



Managing Your Dollars with Sense



And Allocating Costs

SWTA Workshop: February 26, 2020

Attendee Packet

Managing Your Dollars with Sense and Allocating Costs

Workshop Schedule

2/26/2020

Title:	Managing Dollars With Sense & Allocating Costs
Location:	2020 SWTA Conference
Date:	Wednesday, February 26, 2020
Instructors:	Michael Walk (m-walk@tti.tamu.edu) & Todd Hansen (t-hansen@tti.tamu.edu)

Start	End	Time	Item
9:00 AM	9:45 AM	0:45	Overview of Workshop & Introductions
9:45 AM	10:45 AM	1:00	Module 1 - Federal and State Funding for Transit
10:45 AM	11:00 AM	0:15	Break
11:00 AM	11:45 AM	0:45	Module 2 - Local Revenue Sources and Local Match
11:45 AM	12:30 PM	0:45	Lunch
12:30 PM	2:00 PM	1:30	Module 3 - Allocating Costs to Transit Services
2:00 PM	2:15 PM	0:15	Break (calculator set up)
2:15 PM	3:15 PM	1:00	Module 4 - Two-Variable Cost Allocation Calculator
3:15 PM	4:00 PM	0:45	Module 5 - Managing Operating Costs
	Total	7:00	

MANAGING YOUR DOLLARS WITH SENSE &
ALLOCATING COSTS
INTRODUCTIONS & OVERVIEW

SWTA Conference
February 26, 2020



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INTRODUCTION TO THE INSTRUCTORS

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Todd Hansen



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INTRODUCTION TO YOU

- Name
- Agency
- Position / role
- Experience with transit financial management, budgeting, or cost allocation
- What are your expectations for this workshop?

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INTRODUCTION TO THE WORKSHOP

- Learning objectives of this workshop:
 - Know and understand the sources of funds for transit
 - Know and understand how to allocate costs to services
 - Understand how to use the National RTAP Cost Allocation Calculator
 - Know and understand how to make the most effective use of available funds.
- Materials:
 - Attendee Packet: Printouts of the PowerPoint slides
 - Handouts: In-Class Exercises

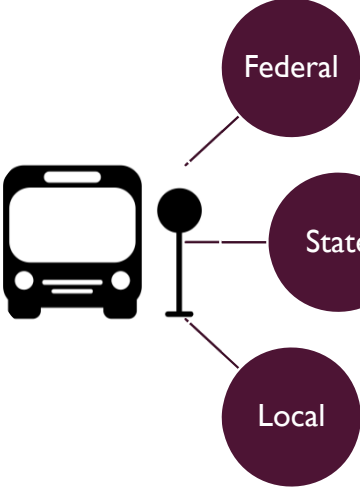
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SOURCES OF FUNDING FOR TRANSIT

Pop Quiz:

Which of these three sources supplies MOST of public transit OPERATING funds in the U.S.?

What about CAPITAL expenses?



- Federal**
 - USDOT (FTA and FHWA)
 - Non-USDOT (e.g., Health and Human Services)
- State**
 - Formula Funds
 - Discretionary
- Local**
 - Fares
 - Local Governments
 - Other

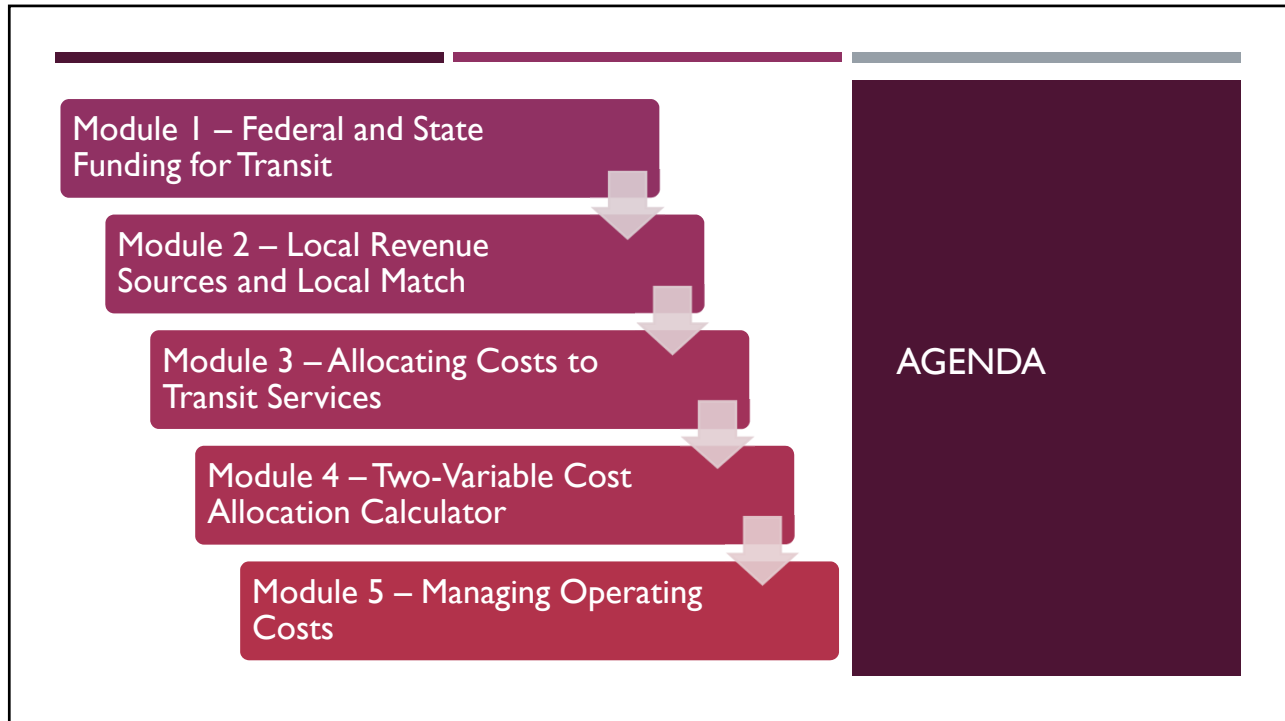
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SOURCES OF FUNDING FOR TRANSIT (2017)

	Operating		Capital		Total	
	Percent	Millions of Dollars	Percent	Millions of Dollars	Percent	Millions of Dollars
Fares and Other Income	36.3	\$18,457	0.0	\$0	25.9	\$18,457
Local Government	32.2	\$16,350	46.5	\$9,486	36.3	\$25,836
State Government	23.0	\$11,673	16.9	\$3,446	21.2	\$15,119
Federal Government	8.5	\$4,327	36.6	\$7,450	16.5	\$11,777
Total	100.0	\$50,807	100.0	\$20,382	100.0	\$71,189

Source: Federal Public Transportation Program: In Brief (2020)

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SCHEDULE

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9:45 AM	10:45 AM	1:00	Module 1 - Federal and State Funding for Transit
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3:15 PM	4:00 PM	0:45	Module 5 - Managing Operating Costs
Total		7:00	


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MODULE I: FEDERAL AND STATE FUNDING FOR TRANSIT

A BRIEF OVERVIEW



MODULE I 1

1

LEARNING OBJECTIVES

By the end of this module, you should be able to:

- Describe the federal transportation funding process and source(s) of revenue.
- State the responsibilities of a designated recipient for FTA grant programs and describe differences in the responsibilities of a direct recipient and a subrecipient.
- Identify the primary FTA federal grant programs that fund transit and describe the purpose and eligible recipients for each.
- Locate additional information for each FTA federal grant program.
- Identify the sources of USDOT and non-USDOT funds for transit and describe possible eligible projects.
- Know and understand potential sources of state funds for transportation and transit.

MODULE I 2

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**FEDERAL
FUNDING FOR
TRANSIT**

MODULE 1

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ABRIDGED HISTORY OF FEDERAL SUPPORT FOR TRANSPORTATION

- Federal support of transportation began in 19th century with the creation of the transcontinental railroad.
- Can you name the last 5 surface transportation authorization bills, including the FAST Act, and their years in effect?

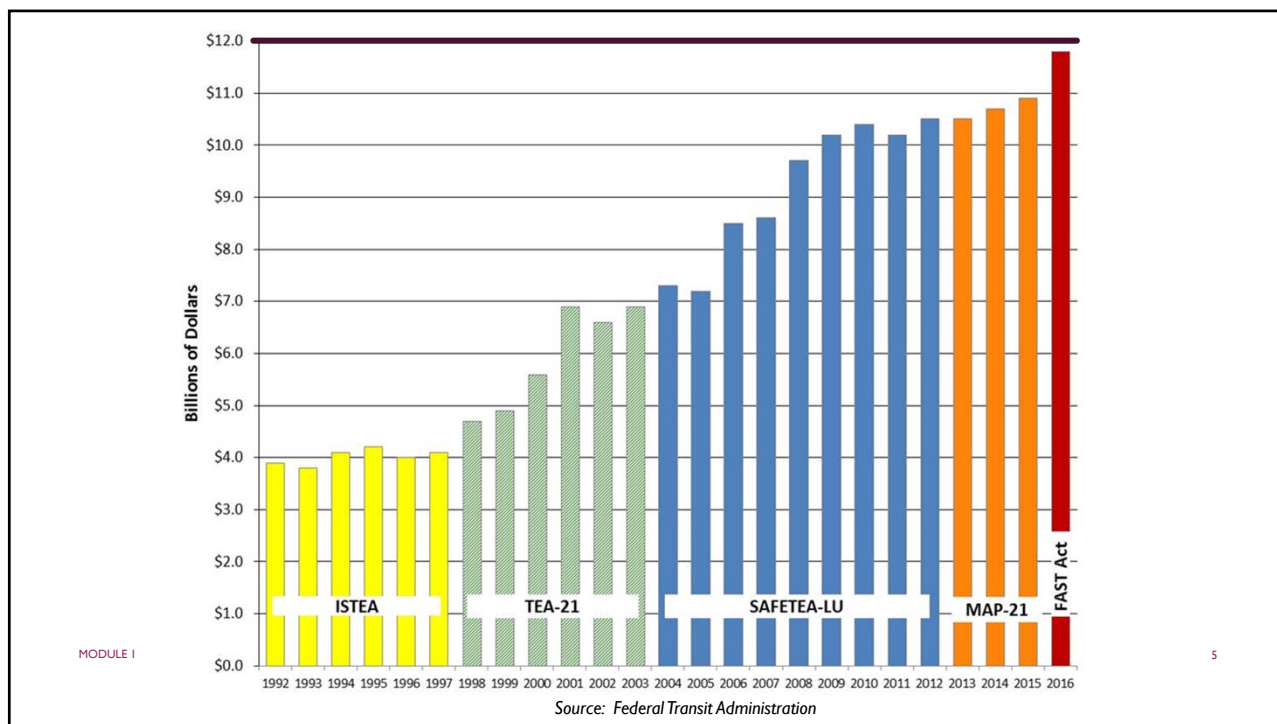
ISTEA	TEA-21	SAFETEA-LU	MAP-21	FAST	SAFASTEA-LUMAP-99 ????
1992–1997	1998–2003	2004–2012	2013–2015	2016–2020	2021--?

