

Arlington RAPID Autonomous Vehicle Service



Entertainment District:
 AT&T Stadium
 Globe Life Field
 Six Flags Theme Park
 Hurricane Harbor Water Park

Downtown & University of Texas at Arlington

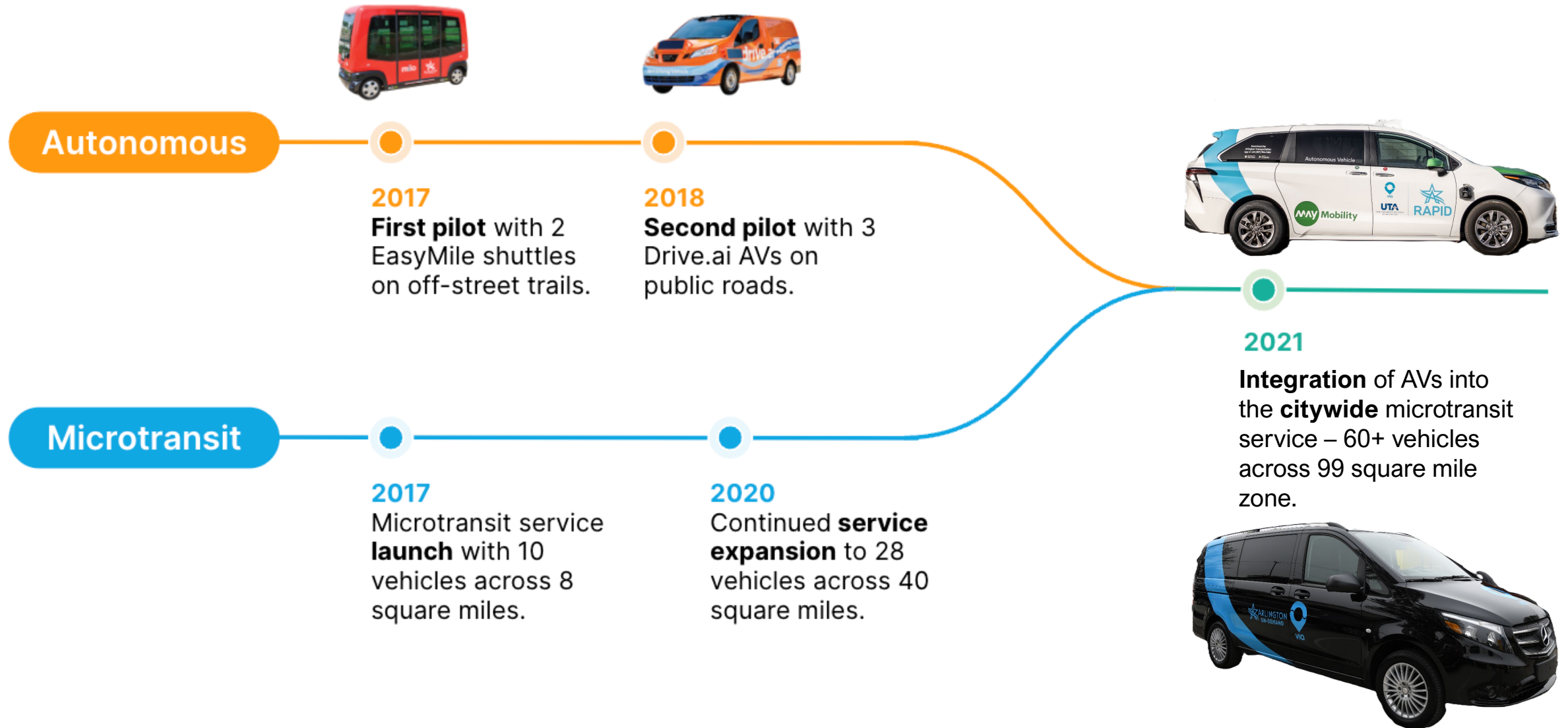
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- A map of Texas with major cities labeled. A large red star is placed over Fort Worth. Other cities shown include Amarillo, Lubbock, Wichita Falls, Dallas, Longview, Tyler, Nacogdoches, Lufkin, Huntsville, Beaumont, Houston, Galvesto, Victoria, Corpus Christi, McAllen, Brownsville, Laredo, Del Rio, Fredericksburg, Austin, College Station, Temple, Bryan, San Antonio, San Angelo, Midland, Odessa, El Paso, and Amarillo.

