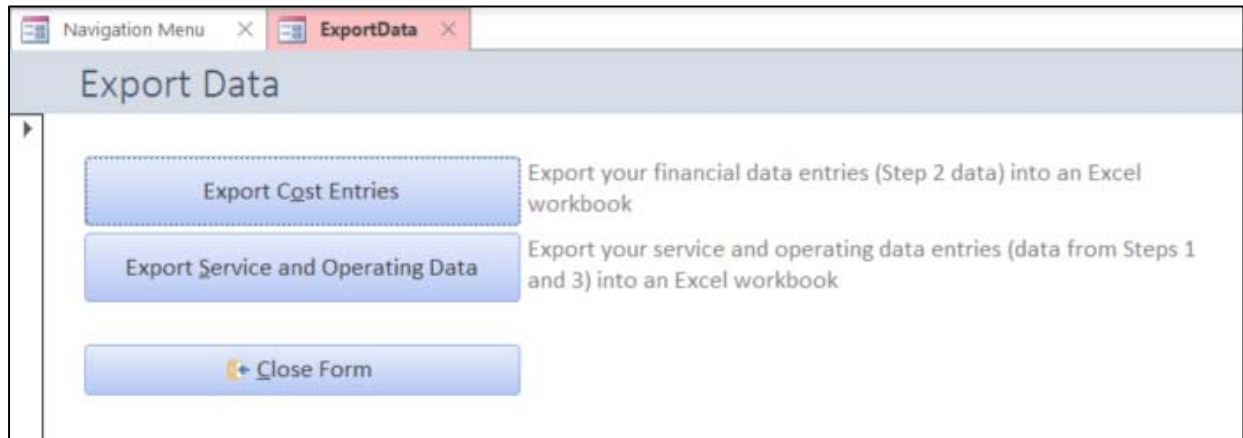
There are three export options that will provide data in an Excel download format:

- **Export Cost Entries**: launches a prompt to save an Excel download of the cost entry data entered during Step 2 of the application.

- **Export Service and Operating Data**: launches a prompt to save an Excel download of the routes/services with operational data entered during Steps 1 and 3 of the application.

Click the [Close Form] **Close Form** button to return to the Navigation Menu.

Reset Data

Reset Data for a New
Year's Allocation
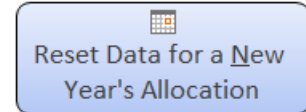
To clear all entered data from the database, click the **Reset Data for a New Year's Allocation** button on the Navigation Menu tab. This will clear all financial data, operational data, and prior cost allocation results from the database.

This option may be useful if you wish to reuse the application for a new fiscal year. It is advised to archive the version of the database for the old year, then save a new version of the file before clicking on the **Reset Data** button. After clicking, you will see the prompt below explaining what data will be deleted and confirming whether you are sure you want to execute the process. Click **OK** to proceed.

Delete? ✕

Are you sure you want to delete all data from your database?

This includes your financial data, operational data, and sponsored service passenger miles.

Your service data, service areas, and sponsors will not be deleted.

OK   Cancel
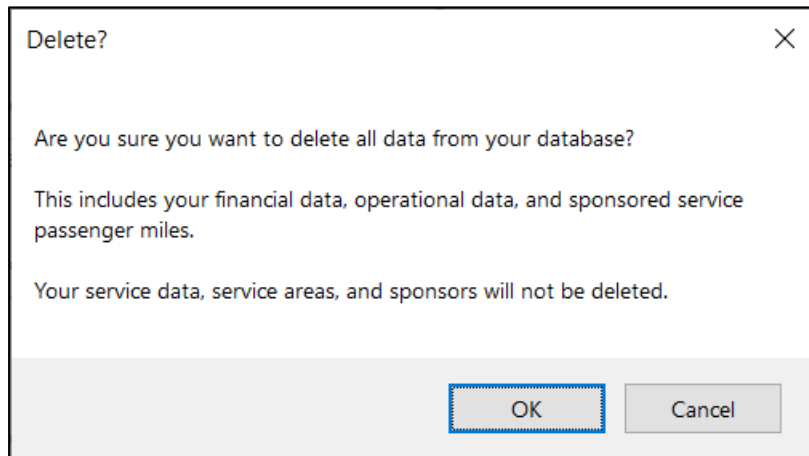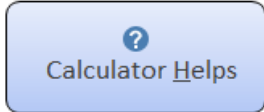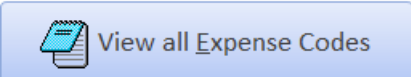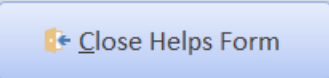
Calculator Helps

