SUN VAN –
PEER ANALYSIS

Summary

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Operating Expenses

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Labor utilization
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Programs and partnerships

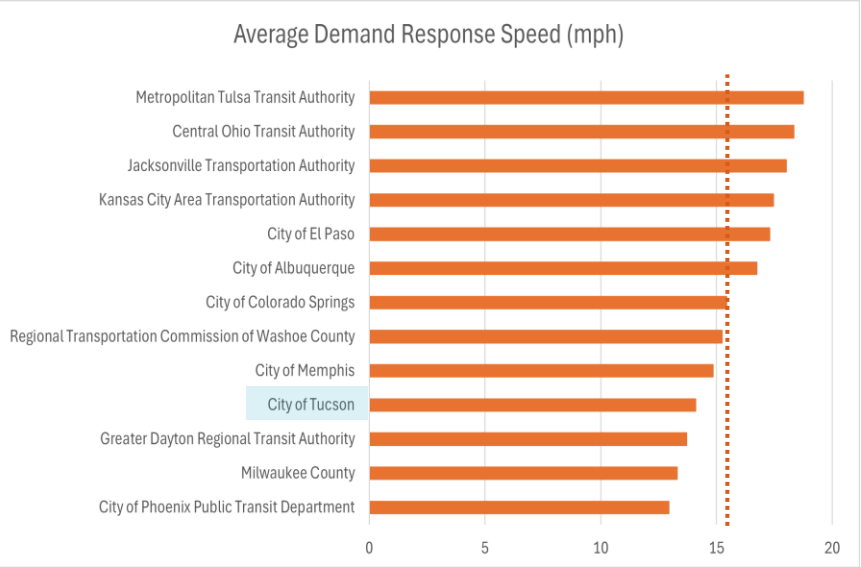**3** **CONCLUSION**

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Methodology

- For results using the **NTD data (2022)**:
  - Total of **13** locations including Tucson:
    Central Ohio Transit Authority (COTA), City of Albuquerque, City of Colorado Springs, City of El Paso, City of Memphis, City of Phoenix Public Transit Department, City of Tucson, Greater Dayton Regional Transit Authority, Jacksonville Transportation Authority, Kansas City Area Transportation Authority, Metropolitan Tulsa Transit Authority, Milwaukee County, Regional Transportation Commission of Washoe County.
  - City of Tucson: Sun Van
  - City of Phoenix: Valley Metro

- For the results of the **survey (2023):**
  - Total of **10** peers including Tucson:
    Greater Dayton Regional Transit Authority, Milwaukee County, Valley Metro in Phoenix, RTC Washoe County (Reno), Greensboro, COTA, Tulsa, Wake County, Sun Metro, and Sun Van.
  - Not every peer provided us with information for each of the questions: some metrics are based on fewer than 10 peers

- **Phoenix** was included as a peer because of its geographical proximity to Tucson, despite the agency being bigger.
  - For some questions, Phoenix's data was removed from the analysis to provide a more accurate picture of peer performance.

- For every chart, the **peer's system average** is represented by a **dotted line.**

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1

NTD Data analysis

NTD Data – Service effectiveness

Average is good

Average Demand Response Speed (mph)

Metropolitan Tulsa Transit Authority	
Central Ohio Transit Authority	
Jacksonville Transportation Authority	
Kansas City Area Transportation Authority	
City of El Paso	
City of Albuquerque	
City of Colorado Springs	
Regional Transportation Commission of Washoe County	
City of Memphis	
City of Tucson	
Greater Dayton Regional Transit Authority	
Milwaukee County	
City of Phoenix Public Transit Department	

Average Demand Response Trip Length (miles)

Central Ohio Transit Authority	
Jacksonville Transportation Authority	
City of Tucson	
City of El Paso	
Metropolitan Tulsa Transit Authority	
City of Colorado Springs	
City of Albuquerque	
Greater Dayton Regional Transit Authority	
City of Phoenix Public Transit Department	
City of Memphis	
Regional Transportation Commission of Washoe County	
Kansas City Area Transportation Authority	
Milwaukee County	

Average Demand Response Trip Length (minutes)

|	
City of Tucson	
City of Phoenix Public Transit Department	
Central Ohio Transit Authority	
Jacksonville Transportation Authority	
Greater Dayton Regional Transit Authority	
City of Colorado Springs	
City of El Paso	
City of Albuquerque	
Milwaukee County	
City of Memphis	
Metropolitan Tulsa Transit Authority	
Regional Transportation Commission of Washoe…	
Kansas City Area Transportation Authority	

Tucson's position (speed) : 10/13

14.1 mph.

The average for the peer system is 15.86mph. Tucson is **slower** than its peers.

⚠ This data must be analyzed carefully. The speed can be affected by many factors such as traffic, road conditions, or driver's behavior.
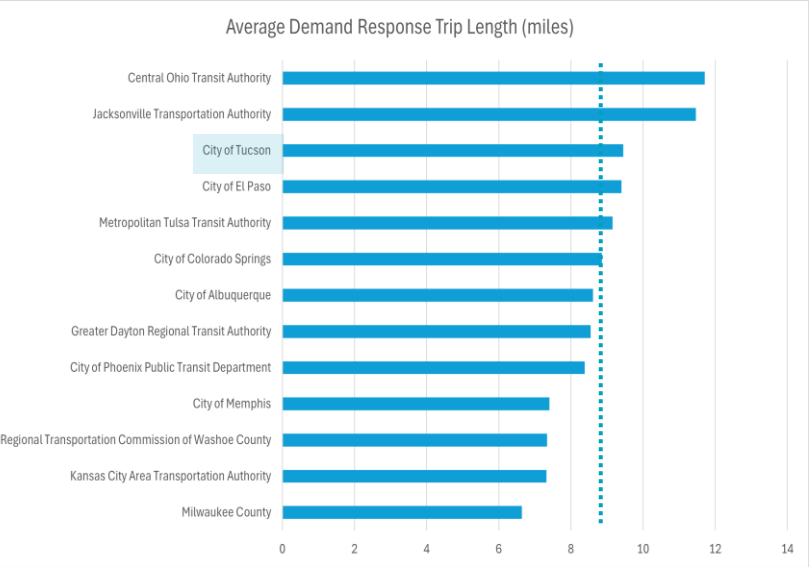
Tucson's position (length – miles): 11/13

9.45 miles per trip.