MODULE 1

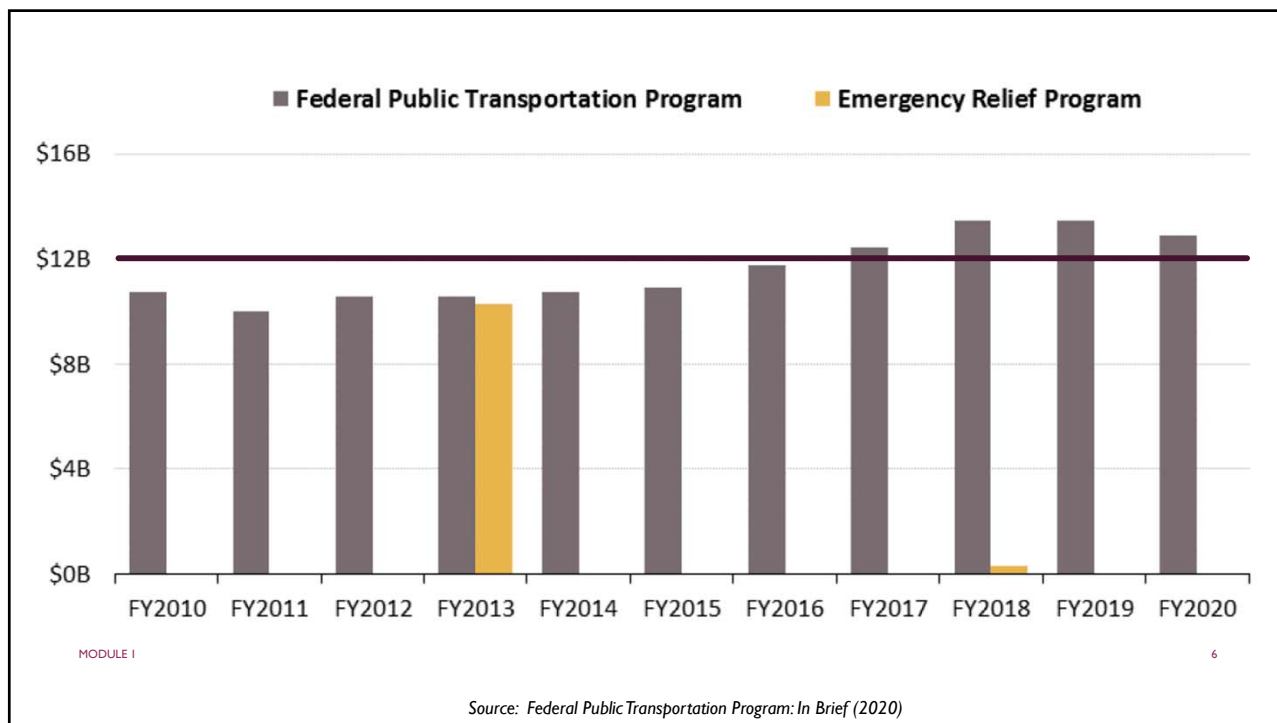
America's Transportation Infrastructure Act (ATIA)

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FY2020 APPROPRIATION HIGHLIGHTS

- \$12.9 Billion in Public Transportation Funding
 - \$311M *above* FAST Act authorization
 - \$503M *below* FY2019 appropriation
 - All grant programs at or above FAST Act Authorized levels, except: Administrative / Other and Capital Investment Grants
- Compared to FAST Act Authorization:
 - \$168M more in Section 5339 Formula (Bus and Bus Facilities)
 - \$245M more in Section 5339 Competitive, including additional \$75M in Low-No (85% increase)
 - \$324M less in Capital Investment Grants
 - \$40M more in Section 5311 (Rural Formula)

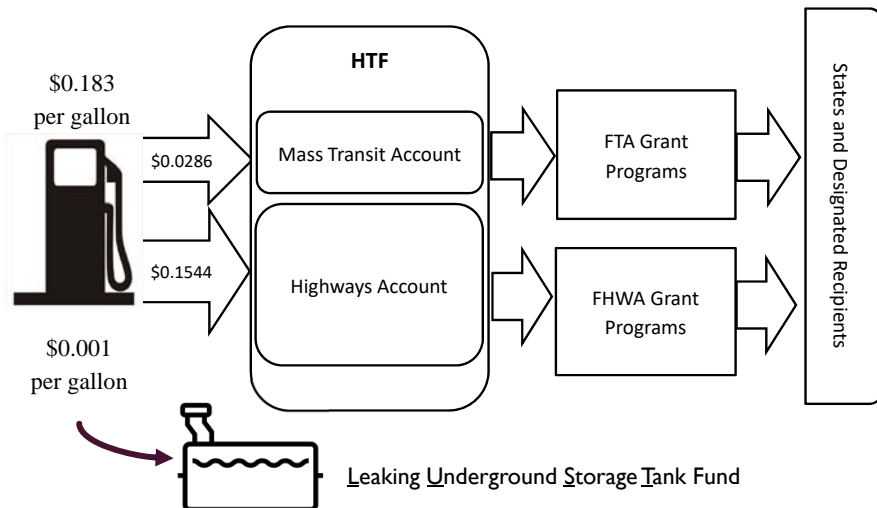
MODULE 1

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Source: APTA FY2020 Appropriations Table (2019)

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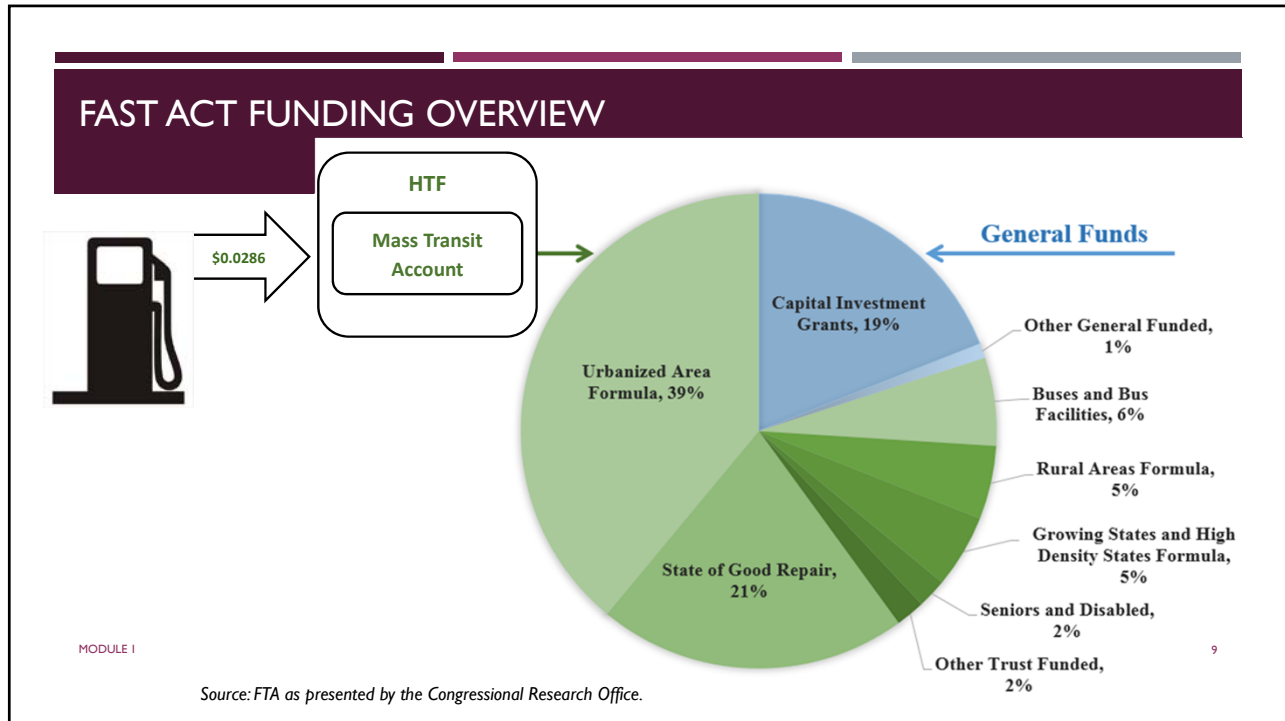
MAIN SOURCE OF FEDERAL REVENUE: THE GAS TAX



MODULE 1

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FEDERAL FUNDING PROCESS

Handout I-A

- Authorization
- Revenue Collection
- Annual Appropriation
- FTA Apportionments & Allocations

https://prezi.com/lkpbuewo3au4/?utm_campaign=share&utm_medium=copy

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FTA FUND RECIPIENT TERMINOLOGY

Types of Areas Recognized by Feds for Funding

- Urban Areas
 - Large Urban Areas (Population ≥ 200K)
 - Small Urban Areas (50-199K)
- STATES (rural areas)
- Federally-Recognized Tribes

Classification of Grant Recipients

- Designated Recipient
- Direct Recipient
- Subrecipient

MODULE 1

FTA Apportionments and Allocations Found at:
<https://www.transit.dot.gov/funding/apportionments>

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DESIGNATED, DIRECT, AND SUBRECIPIENTS

- A Designated Recipient for an **Urbanized Area** MUST
 - Is locally chosen (local leaders, MPO) and recognized by the governor
 - Be a public body
 - Have the legal authority to receive and dispense federal funds
- A designated recipient for a **State** is chosen by the governor and also must have legal authority
- A Designated Recipient or Direct Recipient **may choose to pass its grant funds** through to another agency (Subrecipient) to carry out the purposes of the grantee's agreement with FTA.
 - Does not relieve the grantee of its responsibilities to carry out the terms and conditions of the grant agreement

MODULE 1

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Grant Type	Area Type	Apportioned to	Typical Designated Recipient Type	Multiple recipients?
Urbanized Formula (§5307)	Large urban area (≥200K)	Designated recipient for UZA	<ul style="list-style-type: none"> Transit agency MPO 	Yes, but often sub-allocated by designated recipient
	Small urban area (≥50K)	State Governor	<ul style="list-style-type: none"> State DOT Transit agency 	
Rural Formula (§5311)	State	State Governor	<ul style="list-style-type: none"> State DOT 	Yes, but usually to rural sub-recipients
Bus and Bus Facilities (§5339)	Large urban area	Designated recipient for UZA	<ul style="list-style-type: none"> Transit agency MPO 	Yes, but often sub-allocated by designated
	Small urban area	State Governor	<ul style="list-style-type: none"> State DOT Transit agency (can be direct if direct for 5307) 	
	State	State Governor	<ul style="list-style-type: none"> State DOT 	Yes, but usually to rural sub-recipients

Grant Types, Areas, and Typical Recipients

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DESIGNATED, DIRECT, AND SUBRECIPIENTS

- A designated recipient **may authorize another public agency** to be a Direct Recipient for §5307 (Urban Formula)
 - One-time basis or at the time of each application submission
- A state or local governmental entity that operates a public transportation service and is eligible to receive direct grants under §5307 or §5311 (Rural Formula) **is eligible to be a direct recipient for §5339 funds** (Bus and Bus Facilities)

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EXAMPLES OF URBANIZED AREAS IN TEXAS

Large Urbanized Areas ($\geq 200K$)

- Dallas-Fort Worth-Arlington UZA has 3 designated recipients
 - Dallas Area Rapid Transit (DART)
 - Fort Worth Transportation Authority (Trinity Metro)
 - North Central Texas Council of Governments
- El Paso has 1 designated recipient
 - Sun Metro

Small Urbanized Areas ($< 200K$)

- TxDOT is the **designated recipient** of funds (e.g., §5307). *Designated by the governor.*
- TxDOT has designated the small urban transit districts to be **direct recipients** for federal grants (e.g., §5307 and §5339).