To view available resources on understanding data terminology, USOA expense codes applicable to transit service, and National RTAP guidance for the Cost Allocation Calculator, click on the **Calculator Helps** button on the Navigation Menu tab.
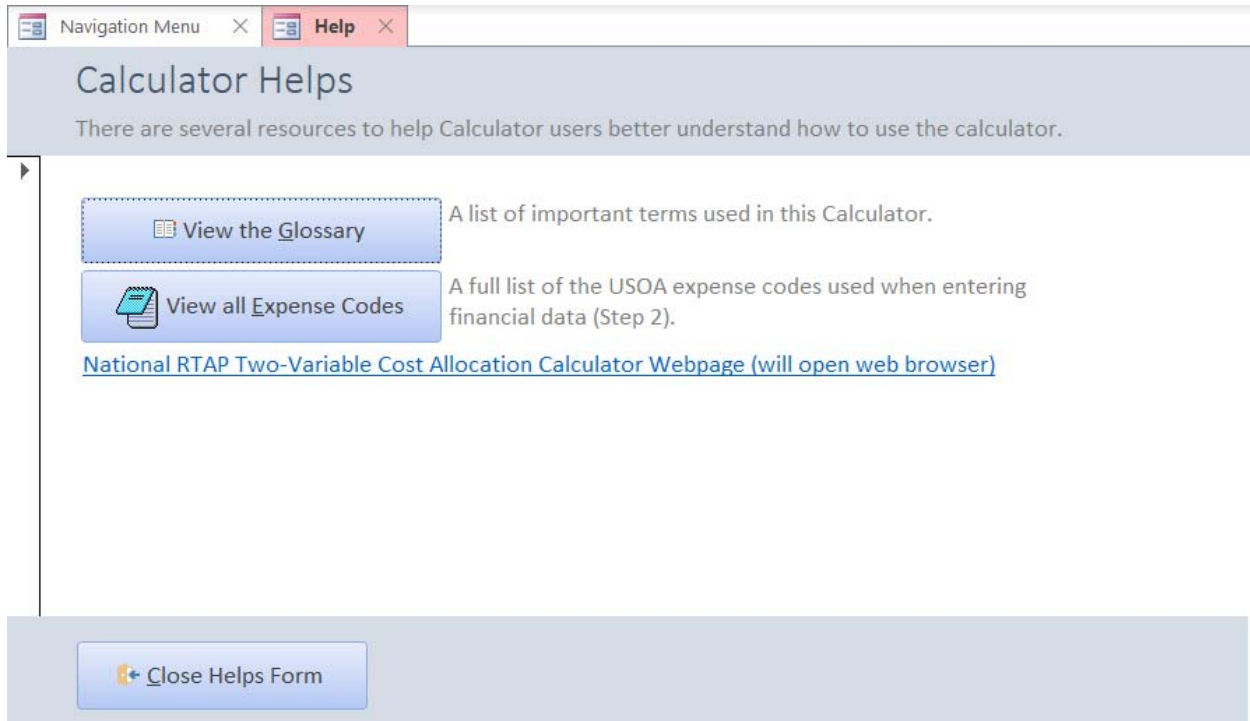
- Click the **View the Glossary** button to open the popup window for the Glossary of terms used in the application.

