

Special Report

Transportation Demand Management

September 2022



Austin Transportation Department (ATD) collects information on 21 measures related to Transportation Demand Management (TDM) to better understand how the community uses its mobility options. ATD currently uses seven of these measures to inform their TDM strategy. They indicated they could use several more in the future. We compared Austin's strategy to industry best practices and eight other cities. We found our TDM approach aligns with industry best practices. But, it appears Austin has a higher rate of people driving to work alone than six of eight cities reviewed.

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Cover: [Webberville intersection](#), City of Austin, 2021

Objective

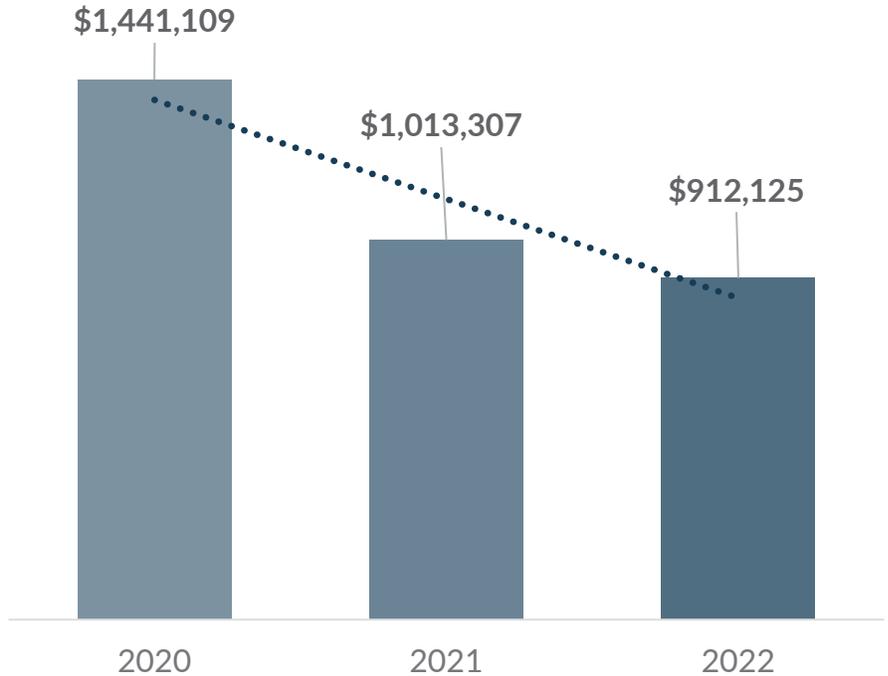
The objectives of this special request were to answer the following City Council questions:

1. Does the City collect information to understand how the community uses its mobility options?
2. Does the City use this information to guide its Transportation Demand Management strategy?
3. How does the City's approach compare with industry practices and what peer cities are doing?

Background

The 2019 Austin Strategic Mobility plan is a comprehensive plan that aims to establish a transportation network that effectively serves the Austin community. One strategy outlined in this plan is Transportation Demand Management (TDM), which aims to reduce traffic congestion by helping people use existing infrastructure to walk, bike, share rides, or take public transit. The Austin Transportation Department initiated the TDM program in 2018 and is responsible for the City's TDM strategy. As of late 2020, 70% of Austinites drove alone to work. A primary goal of TDM is to reduce this number by encouraging alternative commute methods and teleworking as well as to reduce overall congestion by encouraging alternative work schedules. In Fiscal Year 2022, the TDM budget was \$912,000 and has 4 staff assigned to this program. Exhibit 1 shows the City's budget for the TDM program.