MODULE 1



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EXAMPLE OF RURAL AREA FUNDING IN TEXAS

Reminder...

- FTA funds (e.g., §5311) apportioned to each state's **designated recipient** to allocate to state's rural areas.

In Texas...

- TxDOT is the **designated recipient** for rural areas.
- TxDOT allocates FTA funds to rural **sub-recipients** (i.e., rural transit districts).
 - \$20.1 M of §5311 funds allocated by formula
 - Remaining funds awarded by discretionary grants and an allocation by % of total rural transit district vehicle miles.

MODULE 1



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2017 FEDERAL FUNDING FOR TRANSIT - SWTA STATES

State	Federal Public Transit Funding	Per Capita	Per Capita Rank
Arizona	\$170.74 M	\$24.24	20
Arkansas	\$39.46 M	\$13.15	47
Colorado	\$272.04 M	\$48.48	14
Kansas	\$37.04 M	\$12.73	48
Louisiana	\$68.79 M	\$14.73	42
New Mexico	\$107.32 M	\$51.30	12
Oklahoma	\$61.30 M	\$15.59	38
Texas	\$593.27 M	\$20.97	29

States with highest Federal funds for transit per capita in 2017**

- Hawaii
- New York
- Massachusetts
- Alaska
- New Jersey

**Excluding Washington, D.C., which is #1

MODULE 1 Source: AASHTO Survey of State Funding for Public Transportation—2017 Data (2019)

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CLASS EXERCISE

Key FTA Grant Programs (FAST Act)

- Section 5307 Urbanized Area Formula Program
- Section 5309 Capital Investment Grants
- Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities
- Section 5311 Rural Areas Formula Program
- Section 5337 State of Good Repair
- Section 5339 Buses and Bus Facilities
- Break into teams
- For an FTA Grant Program
 - Recipients
 - Eligible activities
 - Federal share
 - Other info (e.g., changes under FAST), special rules, etc.

MODULE 1

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5307 URBANIZED AREA FORMULA PROGRAM			
Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> Transit agencies in urbanized areas 	<ul style="list-style-type: none"> Planning, engineering, design, and evaluation of transit projects Capital investments in bus and bus-related activities; fixed-guideway JARC projects for welfare recipients and low-income workers For urbanized areas with populations less than 200,000, operating assistance 	<ul style="list-style-type: none"> Maximum 80% for Capital and 50% for Operating; 90% for the vehicle-related equipment attributable to compliance with the ADA, Clean Air Act, projects related to bicycles 	<ul style="list-style-type: none"> Increased spending cap for ADA paratransit service to 20% of apportionment at 80% federal Allows up to .5% of funds to be used for workforce development See SPECIAL RULE and STIC on following slides

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5307 URBANIZED AREA FORMULA PROGRAM	
<ul style="list-style-type: none"> Special Rule <ul style="list-style-type: none"> Transit systems in large urbanized areas that operate 100 or fewer buses in fixed-route services during peak periods may use Section 5307 funds for operating The FAST Act expanded the eligible modes to include fixed-route and demand-responsive transit, excluding ADA complementary paratransit Federal operating assistance requires a 50% local match. <ul style="list-style-type: none"> Between 76 and 100 buses may use up to 50% of the attributable share 75 or fewer buses may use up to 75% of the attributable share Attributable share refers to the share of the urbanized area's apportionment that is attributable to a transit system based on the transit system's share of vehicle revenue hours in the urbanized area. Public transportation systems within the urbanized area may agree to allocate funds by a method other than by measuring vehicle revenue hours 	<p>MODULE 1</p> <p>20</p>

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5307 URBANIZED AREA FORMULA PROGRAM

- **Small Transit Intensive Cities (STIC)**
- For Small Urban transit systems that operate at a level of service equal to or above the industry average level of service for all urbanized areas with a population of at least 200,000 but not more than 999,999.
- Based on level of service and performance in one or more of six categories:
 - Passenger miles traveled per vehicle revenue mile,
 - Passenger miles traveled per vehicle revenue hour
 - Vehicle revenue miles per capita,
 - Vehicle revenue hours per capita
 - Passenger miles traveled per capita
 - Passengers per capita

MODULE 1

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5307 – HOW DOES THE FORMULA WORK?

- **Small UZAs** (50,000 to 199,999 population) formula is based on:
 - Population and population density
- **Large UZAs** (populations of 200,000 and more) formula is based on:
 - Population and population density
 - Bus revenue vehicle miles
 - Bus passenger miles
 - Bus operating cost
 - Fixed-guideway revenue vehicle miles, and fixed-guideway route miles
- FTA apportions 3.07 percent of the §5307 funds to urbanized areas based on the ratio of the number of low-income individuals in each urbanized area to the total number of low-income individuals in all urbanized areas of that state

Handout I-B

MODULE 1

Formula flowchart: <https://www.transit.dot.gov/funding/apportionments/section-5307-urbanized-area-formula-program>

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5309 CAPITAL INVESTMENT GRANTS			
Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> State and local governments, including transit 	<ul style="list-style-type: none"> New Starts: Total estimated capital cost more than \$300 million or requesting more than \$100 million in 5309 funds Small Starts: Total estimated capital cost less than \$300 million or requesting less funds at \$100 million in 5309 funds Core Capacity: projects that expand capacity of existing fixed guideway corridors Any combination of two 	<ul style="list-style-type: none"> Maximum 60% for New Starts; 80% for Small Starts 	<ul style="list-style-type: none"> HOV/HOT lanes no longer qualify as fixed-guideway BRT corridor project must have separated right-of-way to qualify as New Starts

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5310 ENHANCED MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES			
Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> Large UZAs States Direct recipients 	<ul style="list-style-type: none"> At least 55% funds must be used on capital or “traditional” projects <ul style="list-style-type: none"> Buses and vans, wheelchair lifts, technology systems, etc. Remaining is for additional “traditional” or other “nontraditional” projects Projects selected for funding must be included in a locally developed, coordinated public transit–human services transportation plan 	<ul style="list-style-type: none"> Maximum 80% for Capital and 50% for Operating. Purchase of service is eligible for 80%. 	<ul style="list-style-type: none"> Includes activities under the former 5317 New Freedom Program New discretionary pilot program for innovative coordinated access and mobility

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531 I NON-URBANIZED AREA (RURAL) FORMULA PROGRAM

Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> • States • Federally recognized tribes 	<ul style="list-style-type: none"> • Planning, capital, and operating projects • JARC projects for welfare recipients and low-income workers • Each state must spend no less than 15% of its annual apportionment for intercity bus transportation – remaining funds are apportioned 	<ul style="list-style-type: none"> • Maximum 80% for Capital and 50% for Operating • 80% for ADA paratransit service (up to 20% of apportionment). 	<ul style="list-style-type: none"> • Includes activities under former 5316 JARC • Revenue from sale of advertising and concessions may now be used as local match • Costs of private intercity bus service connecting feeder service can be used in-kind local match for intercity bus projects

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531 I – HOW DOES THE FORMULA WORK?

Handout I-C

- Apportionments to States
 - Each state must spend no less than 15 percent of its annual apportionment for the development and support of intercity bus transportation, unless it can certify, after consultation with affected intercity bus service providers, that the intercity bus service needs of the state are being met adequately (§531 I [f])
 - FTA apportions the remaining §531 I funds by a statutory formula in two tiers:
 - Tier 1: 83.15 percent of rural formula funds are apportioned based on land area and population
 - Tier 2: 16.85 percent of remaining rural formula funds are apportioned based on land area, vehicle revenue miles, and low-income individuals
- States allocate funds based on state policy

MODULE 1
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Formula flowchart: <https://www.transit.dot.gov/funding/apportionments/section-531I-rural-formula-program>

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5337 STATE OF GOOD REPAIR (SGR) PROGRAM			
Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> States and local govts. with fixed-guideway 	<ul style="list-style-type: none"> Capital projects that maintain a fixed guideway or a high-intensity motorbus system in a state of good repair Rolling stock, track, line equipment, signals, power equipment, stations and terminals Security, maintenance, operational support, computer hardware/software, TAM plans 	<ul style="list-style-type: none"> Maximum 80% for SGR Projects 	<ul style="list-style-type: none"> High-intensity motorbus funds are to be used only for vehicle state-of-good-repair costs, and may not be used for roadway state-of-good-repair costs

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5339 BUSES AND BUS FACILITIES PROGRAM			
Recipients	Eligible Activities	Federal Share	Changes under FAST
<ul style="list-style-type: none"> State or local governmental entities and direct recipients that operate fixed-route bus service 	<ul style="list-style-type: none"> Projects that maintain, rehabilitate, and replace capital assets Projects that implement transit asset management plans 	<ul style="list-style-type: none"> Maximum 80% Can exceed 80% for certain ADA, Clean Air Act, and bicycle projects 	<ul style="list-style-type: none"> Includes two discretionary programs: <ul style="list-style-type: none"> For buses and bus facilities Low- or no-emissions vehicle and related facilities

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NON-FTA SOURCES OF FUNDING FOR TRANSIT

MODULE 1

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USDOT FLEXIBLE FUNDS

- Transportation Investment Generating Economic Recovery (TIGER) Program
- National Highway Performance Program (23 USC 119)
- Surface Transportation Program (23 USC 133)
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program (23 USC 149)