- Click the **View all Expense Codes** button to open the popup window for the Expense Codes List on USOA codes available in Step 2.

- Click the hyperlink to open the Cost Allocation Calculator support center page on the National RTAP website in your browser.

- Click the **Close Helps Form** button to close the Calculator Helps tab and return to the main Navigation Menu.

Glossary

This pop-up glossary contains key terms used in the Cost Allocation Calculator in Steps 1, 2, and 3. Users can scroll through the window or use the blank cell at the top of the window to search for specific terms.

Glossary

Search Terms (no spaces, letters/numbers only) [_____] Clear All Filters

This glossary contains the key terms used in the Cost Allocation Calculator. The glossary may be filtered by typing in the Search Terms box above.
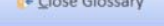
Term	Definition
5307 - Urbanized Formula	A Primary Funding Source: The Federal Transit Administration formula funding program that makes federal funds available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.
5310 - Mobility for Seniors and Individuals with Disabilities	A Primary Funding Source: The Federal Transit Administration formula funding program that makes federal funds available to states for the purpose of assisting private nonprofit groups in meeting transportation needs of the elderly and persons with disabilities.
5311 - Rural Formula	A Primary Funding Source: The Federal Transit Administration grant program which provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000.
ADA Expenses	A USOA Object Class: In this object class, agencies report the portion of their operating expenses that is attributable to ADA-required service.
ADA Related Reconciling Items	A USOA Object Class: In this object class, agencies report the portion of their reconciling item expenses that are attributable to ADA-required service.
Administration	USOA SubClass: All activities associated with the general administration of the transit agency, including transit service development, injuries and damages, safety, personnel administration, legal services, insurance, data processing, finance and accounting, purchasing and stores, engineering, real estate management, office management and services, customer services, promotion, market research, and planning.
Annual Cost	For a given cost entry, the amount of costs for the fiscal year (or other time period).
Bus Rapid Transit	An NTD Mode: Fixed-route bus systems that operate at least 50 percent of the service on fixed guideway. These systems also have defined passenger stations, traffic signal priority or preemption, short headway bidirectional services for a substantial part of weekdays and weekend days; low-floor vehicles or level-platform boarding, and separate branding of the service.