The average for the peer system is 8.79. Tucson travels **higher distances** than its peers.
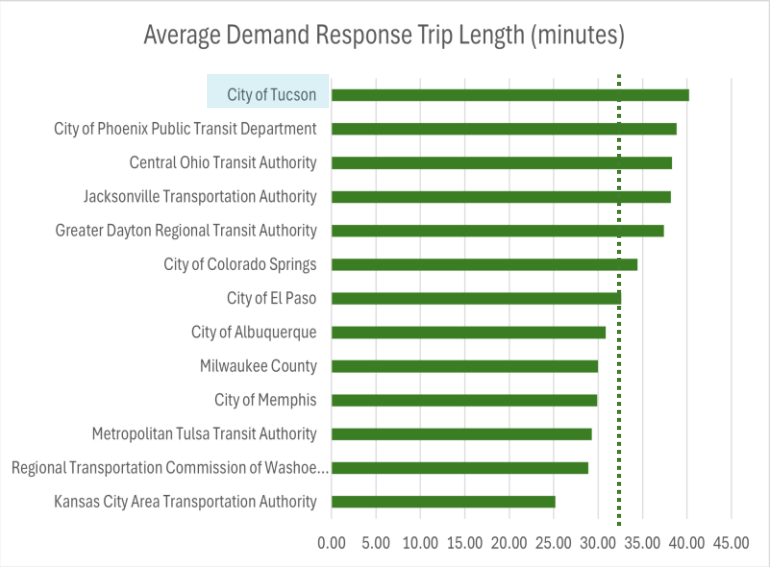
Tucson's position (length – minutes): 13/13
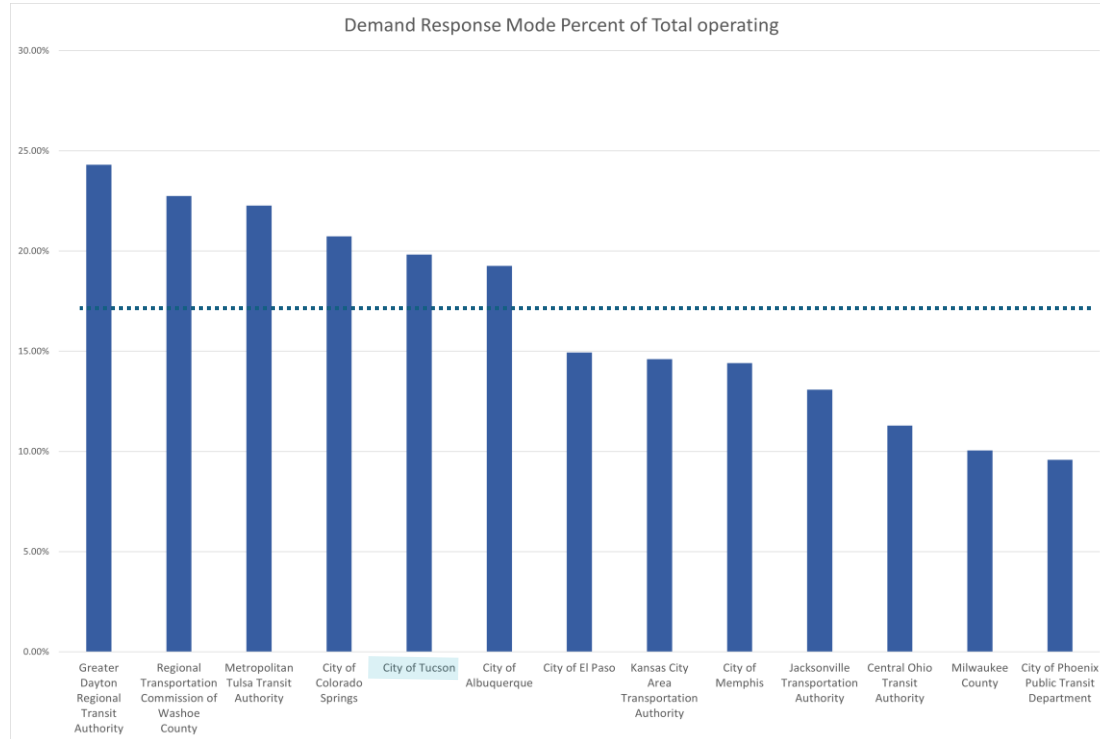
40'20" on average.

The average for the peer system is 33' 20". Tucson has **longer trips** than its peers due to greater distances traveled at lower speeds.

Crossing data

Tucson's demand response transit operation appears to cover **longer distances than its peers at a moderate speed,** which might be due to Tucson's geographical spread, which likely differs from that of its peers.

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NTD Data – Service supply

High is good

Demand Response Mode Percent of Total operating

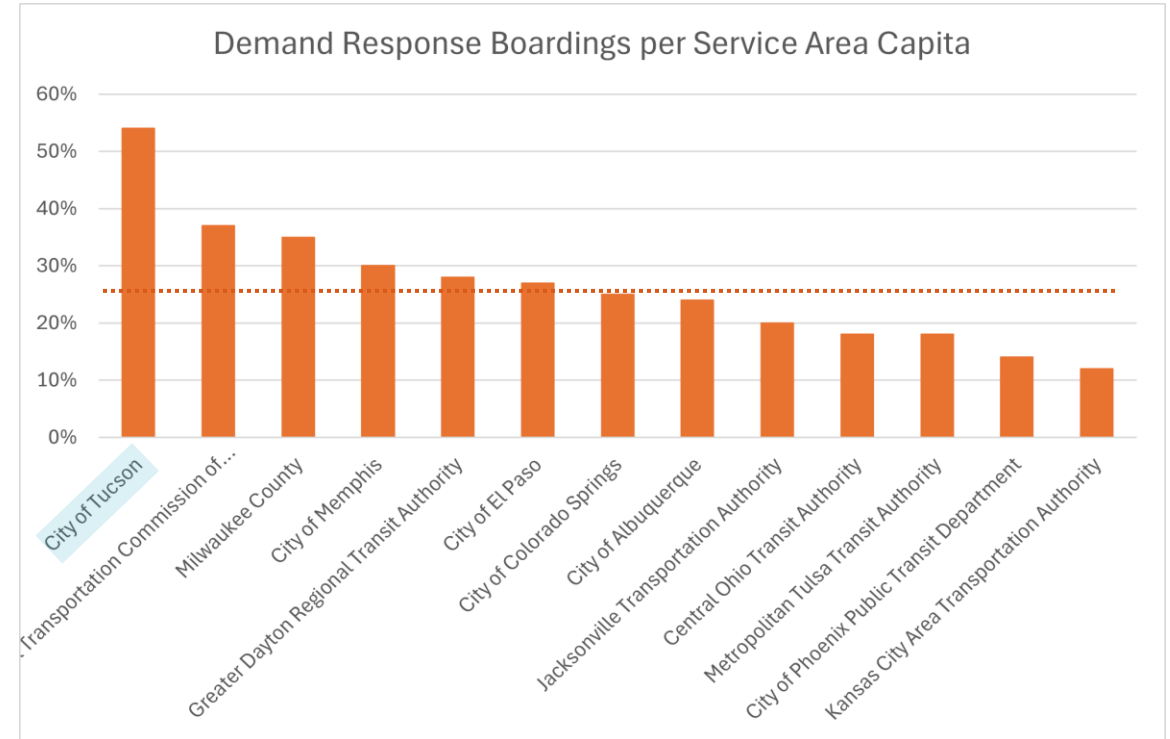Demand Response Boardings per Service Area Capita

Tucson's position: 5/13

19.83% of its total transit system is dedicated to demand response transit services.

The average for the peer system is 16.70%. It is a little **above average** among its peers.

Crossing data

Tucson **invests more** than other agencies in demand response services.

Tucson's position: 1/13

54% of the agency's resources goes to paratransit services.

The average for the peer system is 26%. This is **higher** than its peers.
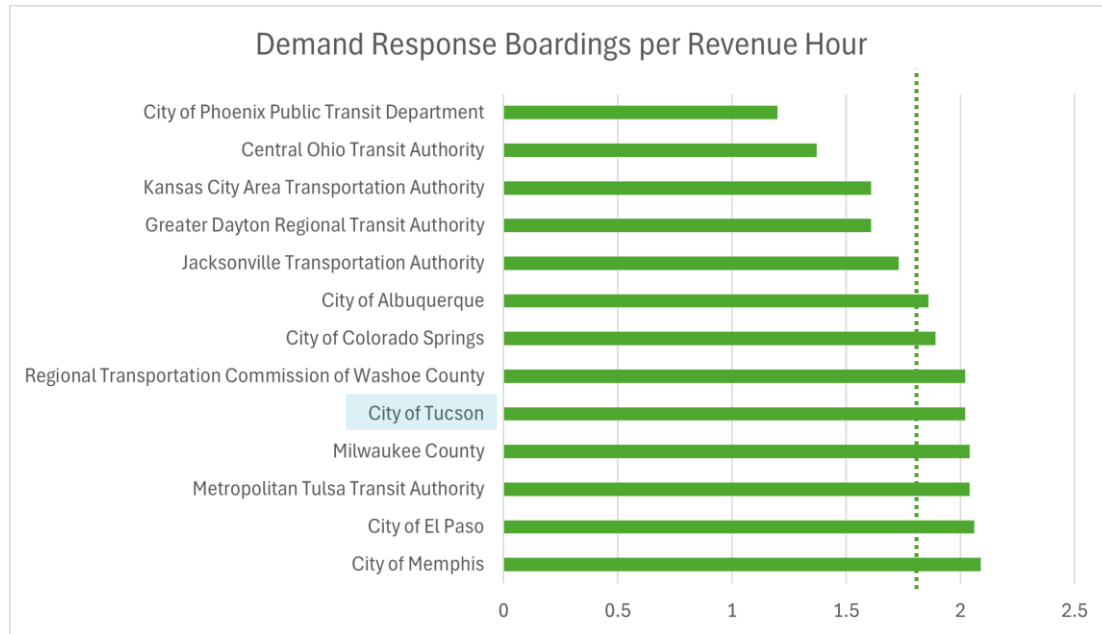
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NTD Data - Service effectiveness