MODULE 1

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NON-USDOT FEDERAL FUNDS

- Examples:
 - Food Stamp Employment and Training Program, Food and Nutrition Service, U.S. Department of Agriculture
 - Vocational Rehabilitation Grants, Rehabilitation Services Administration, U.S. Department of Education
 - Medical Transportation Program (Medicaid) for Non-Emergency Medical Transportation, Centers for Medicare and Medicaid Services, U.S. Department of Health and Human Services
 - Others...
- Most of these funds flow from the federal department to a state agency for allocation to programs to fund public transportation services
- Under the FAST Act, federal funds from non-USDOT agencies are eligible as local match for §5307, §5311, and §5310 funds

MODULE 1

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HELPFUL RESOURCES

- FTA Grant Program Fact Sheets: <http://www.transit.dot.gov/grants>
- FTA Circulars: <http://www.transit.dot.gov/regulations-and-guidance/fta-circulars/final-circulars>
- FTA's FAST Act Website: <http://www.transit.dot.gov/FAST>
- Listing of FTA Grant Programs: <http://www.transit.dot.gov/grants>
- FTA Presentation on FAST Act Changes: http://www.transit.dot.gov/sites/fta.dot.gov/files/docs/2015_FAST_Act_Presentation.pdf
- CCAM Website: <http://www.transit.dot.gov/ccam>
- APTA FAST Act Guide: <http://www.apta.com/gap/legissues/authorization/Pages/default.aspx>
- FTA Funding Formula Flow Charts: <https://www.transit.dot.gov/funding/apportionments/fast-act-formula-flowcharts>

MODULE 1

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REVIEW

- What is designated recipient? What types of entities are designated recipients for Section 5307 grants? For Section 5311 grants?
- Describe the differences in the responsibilities of a direct recipient and a subrecipient.
- Name one of the primary FTA grant programs and describe it.
- Identify a source of USDOT flexible funds for transit and what types of projects might be eligible.
- Identify a source of non-USDOT federal funds for transit.

MODULE 1

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STATE FUNDING FOR TRANSIT



MODULE 1

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STATE FUNDING FOR TRANSIT

- States all have different mechanisms and policies regarding generating and allocating state funds for transit
- Can be used for non-federal match
- Examples of revenue sources (in order of use)*
 - General funds
 - Bond proceeds and gas tax revenue
 - State transportation fund proceeds
 - Vehicle registration/license/title fees
 - General sales tax
 - Trust funds
 - Motor vehicle/rental car sales tax



What are the sources of state revenue for transit in your state?

MODULE 1

*Source: AASHTO Survey of State Transportation Funding (2019).

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2017 STATE FUNDING FOR TRANSIT - SWTA STATES

State	State Public Transit Funding	Per Capita	Per Capita Rank
Arizona	\$11.73 M*	\$1.66	32
Arkansas	\$3.53 M	\$1.18	37
Colorado	\$25.0 M	\$4.45	27
Kansas	\$11.0 M	\$3.78	29
Louisiana	\$4.96 M	\$1.06	40
New Mexico	\$5.70 M	\$2.72	31
Oklahoma	\$5.75 M	\$1.46	33
Texas	\$30.34 M	\$1.07	39

States with highest State funds for transit per capita in 2017**

- Massachusetts
- New York
- Alaska
- Maryland
- Illinois

MODULE 1

Source: AASHTO Survey of State Funding for Public Transportation—2017 Data (2019)
 *First year of state funding in recent history; what happened?

**Excluding Washington, D.C., which is #1

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STATE FUNDING FOR TRANSIT CONT'D

- Several states do not fund transit at all
 - Alabama
 - Hawaii
 - Nevada
 - Utah

MODULE 1

**Source: AASHTO Survey of State Funding for Public Transportation—2017 Data (2019)*

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REVIEW

- Give some examples of sources of state revenue for transit in the SWTA states.
- What are the most-common sources of state revenue for transit.
- Name one of the five highest states in terms of per capital state funding for transit.
- Name one of the four states that provide NOTHING in state funding for transit.

MODULE 1

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HELPFUL RESOURCES

- AASHTO's Annual Survey on State Funding for Public Transportation:
<https://store.transportation.org/Item/PublicationDetail?ID=4179>
- Bureau of Transportation Statistics *Government Transportation Financial Statistics*: <https://www.bts.gov/browse-statistical-products-and-data/government-transportation-financial-statistics-gtfs/government>
- National Conference of State Legislatures *On Track: How States Fund and Support Public Transportation*:
<https://www.ncsl.org/Portals/1/Documents/transportation/ontrack.pdf>

MODULE 2

LOCAL REVENUE SOURCES AND LOCAL MATCH



1

LEARNING OBJECTIVES

- List and define the main categories of local funding for transit.
- Discuss the use of local revenue as local match for FTA grants.
- Locate additional resources concerning sources of local revenue for transit.

MODULE 2

2

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IMPORTANCE OF LOCAL FUNDS

- Fill gaps in operating and capital needs not met by federal or state.
- Can be used as match for federal grants.
- Have more flexibility and less “strings” as federal and state funds.
- Can be a significant source of revenue.

MODULE 2

3

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SOURCES OF FUNDING FOR TRANSIT (2015)

	Operating		Capital		Total	
	Percent	Millions of Dollars	Percent	Millions of Dollars	Percent	Millions of Dollars
Fares and Other Income	36.3	\$18,457	0.0	\$0	25.9	\$18,457
Local Government	32.2	\$16,350	46.5	\$9,486	36.3	\$25,836
State Government	23.0	\$11,673	16.9	\$3,446	21.2	\$15,119
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Total	100.0	\$50,807	100.0	\$20,382	100.0	\$71,189

Source: Federal Public Transportation Program: In Brief (2020)

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LOCAL MATCH

- Local match is a “key” for unlocking allocated federal funds
- FTA Guidance Provided
 - FTA C 5010.1E *Award Management Requirements*
 - Program-specific circulars

MODULE 2

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CREATIVE SOURCES OF LOCAL REVENUE

Sponsorships and partnerships

- SMRT
- Paris Metro (Paris, TX)
 - United Way
 - Texas Oncology
 - Etc.

The screenshot shows the SMRT website with the following content:

- SMRT Logo:** Scenic Mississippi Regional Transit
- Call toll free:** (877) 444-6543
- Navigation:** Home | Red Route | Blue Route | Yellow Route | Green Route | Bus Info | Sponsors | Contact Us
- Sponsors for the SMRT Bus:** Thank you to our local sponsors!
- Sponsor Logos:** GUNDERSEN HEALTH SYSTEM, Crossing Rivers Health, Vernon Memorial Healthcare, ORGANIC VALLEY, DAIRYLAND POWER COOPERATIVE, OTTO BRENNER FOUNDATION.
- Image:** A white SMRT bus with the text "S.M.R.T. Call Toll Free (877) 444-6543".
- Text:** Thank you to the Ho-Chunk Nation for their funding through Vernon County.
- Footer:** Home | Red Route | Blue Route | Yellow Route | Green Route | Bus Info | Sponsors | Contact Us
- Page Info:** Scenic Mississippi Regional Transit, Crawford, Vernon and La Crosse Counties, Call toll free: (877) 444-6543.

MODULE 2

6

6

DISCUSSION

- What are your main sources of local revenue?
- What *would you like to do* to increase local revenue?

MODULE 2 7

7

LOCAL REVENUE CATEGORIES

MODULE 2 8

8

LOCAL REVENUE CATEGORIES

Fares	Local Contributions (Cash)	Contributed Services (Non-Cash)	Sales Tax Dedicated to Transit
Auxiliary Transit Revenues	Other Transportation Revenues	Non-Transit Related Revenues	Other Contracts

MODULE 2 9

9

FARES

- Definition: revenue earned from carrying passengers, including
 - Payments from passengers
 - Special Transit Fares: Payments from entities in exchange for free or reduced transit for a targeted population (Example?)
 - Contracts for Fares: Agreement for an entity to pay the transit agency for trips provided to specific passengers or groups of passengers (Example?)
- Local Match? NO
 - Fares can only used to reduce operating cost.

MODULE 2 10

10

EXAMPLE OF APPLYING FARES TO REDUCE OPERATING COST

1	Operating Costs	\$100,000
	Income to Reduce Operating Cost	
2	Fare Revenue	(\$25,000)
3	Net Operating Cost	\$75,000
	Sources of Revenue	
4	Maximum FTA Operating Assistance (50%)	(\$37,500)
5	Required Local Match	\$37,500

MODULE 2

11

11

LOCAL CONTRIBUTIONS (CASH)

- Definition: funds allocated to transit out of general revenues of another entity. These funds are often part of the government's annual budgeting process from general revenues rather than dedicated funds for transit.
 - Local government funding (e.g., county or city) from general funds.
- Local Match: YES

MODULE 2

12

12

CONTRIBUTED SERVICES (NON-CASH)

- Definition: Contributed services are receipt of non-cash assets or services from another entity that benefits the transit operator. (Example?)
 - *No obligation to pay* for the services or assets.
 - Documented fair market value.
 - Reported as both *cost* and *revenue*.
- Centralized services (e.g., municipal transit department using centralized city IT resources) should be reported as contributed services (if no expectation of payment)
- Local Match: YES
- But... (see next slide)

MODULE 2

13

13

CONTRIBUTED SERVICES (NON-CASH; CONT'D)

- OMB and FTA policy determines what contributions are eligible as match (States may also have rules)
- Cost must be part of the project budget (cannot be added on later)
- Recipient must formally document value
- Contribution must be for a cost or activity necessary to accomplish the project
- Contribution cannot be counted toward other local match
- Examples
 - Parking lot
 - Room / space at third-party facility
 - Volunteers
 - Central administrative services (not reimbursed)



Do you use and
claim (or not)
contributed
services?

MODULE 2

14

14

SALES TAX DEDICATED TO TRANSIT

- Definition: a local tax imposed by an independent political entity with legal authority to do so. The tax is dedicated to funding transit.
- Local Match: YES

MODULE 2

15

15

AUXILIARY TRANSIT REVENUES

- Definition: revenue from the byproducts of transit service. (Examples)
 - Ads
 - Concessions
 - Fees for ID cards, Fines
- Local Match: YES

MODULE 2

16

16

OTHER TRANSPORTATION REVENUES

- Definition: revenues from transportation services that are not open to the general public, for example:
 - Charter service
 - Exclusive school bus service
 - Note: FTA prohibits these activities unless waiver is granted by FTA
- Local Match: NO (unless waiver granted by FTA)

MODULE 2

17

17

NON-TRANSIT-RELATED REVENUES

- Definition: funds earned from activities not associated with the provision of transit service
 - Investment earnings
 - Sales of maintenance services
 - Renting revenue vehicles, buildings, and property, parking fees (park-and-ride fees are fare revenue)
- Local Match: YES

MODULE 2

18

18

OTHER CONTRACTS

- Definition: funds earned from non-federal contracts for public transportation service. (Usually with city, county, or another transit agency.)
- Examples:
 - Medicaid NEMT
 - Human Services Transportation
 - Others?

