

Seattle Department of Transportation

Seattle Commute Trip Reduction Program

2021/2022 PERFORMANCE UPDATE



June 2024



Seattle
Department of
Transportation

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Glossary of Terms

Alternate Plan: In 2013, Seattle was one of four Washington jurisdictions to create a pilot plan geared toward expanding CTR beyond commute trips to large employers and using flexibility in setting and meeting targets based on local context (See: CTR Network, below).

Center City: Seattle's Center City district includes the following 10 neighborhoods: Belltown, Capitol Hill, Chinatown-International District, Commercial Core, Denny Triangle, First Hill, Pike-Pine, Pioneer Square, South Lake Union, and Uptown.

Commute Trip Reduction (CTR): A Washington State law, first passed in 1991. A CTR-affected jurisdiction, the City of Seattle has adopted a local CTR program, defined in Municipal Code, that sets guidelines for participating employers. Guidelines set the minimums for how employers complete their 'good faith effort' and satisfy compliance with the law. The goals of CTR are to reduce congestion, reduce pollution, and conserve natural resources.

Commute Seattle: Transportation Management Association for Seattle, providing commute support to businesses citywide. Since 2013, SDOT has contracted with Commute Seattle to assist with implementation of the CTR program across Seattle, particularly its employer facing programming. Commute Seattle also partners with King County Metro to market and advertise ORCA Business Programs.

CTR-Affected Employee: A full-time employee who begins their regular work day at an affected employer's worksite between six (6:00) a.m. and nine (9:00) a.m. (inclusive) on two (2) or more weekdays for at least twelve continuous months, who is not an independent contractor, and who is scheduled to be employed on a continuous basis for fifty-two weeks for an average of at least thirty-five hours per week.

CTR-Affected Site: An employment site with 100 or more CTR-affected employees, located in an affected jurisdiction as defined under RCW 70A.15.4020.

CTR Network: A geographically defined region or neighborhood group within the City of Seattle that contains one or more CTR sites. Networks are intended to reflect local differences in the availability of multimodal transportation options, land use patterns, and other factors.

Drive Alone Rate (DAR): The percentage of trips that are drive-alone trips, inclusive of TNC (transportation network companies like Uber and Lyft) and taxi trips.

Employee Transportation Coordinator (ETC): The primary contact between a CTR-affected employer and the City. ETCs administer and promote the employer's CTR program. The contact information of the ETC must be prominently displayed at each worksite and a worksite must have an ETC to be compliant with CTR regulations.

Greenhouse Gas Emissions (GHG): Greenhouse gases trap heat and make the planet warmer. Human activities are responsible for almost all of the increase in greenhouse gases in the atmosphere over the last 150 years. The transportation sector generates the largest share of greenhouse gas emissions in the U.S. overall, as well as here in Seattle. *Source: U.S. Environmental Protection Agency, Sources of Greenhouse Gas Emissions*

Multimodal: Multimodal describes a transportation system where people can easily connect different modes of travel like walking, biking, rolling, riding transit, and driving. A multimodal transportation system can improve community health and livability by reducing air and noise pollution, improving physical and mental health, and creating safer roads. *Source: World Resources Institute, "For Vibrant U.S. Cities, Invest in Multi-modal Transportation"*

New Mobility: Emerging elements of the transportation system that are often enabled by digital technology, shared, driven by real-time data, and increasingly automated. The New Mobility Team at SDOT supports the integration of new and emerging technology and services into the transportation system with a focus on climate, safety, and equitable outcomes.

Shared Mobility: Another term, often used interchangeably, for Micromobility or New Mobility. Technology allows these options to be shared publicly (such as bike share, scooter share, car share) instead of individually owned.

Single-Occupant Vehicle (SOV): A personal vehicle (car, van, SUV) occupied by one person. In the case of a TNC or taxi, occupied by one passenger plus the driver.

Ridematching, or Rideshare Matching:

Connecting worksite employees to promote carpooling and vanpooling as a possible commute option. This may be static (e.g. established group operating with the same users and regular schedule) or on-demand (using real-time matching apps to find ad-hoc shared rides among participants).

Transportation Demand Management (TDM):

A suite of strategies to encourage people to use lower cost, higher efficiency transportation options. TDM helps people use the transportation system more efficiently through education, incentives, products, and programs that encourage taking transit, carpooling, vanpooling, walking, biking, and telecommuting. *Source: Puget Sound Regional Council, Transportation Demand Management*

Transportation Management Program (TMP):

A Seattle Master Use Permit (MUP) requirement established during the construction permitting process and is typically comprised of a DAR/SOV commute goal and program elements that apply for the life of an individual building or group of buildings developed under that MUP.

Transportation Network Company (TNC):

Transportation network companies (TNC) provide application dispatch services (technology that allows consumers to directly request dispatch of for-hire drivers for trips via the internet using mobile interfaces such as smartphone applications) to connect drivers with passengers for transportation services. For the purposes of CTR, use of a TNC or taxi service is considered equivalent to an SOV or driving alone.

Vehicle Miles Travelled (VMT): Sum of the individual vehicle commute trip lengths, in miles, made by employees over a set period of time.

Introduction

Seattle experienced tremendous growth over the past decade. Between 2011 and 2021, the city added more than 130,000 residents, 165,000 jobs, and 65,000 housing units.¹ Amid this growth, the Commute Trip Reduction (CTR) program has been an essential tool for moving the city towards a more sustainable transportation system. Starting in 2020, the COVID-19 pandemic fundamentally altered travel patterns at both a local and national level. The CTR program has worked to adapt to these new conditions while continuing to advance its core goals under the State CTR law. The Seattle Department of Transportation (SDOT) continues to work closely with employer partners to encourage multimodal travel choices over single-occupancy vehicle (SOV) use.

CTR STRATEGIC PLAN 2019 – 2023 OVERVIEW

SDOT’s 2019-2023 *Commute Trip Reduction Strategic Plan* (referred to as the Strategic Plan throughout this document) established a roadmap to guide the program’s reform, investment, and ongoing improvement over the next program cycle and into the future. The Strategic Plan established two core goals for the CTR program: drive-alone rate (DAR) and vehicle miles traveled (VMT) per employee. The core program goals were set by the City of Seattle in alignment with the Washington State CTR law² and Transportation Demand Management Board³ guidance.

SDOT’s 2019-2023 Strategic Plan’s citywide DAR target is 25% by 2035/2036, which aligns with goals set in both the *Move Seattle Plan* and *Seattle 2035 Comprehensive Plan*. The citywide VMT per employee target is 3.5 miles⁴ by 2035/2036. The Strategic Plan also includes interim targets for 2019/2020 and 2023/2024 (see Table 1).

TABLE 1. TARGETS FOR CTR CORE PROGRAM GOALS

Horizon Biennium	DAR Target	VMT per Employee Target
2021/2022*	29.7%	4.2
2023/2024	28.8%	4.0
2035/2036	25.0%	3.5

*No target was elaborated for the 2021/2022 biennium, we have included the average of the 2019/2020 and 2023/2024 targets for reference here and all subsequent tables

In addition to citywide targets, SDOT sets network level targets to reflect differences in the availability of multimodal transportation options, land use patterns, and other factors across the city (Tables 2, 3). The 2019-2023 CTR Strategic Plan revamped SDOT’s network areas, increasing the total number from 8 to 11 networks, to better reflect land use and transportation context. It should be noted that these targets were set prior to the onset of the COVID-19 pandemic and its impacts on commute behavior.