High is good

Tucson's position (boarding/rev. hour): 5/13
Average 2.02 passenger boarding/rev. hour.

The average for the peer system is 1.81 passenger. Tucson has a **slightly higher** ratio for boarding per revenue hour than its peers.

Tucson's position (boarding/rev. mile): 2/13
Average 0.14 passenger boarding/ rev. mile.

The average for the peer system is 0.11 passenger. Tucson has a **higher** ratio for boarding per revenue mile than its peers.

Demand Response Boardings per Revenue Hour

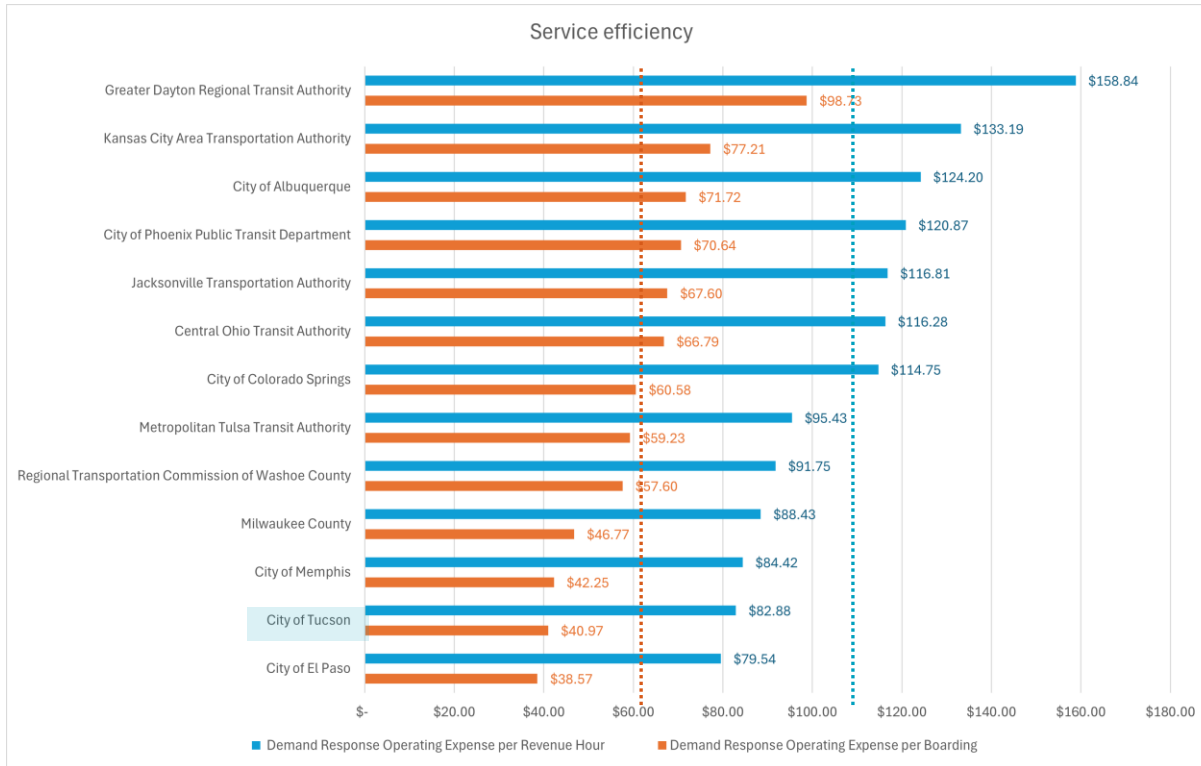Demand Response Boardings per Revenue Mile
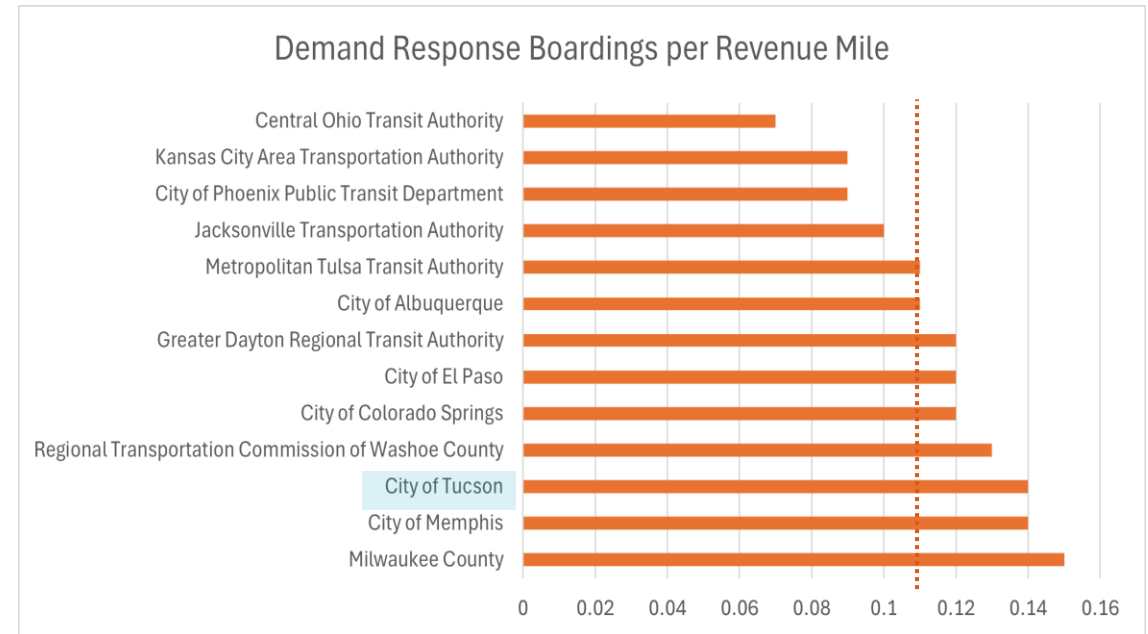
Crossing data

Overall, Tucson's performance on these metrics suggests **good efficiency and effectiveness** in serving passengers within the service area.

