TASK ORDER NO. 2 EL PASO COUNTY URBAN AND RURAL REPORTING FINANCIAL ANALYSIS

El Paso County Rural / Urban Reporting Analysis
By James Cardenas and Michael J. Walk | 03/07/2023

1 PROJECT PURPOSE

The Texas A&M Transportation Institute (TTI) assisted El Paso County in analyzing the federal and state revenue implications of reporting urbanized area transit service to the Federal Transit Administration's (FTA's) Urban National Transit Database (NTD). This project included researching policies regarding reporting transit data to the Urban and Rural NTD and forecasting the impact on El Paso County's federal and state funding if El Paso County reported service provided in the El Paso urbanized area to the Urban NTD.

Currently, El Paso County reports all service it operates on behalf of the El Paso Area Transportation Services (EPATS) to the Rural NTD, regardless of whether that service is in rural or urbanized areas. Reporting El Paso County's urban service to the Urban NTD will have financial implications because FTA's urbanized area (Section 5307) apportionment formula and the Texas Department of Transportation's (TxDOT's) allocation formulas include service elements such as bus revenue vehicle miles and bus passenger miles. Therefore, TTI forecasted two scenarios: one involving reporting all service to the Rural NTD (as EPATS currently does) and the second, reporting service to both the Rural and Urban NTD. The results show a comparison in revenue generated by both scenarios.

2 METHODOLOGY

This methodology section summarizes the procedures used for:

- Determining the sub-allocation of Section 5307 Urbanized Area funding.
- Forecasting the federal and state revenue received by EPATS based on service reported.

2.1 SUB-ALLOCATION METHODOLOGY

During Task 2, TTI documented the sub-allocation policy found in Sun Metro's Service Expansion Policy (SEP). This task focused on understanding how the urbanized area funding would be sub-allocated should EPATS start submitting data to the urban NTD. TTI met with Sun Metro, the El Paso MPO, and El Paso County to further clarify the sub-allocation methodology. The SEP states that the sub-allocation of Section 5307 Urbanized area funding would be based on the proportion of urbanized area population living within each transportation provider's service area. To determine this, TTI conducted a population

analysis based on 2020 Census population numbers at the block level geography and the projected El Paso Urbanized Area[1]. The population analysis included the following service boundaries:

- **El Paso Area Transportation Services, LGC**
  - Unincorporated areas of El Paso County within the projected El Paso Urbanized Area
  - The following incorporated areas that lie within the projected El Paso Urbanized Area:
    - Horizon City
    - San Elizario
    - Village of Vinton
    - Anthony
    - Socorro
    - Clint
- **Sun Metro**
  - The City of El Paso incorporated areas within the projected El Paso Urbanized Area

The projected 2020 urbanized area population proportion between EPATS and Sun Metro (City of El Paso) is shown in Table 1.

TABLE 1. POPULATION ANALYSIS RESULTS – PROJECTED URBANIZED AREA POPULATION PROPORTION BY JURISDICTION

Jurisdiction	Urbanized Area Population (2020 Projection)	Percentage
EPATS	**142,467**	**17.9%**
Anthony	2,761	0.3%
Clint	898	0.1%
Horizon City	21,755	2.7%
San Elizario	9,822	1.2%
Socorro	34,256	4.3%
Vinton	2,684	0.3%
Unincorporated Area	70,291	8.8%
City of El Paso	**652,674**	**82.1%**
Total El Paso Urbanized Area Population in Texas[1]	**795,141**	**100%**

Notes:
[1] The El Paso urbanized area includes territory in both Texas and New Mexico. The total shown only includes the territory in Texas.

Further discussion of the methodology can be found in the Task 2 Tech Memo – Sub-Allocation Methodology and Task 3 Tech Memo – Service Allocation Analysis.

[1] The projected El Paso Urbanized Area includes a projected urbanized area geography from the Texas Demographic Center. In January 2023, the U.S. Census Bureau released official urbanized area boundaries; however, TTI's analysis was complete before the official urbanized area boundaries were released.