¹Annual Growth Stats | data-seattlecitygis.opendata.arcgis.com

²Chapter 70.94.521 RCW Dispositions: Washington Clean Air Act

³Policies - Transportation Demand Management | tdmboard.com

⁴One way trip length average

FIGURE 1. CTR NETWORK GEOGRAPHY

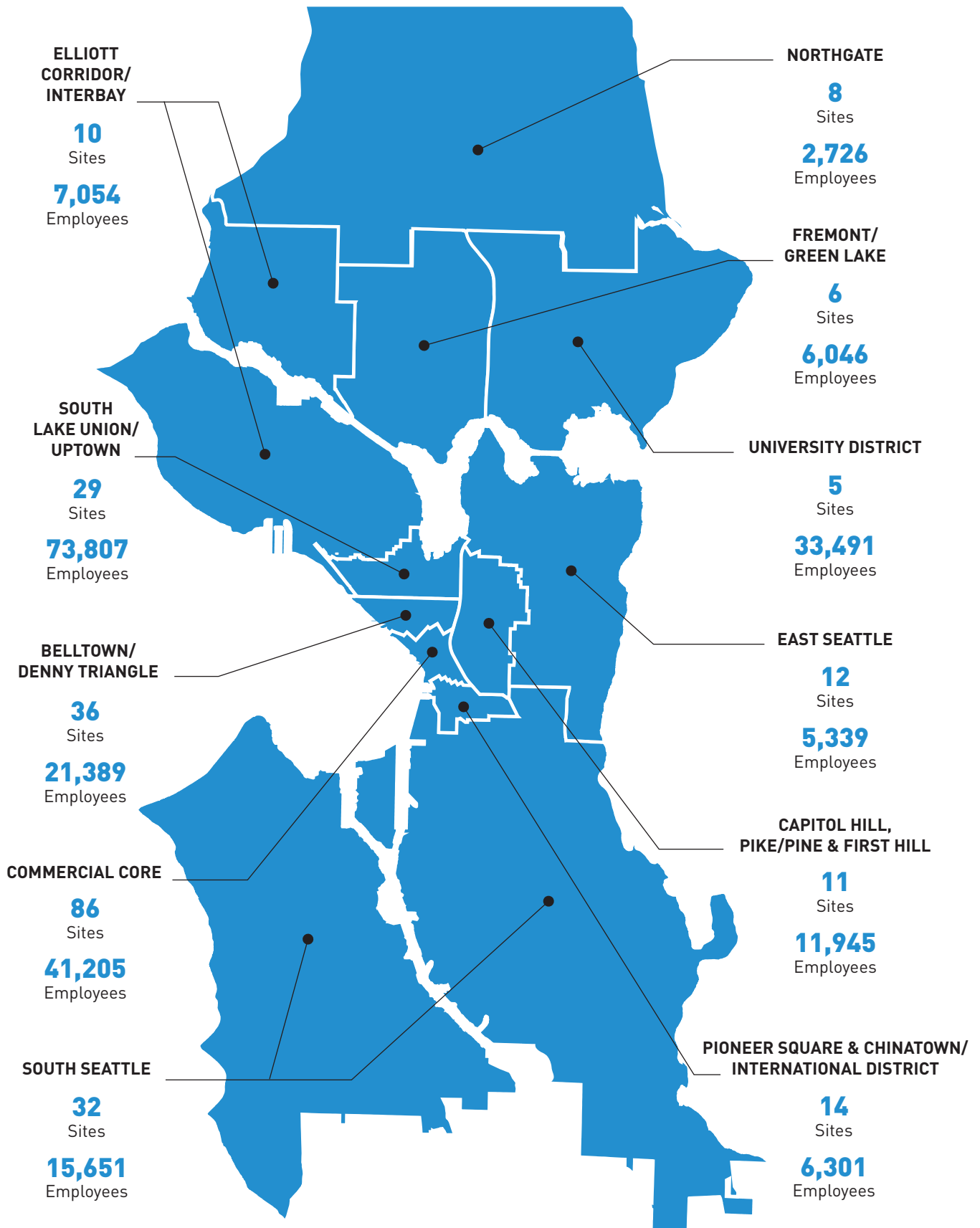


TABLE 2. DAR TARGETS BY NETWORK

Network	2021/2022	2023/2024	2035/2036
Belltown & Denny Triangle	19.0%	18.0%	14.1%
Capitol Hill, Pike/Pine, & First Hill	42.3%	41.6%	38.9%
Commercial Core	15.4%	15.2%	14.4%
East Seattle	48.2%	47.6%	45.3%
Elliott Corridor/Interbay	50.6%	49.1%	42.4%
Fremont/Green Lake	46.9%	46.2%	43.5%
Northgate	62.5%	59.4%	53.4%
Pioneer Square & Chinatown/International District	20.9%	20.4%	18.1%
South Lake Union & Uptown	25.7%	24.5%	19.7%
South Seattle	62.0%	60.4%	53.4%
U District	29.8%	29.2%	26.6%

TABLE 3. VMT PER EMPLOYEE TARGETS BY NETWORK

Network	2021/2022	2023/2024	2035/2036
Belltown & Denny Triangle	3.5	3.3	2.8
Capitol Hill, Pike/Pine, & First Hill	6.3	6.1	5.4
Commercial Core	2.5	2.4	2.1
East Seattle	7.9	7.8	6.8
Elliott Corridor/Interbay	8.4	8.1	7.0
Fremont/Green Lake	4.2	4.1	3.5
Northgate	6.2	6.0	5.2
Pioneer Square & Chinatown/International District	3.3	3.2	2.8
South Lake Union & Uptown	3.1	2.9	2.4
South Seattle	9.6	9.3	8.0
U District	3.7	3.6	3.3

In addition to the core program goals, SDOT identified a number of program benchmarks in the Strategic Plan to better track the program's performance over time. The program benchmarks are organized into seven categories:

1. Commute outcomes
2. Climate outcomes
3. Program reach
4. Cross-program integration
5. Programming impact
6. Cost effectiveness
7. Equity

Since the Strategic Plan was completed in 2019, SDOT published its Transportation Equity Framework (TEF; published April 2022)⁵ and identified implementation of the TEF as a major priority, which has been incorporated as a category in this 2021/2022 CTR program performance assessment.

⁵Transportation Equity Framework Report - Transportation | seattle.gov

In addition to mode choice and VMT, the CTR survey has collected commute motivation data since the 2007/2008 biennium. To better understand why employees commute as they do – and daylight the existence of this data – the team has included mode choice motivation analysis in the CTR performance reporting for the first time with this report.

This assessment seeks to provide a snapshot of current performance in all benchmark categories.

DATA AND DATA CHALLENGES

Two primary data sources are used to track both the core program goals and benchmarks: CTR Survey data and CTR Program Reports. The CTR Survey is administered to employees at CTR sites every two years to gather information on commuting choices, behaviors, and motivations. All of the CTR Survey data analyzed in this report was collected in 2022. CTR Program Reports are administered by Employee Transportation Coordinators (ETCs) at CTR sites and detail how a worksite implements SDOT-required CTR strategies to reduce worksite SOV trips. 2021/2022 CTR Program Reports were submitted primarily in early 2022.

The 2021/2022 CTR survey faced unique challenges in the data collection and analysis phase. SDOT, along with partners at Commute Seattle and University of Washington, combined CTR survey collection with data collection from smaller, non-CTR organizations during the survey period. The result is what has been branded the Seattle Commute Survey. This process was instigated by Washington State Department of Transportation (WSDOT)-provided survey tools development delays. Available State-provided survey tools were insufficient to meet project needs and costs for completing an analogous small business survey as a separate effort had grown untenable. Remote and hybrid workforces also posed survey hurdles prior to the publication of official State CTR guidance on whether these workforces were affected by the CTR law. The result was an overall employee response rate for CTR sites of 39%, a

significant decrease from the previous cycle which reported a 58% response rate. Many CTR worksites did not achieve a high enough response rate to produce statistically significant results. These worksites were excluded from measures of DAR, VMT, greenhouse gas (GHG) emissions, and mode split to avoid skewing data analyzed in this report. However, employee counts are included for all CTR sites in this report to provide an accurate picture of program reach.

Of the 250 sites in the CTR program, 101 (40%) were excluded from most data analysis due to having low employee response rates, accounting for 37% of CTR employees. All program reports submitted were included in the analysis, as employee response rate has no effect on this data.

This report also uses data from the 2022 American Community Survey and 2021 Puget Sound Regional Council Household Travel Survey. While these sources provide a valuable comparison at the citywide scale, they are not comparable on the network level.