Transportation Planning Framework

- Connect Arlington (2017) – a multimodal transportation plan framework used to guide transportation decisions
- Identified on-demand rideshare and autonomous vehicles as immediate recommendations in Arlington
 - Launched Arlington On-Demand service in Dec. 2017
 - Launched Arlington RAPID in March 2021 (third AV service)
- Autonomous vehicle service goals:
 - Test vehicles in real-world settings
 - Build community understanding and acceptance
- Autonomous vehicle service phasing:
 - Off-street, low speed
 - On-street, circulator route
 - On-demand, integrated with Arlington On-Demand service



On-Demand + Autonomous Transit Evolution



Arlington RAPID AV Service



- Funding from the FTA Integrated Mobility Innovation competitive grant program for 1st year; funding from NCTCOG for 2 additional years
- Partnering with Via, May Mobility, UT Arlington
- Integrate May Mobility autonomous vehicles into On-Demand rideshare service around Arlington's downtown and UTA's campus
- Launched March 23, 2021
- First on-demand AV service integrated into existing public transportation in the United States; longest running on-demand AV service in United States



Federal Transit
Administration



North Central Texas
Council of Governments



Arlington RAPID: Service Details



Fleet of 4 autonomous vehicles

- Toyota Sienna Autono-MaaS vans, hybrid electric
- 1 wheelchair accessible van
- AV Operator behind the wheel at all times

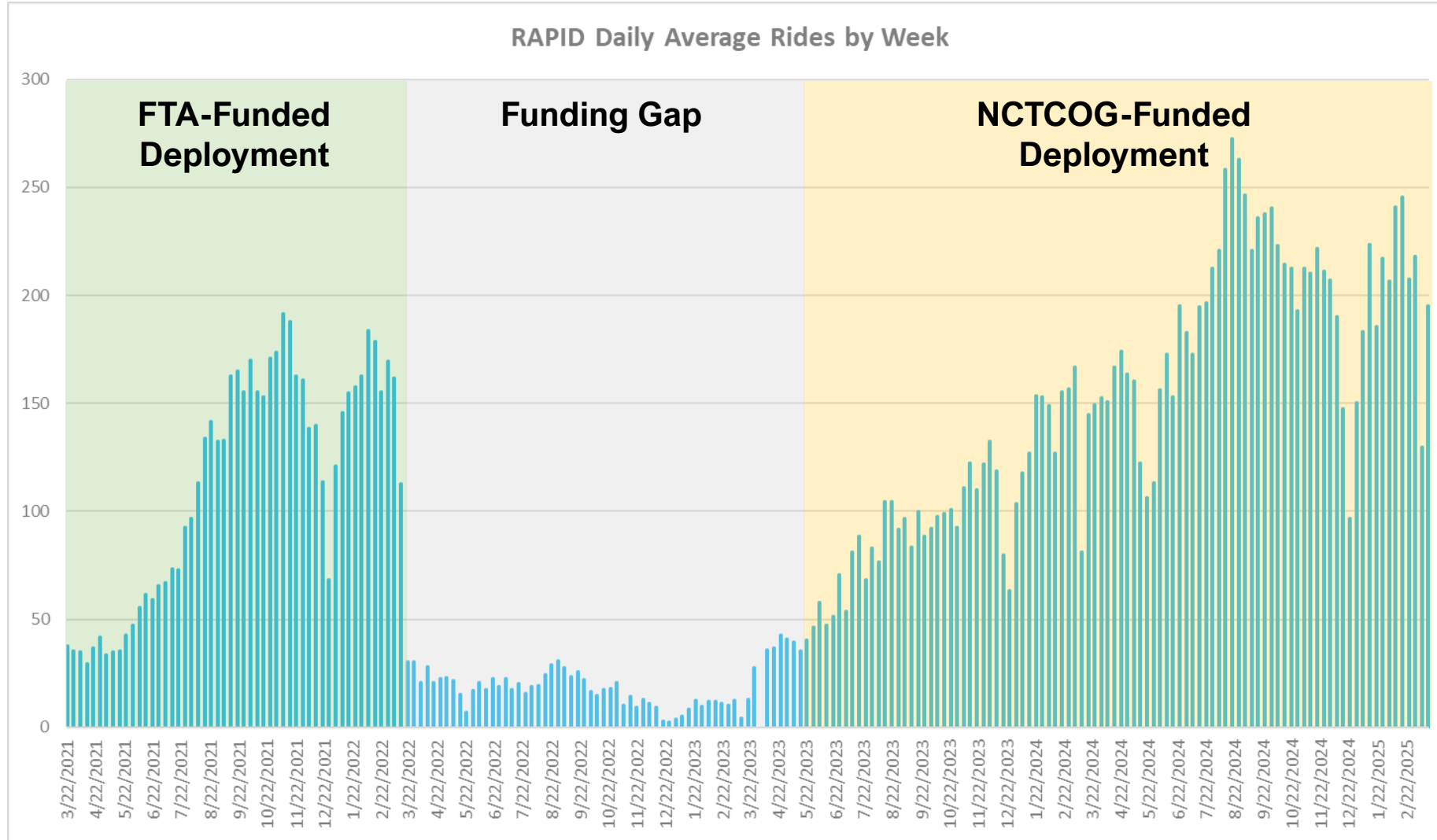
Service

- Area: one square mile in Downtown and UTA campus
- Hours: Monday – Friday, 8am – 8pm
- Booking: through app or call-in number
- On-demand service will pick up and drop off at desired locations