2.2 Service Allocation Methodology

As part of Task 3, TTI collected FY19 service data from El Paso County. This dataset included[2]:

- Annual Revenue vehicle miles by route
- Annual Total vehicle miles by route
- Annual Passenger trips by route
- Bus passenger miles by route
    - Average trip length for commuter bus and vanpool.
- Vanpool trip addresses by month

For the fixed-route services, TTI utilized GIS mapping software to determine the total amount of route miles operated within the projected El Paso Urbanized Area. For vanpool services, TTI used the origins and destinations to determine the amount of service operating within the urbanized area. Vanpools originating in the urban area were considered urban and vanpools originating in the rural area were considered rural. Additionally, operating expenses are included for federal and state formula funding and local investment is included for State Rural formula funding. TTI used the proportions of vehicle revenue miles assigned to urban and rural areas to allocate operating expenses and local investment dollars to urban and rural reports. The methodology and results of each mode's service allocation to the rural and urban area are found in the Task 3 Tech Memo – Service Allocation Analysis. Table 2 shows the system-wide urban and rural service results.

Table 2. Urban and Rural Service Allocation Results – El Paso County FY19

Total Annual System	Urban	Rural	Total
Unlinked Passenger Trips	333,557	108,696	442,253
Vehicle Revenue Miles	2,978,379	1,188,241	4,166,620
Total Vehicle Miles	3,125,748	1,254,686	4,380,434
Local Investment	$2,387,801	$958,471	$3,346,272
Operating Expenses	$2,906,646	$1,166,738	$4,073,384

2.3 Financial Forecast Methodology

For the financial forecast, TTI requested 2019 service and financial data from El Paso County. This included annual service totals (such as revenue miles and revenue hours) for all commuter bus routes and vanpools and financial information such as operating expenses and local investment revenues. In addition, TTI utilized demographic information for population and low-income population. Using all the data elements, TTI was able to forecast federal and state revenues based on two scenarios: (1) reporting all service and financial data to the Rural NTD (current reporting) and (2) reporting service and financial data to both the Urban and Rural NTD.

2.3.1 Section 5307 Urbanized Area Funding

Forecasting Section 5307 urbanized area funding is complex because it involves data reported by all systems in the U.S. that report to the Urban NTD. However, a close approximation within less than 1%

[2] Fixed-route data included Routes 10-50, Route 84, and Gold Route.

difference can be achieved by using apportionment unit values and multiplying these unit values by the total service numbers reported. TTI validated this method for FY22 funding amounts based on the existing El Paso Urbanized Area service reported[3] to the Urban NTD and recreated the total Section 5307 revenue amount to within $0.50. This method was utilized to estimate the increase of funding for additional urbanized area service from EPATS.

To forecast FY23 Section 5307 funding for the El Paso urbanized area, TTI completed the following steps:

1) **Develop and Validate an Apportionment Unit Value Calculator.** TTI first developed an apportionment unit value calculator to estimate the Section 5307 apportionment to the El Paso Urbanized Area.[4] TTI validated the apportionment unit value calculator by using FY19 data for El Paso Urbanized Area to calculate the FY22 apportionment using Scenario 1 data consisting of only Sun Metro, South Central Regional Transit District and New Mexico Department of Transportation.[5]
2) **Add EPATS Urban Service.** TTI then added the urban service allocation to the calculator.
   a) Add EPATS urban service estimated from Task 3 to apportionment unit value calculator.
   b) Output showed a 15.2% increase of $2,626,945 for FY22.
3) **Project FY23 5307 Apportionment.** TTI then projected the FY23 Section 5307 apportionment:
   a) Calculate a growth rate between the Section 5307 FY22 authorized amount and the FY23 authorized amount: This resulted in a 2.089% growth rate.
   b) Apply the growth rate to El Paso Urbanized Area result of $19,865,966, TTI projected El Paso Urbanized Area FY23 apportionment to be $20,280,986.90.
4) **Account for Growing States Revenue.** TTI assumed the same proportion of Growing States Revenue for the Texas and New Mexico portion of the El Paso Urbanized Area.
   a) Calculate a growth rate between the Growing States FY22 authorized amount and the FY23 authorized amount: This resulted in a 2.089% growth rate.
   b) Apply growth rate to FY22 amounts received for Texas and New Mexico portion of the El Paso Urbanized Area.