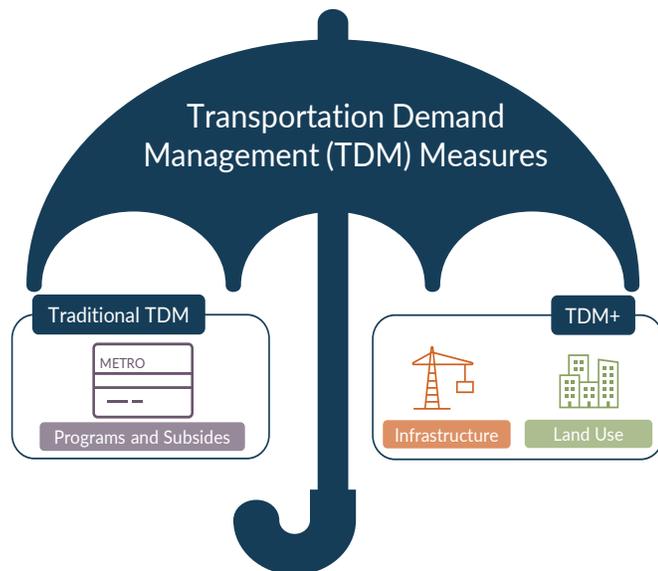
Exhibit 1: City's budget for TDM program for fiscal years 2020 through 2022



Source: City of Austin Controller's Office

The City currently use various traditional TDM strategies to influence travel behavior by providing information, encouragement, and incentives from local or regional organizations. As the congestion increases in Austin, the City is implementing broader TDM strategies (referred to as TDM+). While the traditional TDM mainly emphasizes alternative commuting options to reduce the drive-alone rate, TDM+ emphasizes creating infrastructure that provides people with realistic alternatives to driving alone. For example, establishing proper bike lanes is a TDM+ strategy that aids traditional TDM.

Exhibit 2: Focus of traditional TDM vs. TDM+



Source: Office of the City Auditor interviews with ATD staff, May 2022

What We Learned

Summary

Austin Transportation Department (ATD) collects information on 21 measures related to Transportation Demand Management (TDM) to better understand how the community uses its mobility options. ATD currently uses seven of these measures to inform their TDM strategy. They indicated they could use several more in the future. We compared Austin's strategy to industry best practices and eight other cities. We found our TDM approach aligns with industry best practices. But, it appears Austin has a higher rate of people driving to work alone than six of eight cities reviewed.

Question 1

Does the City collect information to understand how the community uses its mobility options?

The City collects, tracks, and reports information on 21 measures that align with Transportation Demand Management (TDM) strategies. They help measure how the community uses its mobility options. While the City collects most of this data, it also uses external sources such as the U.S. Census and data that third-party vendors collect. The 21 measures that the City tracks and reports are listed in Exhibit 3; three of these measures are reported internally, and the rest are reported publicly on the City's online SD23 [Dashboard](#). While 14 (67%) of these measures were updated in 2021, 7 (33%) have not been updated since 2020 or 2019.

Exhibit 3: TDM-related measures the City collects, tracks and reports

Measure Type
Internally reported
Publicly reported on SD23 dashboard

Key Measures	Last Updated
Commute Drive-Along Rates (compared to other Cities)	2019
Austin Commute Mode Split (Drive Alone, Carpool, Transit, Walk, Bike, Telework, Other)	2021
City of Austin Employee Commute Mode Split (Drive Alone (Peak), Drive Alone (off Peak), Sustainable Modes (Non-SOV))	2021
Percent split of modes based on commute to work (mode share)	2020
Transit Travel Time Reliability: percent change in MetroBus on-time performance	2021
Vehicle Travel Time Reliability: Percent change in the day-to-day variability of vehicle travel	2019
Percent split of modes by City of Austin employees based on commute to work, including off-peak drive-alone trips	2021
Percent of development projects that meet or exceed drive alone trip targets	2021
Change in average MetroBus travel speed	2021
Percent change in average vehicle travel time along major City corridors	2019
Percent of households reducing the number of cars in their household	2019
Percentage of new residential units permitted within a quarter-mile of a high-frequency transit route or protected bicycle facility	2021
Percentage of new commercial square footage permitted within a quarter-mile of a high-frequency transit route or of a protected bicycle facility	2021
Percent satisfaction with transportation options (aside from personal vehicle) to get around Austin (e.g. ride share, bus/train, bike, walk)	2019
Percentage of population that has access to innovative public transit service or is within one quarter mile of regular fixed route transit	2021
Percentage of existing sidewalks in functionally acceptable condition	2021
Percent of missing sidewalks	2021
Percent of all ages and abilities bicycle network completed	2021
Percent satisfaction with the overall maintenance of City sidewalks	2019
Estimated percentage of protected bikeways swept annually	2021
Number and percentage of high-frequency transit routes with fair or better street condition	2021

Source: Office of the City Auditor analysis of TDM program internal measures and relevant SD23 measures, June 2022

Question 2

Does the City use this information to guide its Transportation Demand Management Strategy?