NTD Data – Operating expenses

Low is good

Service efficiency

Greater Dayton Regional Transit Authority	$158.84 / $98.73
Kansas City Area Transportation Authority	$133.19 / $77.21
City of Albuquerque	$124.20 / $71.72
City of Phoenix Public Transit Department	$120.87 / $70.64
Jacksonville Transportation Authority	$116.81 / $67.60
Central Ohio Transit Authority	$116.28 / $66.79
City of Colorado Springs	$114.75 / $60.58
Metropolitan Tulsa Transit Authority	$95.43 / $59.23
Regional Transportation Commission of Washoe County	$91.75 / $57.60
Milwaukee County	$88.43 / $46.77
City of Memphis	$84.42 / $42.25
City of Tucson	$82.88 / $40.97
City of El Paso	$79.54 / $38.57

■ Demand Response Operating Expense per Revenue Hour   ■ Demand Response Operating Expense per Boarding

Tucson's position per rev. hour: 2/13

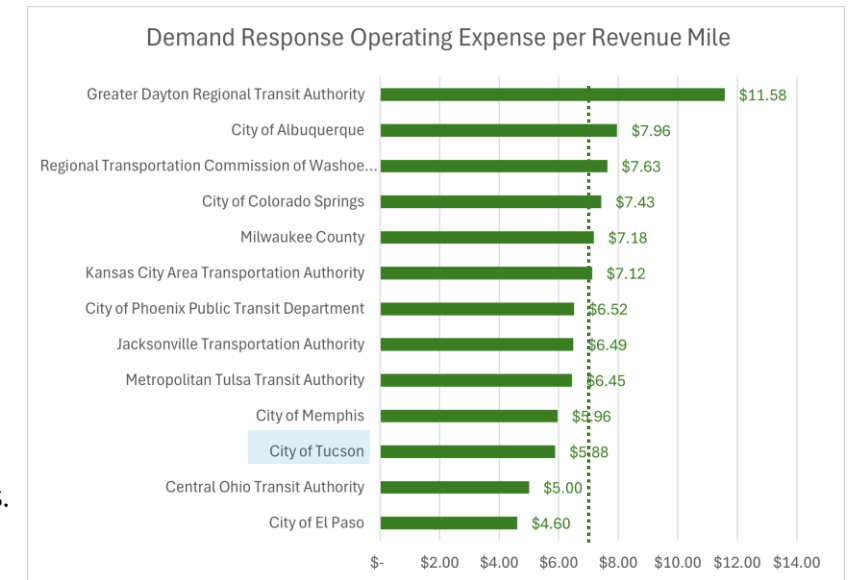$82.88 per revenue hour. Excludes the influence of vehicle speed.

The average for the peer system is $108.26/hour. Tucson's rate is **lower** than its peers.

Tucson's position per boarding: 2/13

$40.97 per boarding.

The average for the peer system is $61.44/boarding. Tucson's rate is **lower** than its peers.

Demand Response Operating Expense per Revenue Mile

Greater Dayton Regional Transit Authority	$11.58
City of Albuquerque	$7.96
Regional Transportation Commission of Washoe…	$7.63
City of Colorado Springs	$7.43
Milwaukee County	$7.18
Kansas City Area Transportation Authority	$7.12
City of Phoenix Public Transit Department	$6.52
Jacksonville Transportation Authority	$6.49
Metropolitan Tulsa Transit Authority	$6.45
City of Memphis	$5.96
City of Tucson	$5.88
Central Ohio Transit Authority	$5.00
City of El Paso	$4.60

Tucson's position per rev. mile : 3/13

$5.88 per mile.

The average for the peer system is $6.91/mile. Tucson's rate is **lower** than its peers. Signifies lower operating costs relative to the distance traveled by vehicles

Crossing data

Overall, Tucson's services emerge as **leaders** among its peers in terms of operating expenses. It is very cost-efficient.
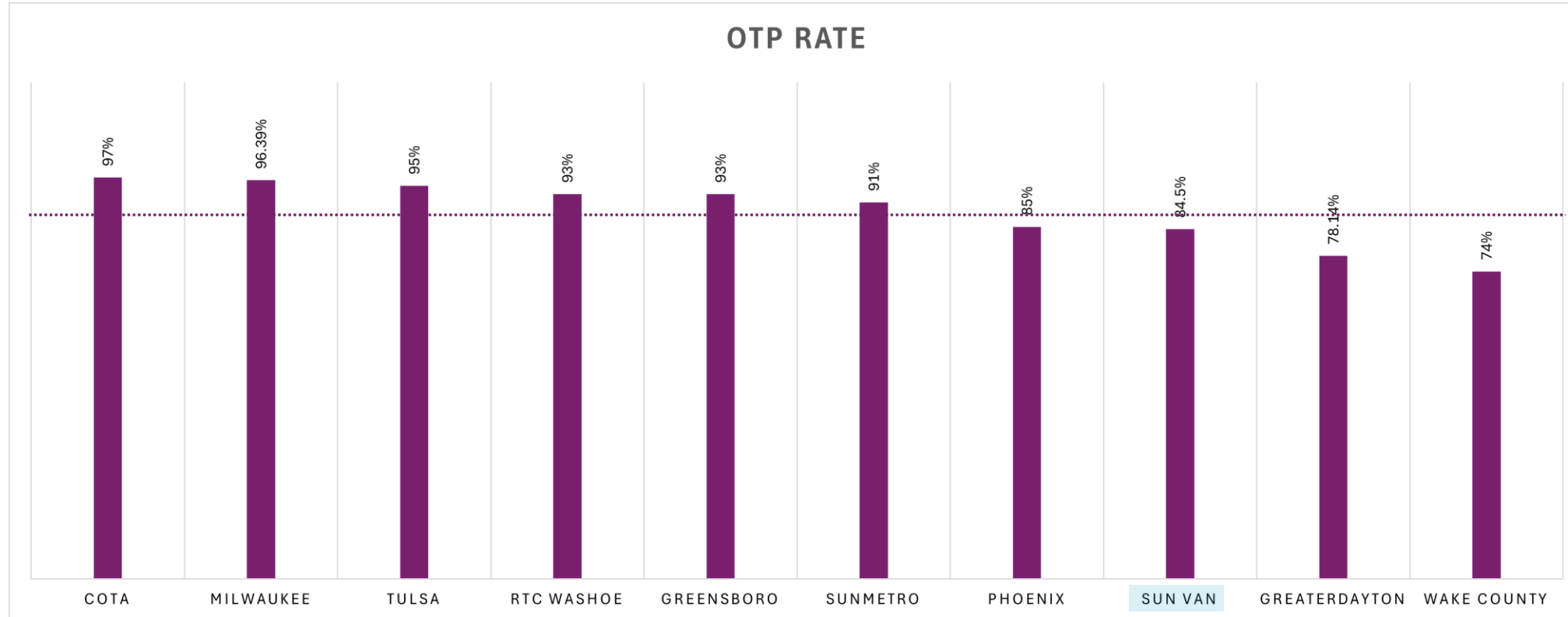
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SURVEY RESULTS ANALYSIS

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Data from survey – On-Time Performance

High is good

OTP RATE

|	
COTA	97%
MILWAUKEE	96.39%
TULSA	95%
RTC WASHOE	93%
GREENSBORO	93%
SUNMETRO	91%
PHOENIX	85%
SUN VAN	84.5%
GREATERDAYTON	78.14%
WAKE COUNTY	74%

Tucson's position: 8/10

84.5%.

The average for the peer system is 89%. This is **below** average

➢ By collecting feedback from passengers to identify and address recurring issues, implementing a better scheduling system, or monitoring traffic patterns, this metric could be improved.