[↤ Close Glossary]   [Printable Form-Based Glossary]   [Printable Alphabetical Glossary]
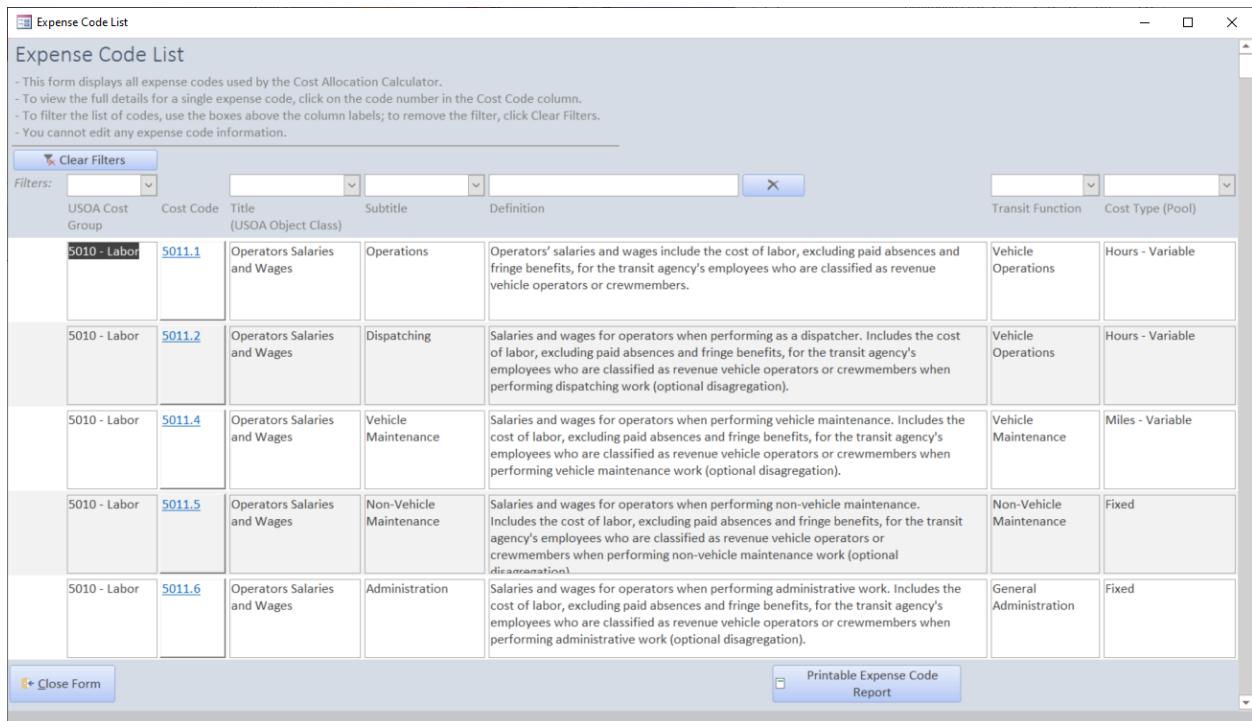
- To clear the search terms cell, click on the [Clear All Filters] **Clear All Filters** button.
- To open the glossary window in a printable format tab organized by data type, click on the [Printable Form-Based Glossary] **Printable Form-Based Glossary** button.
- To open the glossary window in a printable format tab organized alphabetically, click on the [Printable Alphabetical Glossary] **Printable Alphabetical Glossary** button.

- When you are finished, click the ⟨Close Glossary⟩ **Close Glossary** button at the bottom of the window to return to the main Navigation Menu (or return to the Financial Data or Operational Data tabs if the Glossary was accessed there).

Expense Code List

This pop-up window provides information on all USOA Expense Codes available for Step 2. Users can use the filters at the top of the window to show information for specific cost groups, object class titles, subtitles applicable to cost function subclasses, transit functions, and cost types. The filters for Title, Subtitle, and Transit Function are consistent with the available options for data entry in Step 2. The Cost Type terms show whether a particular Cost Code is pooled and allocated according to variable (by either hours or miles) or fixed expenses.

Also, users can search for specific words in the cost definitions using the blank cell above the Definition column. Entering a word(s) will filter the expense codes in the window to show only definitions containing the word(s) entered.

- To clear all filters selected to search for specific expense codes, click the ⟨Clear Filters⟩ **Clear Filters** button to reset the window and show all expense codes.
- To clear words entered in the Definition search cell, click the ⟨X⟩ **X** button to the right of the cell.

- To open the expense code window in a printable format tab organized by Cost Code, click on the **Printable Expense Code Report** button.