   The total of the Growing States and Section 5307 funding forecasts resulted in the total El Paso Urbanized Area (TX-NM) apportionment increasing by 14.3% ($2,681,825) with the addition of EPATS urban service reported to the Urban NTD. This results in a sum of $21,450,216 in forecasted Section 5307 funds.

   c) To separate the Texas and New Mexico portions, TTI assumed the same proportion from FY22. The Texas portion included 96.2% of Section 5307 revenue and the New Mexico portion included 3.8% of revenue. This is illustrated in Table 3.

[3] Sun Metro, South Central Regional Transit District, and the New Mexico Department of Transportation currently report urban service for the El Paso urbanized area.
[4] The calculator took input data from NTD and multiplied it by FTA's published data unit apportionment values in order to calculate the funds that would be apportioned by FTA.
[5] The TTI-calculated apportionment was calculated within $0.17 of the actual FY22 apportionment (actual apportionment was $17,239,021).

TABLE 3. EL PASO TX-NM SECTION 5307 REVENUE FORECAST

State Portion	Section 5307 EPATS (FY23)	Growing States FY23	New Total EPATS (FY23)
Texas	$19,505,392	$1,131,467	$20,636,858
New Mexico	$775,595	$37,763	$813,358
Total	$20,280,986.90	$1,169,229.58	$21,450,216.48

5) **Forecast Scenario 1 Allocation to EPATS.** Using the funding available for allocation for the Texas only portion, TTI calculated EPAT's Section 5307 FY23 allocation assuming its FY19 data were all reported to the Rural NTD, resulting in a forecasted FY23 allocation of $0.
6) **Forecast Scenario 2 Allocation to EPATS.** Using the same funding available for allocation, TTI calculated EPAT's Section 5307 FY23 allocation assuming a portion of its data was reported to the Urban NTD. Based on the allocation method described in Task 2, EPATS would receive $3,693,998 and Sun Metro would receive $16,942,681 under Scenario 2. This results in a 6.2% decrease for Sun Metro from the Scenario 1 revenue estimate. Table 4 summarizes this result.

TABLE 4. FY23 EL PASO URBANIZED AREA FUNDING WITH EPATS SERVICE REPORTED

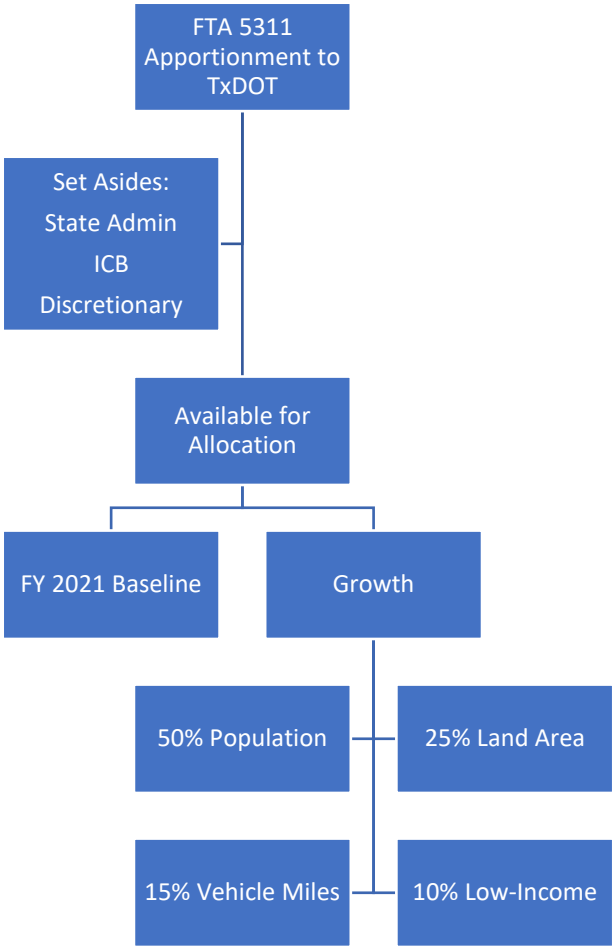
	Scenario 1	Scenario 2	Change	%Change
EPATS Portion	$0	$3,693,998	$3,693,998	
Sun Metro	$18,057,593	$16,942,861	($1,114,733)	-6.2%
New Mexico	$710,798	$813,358	$102,560	14.4%
Total	$18,768,392[6]	$21,450,216	$2,681,825	14.3%

[6] Note that FTA's actual FY2023 apportionment tables were released during the course of this project. The actual FY2023 Section 5307 apportionment to the El Paso TX-NM Urbanized Area was $18,768,340. TTI did not re-do the financial forecasts using actual FY2023 apportionments.