CTR AND THE EFFECTS OF THE COVID-19 PANDEMIC

The COVID-19 pandemic, subsequent stay-at-home orders issued by cities and states, and the unprecedented shift towards telecommuting⁶ had a drastic impact on travel patterns across the U.S.⁷ In Seattle, a large share of workers switched to working from home. In September 2020, the Census Bureau's Household Pulse Survey estimated that 48% of Seattle workers were working remotely.⁸ According to the Puget Sound Area Return to Work Survey conducted by Commute Seattle in April and May 2021, one-third of worksites surveyed did not anticipate 100% of employees ever returning back on site and 8% of sites planned to continue primarily with remote work and limited on site presence.⁹

⁶Remote Work: The Biggest Legacy Of Covid-19 | [forbes.com](https://www.forbes.com)

⁷COVID-19 Pandemic Continues To Reshape Work in America | [pewresearch.org](https://www.pewresearch.org)

⁸2020 Household Pulse Survey | [census.gov](https://www.census.gov)

⁹2021 Regional Return to Work Survey | commuteseattle.com

The shift in travel patterns and working models caused by the pandemic has had a major impact on the CTR program. On the positive side, commuters shifting from driving alone to telecommuting (both full- and part-time) has led to a decrease in DAR, VMT, and GHG emissions. Telecommuting has been consistently offered as non-drive alone commute option since CTR's inception in 1991 but was not widely adopted until recently. However, concerns about pandemic-related safety may cause employees returning to in-person work to avoid public transit in favor of driving alone.

A shift towards permanent remote work or hybrid work models could also impact the CTR program's reach. Seattle's Municipal Code (SMC) defines a CTR-affected employee as "a full-time employee who begins his or her regular work day at an affected employer's worksite between six (6:00) a.m. and nine (9:00) a.m. (inclusive) on two (2) or more weekdays for at least twelve continuous months, who is not an independent contractor, and who is scheduled to be employed on a continuous basis for fifty-two weeks for an average of at least thirty-five hours per week."¹⁰ The need to clarify requirements led to the release of new guidance from WSDOT on July 28, 2023, which indicates that employees who telecommute full-time, part-time, or occasionally are considered CTR-affected unless they meet all of the following requirements:

- Work from home or a site near home.
- Come to the worksite once per year or less.
- Live more than 150 miles from their worksites.
- Do not work at a state agency in Lacey, Olympia, or Tumwater.

However, this guidance was not released in time for the 2022 survey, causing confusion among employees and employers that contributed to lower survey participation.

Following the distribution of the COVID-19 vaccine and mass immunization campaign, many employers have implemented return to work policies. These range from voluntary hybrid work programs to mandatory in-person requirements. The impact of return-to-work efforts is difficult to predict due to varying requirements and timelines but could cause a major shift in commute behavior following the pandemic. A major priority of the City of Seattle's CTR program is to prevent a shift from telecommuting to driving alone by highlighting non-drive alone options for returning employees.



¹⁰Seattle Municipal Code, Chapter 25.02: Municode Library

Program Performance

CORE PROGRAM GOALS

The CTR program saw significant progress on core program goals during the 2021/2022 survey cycle.

Drive Alone Rate (DAR)

Citywide CTR worksite DAR fell from 28.4% in 2019/2020 to 20.5%, a 7.9 percentage point decrease in surveyed drive alone trips. CTR sites achieved the 2023/2024 DAR target of 28.8% and even surpassed the 2035/35 DAR target of 25.0%. Additionally, nine out of 11 networks met their 2023/2024 DAR target.

VMT per Employees

Citywide VMT per employee fell from 3.9 in 2019/2020 to 3.2 in 2021/2022, an 18% drop. The city achieved the 2023/2024 target of 4.0 VMT per employee, and also surpassed the 2035/2036 target of 3.5 VMT. Ten networks met their 2023/2024 target for VMT per employee, with the sole exception being the U District.

TABLE 4. 2021/2022 PERFORMANCE ON CORE PROGRAM GOALS

Network	Actual DAR	Target DAR*	Met Target?	Actual VMT/Employee	Target VMT/Employee*	Met Target?
Citywide	20.5%	29.7%	YES	3.2	4.2	YES
Belltown & Denny Triangle	14.9%	19.0%	YES	2.4	3.5	YES
Capitol Hill, Pike/Pine, & First Hill	34.8%	42.3%	YES	5.7	6.3	YES
Commercial Core	13.6%	15.4%	YES	2.3	2.5	YES
East Seattle	48.3%	48.2%	NO	7.2	7.9	YES
Elliott Corridor/Interbay	24.8%	50.6%	YES	4.0	8.4	YES
Fremont/Green Lake	19.0%	46.9%	YES	2.1	4.2	YES
Northgate	39.0%	62.5%	YES	4.3	6.2	YES
Pioneer Square & Chinatown/International District	8.1%	20.9%	YES	1.6	3.3	YES
South Lake Union & Uptown	17.3%	25.7%	YES	2.5	3.1	YES
South Seattle	39.5%	62.0%	YES	6.9	9.6	YES
U District	34.4%	29.8%	NO	4.8	3.7	NO

*2021/2022 estimated targets were elaborated in the 2019-2023 four-year CTR plan

HISTORICAL TRENDS

Since 2007/2008, the program's citywide DAR has decreased by nearly half from 37.0% to 20.5%. From 2007/2008 to 2019/2020, DAR fell by 8.6 percentage points, an average of 1.4 points per cycle. Between 2019/2020 to 2021/2022, DAR fell by 7.9 percentage points, the largest decrease between any two cycles. Nine out of 11 network areas experienced a decrease in DAR from 2019/2020 to 2021/2022. The two networks that saw DAR increase were East Seattle (from 43.1% to 48.2%) and the U District (from 33.1% to 34.4%). Both networks include major medical facilities among their CTR sites, which may have limited the ability of employees to shift to remote work during the pandemic.

Since 2007/2008, DAR has decreased in every network area, with an average decrease of 18.6 percentage points. East Seattle has experienced the smallest decrease, with DAR falling 2.4 percentage points since 2007/2008 (from 50.6% to

48.2%). Fremont/Green Lake has seen the greatest decrease, with DAR falling 42.9 percentage points (from 61.9% to 19.0%). Most of the decrease in Fremont/Green Lake occurred during the last survey cycle, when DAR fell by 24.8 percentage points, driven by telecommuting and a high cycling rate (the latter representing 7.1% of trips). Northgate and Elliot Corridor/Interbay have also experienced significant decreases in DAR since 2007/2008, falling 34.9 and 33.2 percentage points respectively. Notably, the Northgate CTR network received a new light rail station in October 2021 and a pedestrian bridge spanning I-5, connecting several worksites to the new station, greatly enhancing non-car mobility options.

VMT per employee at CTR sites has fallen even faster than DAR over the course of the program. Between 2007/2008 and 2019/2020, VMT per employee decreased by 33% from 5.8 to 3.9. From 2019/2020 to 2021/2022 it dropped another 18%, reaching a record low of 3.2.