- When you are finished, click the **Close Form** button at the bottom of the window to return to the Financial Data tab.
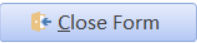
Delete Batches of Data
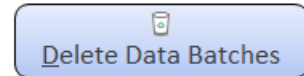
To delete certain batches of data from the database, click the **Delete Data Batches** button on the Navigation Menu tab. The application will open the Delete Batches of Data tab, which has the options listed below. Clicking any option will show a prompt asking whether you are sure you want to delete that batch of data.
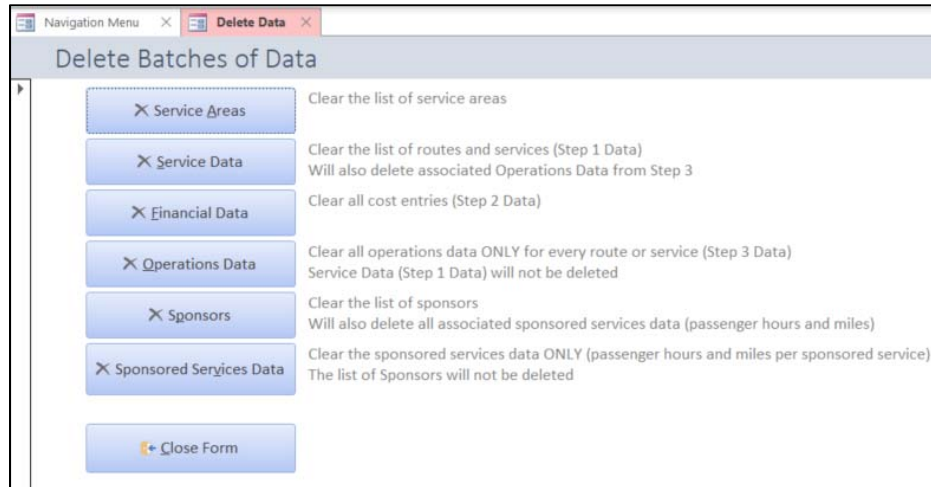
- **Service Areas**: deletes all data for NTD jurisdictions /geographies entered within Step 1

- **Service Data**: deletes all data for route/service characteristics entered in Step 1, along with associated operations data entered in Step 3

- **Financial Data**: deletes all cost entries data entered in Step 2

- **Operations Data**: deletes all operational data entered in Step 3

- **Sponsors**: deletes all data for sponsor names entered within Step 3, along with associated passenger hours and miles data

- **Sponsored Services Data**: deletes all passenger hours and miles data within Step 3

Click the **Close Form** button to return to the Navigation Menu.

Exit

The **Exit** button on the Navigation Menu saves and closes the Access application.

Appendix A – Service and Operational Data Definitions

The definitions in this appendix are adapted from the NTD Glossary, found online at:
https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary

Service Data Inputs

Route / Service Name	Name of the route or service as chosen by the transit agency. May also include in the name a label showing the geographic area where the service is operated.
NTD Mode	Description of mode of service operated with subcategories for bus (can be conventional bus fixed route service, bus deviated fixed route service, or intercity bus service) and demand response (usual service or subscription) modes.
NTD Jurisdiction / Area	Enter the UZA, non-UZA, or other geographic area where the route operates. The Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data.
Sponsored Type	Designation for the route or service being either general public transit service or sponsored service. Select Sponsored Transportation to sub-allocate shared ride demand responsive service in Step 3.
Service Type	Designation of service being either directly operated by the agency or purchased from another public or private entity.
Primary Funding Source	Financial assistance obtained from the federal government or other sources to assist with paying the costs of providing transit services. Only one primary funding source can be selected for a single route or service. If there are multiple significant funding sources for a shared-ride demand response service, the user can allocate costs to each funding source by setting the Sponsored Type value to Sponsored Transportation in Step 1 and then entering the passenger hours and miles for each sponsor in Step 3.

NTD Mode Types

Bus Rapid Transit	Fixed-route bus systems that operate at least 50 percent of the service on fixed guideway. These systems also have defined passenger stations, traffic signal priority or preemption, short headway bidirectional services for a substantial part of weekdays and weekend days; low-floor vehicles or level-platform boarding, and separate branding of the service.
Commuter Bus	Local fixed-route bus transportation primarily connecting outlying areas with a central city. Characterized by a motorcoach (aka over-the-road bus), multiple trip tickets, multiple stops in outlying areas, limited stops in the central city, and at least five miles of closed-door service.
Demand Response	Transit mode comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations.
Demand Response Taxi	A special form of the demand response mode operated through taxicab providers. The mode is always purchased transportation type of service.
Ferryboat	A transit mode comprised of vessels carrying passengers over a body of water. Predominantly commuter service means that for any given trip segment (i.e., distance between any two piers).
Motor Bus	A transit mode comprised of rubber-tired passenger vehicles operating on fixed routes and schedules over roadways. Vehicles are powered by diesel, gasoline, battery, or alternative fuel engines contained within the vehicle.
Other	Transit service that does is not represented by an existing modal definition.
Trolleybus	A transit mode comprised of electric rubber-tired passenger vehicles, manually steered and operating singly on city streets. Vehicles are propelled by a motor drawing current through overhead wires via trolleys, from a central power source not onboard the vehicle.