MODULE 2

19

19

CONTRACTS FOR PUBLIC TRANSPORTATION-HUMAN SERVICES COORDINATION

- Transit agencies may use revenue from **contracts for human services transportation** as local match (e.g.: Medicaid NEMT or Human Services / Social Services transportation)
- §5310 and §5311 (sub)recipients have a choice:
 - Apply contract revenue to reduce operating costs (treat like farebox revenue)
 - Apply contract revenue as local match
- Revenue from contracts other than human services transportation **CANNOT BE USED** as local match for the federal grant supporting the service.

MODULE 2

20

20

		Option 1: Apply Contract Revenue as Local Match	Option 2: Use Contract Revenue to Decrease Project Costs	Comments
1	<u>Operating Costs</u>	\$100,000	\$100,000	
	<u>Income to Reduce Operating Cost</u>			
2	Fare Revenue	(\$25,000)	(\$25,000)	
3	Coordinated Service Contract (used to reduce project costs)	—	(\$30,000)	Only applied under Option #2
4	<u>Net Operating Cost</u>	\$75,000	\$45,000	Line 1 + 2 + 3
	<u>Sources of Revenue</u>			
5	Maximum FTA Operating Assistance (50%)	(\$37,500)	(\$22,500)	50% of net operating cost
6	Required Local Match	\$37,500	\$22,500	Equal to FTA operating assistance
7	Coordinated Service Contract (used as local match)	\$30,000	—	Only applied under Option #1
8	Additional Local Match Needed	\$7,500	\$22,500	

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PRICING AND OPERATING CONTRACTED SERVICE

MODULE 2
22

22

IMPORTANT CONSIDERATIONS WHEN OPERATING CONTRACTED SERVICE

MODULE 2

- Federal Requirements
 - Pubic Transit – Human Services Coordination
 - Share-Used of Federally Supported Assets
 - ADA
 - Prioritizing Trips
 - Service Policies
 - Charter
 - School Bus
- Where does the money come from?
- Service Pricing

23

23

IMPORTANT CONSIDERATIONS WHEN PRICING & NEGOTIATING CONTRACTED SERVICE

MODULE 2

- Pricing Model
 - Third parties trust the approach used to set prices.
 - Third parties pay their fair share of the cost of operating service.
 - All transit agency employees that might be negotiating with third parties use the same approach.
- Third parties understand what service they will be getting (and not getting).
- All parties involved clearly understand the details of the service agreement.
- All necessary federal, state, and local rules and regulations are cited (as appropriate) and adhered to.

24

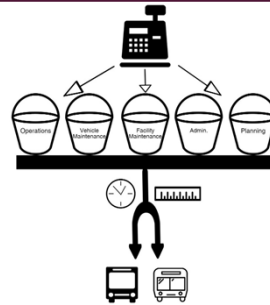
24

REVIEW

- Which category(ies) of local revenue CANNOT be used as local match?
- What are the risks of not having enough local match?
- Are there any local match sources you haven't used but are interested to try?
- You want to use contributed services as local revenue and match for your FTA grant. What are some things you need to remember?

MODULE 3

ALLOCATING COSTS TO TRANSIT SERVICES



MODULE 3

1

LEARNING OBJECTIVES

By the end of this module, you should be able to:

- Discuss the purpose of allocating costs to services, modes, and jurisdictions
- List and describe the four steps in the cost allocation methodology
- Define important cost allocation terms
- Complete your own basic cost allocation example

MODULE 3

2

2

DO YOU STRUGGLE WITH NTD REPORTING COMPLEXITY?

NTD reporting requires that transit agencies report:

- By mode—fixed-route bus, commuter bus, demand response...
- By jurisdiction—urbanized, non-urbanized

NTD “Full Reporter” requires that transit agencies identify expenses:

- By service type—directly operated or purchased
- By sponsored service—e.g.. Medicaid NEMT, university

MODULE 3

Your transit agency needs a good model to allocate costs by service

3

3

WHY DEVELOP A COST ALLOCATION MODEL?

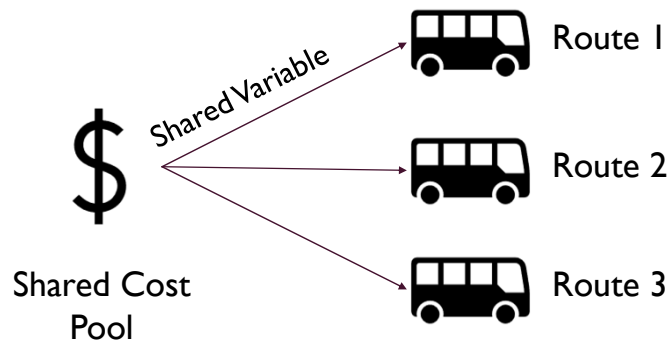
- When operate multiple services (routes, jurisdictions, programs), operating expenses not easily tracked for each service.
- For example, what is *true cost* of a service provided in County A, County B, etc.? **TOO COMPLEX to track exactly.**
- Discussion: Who has / uses a cost allocation model? Describe it.

MODULE 3

4

4

ALLOCATING COSTS TO A ROUTE / SERVICE



MODULE 3

5

5

KEY OPERATING COST ALLOCATION VARIABLES

% Vehicle Hours

- The sum of time vehicles are in operation
- Includes revenue and non-revenue operation
- *Used to allocate hours-based expenses (e.g., operator wages)*

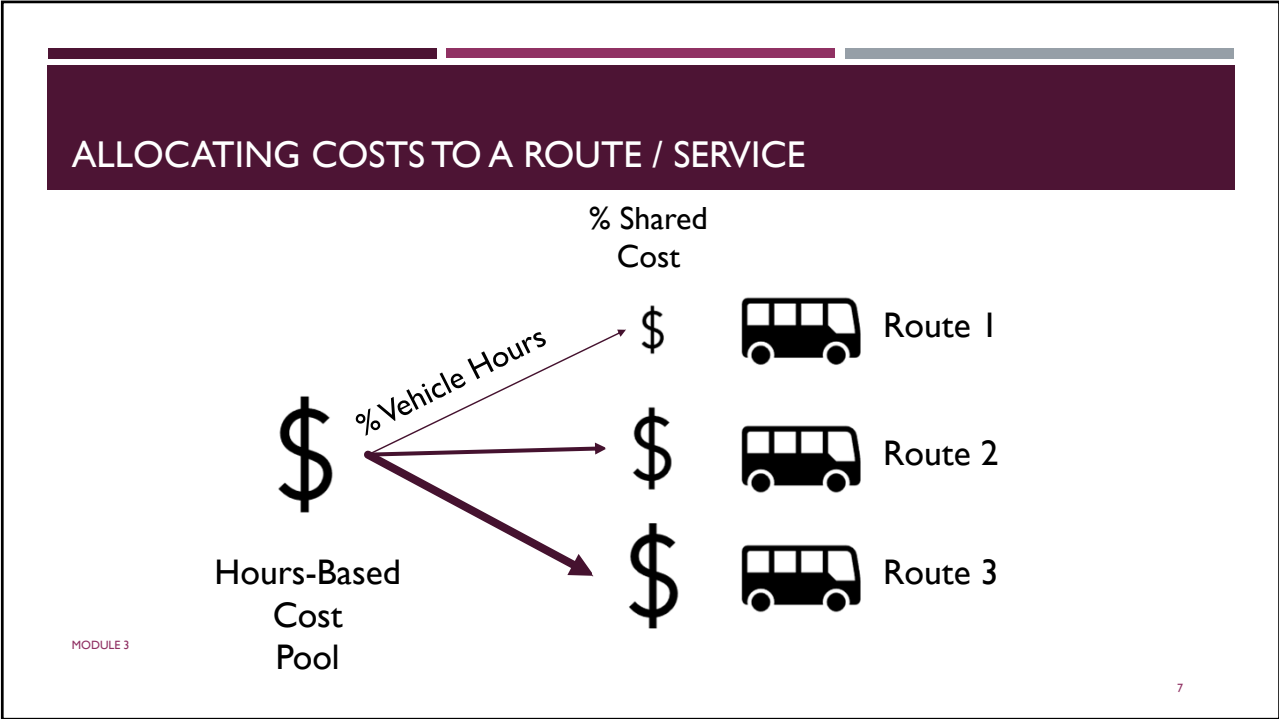
% Vehicle Miles

- The sum of distance traveled from vehicles in operation
- Includes revenue and non-revenue operation
- *Used to allocate miles-based expenses (e.g., fuel)*

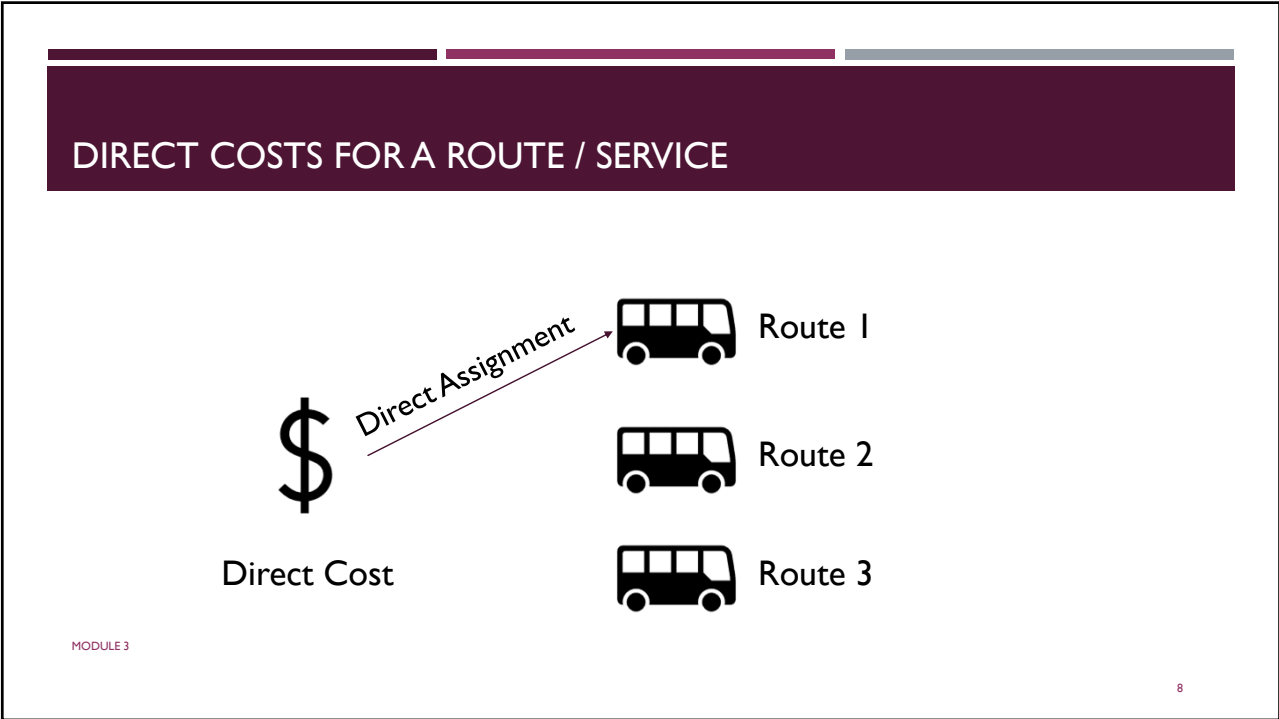
MODULE 3

6

6



7



8

KEY TERMS

- Cost Allocation
- Fully Allocated Cost
- Variable Cost
- Fixed Cost
- Direct Cost
- Indirect Cost (Shared)