FIGURE 2. CITYWIDE DAR BY SURVEY CYCLE

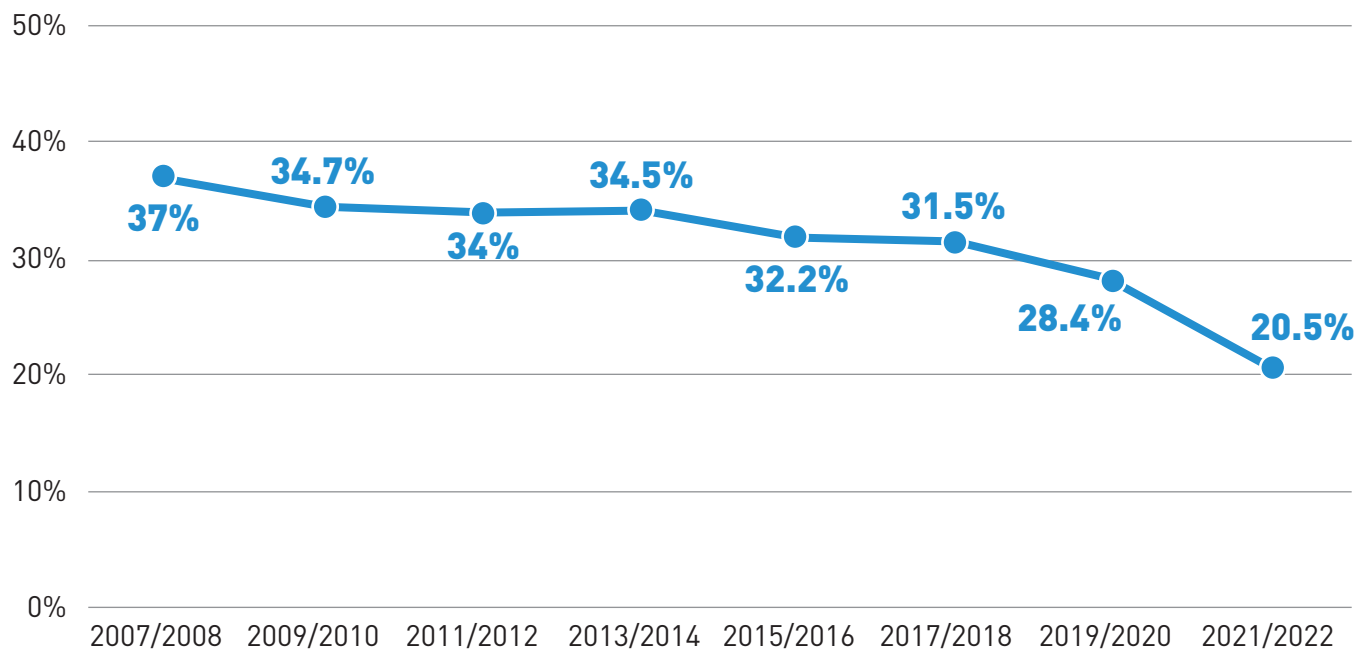


FIGURE 3. VMT PER EMPLOYEE BY SURVEY CYCLE

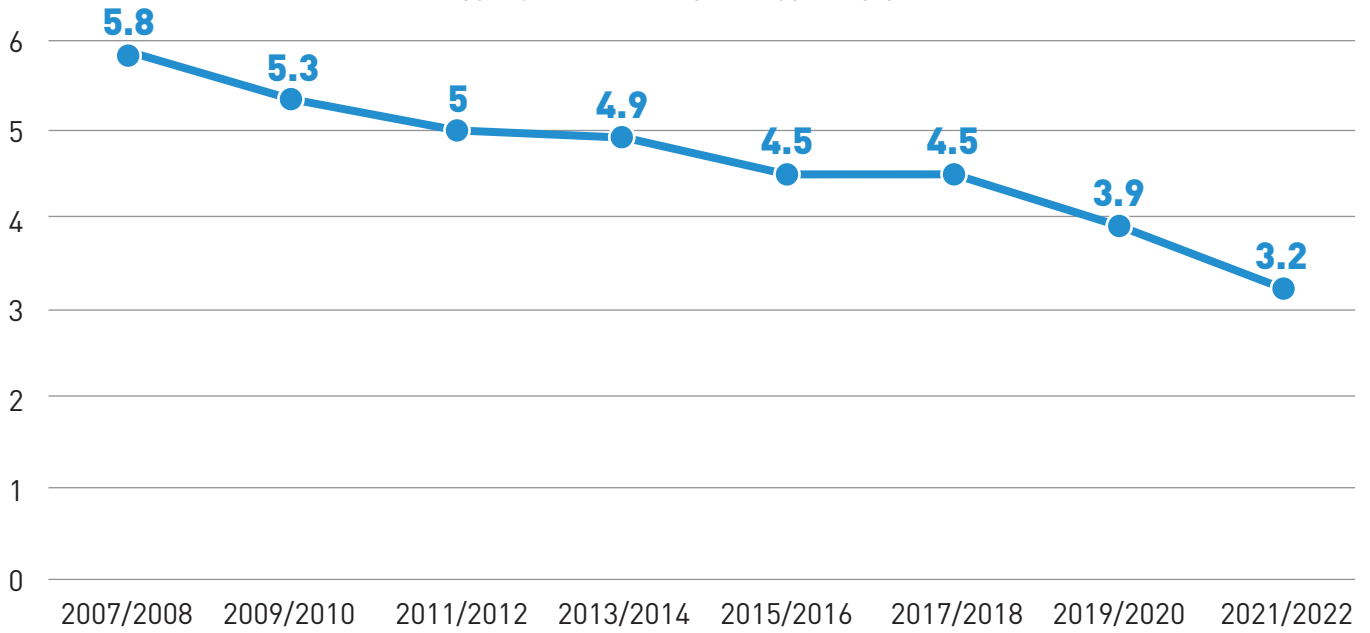
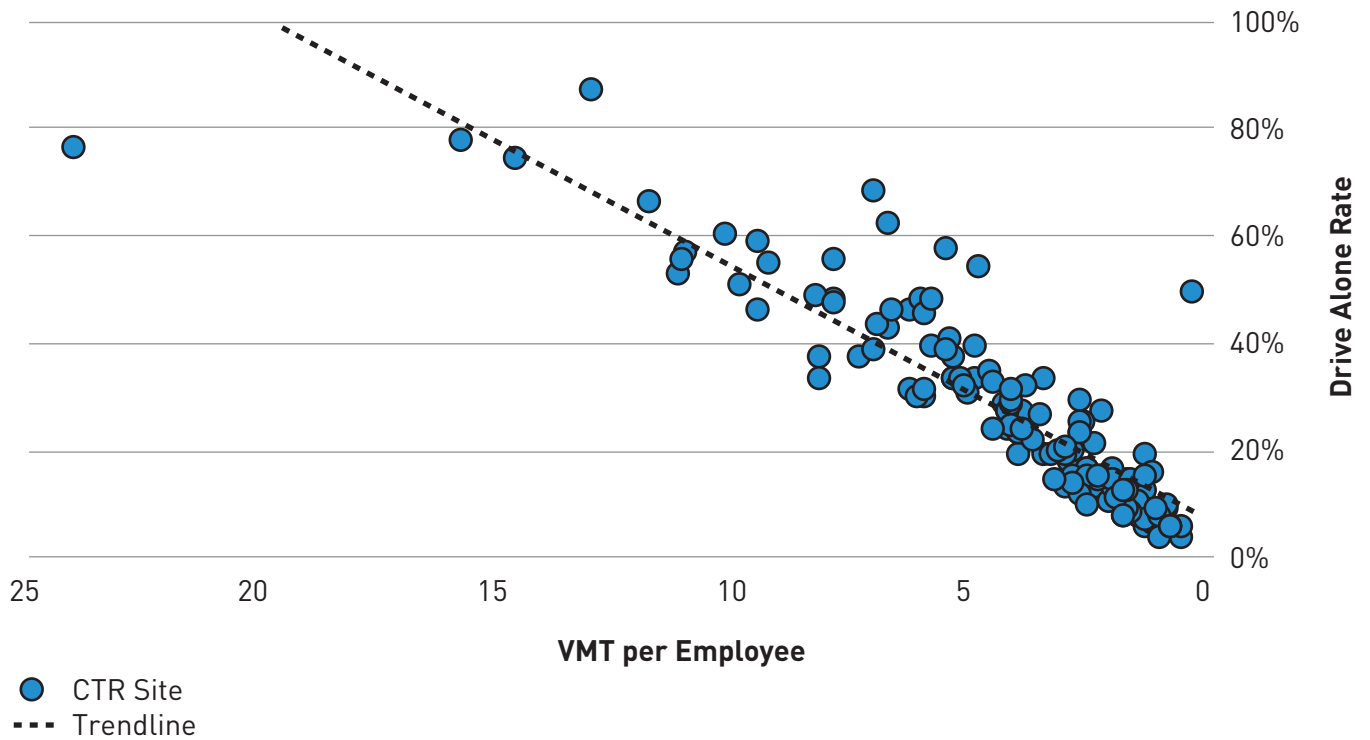


FIGURE 4. CTR SITES BY DAR AND VMT PER EMPLOYEE



Nine networks have experienced a drop in VMT per employee since 2007/2008. In Fremont/Green Lake, VMT per employee has decreased by 68% since 2007/2008. VMT per employee also decreased in South Lake Union & Uptown (-63%), Pioneer Square & Chinatown/International District (-63%), Belltown & Denny Triangle (-59%), Elliot Corridor/Interbay (-52%), Northgate (-45%), the Commercial Core (-49%), South Seattle (-31%) and the U District (-17%). Two networks have seen growth in VMT per employee, both led by increases in the last survey cycle. These include Capitol Hill, Pike/Pine & First Hill (+15%) and East Seattle (+56%). Large shifts in DAR or VMT are typically seen if a new site is included in the survey data, or a low performing site leaves the program.