Fares: standard On-Demand fare applies; free for UTA students



Arlington RAPID: Performance Data



Ridership: 108,000+

ETAs: 10-15 minutes

On-time: 99-100%

Acceptance: 75-90%

Sharing: 55-70%

Autonomy: ~90%

No safety incidents

Serves short trips to
improve efficiency of
citywide service

Arlington RAPID: Rider Feedback



Via app rider satisfaction: 4.9 out of 5

Ridership survey results (n=389):

96% of riders report feeling safe

97% of riders report wanting to ride again

Ridership survey demographics (n=336):

78% of riders report being non-white

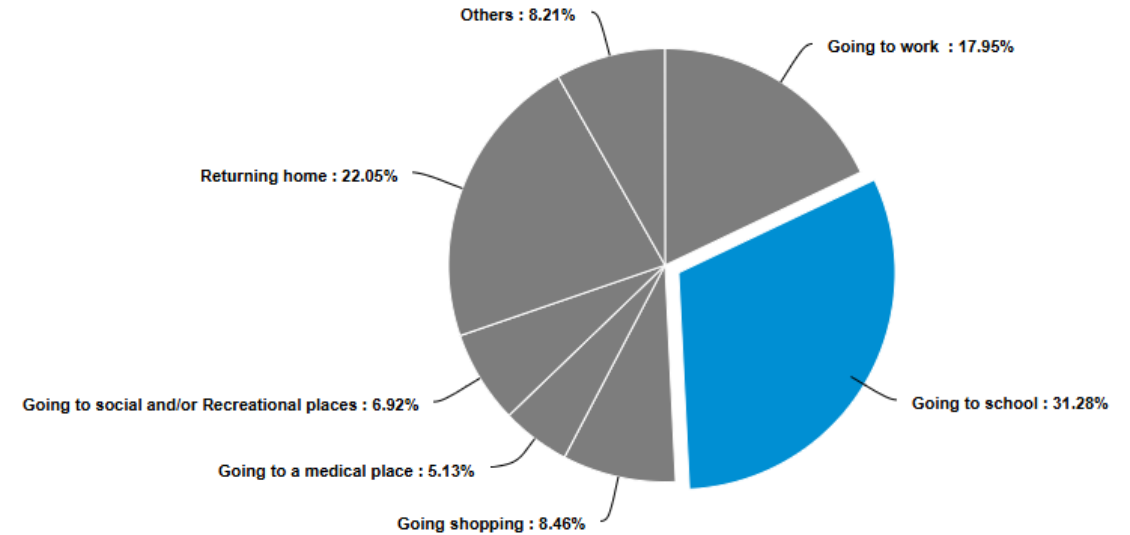
54% of riders report having HH income <\$20,000

49% of riders report having no personal vehicle

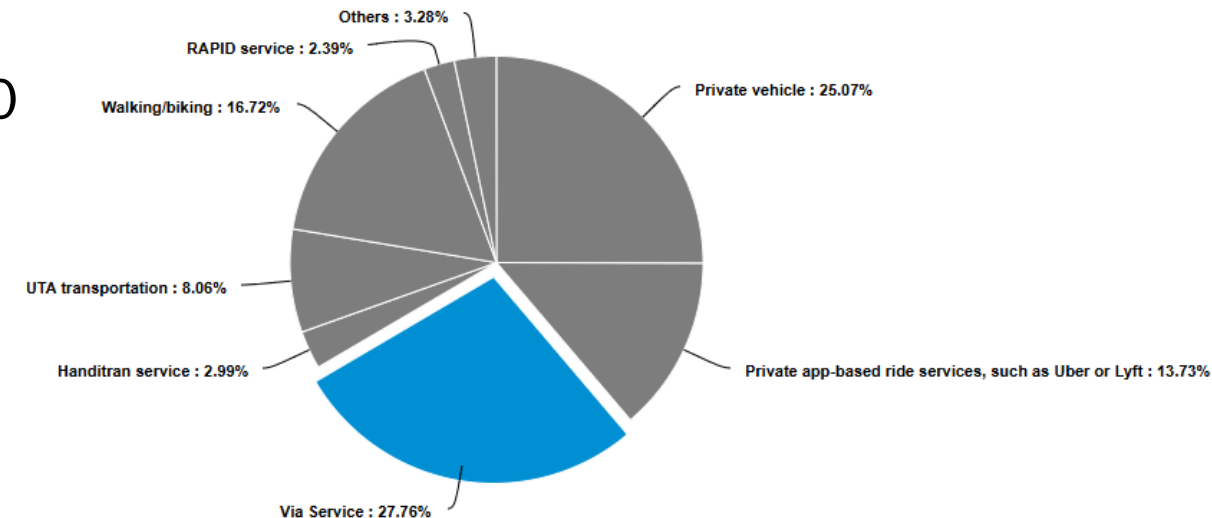
68% of riders report being a UTA student

47% of riders report being 18-24 years old

Purpose of trip on RAPID?



Usual mode of transportation?



Arlington RAPID: Key Accomplishments



Over 100,000 rides completed

Driver-out preparations

First responder interaction

Understanding community acceptance for removing the human operator

Planning to integrate and expand AVs into On-Demand service fleet in the future



Discussion

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