MODULE 3

9

9

FTA AND OMB REFERENCES

- National Transit Database Policy Manual (2019)
- 2 CFR 200 (2013)
- FTA Circular 9030.1E Urbanized Area Formula Program (2014)
- FTA Circular 9040.1G Formula Grants for Rural Areas (2014)
- FTA Circular 9070.1G Enhanced Mobility of Seniors and Individuals with Disabilities (2014)
- FTA Circular 5010.1E Award Management Requirements (2018)

MODULE 3

10

10

ACCOUNTING METHODOLOGY— TWO VARIABLE

Consider using a model based on Two Variables.

Two Variable Cost Allocation:

- Vehicle Hours
- Vehicle Miles

MODULE 3

11

11

BASIS OF THIS ACCOUNTING METHODOLOGY

Based on methodologies described in:

- AASHTO MTAP Comprehensive Financial Management Guidelines for Rural and Small Urban Public Transportation Providers
- TCRP Report 144 Sharing the Costs of Human Services Transportation
- TCRP Report 101 Toolkit for Rural Community Coordinated Transportation Services.



MODULE 3

12

12

COST ALLOCATION STEPS

1. Assemble Operations Data (vehicle hours, miles, passenger trips)
2. Assemble Operating Expenses into a Chart of Accounts
3. Assign line item expenses to transit functions
4. Allocate variable and fixed-cost expenses, to service modes, types, sponsored service and jurisdictions using two variables: vehicle miles and vehicle hours

MODULE 3

13

13

ACCOUNTING METHODOLOGY— FOUR-STEP PROCESS



*Update Annually or with
Major Service Change*

MODULE 3

14

14



*Need Three Pieces of Information—
Hours, Miles, Passengers by mode, service,
funding source, jurisdiction (urban/rural)*

Service	Funding Source	Mode	Total Vehicle Hours	Total Vehicle Miles	Total Passenger Trips
Total Service			80,000	1,000,000	185,000
Fixed Route	Section 5307 Small Urban	MB	40,000	300,000	125,000
Demand Response	Section 5311 Rural	DR	40,000	700,000	60,000

MODULE 3

15

15



*Need Year-End Total Operating Expenses by Line-Item
Chart-of-Account Format*

Account Description	Annual Total Operating Expense
Total Operating Costs	\$3,500,000
Salaries	\$1,190,000
Drivers	\$800,000
Dispatch	\$90,000
Maintenance	\$200,000
Office Staff	\$100,000
Fringe	\$650,000
Drivers	\$400,000
Dispatch	\$50,000
Maintenance	\$100,000
Office Staff	\$100,000


USOA provides common framework for accounting

See Handout 3-A


MODULE 3

16

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3. Assign Operating Expenses to Functions and Variable/Fixed




Assign Line-Item Expense to Functions
Why? NTD Reporting and Cost Allocation

See Handout 3-B

Account Description	Annual Total Operating Expense	Variable Costs			Fixed Costs	
		Operations	Operations-Fuel	Vehicle Maintenance	Facility Maintenance	Administration
Total Operating Costs	\$3,500,000	\$1,614,200	\$450,000	\$575,800	\$15,000	\$845,000
Salaries	\$1,190,000	\$890,000		\$200,000		\$100,000
Drivers	\$800,000					
Dispatch	\$90,000					
Maintenance	\$200,000					
Office Staff	\$100,000					
Fringe	\$650,000	\$450,000		\$100,000		\$100,000
Drivers	\$400,000					
Dispatch	\$50,000					
Maintenance	\$100,000					
Office Staff	\$100,000					

MODULE 3
17

17



4. Allocate Costs to Routes and Services, Modes, Funding Sources, Jurisdictions

Allocate Costs by Category

- Routes and Services
- Modes
- Funding Sources and/or Jurisdictions

Allocate Variable Costs

- Operations (excluding Fuel) by % hours
- Vehicle Maintenance and Fuel by % miles

Fixed Costs

- Allocate Fixed Costs as % variable costs
- Typically Facility Maintenance and Administration, fixed cost may include other maintenance expenses

MODULE 3
9

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ASSIGNING OPERATING COSTS – HANDOUT 3-C

Service	Funding Source	Mode	Total Vehicle Hours	Total Vehicle Miles	Total Passenger Trips
Total Service			80,000	1,000,000	185,000
Fixed Route	Section 5307 Small Urban	MB	40,000	300,000	125,000
Demand Response	Section 5311 Rural	DR	40,000	700,000	60,000

MODULE 3

19

19

SHARED RIDE DEMAND RESPONSE

- If demand response (DR) services are shared ride, and there is a need to allocate costs by service type or funding source, then an additional four-step methodology may be required
- An additional four-step methodology can be used to allocate costs by service type or by funding source, etc.
- This methodology is only required if passenger trips by service type or funding source are significantly different in distance (passenger miles) or time (passenger hours) than the average

MODULE 3

20

20

SHARED RIDE DEMAND RESPONSE

Four steps in methodology for shared ride demand response

1. Use driver manifests or dispatching data to determine average trip length in passenger miles and passenger hours by service type
2. Estimate total passenger miles and hours by service type
3. Determine percent of passenger miles and passenger hours by service type
4. Allocate variable costs according to hours-based costs, miles-based costs; and allocate fixed costs using percent of variable costs

MODULE 3

21

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SHARED RIDE DEMAND RESPONSE: EXAMPLE STEP 1 ESTIMATE AVERAGE PASSENGER TRIP LENGTH

Calculated by sampling manual manifests or extracting data from dispatching software.

Service Type	Avg. Trip Length (Hours)	Avg. Trip Length (Miles)
General Public	1.0	20
Sponsored Service: Adult Day Care	0.5	10

MODULE 3

22

22

**SHARED RIDE DEMAND RESPONSE: EXAMPLE STEP 2
ESTIMATE PASSENGER HOURS AND MILES PER PROGRAM**

Trip Type	Passenger Trips	Avg. Trip Length (Hours)	Avg. Trip Length (Miles)	Total Passenger Hours	Total Passenger Miles
General Public	40,000	1.0	20	40,000	800,000
Adult Day Care	20,000	0.5	10	10,000	200,000
Grand Total	60,000			50,000	1,000,000

MODULE 3

23

23

**SHARED RIDE DEMAND RESPONSE: EXAMPLE STEP 3
DETERMINE PERCENTAGE OF PASSENGER HOURS AND MILES PER PROGRAM**

Percent by Trip Type	Passenger Hours	Passenger Miles
General Public	80%	80%
Adult Day Care	20%	20%

MODULE 3

24

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SHARED RIDE DEMAND RESPONSE: EXAMPLE STEP 4
ALLOCATE DEMAND RESPONSE OPERATING EXPENSES BY THE PERCENTAGE OF PASSENGER HOURS AND MILES PER PROGRAM

See Handout 3-D

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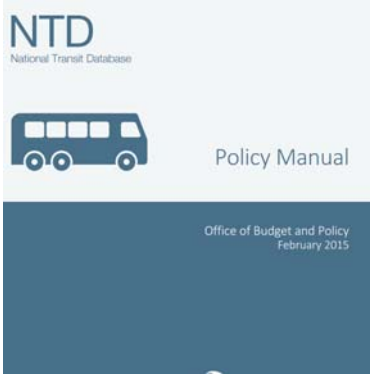


METHODOLOGY OUTCOMES
HOW CAN YOU USE?

26

NTD Reporting

- By Mode
- By Section 5307 and Section 5311
- By Chart-of-Account Line Item (Object Class)
- By Function
- By Service Type (Directly Operated/Purchased)



NTD
National Transit Database
Policy Manual
Office of Budget and Policy
February 2015

MODULE 3 27

27

Know Costs, Measure Performance, and Make Decisions

Service	Total Cost	Passenger Trips per Vehicle Hour	Cost per Total Vehicle Hour	Cost per Total Vehicle Mile	Cost per Passenger Trip
TOTAL	\$3,500,000	2.31	\$43.75	\$3.50	\$18.92
Fixed-Route	\$1,477,801	3.13	\$36.95	\$4.93	\$11.82
Demand Response	\$2,022,199	1.50	\$50.55	\$2.89	\$33.70
<i>Demand Response Service Allocation Total Cost</i>			<i>Cost per Pass. Hour</i>	<i>Cost per Pass. Mile</i>	<i>Cost per Pass. Trip</i>
General Public	\$1,617,759		\$40.44	\$2.02	\$40.44
Adult Day Care	\$404,440		\$40.44	\$2.02	\$20.22

MODULE 3 28

28

Understand Costs by Funding Source



Service	Funding Source	Total Vehicle Hours	Total Vehicle Miles	Total Passenger Trips	Total Cost
GRAND TOTAL		80,000	1,000,000	185,000	\$3,500,000
Fixed Route	Section 5307 Small Urban	40,000	300,000	125,000	\$1,477,801
Demand Response	Section 5311 Rural	40,000	700,000	60,000	\$2,022,199

MODULE 3

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29

FOR THE ACCOUNTANT— WHY IT MATTERS

Accounting Methodology for cost allocation to services Provides:

- A **consistent and equitable operating cost distribution** across routes, programs, modes, jurisdictions
- Transparent documentation for **federal grant reimbursement**
- **NTD** reporting
- Basis for accounting system to **automate financial reporting**
- Basis for **budgeting** operating expenses and funding need

MODULE 3

30

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I'M NOT AN ACCOUNTANT— WHY IT MATTERS TO ME

As a Manager You Can Answer the Questions:

How much does Route 6 cost per passenger, per mile, per hour and why?