As expected, there is a clear relationship between a CTR worksite’s VMT per employee and Drive Alone Rate. In the most recent survey cycle, every 1 percentage point decrease in DAR correlated with a 0.2 decrease in VMT per employee, displayed in Figure 4.

While VMT has been decreasing on a per-employee basis, it is also important to consider the absolute VMT generated by CTR employees. Prior to the mass adoption of electric vehicles, this metric served as a direct indicator of transportation-related greenhouse gas emissions. Absolute VMT decreased from 2007/2008 through 2011/2012 but then increased in each of the next four survey cycles, reaching a peak of 894,039 in 2019/2020. However, this number would be over 1,300,000 at 2007/2008 VMT per employee levels, illustrating the impact of CTR program despite massive employment growth. Due to data challenges in the most recent cycle, 2021/2022 absolute VMT was calculated by multiplying average VMT per employee at successfully surveyed sites by the total number of employees in the program. This produced an absolute VMT of 721,229, which represents a 19% reduction from the previous cycle to a near historic low.

FIGURE 5. ABSOLUTE VMT BY SURVEY CYCLE

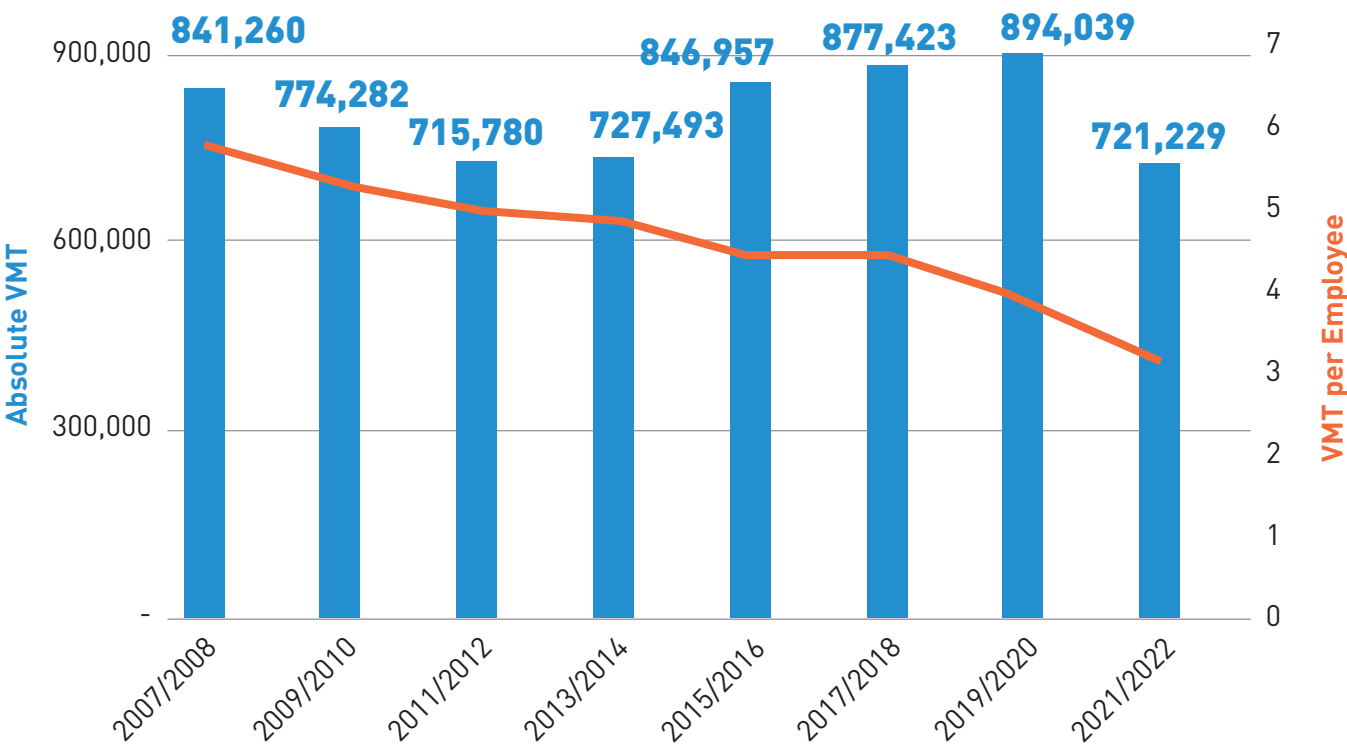
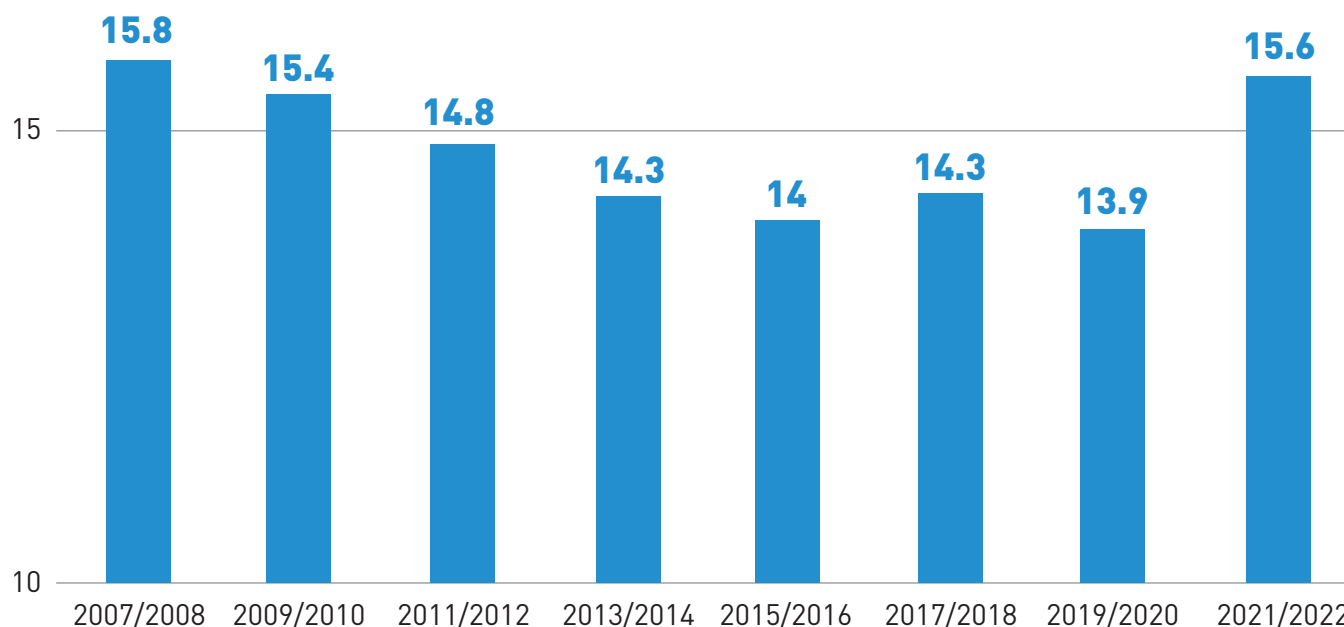


FIGURE 6. AVERAGE DRIVING COMMUTE TRIP DISTANCE BY SURVEY CYCLE



In contrast, the length of driving trips has seen a rebound after years of decline. In 2007/2008, the average distance of driving trips for CTR employees was 15.8 miles. In 2019/2020, the average driving trip distance hit a low of 13.9 miles. This number increased to 15.6 miles in 2021/2022, a jump that erased nearly all reduction since 2007/2008.