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Data from survey – Excessive length trip

Low is good

Excessive Length trip
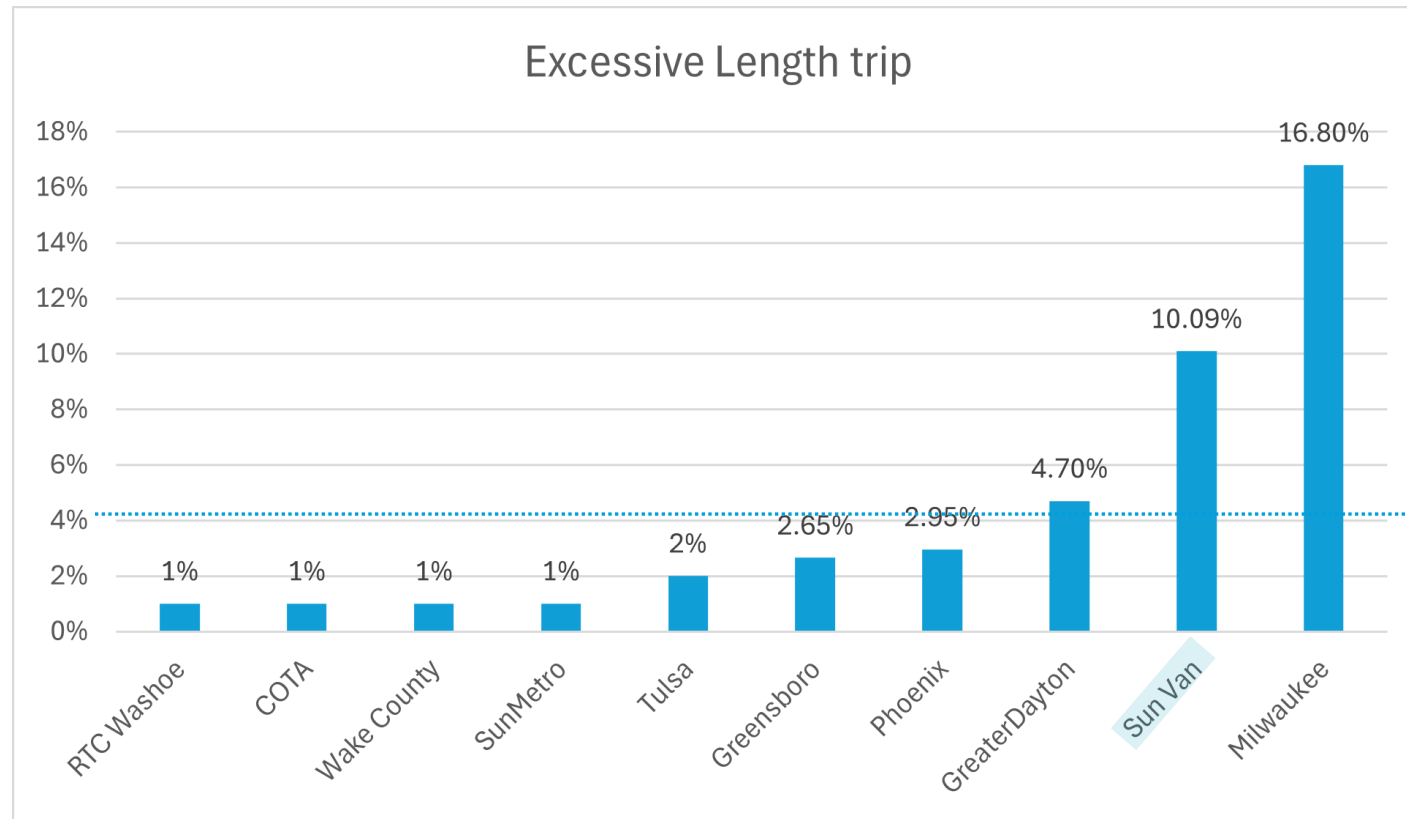
Tucson's position: 9/10
10.09%

The average for the peer system is 4.32%.
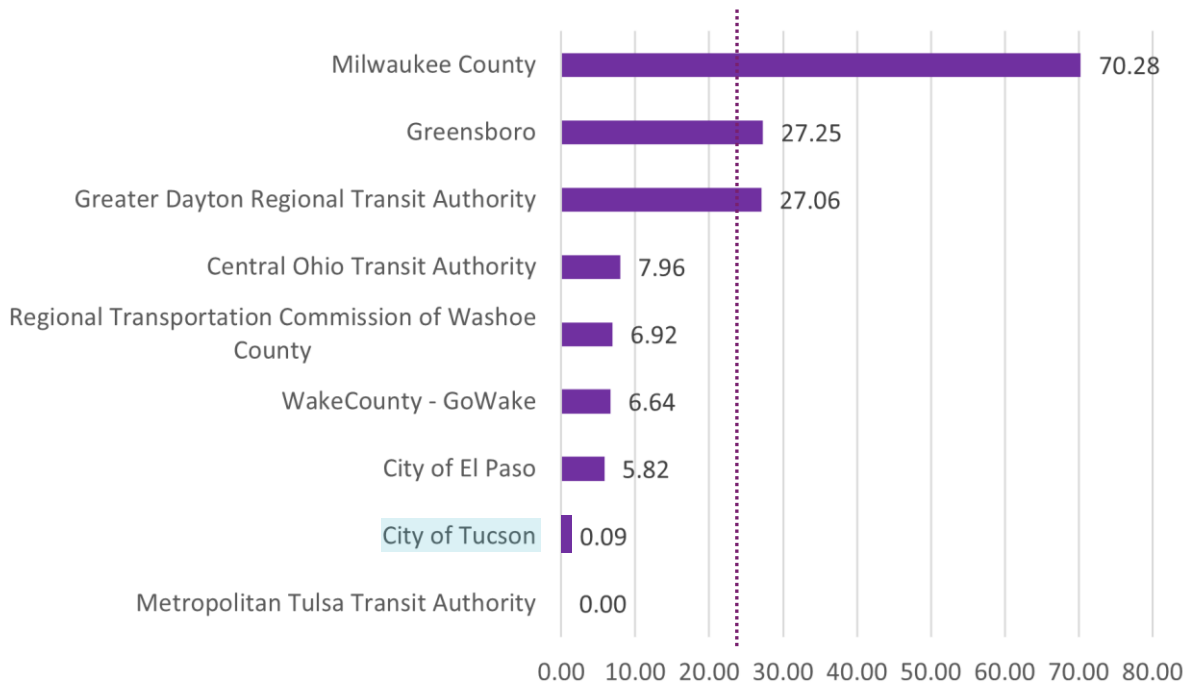This is **above-average**

⚠️ The definition varies:
Sun Van: fixed route trip by 110% +5min **VS** passenger onboard for over 1h or 1h30.

→ Given the data from NTD acknowledging that Tucson's trips are longer than its peers, this data must be analyzed carefully, as the definition of a trip being excessive when exceeding 1 hour and 30 minutes, may not apply to Tucson.

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Data from survey – Missed trips

Low is good

Normalization missed trips /10,000 passengers

Agency	Value
Milwaukee County	70.28
Greensboro	27.25
Greater Dayton Regional Transit Authority	27.06
Central Ohio Transit Authority	7.96
Regional Transportation Commission of Washoe County	6.92
WakeCounty - GoWake	6.64
City of El Paso	5.82
City of Tucson	0.09
Metropolitan Tulsa Transit Authority	0.00

0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00

Tucson's position: 2/9*

With only 4 missed trips, 0.09 missed trips/10,000 passengers using the NTD data from 2022.

The average for the peer system is 23.64 missed trips/10,000 passengers. This is **below-average.**

* Phoenix was excluded from this metric: considering it is a larger location, including it would skew the analysis.

→ This small number can also explain the few customer complaints Sun Van receives, outlining a good customer experience.