Why is the fixed route cost per passenger different than demand response cost per passenger?

What is the ranking of fixed routes by cost effectiveness (cost per passenger)?

What line item of expense is driving my costs?

How should I price commuter bus service for an employer?

MODULE 3

31

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REVIEW

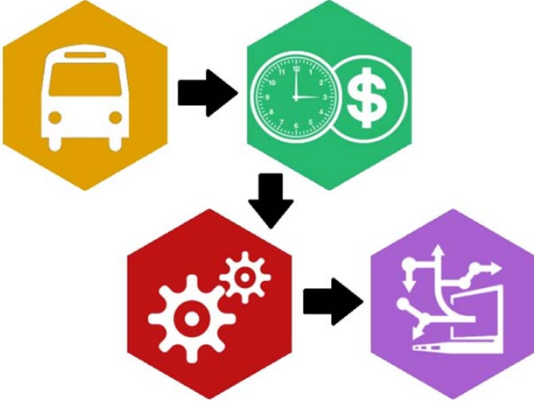

- Discuss the purpose of allocating costs to services, modes, and jurisdictions
- List the four steps in the cost allocation methodology
- Define an important cost allocation term that you learned today
- What additional step should you take to allocate costs to different shared-ride demand-response programs that utilize the same vehicles?

MODULE 3

32

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MODULE 4 COST ALLOCATION CALCULATOR



MODULE 4

1

1

OBJECTIVES

At the end of this module you will be able to:

- Discuss the two-variable cost allocation methodology
- Understand the features of the Excel and Access application versions
- Know the stages of data input for the applications
- Understand data outputs and applied uses of the application results

MODULE 4

2

2

WHAT IS THE CALCULATOR?

- Application tool to help agencies accurately allocate costs
- Built on both MS Excel and Access, with the same functionality
- Requires no special skills needed to use the calculator tool
- Relies on standard transit data – no new data collection is necessary
- Used to allocate cost to individual or groups of routes/services

MODULE 4

3

3

VEHICLE REPLACEMENT PLANS AND SGR

The key to managing maintenance costs involves:

- Gathering data about your agency's maintenance expenses
- Using that data to set acceptable performance measures to optimize maintenance expenditures
- Creating flexible policies and procedures that are easily adaptable when the unexpected happens

MODULE 4

4

4

National RTAP
Rural Transit Assistance Program

Welcome Todd Hansen

Chat Online | Email | 888-589-6821

Home | About | News | Resource Center | Training | Toolkits | Web Apps | Webinars | Technical Assistance | Tribal Transit | State RTAP

ProcurementPRO 2.0
Website Builder
Cloud Dashboard
My Account
Support Center
Web Apps Overview
GTFS Builder
Cost Allocation Calculator

Dashboard
Product Features
Support

Cost Allocation Calculator Dashboard

The Two-Variable Cost Allocation Calculator is an application that provides expense information for National Transit Database (NTD) reporting and helps transit agencies understand the costs of different services for managing federal and state grants, as well as pricing and planning for new services. The application is scalable to your system and service characteristics, automatically assigns expenses to the correct transit functions, and provides a good, sound, replicable model to allocate cost.

The application is available as an MS Excel or MS Access application. Both versions of the application provide the same level of specificity for data inputs and produce output reports for individual routes/services or groups of routes. We offer two versions to address your preference in software applications, and you do not need Access installed to run the Access version. Download either version to your hard drive using the links below. Please review the instruction manual for detailed step-by-step information on using the applications.

If you have any questions, contact us at info@nationalrtap.org or 888-589-6821. The Two-Variable Cost Allocation Calculator was developed for National RTAP by Texas A&M Transportation Institute (TTI) and RLS&Associates.

Download Now

Excel Version | Access Version

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MODULE 4

5

5

ACCOUNTING METHODOLOGY

Two variable cost allocation by Vehicle Hours and Vehicle Miles

Variable Costs

- Allocated by Vehicle Hours and Miles
- Operations (excluding Fuel) by % hours
- Vehicle Maintenance and Fuel by % miles

Fixed Costs


- Allocated based on the % of variable costs
- Non-Vehicle Maintenance and Administration

MODULE 4


6

6


APPLICATION METHODOLOGY— FOUR-STEP PROCESS




1. Service Data



2. Financial Data



3. Operational Data



4. Allocate Costs

Each data entry page is accessible from the Navigation Menu page

Steps 1 through 3 must be completed in order before allocating costs in Step 4

MODULE 4 7

7

DATA ENTRY COMMANDS

EXCEL

ACCESS

- Click the **Add** button to add the route/service to the Data List
- Click the **Clear** button to clear all existing route/services in the Data List
- Click on the **Delete** button. To delete a route/service from the Data List
- Click the **Save & Exit** button to exit the Data Entry Menu


Navigate to the record using the **left arrow** and **right arrow** buttons or click on the route/service to highlight

Once selected, you can edit the record, or you can click the **Delete** button

Click the **Save & Add a New Service** button to save the route/service and reset the data entry blanks for the next entry

MODULE 4 8

8

Service Data — 
Characteristics of the Routes and Services

- **Route / Service Name:** Given name of the service
- **NTD Mode:** Choose from nine available travel modes
- **NTD Jurisdiction:** Urbanized Area (UZA), Rural Area (non-UZA), or custom geography
- **Service Type:** Directly Operated or Purchased Transportation
- **Sponsored Type:** General Public Service or Sponsored
- **Funding Source:** Section 5307 Urbanized, Section 5311 Non-Urbanized, Section 5310 Elderly & Disabled, or custom source

MODULE 4 9

9



SERVICE DATA DEMONSTRATION



10

Service Data —
Common Questions


Route/Service Name
To allocate costs for a route that operates in two different areas, input the route name twice with an applicable sub-description.

- Ex. “Route I – Rural” and “Route I – Urban”

NTD Jurisdiction
Name the UZA or write-in another geographic area. Click within the window, then type in the name applicable to the route.

- Ex. “UZA - Waco” or “McLennan County”

Federal Funding Source
Write in a custom funding source name if the route is not supported by one of the three listed federal programs



MODULE 4


11

11

Financial Data —
Expenses information from Chart of Accounts

- **USOA Object Class:** Select the appropriate USOA Object Class for the expense from the available options
- **Subclass:** Select the appropriate subclass for the expenses from the available options, corresponding with the use of the expense
- **Enter Amount (\$):** Write in the numeric amount of the expense

Cost Applicability For each cost entry, choose with routes/services which are applicable for the expense



MODULE 4

12


12



FINANCIAL DATA DEMONSTRATION

USE THE SAMPLE DATASET TO ENTER THE LAST THREE COST ENTRIES

13



Operational Data —
Information for each route/service

For each route/service, enter the numeric value for:

- **Revenue Hours**
- **Vehicle Hours**
- **Revenue Miles**
- **Vehicle Miles**
- **Passenger Trips**

Revenue hours/miles must be less than or equal to vehicle hours/miles

Suballocation for Shared Ride Demand Responsive

- Uses passenger hours and passenger miles to suballocate costs for modes indicated as Sponsored Service

MODULE 4 14


14



OPERATIONAL DATA DEMONSTRATION

USE THE SAMPLE DATASET TO ENTER ALL OPERATIONAL DATA

15



Allocate Costs — *Putting the three data sets together*

- After Steps 1 through 3 are completed, click on the **Click to Allocate Costs** or **Run Cost Allocation** button to run Step 4
- Click on the **Generate Summary Report** or **View Reports** button to navigate to the summary report tab and view the cost allocation tables

Tables on results and performance measures for each route/service, as well as the service characteristics entered in Step 1

NTD Mode	Vehicle Operations	Vehicle Operations - Fuel	Vehicle Maintenance	General Administration	Non-Vehicle Maintenance	Total Allocated Cost
Demand Response	\$806,100.00	\$315,000.00	\$403,060.00	\$489,372.07	\$8,666.57	\$2,022,198.64
Motor Bus	\$806,100.00	\$135,000.00	\$172,740.00	\$357,627.93	\$6,333.43	\$1,477,801.36
Grand Total	\$1,612,200.00	\$450,000.00	\$575,800.00	\$847,000.00	\$15,000.00	\$3,500,000.00

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ALLOCATE COSTS DEMONSTRATION

17

RESULTS AND OUTCOMES

- Create a consistent, equitable, transparent allocation process
- Report data to NTD / prepare data for State reporting
- Know cost of services and measure performance
- Use for planning and pricing services, costs by funding source
- Prepare information for requests for reimbursements
- Automating accounting and financial reporting processes
- Budget future operating expenses and funding need

MODULE 4

18

18

RESOURCES

- Dashboard page: <https://www.nationalrtap.org/Web-Apps/Cost-Allocation-Calculator/Dashboard>
 - Excel application
 - Access application
- Support Center page: <https://www.nationalrtap.org/Web-Apps/Support-Center/Cost-Allocation-Calculator>
 - Instruction manual
 - Instructional webinars
 - Frequently asked questions
 - Related links

MODULE 4

19

19

REVIEW

- How does the calculator allocate fixed costs?
- What data is required to use the calculator application?
- How would you allocate data for sponsored services?
- How can the cost allocation results and metrics be utilized?

Does this application have potential for usefulness at your transit agency?

MODULE 4

20

20

MODULE 5 MANAGING OPERATING COSTS



MODULE 5

1

1

OBJECTIVES

At the end of this module you will be able to:

- Understand why vehicle useful life guidelines are important
- Discuss approaches to reducing no-shows
- Understand employee turnover and managing staff schedules
- Manage costs through different means such as reducing fuel consumption and utilizing existing technology

MODULE 5

2

2

YOUR EXPERIENCES

- What recent (last 5 years) efforts has your transit agency enacted to work to control operating costs?