Average driving trip distance has significant disparities among networks. Employees working in Fremont/Green Lake have the shortest average driving trip distance at 11.1 miles while those in Pioneer Square & Chinatown/International District have the longest at 20.2 miles. A network's average driving trip length is influenced by multiple factors outside of transportation alone. High housing costs have been shown to push workers away from employment in central cities, increasing the length of their commutes.¹¹ The shift to remote work during the pandemic also enabled people to live further away from where they work.¹²

¹¹Housing Costs and Commuting Distance by Kevin A. Park, Roberto Quercia | papers.ssrn.com

¹²Remote Workers Are Making Permanent Moves. What Happens When Offices Reopen? | [npr.org](https://www.npr.org)

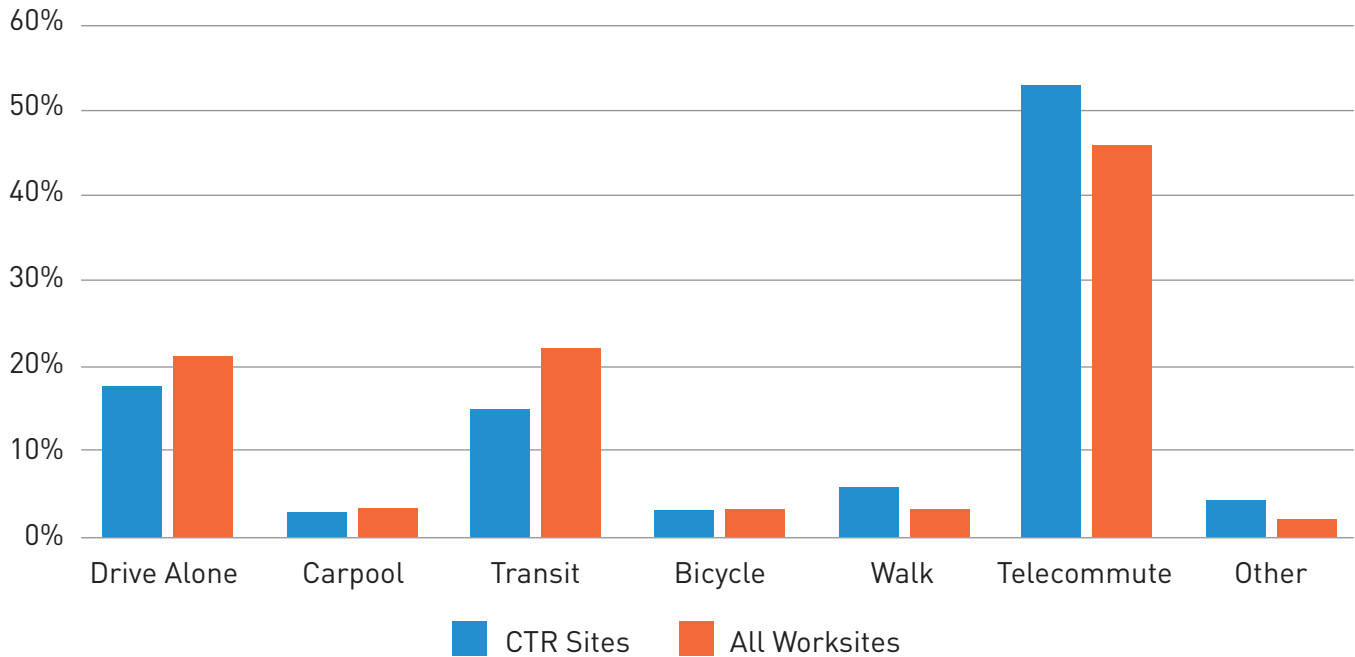
There is also variance in trip length by industry. Employees in the Life Sciences sector have the shortest average driving trip distance (14.3 miles), while those in Government have the longest (19.4). Workers in both the Technology (14.4 miles) and Retail/Trade sectors (15.0 miles) have average driving trip distances below the citywide average, while those in Bank, Finance & Investment Services (19.2 miles) have average driving trip distances above the citywide average.

CENTER CITY FULL MARKET ANALYSIS

Beginning with the 2019-2023 Strategic Plan, SDOT established "full market" DAR targets for all Center City employees, regardless of employer size or CTR status. These targets can be tracked using data from the Seattle Commute Survey¹³, which is conducted every two years and includes the citywide CTR survey to understand commute behavior of all Center City employees. Prior to 2022 this was known as the Center City Modesplit Survey.

¹³2022 Seattle Commute Survey | commuteseattle.com

FIGURE 7. CENTER CITY MODE SPLIT (2021/2022)



According to the 2022 Commute Seattle Survey, the DAR for all Center City employees was 21%. This is 4 percentage points higher than the DAR for Center City CTR employees (17%). This contrast in modesplit echoes trends seen in the past, which typically indicated that those travelling to smaller employers were more likely to drive alone than those travelling to large employers. This is likely tied to differences in the availability of benefits, the viability of remote work and the consistency of shift hours.

PROGRAM BENCHMARKS

Commute Outcomes

The Commute Outcomes benchmarks aim to measure to what degree the CTR program is meeting its Commute Trip Reduction goals.

MODE SPLIT

Table 5 shows the citywide mode split according to the 2021/2022 CTR survey data. A majority (79.5%) of CTR employees use a commute mode other than driving alone. Telecommuting has grown dramatically from pre-pandemic levels and now represents the single largest share of CTR commute trips at 50.3%.

Telecommuting is the largest mode share in 8 of the 11 networks. However, this distribution is highly variable. Telecommuting dominates commute trips in networks like Pioneer Square & Chinatown/International District (72.9%) and Belltown & Denny Triangle (61.2%) but is not widely used by CTR worksites in East Seattle (15.9%) or Capitol Hill, Pike/Pine, & First Hill (12.6%). The ability for employees to telecommute is heavily dependent on the type of work they do, which may account for these disparities.

TABLE 5. CITYWIDE MODE SPLIT, 2021/2022

Network	Drive Alone	Carpool	Transit	Bicycle	Walk	Telecommute	Other*
Citywide	20.5%	3.1%	13.9%	3.0%	5.0%	50.3%	4.1%
Belltown & Denny Triangle	16%	2%	14%	1%	3%	61%	3%
Capitol Hill, Pike/Pine, & First Hill	36%	7%	30%	3%	4%	13%	7%
Commercial Core	16%	2%	23%	2%	2%	53%	2%
East Seattle	49%	9%	15%	2%	3%	16%	6%
Elliott Corridor/Interbay	25%	8%	10%	4%	3%	48%	6%
Fremont/Green Lake	19%	2%	5%	7%	4%	60%	2%
Northgate	40%	5%	5%	1%	4%	40%	5%
Pioneer Square & Chinatown/ International District	9%	1%	14%	1%	1%	73%	2%
South Lake Union & Uptown	18%	2%	9%	3%	7%	55%	5%
South Seattle	41%	3%	9%	2%	1%	43%	3%
U District	35%	8%	14%	6%	4%	22%	12%

*Includes compressed work week (CWW) days, business trips, not working, and other trips
All values rounded to the nearest full percent for non-citywide CTR networks

The citywide share of CTR employees who walk, bike, or take transit is 22.0%. This varies among networks, ranging from 11.2% in Northgate to 39.2% in Capitol Hill, Pike/Pine, & First Hill. However, the overall use of these modes has decreased from pre-pandemic levels, when they combined to make up a slight majority of CTR commute trips (50.3%). Transit use was hit particularly hard during the pandemic, falling 24 percentage points from a citywide share of 38.0% in 2019/2020 to 13.9% in 2021/2022. Driving alone and carpooling have also seen decreases since the last survey cycle, suggesting that the growth in telecommuting saw growth fed by users of all other modes.