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Data from survey – Customer reservations

Low is good

Avg answer call time

(Bar chart, x-axis from 0:00:00 to 0:02:53)

- Tulsa
- Wake County
- Milwaukee
- GreaterDayton
- Sun Van
- Phoenix
- COTA
- Greensboro
- RTC Washoe
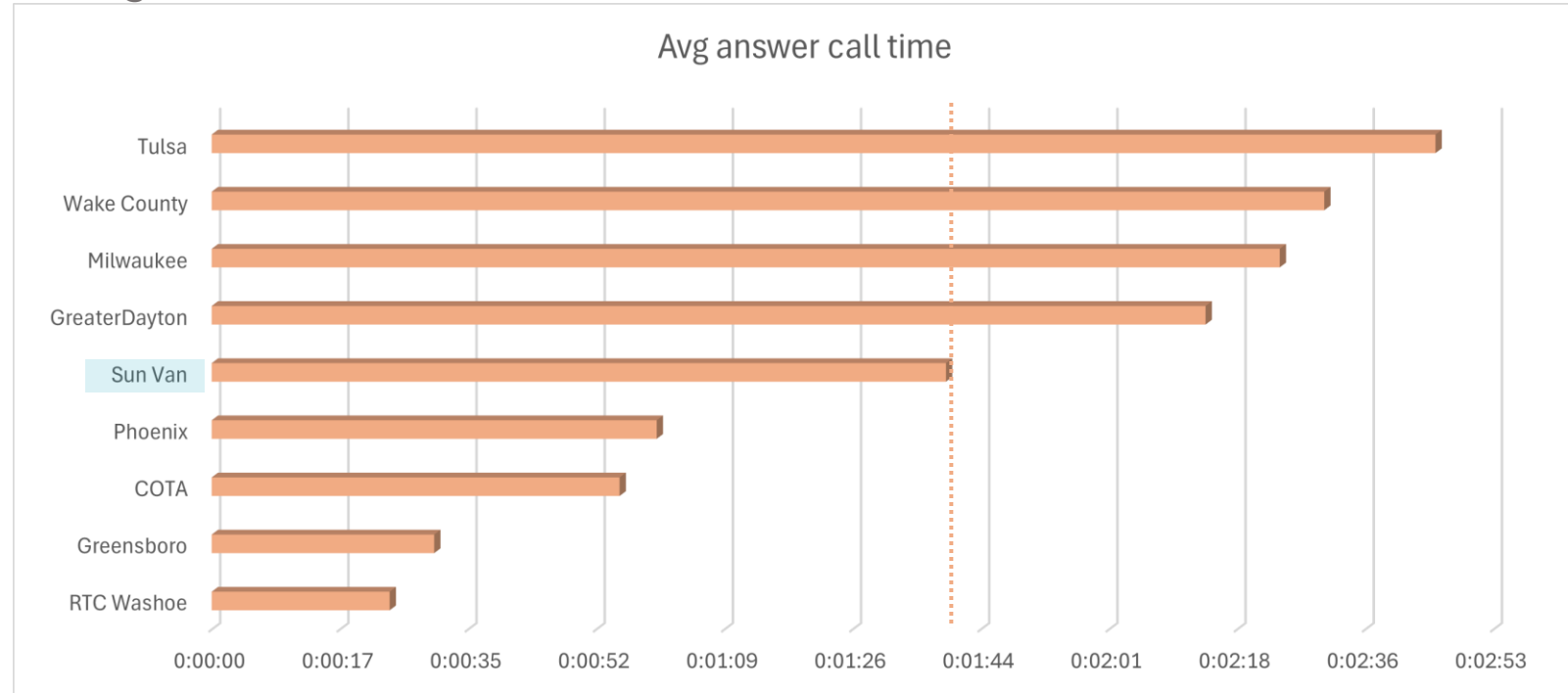
Tucson's position: 5/9*

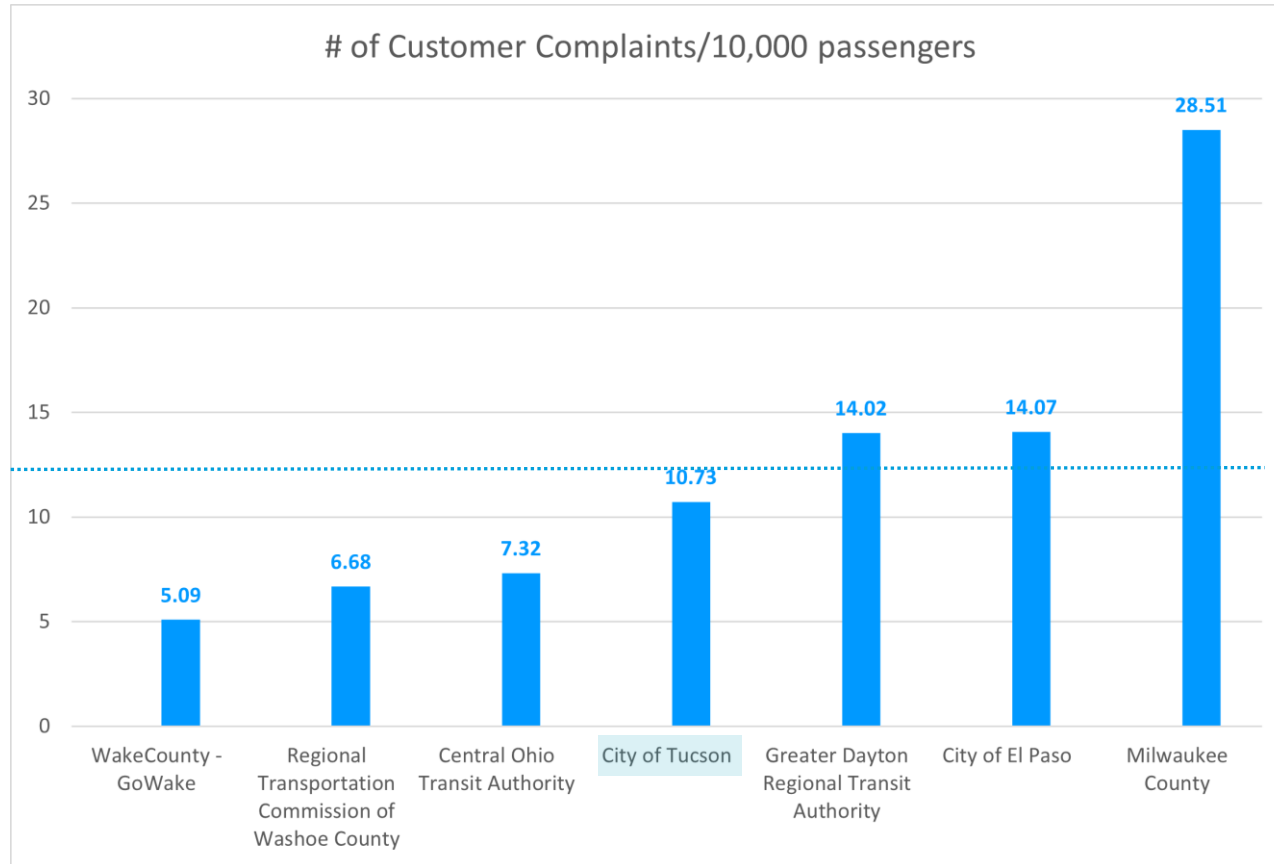01:39

The average for the peer system is 01:36. This is **below-average**

* 1 peer did not answer this question from the survey.

⚠️ Some agencies offer different options to book a trip such as using apps (**3/10** including Sun Van).

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Data from survey – Customer complaints

Low is good

of Customer Complaints/10,000 passengers

Chart bars:
- WakeCounty - GoWake: 5.09
- Regional Transportation Commission of Washoe County: 6.68
- Central Ohio Transit Authority: 7.32
- City of Tucson: 10.73
- Greater Dayton Regional Transit Authority: 14.02
- City of El Paso: 14.07
- Milwaukee County: 28.51

Tucson's position: 4/7*

10.73/10,000 passengers

The average for the peer system is 12.35/10,000 passengers. This is **below average**.