Vanpool	Mode comprised of vans, small buses and other vehicles operating as a ride sharing arrangement, providing transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographical area. The vehicles must have a minimum seating capacity of seven persons, including the driver.
Volunteer Driver Program	Volunteer driver programs are services that provide transportation for older adults and persons with disabilities using volunteer drivers and personally owned/leased vehicles. Typical programs reimburse drivers based on miles driven for part of their out-of-pocket expenses for fuel, maintenance, and vehicle costs; revenues to cover expenses are partially covered by either donations to the program or a fee charged to riders.

NTD Jurisdiction / Area

Rural area (non-UZA)	An area with a population of fewer than 50,000 as designated by the U.S. Bureau of the Census.
Urbanized area (UZA)	An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.
Other	Write in a different geographic area such as a city or county name if desired rather than using UZA designations.

Sponsored Type

General Public	Transport of passengers by group travel systems available for use by the general public, typically managed on a schedule, operated on established routes, and that charge a posted fee for each trip.
Sponsored Transportation	A Sponsored Type: Public transportation services that are paid, in whole or in part, directly to the transit provider by a third party. These services may be offered by transit providers as part of a Coordinated Human Services Transportation Plan. Common sponsors include the Veterans Administration,

	Medicare, sheltered workshops, ARC, Assisted Living Centers, and Head Start programs. In the Calculator, the Sponsored Transportation designation must be used for any shared-ride demand-responsive service for which you want to allocate costs to multiple funding programs or service sponsors.

Service Type

Directly Operated	Transportation service provided directly by a transit agency, using their employees to supply the necessary labor to operate the revenue vehicles. This includes instances where an agency's employees provide purchased transportation services to the agency through a contractual agreement.
Purchased Transportation	Transportation by provided by a different public or private entity on behalf of the transit agency as part of a contractual agreement. Purchased transportation can include regular and continuing general or special transportation to the public, but does not include school bus, charter, or intercity bus transportation.

Funding Source

5307 - Urbanized Formula	The Federal Transit Administration formula funding program that makes federal funds available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.
5310 - Mobility for Seniors and Individuals with Disabilities	The Federal Transit Administration formula funding program that makes federal funds available to states for the purpose of assisting private nonprofit groups in meeting transportation needs of the elderly and persons with disabilities.
5311 - Rural Formula	The Federal Transit Administration grant program which provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000.

Other	Write in a different federal funding program, state grant program, or other funding source used as the primary support for the route or service.

Operational Data Inputs

Revenue Hours	The hours that vehicles are scheduled to or actually travel while in revenue service. Revenue hours include layover / recovery time. Revenue hours exclude deadhead, operator training, vehicle maintenance testing, and school bus and charter services.
Vehicle Hours	The hours that vehicles travel while in revenue service plus deadhead hours. Vehicle hours include revenue service, deadhead, and layover/recovery time. Vehicle hours exclude hours for charter service, school bus service, operator training, or vehicle maintenance testing.
Revenue Miles	The miles that vehicles are scheduled to or actually travel while in revenue service. Revenue miles include layover / recovery time. Revenue miles exclude deadhead, operator training, vehicle maintenance testing, and school bus and charter services.
Vehicle Miles	The miles that vehicles travel while in revenue service plus deadhead miles. Vehicle miles include revenue service and deadhead. Vehicle miles exclude miles for charter service, school bus service, operator training, or vehicle maintenance testing.
Passenger Trips	The number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Sponsored Services

Route Name	Name of the route or service as chosen by the transit agency. May also include in the name a label showing the geographic area where the service is operated.
Passenger Hours	The number of passenger hours for the sponsored route in the shared ride demand responsive service, based on sample data collected by the agency.
Passenger Miles	The number of passenger miles for the sponsored route in the shared ride demand responsive service, based on sample data collected by the agency.
Sponsored Trips	The number of passenger trips for the sponsored route in the shared ride demand responsive service.