2.3.2 Section 5311 Non-Urbanized Area Funding

Section 5311 funding is apportioned to Texas by the FTA and then allocated to rural transit districts by TxDOT PTN. The formula PTN uses to allocate Section 5311 funds has recently changed and includes the factors shown in Figure 1.

Figure 1. PTN Section 5311 Allocation Formula



Source: PTAC Presentation Materials for June 7, 2022 meeting.

As seen in Figure 1, PTN's Section 5311 allocation formula has inputs that utilize both demographic (e.g., population) and service data (e.g., vehicle miles), and the formula starts with the total apportionment to Texas. Although the formula also includes a performance-based adjustment (not shown in Figure 1), TTI did not include the performance-based adjustment in its Section 5311 allocation forecast.[7]

To calculate the FY23 Section 5311 allocation forecasts for both scenarios, TTI completed the following steps:

[7] PTN has stated that FY2025 would likely be the first year in which the performance adjustment would be applied to allocations.

1) **Project FY23 5311 Apportionment to Texas.** TTI first projected Texas's FY23 Section 5311 apportionment in a way similar to the Section 5307 forecast:
   a) Calculate a growth rate between the Section 5311 FY22 authorized amount and the FY23 authorized amount: This resulted in a 2.089% growth rate.
   b) Apply the growth rate to Texas's Section 5311 FY22 apportionment of $59,432,768[8], TTI projected Texas's FY23 apportionment to be $60,674,318.52.[9]
   c) Input the projected Texas FY23 apportionment into a funding allocation calculator developed for PTN that calculates allocations to Texas rural transit districts using PTN's current allocation formula.
2) **Account for Set-Asides.** TTI assumed the following set-asides of funding occurred before calculating the EPATS allocation. The set-asides totaled to $15,896,672.
   a) State Administration: $1,820,230 (3% of the apportionment).
   b) Intercity Bus: $9,101,148 (15% of the apportionment).
   c) Discretionary Funds: $4,975,294 (10% of the remaining apportionment after State Administration and Intercity Bus set-asides).

   $44,777,647 was available for allocation to rural transit districts.

3) **Forecast Scenario 1 Allocation to EPATS.** Using the funding available for allocation, TTI calculated EPAT's Section 5311 FY23 allocation assuming its FY19 data were all reported to the Rural NTD, resulting in a forecasted FY23 allocation of $2,843,427.
4) **Forecast Scenario 2 Allocation to EPATS.** Using the same funding available for allocation, TTI calculated EPAT's Section 5311 FY23 allocation assuming its FY19 rural data were reduced because some of it would be reported to the Urban NTD. The resulting forecasted FY23 allocation was $2,712,972, a decrease of $130,455 or 4.6% from Scenario 1. Scenario 1 and Scenario 2 Section 5311 allocations are summarized in Table 5.

2.3.3 State Rural Funding

State Rural revenue is formula allocated by TxDOT based on 65% need and 35% performance. TTI used a pre-existing revenue calculator to estimate the impact of revenue resulting from the decreased rural service reported. The State Rural funding amount is set at $21,431,693 for FY23. Using the formula outlined in Figure 2, TTI used FY19 data for El Paso County and all other rural transit districts.

[8] From Table 9 of FTA's FY2022 apportionment tables.
[9] Note that FTA's actual FY2023 apportionment tables were released during the course of this project. The actual FY2023 Section 5311 apportionment to Texas was $60,677,331. TTI did not re-do the financial forecasts using actual FY2023 apportionments.