CTR VS NON-CTR MODE SPLIT

Employees at CTR sites drive less and use more multimodal transportation options than the average Seattle worker. According to the latest 2022 data from the U.S. Census Bureau, 39% of all workers who live in Seattle drive alone for their commutes.¹⁴

¹⁴2022 American Community Survey 5-Year Estimate | census.gov

According to the Puget Sound Regional Council's (PSRC) 2021 Household Travel Survey, 58% of Seattle households commute by driving alone.¹⁵ These figures are both higher than the DAR of 20.5% the CTR program recorded in 2021/2022. However, the city as a whole is making progress in reducing the overall Drive Alone Rate, in part due to significant investments in multimodal transportation such as expansion of the Sound Transit regional Link light rail, King County Metro RapidRide, and Kitsap Transit Fast Ferry systems.

HISTORICAL TRENDS

Drive Alone Rate:

Driving alone has seen a steady decline in mode share since the 2007/2008 survey, when it made up 37.0% of CTR employee commute trips. 2021/2022 represented a new low for DAR, at only 20.5% of trips.

¹⁵Household Travel Survey Program - PSRC | psrc.org

Walking/Rolling:

The share of CTR employees who walk or roll to work more than doubled from 3.6% in 2007/2008 to 8.8% in 2019/2020 before falling back down to 5.0% in 2021/2022 as many regional employers shifted to telecommuting.

Telecommuting:

The share of workers telecommuting more than doubled from 3.0% in 2007/2008 to 6.4% in 2019/2020. This trend drastically accelerated during the COVID-19 pandemic, reaching an unprecedented share of 50.3% in 2021/2022, a majority of all CTR employee commute trips.

Cycling:

Bicycling has experienced minor growth with 3.0% of CTR employees biking to work in 2021/2022 from a starting point of 2.7% in 2007/2008.

Transit:

The share of workers using transit peaked in 2009/2010 at 41.6% but remained in the high 30% range for the next several cycles while total transit trips grew. The pandemic had a major impact on transit ridership, evidenced by the 24.1 percentage point decrease in citywide CTR transit mode share between 2019/2020 and 2021/2022 from 38.0% to 13.9%. This coincides with a major increase in telecommuting.

Carpooling/Ridesharing:

Carpooling has followed a similar trend to transit use. It reached a peak of 12.7% in 2007/2008 but remained consistently around 10% until 2019/2020. This share fell to a new low of 3.1% in 2021/2022, possibly due to pandemic era social distancing concerns. According to sample analysis provided by WSDOT for 2017/2018, the largest modes within the “Other” category are likely employer shuttles and Transportation Network Companies (TNC; e.g., Uber and Lyft). These modes were first included as choices in the 2021/2022 survey, providing more accurate data for SDOT.

FIGURE 8. SHARE OF SELECTED MODES BY SURVEY CYCLE

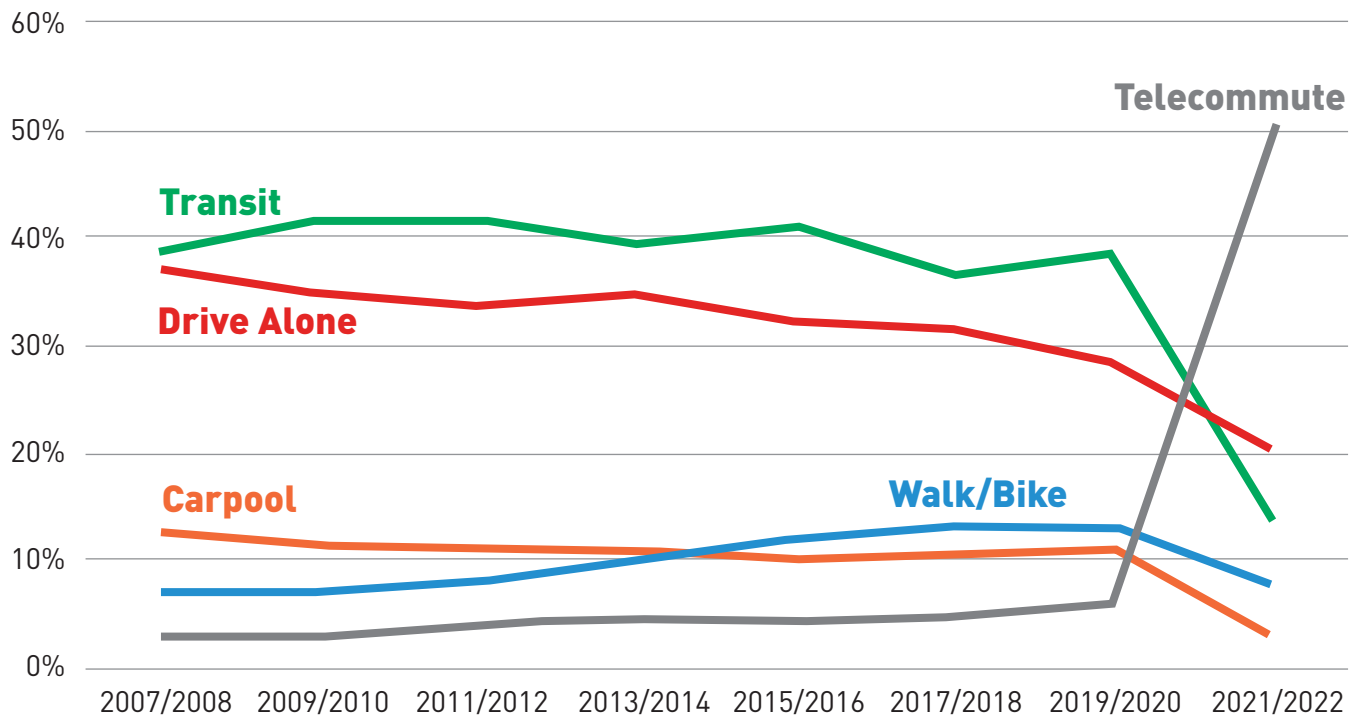
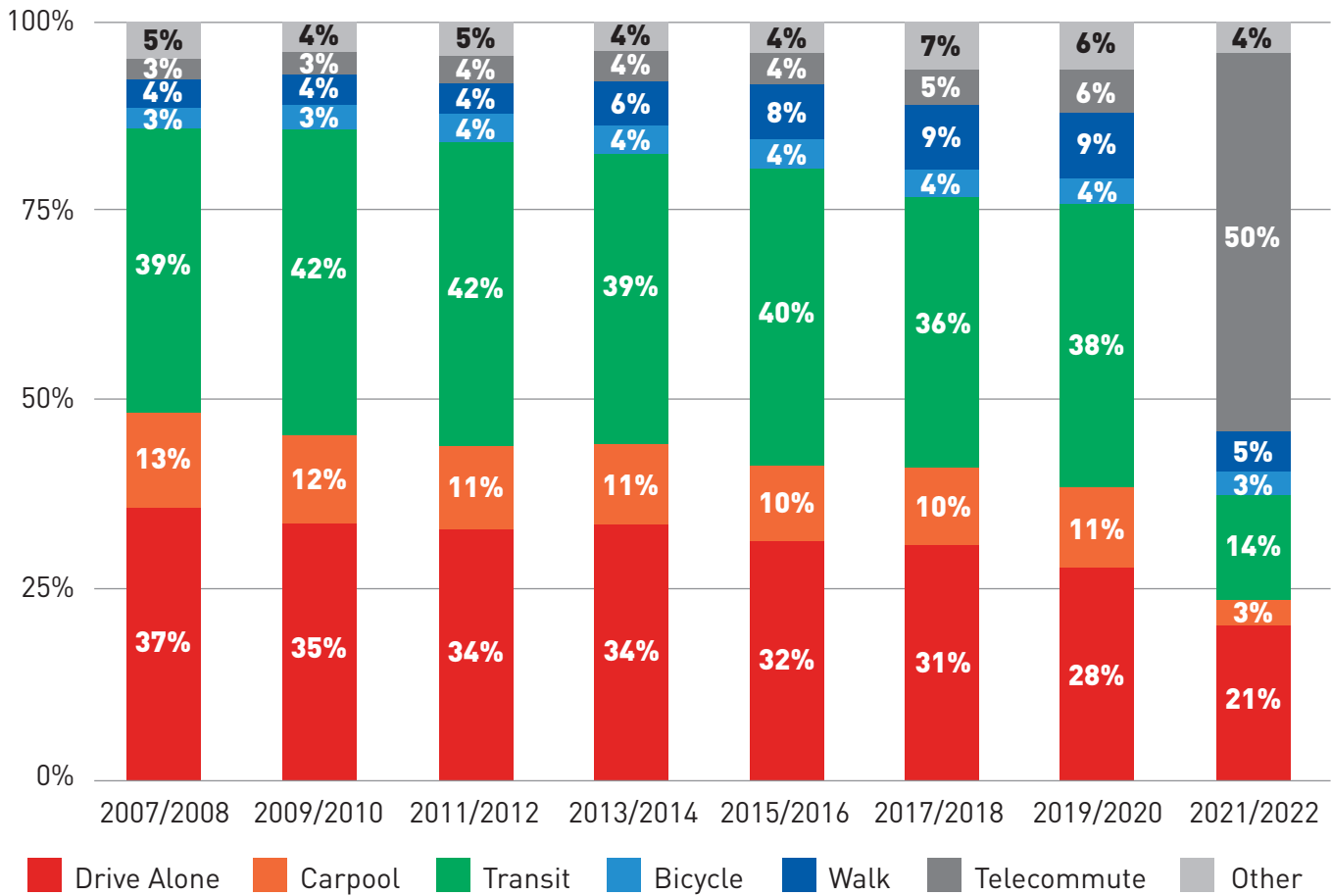