* 2 peers did not answer this question from the survey, and Phoenix was removed due to its larger size.

→ Sun Van receives few customer complaints, implying a good satisfaction level of customers. The small number of missed trips can explain this.

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Data from survey – Trips canceled by customers

Low is good

Trips canceled by customer/10,000 passengers

Metropolitan Tulsa Transit…	92
Central Ohio Transit Authority	306
WakeCounty - GoWake	476
Regional Transportation…	1054
Greensboro	2207
Greensboro	2207
City of El Paso	3738
Milwaukee County	3791
Greater Dayton Regional Transit…	4031
City of Tucson	9074

Tucson's position: 1/9*

9,074/10,000 passengers
The average for the peer system is 2,698/10,000 passengers. This is **above average.**

* Phoenix did not give an exact number but gave an approximative rate of 30% of total trips canceled by customers.

→ Sun Van has a **higher number** of trips canceled by customers. the reasons for this trend should be investigated, and disincentive measures could be implemented to reduce cancellations. For instance, a policy could be introduced where customers are restricted from booking trips after a certain number of cancellations

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Data from survey – Labor utilization

Average is good

Budgeted Operator Count

Sun Van: 180, COTA: 158, GreaterDayton: 110, Wake County: 94, SunMetro: 76, Tulsa: 50, Greensboro: 39
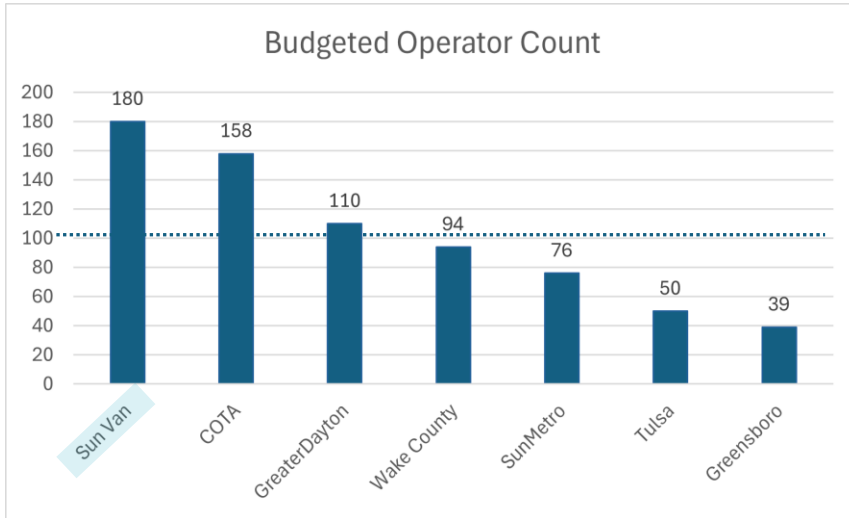
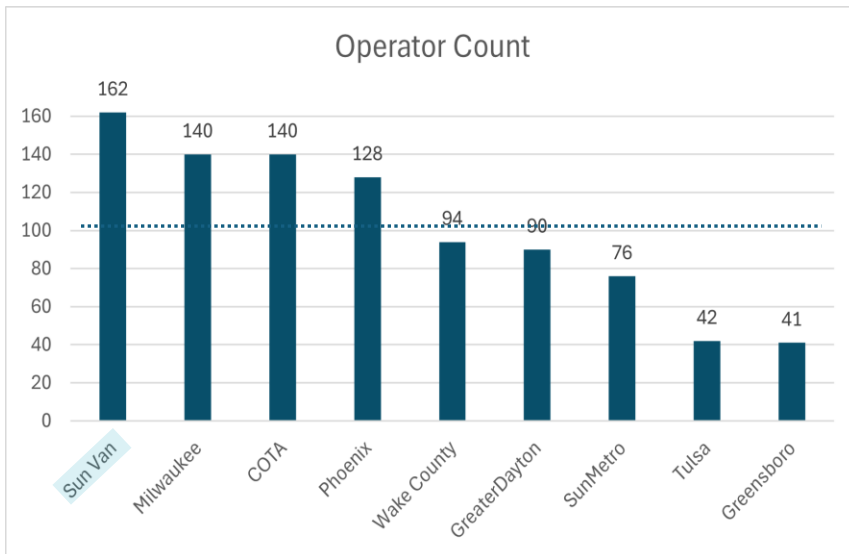## Tucson's position: 1/7*

101 operators on average.

More operators than its peers.

* 3 peers did not provide us with this information.

Low is good

Labor overtime rate

GreaterDayton: 9%, Wake County: 11%, COTA: 12%, Greensboro: 14%, Sun Van: 16%

Operator Count

Sun Van: 162, Milwaukee: 140, COTA: 140, Phoenix: 128, Wake County: 94, GreaterDayton: 90, SunMetro: 76, Tulsa: 42, Greensboro: 41

Tucson's position: 1/9*

101 operators on average.

More discrepancies between budgeted operators and actual operators count.
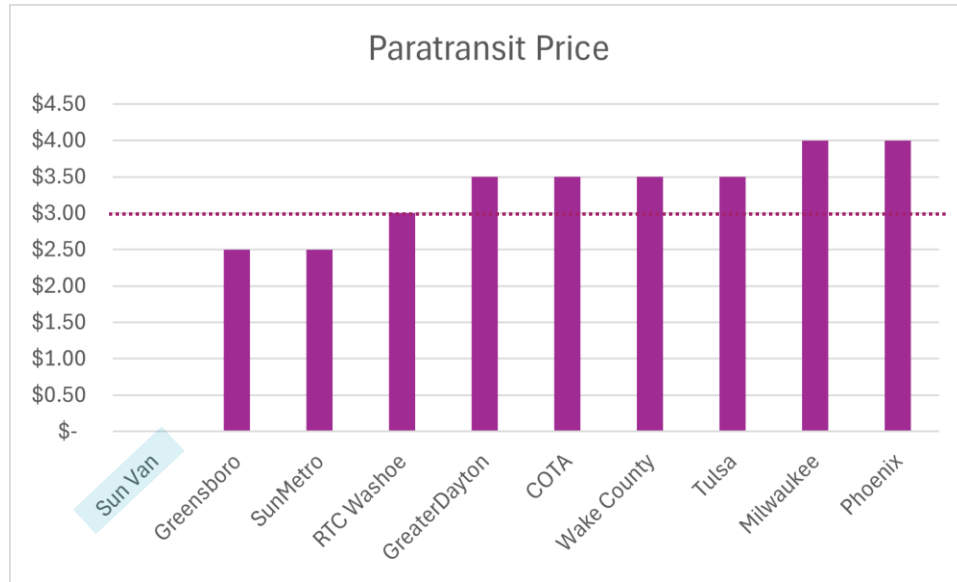
* 1 peer did not provide us with this information.

Tucson's position: 1/5*

* 5 peers did not provide us with this information.

More than the average of 12%.