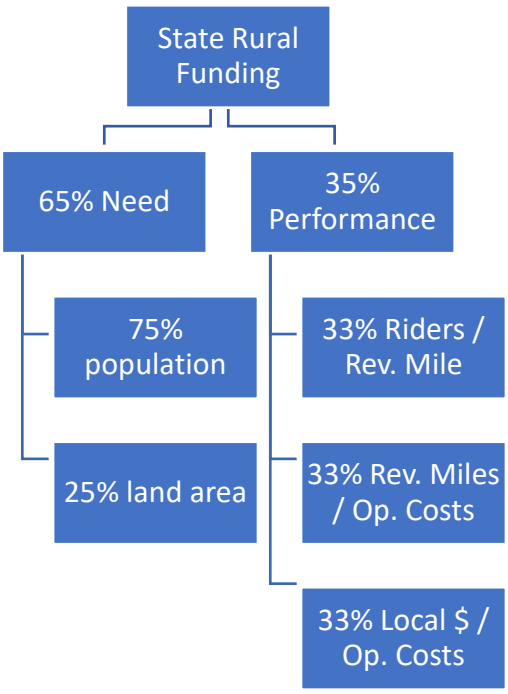


FIGURE 2. STATE RURAL FORMULA

To calculate the FY23 State Rural revenue forecasts for both scenarios, TTI completed the following steps:

1) **Forecast Scenario 1 Allocation to EPATS.** Using the funding available for allocation, TTI calculated EPAT's Section 5311 FY23 allocation assuming its FY19 data were all reported to the state as rural service resulting in a forecasted FY23 allocation of $482,881.
2) **Forecast Scenario 2 Allocation to EPATS.** TTI calculated EPAT's State Rural revenue allocation assuming its FY19 rural data were reduced because some of it would be reported to the Urban NTD. The resulting forecasted FY23 allocation was $476,404.

3 RESULTS

The outcome of reporting urbanized area transit service to the Urban NTD (Scenario 2) appears to be financially beneficial to EPATS (see Table 5), disregarding any additional costs incurred from increased reporting and compliance requirements.

TABLE 5. FY23 FINANCIAL FORECAST RESULTS

	Scenario 1 (Rural Only)	Scenario 2 (Rural & Urban Reporting)	Difference	Difference %
Section 5307 Urbanized Area Funding	$0	$3,693,998	$3,693,998	
Section 5311 Non-Urbanized Area Funding	$2,843,427	$2,712,972	-$130,455	-4.6%
State Rural Funding	$482,881	$476,404	-$6,478	-1.3%
Total Revenue	**$3,326,309**	**$6,883,373**	**$3,557,065**	**106.9%**

Under Scenario 1 (EPATS's current practice), EPATS will expect to receive $3.3 million in revenue. If EPATS reported urban service to NTD (Scenario 2):

- An additional $3.7 million would be allocated to EPATS from Section 5307 Urbanized Area funding apportioned to the El Paso Urbanized Area.[10]
- Section 5311 funding would decrease by $130,455 (-4.6%).
- State funding would decrease by $6,478 (-1.3%).

The net effect of these three changes would be an increase in annual funding of about $3.6 million (107%) compared to the current situation (Scenario 1).

There are, however, several important considerations:

1) To be eligible to report data to the urban NTD, EPATS must begin receiving Section 5307 funds, which requires acceptance by Sun Metro and following Sun Metro's SEP.
2) The results depend heavily on the methodology for allocating Section 5307 funds (established in Task 2).
3) Section 5307 funds typically cannot be used for operating assistance in large urbanized areas[11] like El Paso. However, thanks to the small operator exemption, EPATS should be able to use the funds for operating assistance as long as it continues to operate less than 100 vehicles in peak service (some limitations apply).
4) If EPATS does receive both Section 5307 and Section 5311 funds, it would need to follow the additional requirements for Section 5307 recipients, for example conducting service equity analyses for major service changes, charging discounted off-peak fares to seniors and people

[10] This assumes that the allocation methodology for distribution Section 5307 funds apportioned to the El Paso urbanized area (documented in Task 2) remains unchanged.
[11] A large urbanized area has a population of 200,000 or more.

with disabilities, etc. (Full documentation of requirements is beyond the scope of this memo). In addition, EPATS would need to allocate its service and financial data to the rural and urban areas in PTN-128 and NTD reporting. EPATS would also need to become a direct reporter to NTD (assuming Sun Metro would not elect to report EPAT's data).