Appendix B – USOA Object Class Definitions

The definitions in this appendix are adapted from the USOA document effective June 2016. The online version of the document can be found here: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ntd/56681/uniform-system-accounts-usoa-effective-fy18_0.pdf

Object Class Definitions

ADA Expenses	In this object class, agencies report the portion of their operating expenses that is attributable to ADA-required service. This object class is not exclusive of other operating expense object classes.
ADA Related Reconciling Items	In this object class, agencies report the portion of their reconciling item expenses that are attributable to ADA-required service. This object class is not exclusive of other reconciling item object classes.
Capital Leases	Other than an operating lease, a transit agency may also have a capital lease. A lease is considered a capital lease if it meets any of the following four criteria at its inception (the earlier of the date of the lease agreement or commitment): Transfer of ownership, Bargain purchase option, Lease term, Minimum lease payments.
Casualty and Liability Costs (Insurance)	Casualty and liability costs are expenses related to loss protection and losses incurred by the transit agency. These expenses include compensation of others for their losses due to acts for which the transit agency is liable, costs of protecting the transit agency from losses through conventional insurance and other risk financing programs, and agency losses due to the liable actions of others that are covered by other corporate insurance.
Extraordinary and Special Items	Extraordinary items are material events or transactions that are distinguished by their unusual nature and by the infrequency of their occurrence. Examples of material extraordinary items include capital assets

	that were impaired by extraordinary events such as hurricanes or other natural disasters.
Fringe Benefits	Fringe benefits are the expenses for employment benefits that an employee receives in addition to his or her base salaries and wages. Fringe benefits include payments associated with the employee's labor that do not arise from the performance of work, but still arise from the employment relationship.
Fuel and Lubricants	This object class includes fuel used to propel revenue and non-revenue vehicles and lubricants such as motor oil, transmission fluid, and grease. Purchase and cash discounts are included in the cost of the fuel or lubricant.
Interest Expenses	Interest expenses are charges for the use of capital borrowed by the transit agency. Interest expenses may accrue on both short-term debt and Long-Term Debt obligations.
Miscellaneous Expenses	This object class includes expenses that cannot be attributed to any of the other expense object classes. Agencies must check to be sure an expense does not belong in a different object class before reporting it as miscellaneous. Direct miscellaneous expenses are reported in the appropriate function. Shared miscellaneous expenses are allocated among the functions according to the reporter's best professional judgment.
Operating Lease Expenses	Operating lease expenses include payments for the use of Capital Assets not owned by the transit agency. Operating leases allow the transit agency to use assets, but do not allow them the rights of asset ownership (e.g., transfer of title). As such, operating leases are not capitalized as assets, but are recorded as operating expenses during the reporting period.
Operators' Salaries and Wages	Operators' salaries and wages include the cost of labor, excluding paid absences and fringe benefits, for the transit agency's employees who are classified as revenue vehicle operators or crewmembers. These expenses include wages for performing activities related to vehicle operations such as report time, platform time, turn-in time, and accident reporting