MODULE 5

3

3

VEHICLE REPLACEMENT PLANS AND STATE OF GOOD REPAIR

The key to managing maintenance costs involves:

- Gathering data about your agency's maintenance expenses
- Using that data to set acceptable performance measures to optimize maintenance expenditures
- Creating flexible policies and procedures that are easily adaptable when the unexpected happens

MODULE 5

4

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Data Captured	Description
Vehicle Unit Number	Give all vehicles (revenue and non-revenue) an agency unit number. This makes the vehicle easily identifiable without having to use the vehicle identification number (VIN).
Year Model	Record the vehicle's year model. This allows you to keep track of the vehicle's age.
Vehicle Make/Model	Record the vehicle's manufacturer make and model. This information helps in quickly identifying vehicles when assessing fleet mix and performance.
License Plate	Include the state vehicle license plate number.
VIN	The VIN is the official identification number that stays with the vehicle throughout its life. Maintain full VIN numbers (all 17 digits) in the database.
Number of Seats	Transit vehicles can everything from 4-passenger minivans to 60-passenger articulated buses. To assess fleet mix and capacity, include the number of seats in the database for each vehicle.
Vehicle Length	Capture the vehicle length; useful in assessing fleet mix.
Vehicle In-Service Date	Knowing when the vehicle was put into service helps determine when the vehicle's useful life will end.
Vehicle Condition	Assess periodically (at least once every 6 months) the condition of each vehicle based on criteria defined by your agency.
Revenue/Non-Revenue	Label each vehicle as revenue or non-revenue to separate out support vehicles from revenue-service vehicles.
In-Service/Out-of-Service	Label each vehicle as to whether it is still in-service or if the vehicle has been retired (out-of-service). Retaining these records in the database—even once the vehicle has been retired—helps to create an evolving context in which to judge your existing fleet.

GATHER AND USE INFORMATION TO MANAGE MAINTENANCE COSTS

UPDATE DATA AT LEAST WEEKLY

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EXAMPLE MAINTENANCE PERFORMANCE MEASURES

- Maintenance cost per revenue mile (or hour)
- Road calls (major mechanical failures) per revenue mile
- Fleet availability

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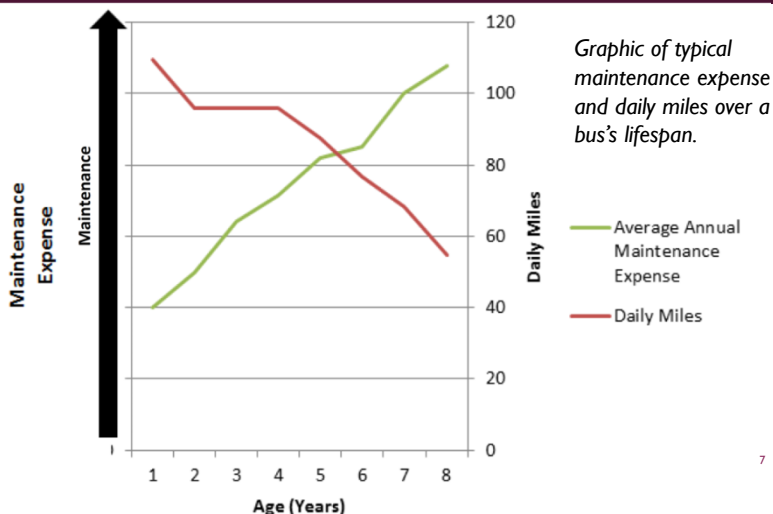
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FTA STATE OF GOOD REPAIR

The FTA establishes a minimum service life for vehicles (by vehicle category) in Useful Life of Transit Buses and Vans. The minimum service life is the expected miles or years an agency must use a vehicle before the vehicle is retired without financial penalty.

The FTA also has established a Useful Life Benchmark for all capital assets under the FTA's Transit Asset Management (TAM) program.

MODULE 5



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MAINTENANCE PRACTICE RESOURCES

- TCRP Report 54 *Management Toolkit for Rural and Small Urban Transportation Systems* (http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_54-a.pdf)
- Guidebook: Managing Operating Costs for Rural and Small Urban Public Transit Systems* (<https://tti.tamu.edu/group/transit-mobility/files/2014/05/GUIDEBOOK-REVISED-0415-Final.pdf>)
- TCRP Synthesis 81 *Preventative Maintenance Intervals for Transit Buses*
- Discuss maintenance operations – how many directly maintain, contract maintenance, or use local shared resources?**

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DEMAND RESPONSE COST MANAGEMENT

NO-SHOWS AND LATE CANCELLATIONS

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Suggestion	Description
1	Record and monitor (monthly) no-shows and late cancellations to resolve problems before they become excessive.
2	Categorize no-shows to help determine responsibility for the no-show (consumer or agency). Use the following categories: <ol style="list-style-type: none"> 1. consumer no-show and <ol style="list-style-type: none"> a. driver is on-time b. driver is late 2. consumer cancellation on driver arrival due to <ol style="list-style-type: none"> a. unpreventable cause (e.g., illness/emergency) b. preventable cause (e.g., consumer forgot to cancel) c. undetermined cause (consumer cannot give a reason) d. address error by <ul style="list-style-type: none"> • consumer • reservationist • dispatcher • unknown
3	Record cancellations by trip purpose or location (helpful in addressing chronic cancellations). Example: workshops for persons with disabilities might be closed on certain holidays, but consumers with subscription trips might forget to cancel trips.
4	Track workshop locations and work with host facilities to provide holiday schedules to consumers. Be proactive in contacting consumers to cancel trips in advance.

NO-SHOWS AND LATE CANCELLATIONS

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NO-SHOW POLICY RECOMMENDATIONS

- Define no-shows and late cancellations
- Determine a value for “the number of excessive events,” such as five in a month, as a trigger to identify consumers who may have “a pattern or practice of missed trips”
- Set a percentage of the consumer’s trips taken that are no-shows, such as 10%, as a threshold before a sanction is imposed
- Establish progressive sanctions for consumers with a pattern or practice of no-shows and late cancellations
- *TCRP Synthesis 60* contains recommendations for no-show programs

MODULE 5

What is your no-show rate? Do you have a no-show policy?

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MANAGING STAFF TURNOVER

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STAFF TURNOVER

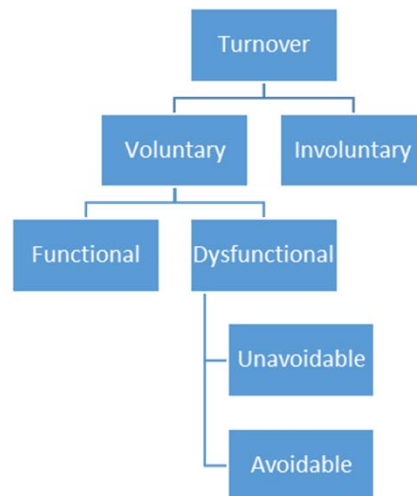
- “[Great organizations] start by getting the right people on the bus, the wrong people off the bus, and the right people in the right seats.” – Jim Collins (From Good to Great)

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TYPES OF TURNOVER



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BUS OPERATOR TURNOVER

- Varies in transit from 10 to 27% or more
- BLS transportation, warehousing, and utilities industry at 39.5% as of 2015

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IMPROVING TURNOVER RATES

- Striving for fairness and equity
- Maintaining a good working environment and working conditions
- Supporting operator autonomy
- Keeping operators safe
- Providing opportunities for recognition, training, and job progression

And don't forget pay and benefits!

MODULE 5

What is your agency's experience with turnover?

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MANAGING STAFF AND SHIFTS

What is the impact of productivity?

- **Decrease resources needed to provide service** – Increasing the number of passengers carried per service hour means fewer service hours are needed to serve the same number of passengers. Thus, fewer vehicle and driver resources are used to serve the same number of consumers.
- **Increase the level of service using the same resources** – The efficient use of resources can free up capacity for serving additional consumers during existing service hours, thus generating increased revenue without the need for applying additional resources.

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FACTORS AFFECTING STAFF SHIFTS

- Size and geography of the service area
- Population size and demographics
- Population density
- Roadway and sidewalk networks
- Major generators of service demand (e.g., proximal cities, hospitals, educational institutions)
- The economy

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KEY FACTORS TO CONSIDER FOR STAFF POLICIES AND SCHEDULING

- Attendance and on-time arrival to work standards
- Dispatcher backup and driver backup, commonly referred to as “extra-board”
- Responsibilities and skills of the dispatcher/scheduler
- Dispatch calls processed by time of day, average call time, and average hold times
- Setup of the dispatch office and equipment
- Staffing according to demand (dispatch call volume, trip requests, and distribution)
- Individual driver productivity
- The amount of “slack” (or downtime that can be potentially productive) in the schedule

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MANAGING OPERATIONS STAFF

- Staffing dispatch by call volume
- Operator shifts: staff shifts based on service demand
- Monitoring trend patterns
- Bus operator familiarity with routes and vehicles

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FUEL CONSUMPTION

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FUEL AND FUEL CONSUMPTION

Factors impacting fuel consumption

- Providing service over large service areas
- Serving areas of low-population density
- Traveling to destinations outside the service area
- Scheduling practices (e.g., ridesharing) to minimize individualized trip-making
- Implementing policies to control no-show and late cancellations resulting in unnecessary trips

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WAYS TO REDUCE FUEL CONSUMPTION

Driver behaviors

- Reducing excess idling (over 3 to 5 minutes)
- Maintaining consistent vehicle speed (keeping engine RPMs at optimum levels)
- Accelerating and decelerating smoothly
- Using vehicle momentum to maintain cruise speed
- Avoiding filling the gas tank to the very top (especially in summer months)
- Avoiding pumping the accelerator pedal
- Avoiding riding the brakes
- Avoiding hard turning

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WAYS TO REDUCE FUEL CONSUMPTION (CONT.)

Improving vehicle maintenance

- **Management commitment and ownership.** Management must oversee and implement the fuel oversight program to ensure implementation occurs in a coordinated manner.
- **Data collection and analysis.** Conduct fuel-consumption data collection and analysis consistently. Implement benchmarks, targets, and measurement of fuel economy indicators to take action where improvement is needed.
- **Maintenance directed at low fuel-economy buses.** Focus technical-support interventions on the 10 percent of the fleet showing the lowest fuel economy. Underperforming buses should undergo proper operations and maintenance practices and quality assurance of repairs processes.

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TECHNOLOGY

MODULE 5 25

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USE OF TECHNOLOGY AND AUTOMATION

Leveraging available technology can increase efficiency and production, which saves operating costs.



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TYPES OF TECHNOLOGY

- Mobile apps (various purposes)
- Electronic / app-based forms or data collection
- Tablets
- GTFS
- Innovative partnerships



Also, look for free tools:

- Google maps
- Google forms (for mobile data collection)
- Zoho Reports (for online database and dashboards)
- AirTable (online database)

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RESOURCES

- Also, see TTI's *Guidebook: Managing Costs for Rural and Small Urban Public Transit Systems* (<https://tti.tamu.edu/group/transit-mobility/files/2014/05/GUIDEBOOK-REVISED-0415-Final.pdf>)
 - (Somewhat dated)

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REVIEW

- What affects turnover?
- Why is routine maintenance important?
- What are the types of service contracts?
- What does GTFS stand for?

What's one area that you think your transit agency could work on to better control operating expenses?

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