Crossing data
Overall, SunVan appears to be less efficient than its peers in terms of workforce management
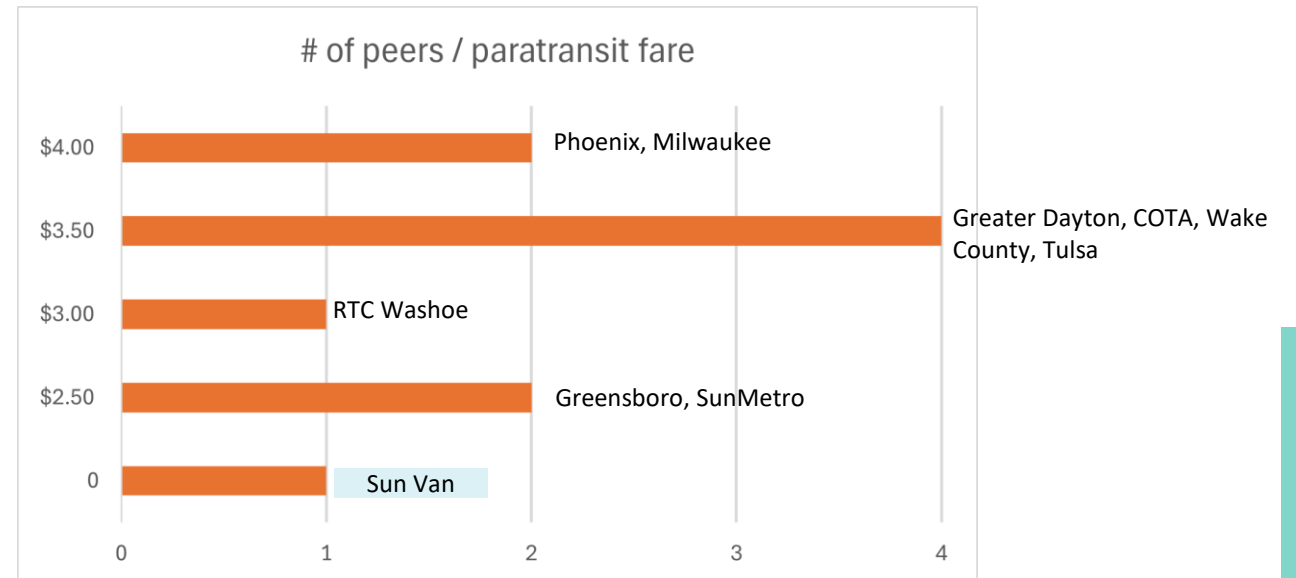
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Data from survey – Fares and pricing

Paratransit Price

Tucson's position: 1/10

Free.

The average for the peer system is $3.
This is **below-average**.

# of peers / paratransit fare

$4.00 — Phoenix, Milwaukee

$3.50 — Greater Dayton, COTA, Wake County, Tulsa

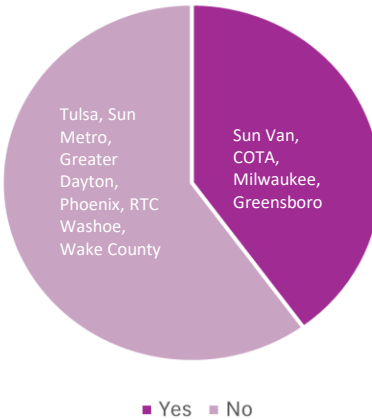$3.00 — RTC Washoe

$2.50 — Greensboro, SunMetro

0 — Sun Van

→ Tucson is **the only agency** not charging for its paratransit services.

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Data from survey – Fare evolution

- **7 /10 peers** **have maintained the same policy over time.**

- **2/10 peers** **have implemented modest fare increases**: Greensboro increased its fare by $1, and Milwaukee raised its agency fare on January 1, 2024, from $20.55 per trip, *although the base fare has not changed since 2012.*

- Sun Van is the **only one** that became free over time.
  - ➢ Go Raleigh, a smaller agency, is currently free but plans on charging a fare in July 2024

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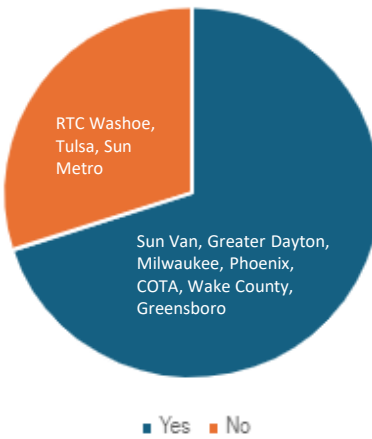
Premium Services and Services exceeding ADA requirements

Premium services

Tulsa, Sun Metro, Greater Dayton, Phoenix, RTC Washoe, Wake County

Sun Van, COTA, Milwaukee, Greensboro

■ Yes ■ No

*

Services provided:
- *COTA (Ohio):* Offers "Mainstream on Demand" with a fare of $1/mile and a $5 minimum charge.
- *Greensboro:* Provides a service called IRide, a private, door-to-door transportation service for passengers aged 65+ and individuals with disabilities.
- *Milwaukee:* Charges an "Agency Fare" of $35 per ride for clients with managed care funding or Medicaid and those living in group homes or nursing homes who take medical and day program trips.
- *Sun Van* has additional services but does not charge for them.

Exceeding ADA Requirements?

RTC Washoe, Tulsa, Sun Metro

Sun Van, Greater Dayton, Milwaukee, Phoenix, COTA, Wake County, Greensboro

■ Yes ■ No

¾ mile buffer:
→ **100%** of peers exceeding the ADA requirements go over the ¾ mile buffer. However, Tucson is **the only one** to offer trips outside the hours of operation for fixed-route services.

Same day trip?:
→ **40%** of peers exceeding the ADA requirements offer same-day trips, and Sun Van is one of them, along with COTA and Greensboro.

Crossing data

Overall, Tucson appears to offer **a broader range of services** to customers compared to its peers, providing **greater flexibility** and thus enhancing the overall customer experience.

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Programs to improve paratransit services efficiency

Rely on micro-transit: *Sun Van, Tulsa, and Wake County.*

Encouraging Fixed Route Services:

- Greater Dayton: **free**.
- Milwaukee: **$2 per day**.
- Greensboro: **50% off**.

Travel Training aiming to promote fixed route utilization**:** *Sun Van, COTA, Milwaukee, and Greensboro.*

Other initiatives:

- *COTA* imposes **productivity-based liquidated damages** on paratransit contractors to maintain efficiency.
- *Wake County* has adopted Ecolane, a **paratransit and micro transit scheduling software**, resulting in significant benefits → On-time performance has increased by 40-45%.
- *Sun Metro in El Paso, TX,* offers a **5% discount for the Amistad project**, a program transporting elderly residents and persons with disabilities to their medical destinations.

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Partnerships

Uber / lyft

4/10 peers

- RTA Greater Dayton
- Phoenix
- RTC Washoe
- COTA

TAXI SERVICE

3/10 peers

- RTC Washoe
- Phoenix
- Wake County (49 taxi vendors)

Local transportation providers

3/10 peers

- RTA Greater Dayton
- Phoenix
- COTA

4 peers stand out when it comes to partner with private transportation providers, **cumulating more than one partnership**: Phoenix, RTC Washoe, RTA Greater Dayton, and COTA.

→ Sun Van could explore partnerships as a way to improve their efficiency.

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CONCLUSION

Overall Performance:

- Tucson's paratransit services perform well on various metrics.
- Positioned favorably compared to similar services in other cities.

Areas for Improvement:

- **On-Time Trips:** Initiatives could be explored to improve OTP.
- **Labor Utilization**: Opportunities to optimize workforce efficiency.
- **Customer Cancellations**: Need to reduce the rate of cancellations to improve reliability. (e.g. implement negative incentives)
- **Partnerships**: Collaborations with other organizations could enhance service metrics and overall performance.

High Customer Satisfaction:

- **Investment**: Significant resources allocated to improving paratransit services.
- **Booking Options**: Multiple methods available for booking trips, increasing convenience. Good response time for booking.
- **Flexibility**: Services offer a flexible experience tailored to customer needs (premium services).

High-Performance Metrics:

- **Missed Trips**: Very low incidence of missed trips, indicating reliability.
- **ADA**: Services not only meet but exceed ADA requirements.
- **Cost to Customers**: All services provided are free of charge, enhancing accessibility

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