Austin Transportation Department staff indicated they currently use 7 of the 21 measures that are aligned with TDM strategies to guide TDM efforts. ATD uses these measures for determining what projects the department works on, planning how they collaborate with consultants, determining the focus of employee commute contests, and identifying MetroBike station locations. The seven measures ATD staff actively use to influence TDM strategy are shown in Exhibit 4.

Exhibit 4: Measures the City uses to inform TDM strategy

Key Measures	How it informs TDM strategy
Commute Drive-Along Rates (compared to other Cities)	Influences project decision making related to reducing drive-alone rates
Austin Commute Mode Split (Drive Alone, Carpool, Transit, Walk, Bike, Telework, Other)	Influences decision making of projects encouraging alternate modes of transportation
City of Austin Employee Commute Mode Split (Drive Alone (Peak), Drive Alone (off Peak), Sustainable Modes (Non-SOV))	Influences incentives for employees to use alternative transportation
Percent split of modes based on commute to work (mode share)	Influences decision making of projects encouraging alternate modes of transportation
Percent split of modes by City of Austin employees based on commute to work, including off-peak drive-alone trips	Influences incentives for employees to use alternative transportation
Percentage of population that has access to innovative public transit service or is within one quarter mile of regular fixed route transit	Helps identify MetroBike station locations
Percent of all ages and abilities bicycle network completed	Influences community walking/biking tours with partners such as CapMetro and Ghisallo Cycling Initiative

Source: Office of the City Auditor summary of TDM measures provided by ATD, June 2022

ATD staff noted that although the City collects data for 21 measures, it is not currently using 14 of these measures to guide TDM strategy. The ATD Staff indicated that several of these measures could be used in the future to inform a broader TDM strategy.

Question 3

How does the City’s approach compare with industry practices and what peer cities are doing?

Industry practices¹ indicate that a successful Transportation Demand Management strategy should include programs in the following categories:

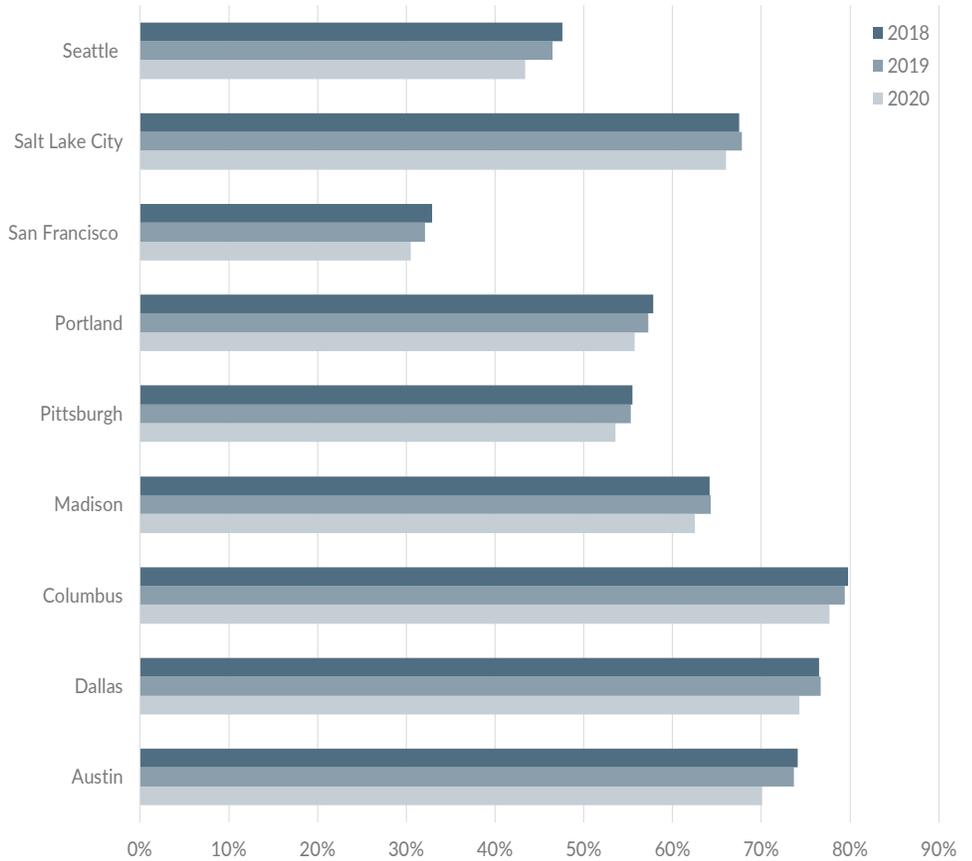
- Employer/Institutional Support Services:
 - This largely refers to on-site services and amenities for employees, such as use of employer vehicles.
- Financial Incentives or Disincentives:
 - This includes subsidies, allowances, and other money-saving programs, like free bus passes.
- Alternative Work Arrangements:
 - This category emphasizes flexible work hours and methods, such as telecommuting.
- Local and Regional Infrastructure and Policy:
 - This includes infrastructure and land use changes, such as public transportation improvements or extensions.