	time. These expenses also cover wages paid to back-up (extra board drivers) such as standby time.
Other Materials and Supplies	The expenses in this object class include products obtained from outside suppliers or those manufactured internally that are not covered in the two preceding object classes. The cost of the material or supply includes shipping costs, purchase discounts, cash discounts, sales taxes, and excise taxes. Costs associated with this object class include materials and supplies issued from inventory or purchased for immediate use (i.e., items used without going through inventory).
Other Paid Absences	This includes vacation leave, sick time, and other paid time off not contingent on a specific event outside the control of the transit agency for its employees that are not classified as revenue vehicle operators or crewmembers.
Other Reconciling Items	Other Reconciling Items are any other costs that cannot be captured in the above reconciling items object classes, such as funds to another agency through a cooperative agreement and expenses for purchased transportation services not meeting NTD requirements for a contractual agreement.
Other Salaries and Wages	This object class includes the cost of labor, excluding paid absences and fringe benefits, of employees of the transit agency who are not classified as revenue vehicle operators or crewmembers (e.g., maintenance workers, administrative staff, and transit managers).
Purchased Transportation Filing Separate Report	The agency reports Purchased Transportation (PT) expenses in this object class when the other party reports the associated service data (e.g., miles, ridership) in their own NTD report.
Purchased Transportation in Report	This object class includes the payments or accruals to sellers or providers of service, including fare revenues retained by the seller. The agency reports Purchased Transportation (PT) expenses in this object class when they report the associated service in their own NTD report.
Related Parties Lease Agreements	Other than operating and capital leases, transit agencies may also have related parties lease agreements. Related parties leases are leases with terms and payment amounts that are

	substantially less than they would be in usual circumstances because the transit agency is related to the lessor.
Salaries and Wages	Operators' salaries and wages include the cost of labor, excluding paid absences and fringe benefits, for the transit agency's employees who are classified as revenue vehicle operators or crewmembers.
Services	Services are the labor and other work provided by outside organizations for fees and related expenses. Outside organizations may be private companies or public entities.
Taxes	Tax expenses are the charges and assessments levied against the transit agency by federal, state and local governments. Sales taxes, excise taxes, freight-in and other acquisition costs are not included in this object class. Instead, they are accounted for as part of the cost of the material or service purchased.
Tires and Tubes	This object class includes the cost of tires and tubes, whether they are rented, leased or purchased. Purchase discounts, cash discounts, sales taxes, and excise taxes are included in the cost of the tires and tubes.
Utilities	This object class includes expenses for electricity, gas, water, telephone, heating oil, fuel for backup generators, and internet
Voluntary Non-Exchange Transactions	This object class is for the provider to record the non-exchange expenses when all applicable eligibility requirements have been met. In a voluntary non-exchange transaction, an agency gives or receives value (e.g., revenue vehicle) without directly receiving or giving equal value (e.g., cash) in return.

Subclass Definitions

Operations	All activities associated with vehicle operations, including transportation administration and support, revenue vehicle movement control, scheduling of transportation operations,

	revenue vehicle operation, ticketing and fare collection, and system security.
Dispatch	Operations activities associated with dispatching and scheduling of vehicles, including providing supervision and clerical support for revenue vehicle movement control activities, dispatching operators and vehicles from the operating station, monitoring transit operations in communications and control centers, supervising transit operations along transit routes, and controlling the return of operators and vehicles to the operating station.
Fuel	The costs of gasoline, diesel fuel, propane, lubricating oil, transmission fluid, grease, etc., for use in vehicles.
Vehicle Maintenance	All activities associated with revenue and non-revenue (service) vehicle maintenance, including administration, inspection and maintenance, and servicing (cleaning, fueling, etc.) vehicles. In addition, vehicle maintenance includes repairs due to vandalism and accident repairs of revenue vehicles.
Non-Vehicle Maintenance	All activities associated with facility maintenance, including administration, repair of buildings, grounds and equipment as a result of accidents or vandalism, operation of electric power facilities, maintenance of vehicle movement control systems, fare collection and counting equipment, passenger stations, operating station buildings, grounds and equipment, communication systems, general administration buildings, grounds and equipment, and electric power facilities.
Administration	All activities associated with the general administration of the transit agency, including transit service development, injuries and damages, safety, personnel administration, legal services, insurance, data processing, finance and accounting, purchasing and stores, engineering, real estate management, office management and services, customer services, promotion, market research, and planning.