¹ Kimley Horn, Transportation Demand Management Quick Guide, September 2016

ATD staff indicated that they have programs in each of these categories as shown in the Appendix.

We selected eight cities for comparison to the City of Austin’s drive-alone rates. We found that for the 2018-2020 period, Austin had a higher percent of people who drove alone to work (70%) than 6 of the 8 other cities we sampled². See Exhibit 5.

Exhibit 5: Austin has a higher drive alone rate than six of eight peer cities



Source: Office of the City Auditor analysis of American Community Survey data from 2018-2020, June 2022

² Auditor analysis does not take into account whether population growth influences drive-alone rates.

As noted in the Exhibit 6 below, Austin saw a greater percent decrease (5%) in people who drove alone to work from 2018–2020 than the average peer city (4%).

Exhibit 6: Austin had a higher than average decrease in drive-alone rates during years 2018-2020

City	2018	2019	2020	Change 2018-2020
Austin	74.1%	73.7%	70.1%	-5.4%
Columbus	79.8%	79.4%	77.7%	-2.9%
Dallas	76.5%	76.7%	74.3%	-2.6%
Madison	64.2%	64.3%	62.5%	-2.6%
Pittsburgh	55.5%	55.3%	53.6%	-3.4%
Portland	57.8%	57.3%	55.7%	-3.6%
Salt Lake City	67.5%	67.8%	66.0%	-7.3%
San Francisco	32.9%	32.1%	30.5%	-2.2%
Seattle	47.6%	46.5%	43.4%	-8.8%
Average				-4.3%

Source: Office of the City Auditor analysis of American Community Survey data from 2018-2020, June 2022

Appendix

TDM Strategy Category
Employer & Institutional Support Services
Financial Incentives or Disincentives
Alternative Work Arrangements
Local & Regional Infrastructure and Policy

TDM Programs	Status	Description
ATD Vehicles (Car Sharing)	Implemented	ATD employees may access ATD vehicles to commute to meetings and worksites
myCommuteSolutions (Rideshare Matching)	Implemented	City employees may utilize the myCommuteSolutions platform to track their trips, find carpool matches, and participate in contests
Safe Ride Program (Guaranteed Home Ride)	Implemented	City employees can call for a ride in the event they may feel unable to drive by calling a taxicab (including Uber & Lyft rideshare options) and submitting for reimbursement
New Hire Orientation	Implemented	A team member from the TDM team attends every ATD new employee orientation and presents on the various commute resources offered; a one-pager on resources is also distributed at Citywide orientations
Fairs/Promotions	Implemented	The TDM team hosts and attends various internal and external fairs and events to promote TDM programs and commute resources
BOP E-bikes (Bicycle Loan Program)	Implemented	ATD offers four e-bikes for City employees to use at any time to commute to meetings and other City offices
Get There ATX (Rewards Program)	Implemented	Formerly Smart Commute Rewards. Offers City of Austin employees various incentives to adopt a commuting habit that incorporates sustainable transportation
Development Review TDM Requirements	Ongoing	These strategies are built into a list of requirements/ options for developments to choose from to mitigate their impact on the transportation network
Free CapMetro passes (Transit Subsidies)	Implemented	All regular and temporary City employees can ride any Capital Metro bus, train, or PickUp service at any time of day using their free employee transit pass
Free MetroBike passes (Transit Subsidies)	Implemented	All regular and temporary City employees can redeem a free annual MetroBike membership. Formerly known as B-cycle
CapMetro Rideshare (Vanpool program/ subsidies)	Implemented	All regular and temporary City employees can take advantage of Capital Metro's vanpool services with a subsidy
Austin Energy Electric Ride (E-Ride) Rebate	Implemented	Austin Energy provides an e-ride rebate, an unlimited EV charging membership, and an EV buyers guide
Development Review TDM Requirements	Ongoing	These strategies are built into a list of requirements/ options for developments to choose from to mitigate their impact on the transportation network
Telecommuting	Implemented	The City has a telework policy in place; telework plans vary by department
Robin (Office hoteling)	Implemented	The City utilizes the Robin software to enable a safer environment for employees through social distancing, space planning data, and reallocating space when needed
Development Review TDM Requirements	Ongoing	These strategies are built into a list of requirements/ options for developments to choose from to mitigate their impact on the transportation network
Movability, Inc. (TMA)	Implemented	ATD has a contract with the region's TMA, Movability Inc., which allows for regional TDM planning, partnership on projects and events, and data collection
CAMPO Regional TDM Plan	Ongoing	The Capital Area Metropolitan Planning Organization (CAMPO) Transportation Policy Board adopted their Regional TDM Plan for ongoing implementation
Connections 2025	Ongoing	Connections 2025, also called Cap Remap, is Capital Metro's short-range transit service plan which is being implemented through annual service changes
Project Connect	Ongoing	The City is a partner on the implementation of Project Connect with Capital Metro and the Austin Transit Partnership
SoCo Parking Study	Ongoing; intended 2020 start date	ATD will be reinitiating the planning process to implement a Parking and Transportation Management District (PTMD) and setting aside parking dollars generated within the South Congress district to complete needed enhancement
ASMP Policy Document	Implemented	The Austin Strategic Mobility Plan (ASMP) adopted comprehensive policy and actions to support TDM

Source: Office of the City Auditor summary of ATD's initiated TDM programs, and their implementation status provided by ATD, June 2022

Why We Did This Report

This report responds to a request from Mayor Steve Adler as a sponsor and Mayor Pro Tem Alison Alter as a co-sponsor at the December 2, 2021 City Council meeting. The request focused on Transportation Demand Management.

Scope

The audit scope included the Austin Transportation Department's strategy and data collection efforts from 2018 - 2022.

Methodology

To complete this special request, we performed the following steps:

- Interviewed staff in the Austin Transportation Department
- Analyzed the City's Strategic Direction Performance Dashboard Mobility outcome
- Selected a judgmental sample of 8 peer cities to compare the peer cities drive-alone rates
- Analyzed Census data to evaluate changes to Austin's commute drive-alone rate as compared to selected peer cities
- Researched Transportation Demand Management best practices
- Reviewed the City's Transportation Demand Management plans and progress reports

Project Type

Special request projects conducted by the Office of the City Auditor are considered non-audit projects under Government Auditing Standards and are conducted in accordance with the ethics and general standards (Chapters 1-3).

The Office of the City Auditor was created by the Austin City Charter as an independent office reporting to City Council to help establish accountability and improve City services. Special requests are designed to answer specific questions to assist Council in decision-making. We do not draw conclusions or make recommendations in these reports.

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