FIGURE 9. CTR MODE SPLIT BY SURVEY CYCLE



MODE CHOICE

The CTR survey prompts employees to select their main reasons for driving alone and for choosing other modes. This information is key to identifying major opportunities and barriers around behavior change and outreach strategies.

To compare between surveys, which asked different questions to gather employee motivations, responses were grouped within a general category of motivation, shown in Figure 10. However, the different wording of response options and ability of respondents to select up to three responses creates disparities that cannot be accounted for when comparing results. Below each graph is a table linking motivations cited by respondents to relevant CTR program offerings.

Drive Alone:

In 2021/2022, the main reasons employees cited for driving alone were the “convenience of having a car” and “driving significantly reduces commute time”, each accounting for 23% of responses. The next most common reason given was “family obligations/care”, accounting for just under 14% of responses. Two new survey options offered in 2021/2022 brought safety related concerns to the forefront. “Concerns about crime” and “COVID-19/hygiene” were the fourth and fifth most common responses in the 2021/2022 survey respectively, combining for a 21% overall share. Financial motivations to drive alone such as free parking incentives were also included for the first time in the 2021/2022 survey, cited in 9% of responses. More specific options may have caused in the number of responses in the “Other” category to fall between surveys from 17% to just under 7%.

FIGURE 10. CTR EMPLOYEE DRIVE ALONE MOTIVATION SHARE BY SURVEY CYCLE

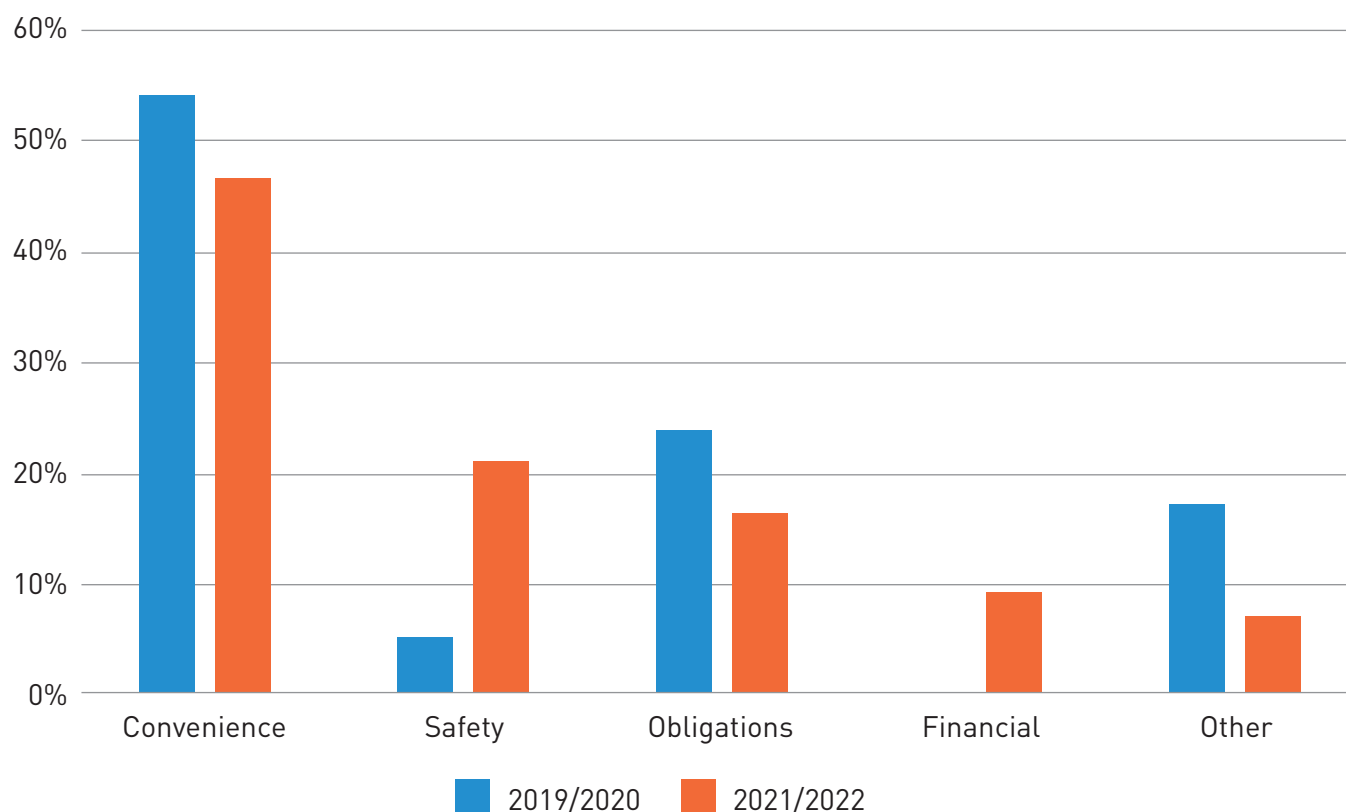


TABLE 6. TOP DRIVE ALONE MOTIVATIONS AND CTR RESOURCES

Drive Alone Motivation	CTR Resource or Requirement Addressing Motivation
I like the convenience of having my car	<ul style="list-style-type: none"> • Park and Ride options with car easily accessible through short bus/train ride • Daily parking rates vs. Monthly allows people to drive when needed without sunk cost of a monthly parking pass
It makes my commute significantly faster	<ul style="list-style-type: none"> • Vanpool/Vanshare • Carpool <p>Both options offer trips at comparable speeds to driving alone in further distanced areas without rapid transit options</p>
Family care or other obligations	<ul style="list-style-type: none"> • Guaranteed Ride Home (through ORCA Business Programs) allows someone who didn't drive alone to work to access emergency taxi or TNC rides in case of family care needs or personal illness
I am concerned about exposure to crime or safety-related issues	<ul style="list-style-type: none"> • Communications related to transit agency safety efforts (e.g., how to contact the transit agency or changes in security/transit ambassador practices) help people understand how to get help in case of issues on a transit ride • Marketing other options to share commute options such as carpool, vanpool, walk, bike or other transit alternatives that might serve some travelers better than other modes when safety and/or hygiene concerns exist

Non-Drive Alone:

For employees using non-drive alone modes, the top motivation was the high cost of driving, which was cited in 25% of responses in 2021/2022.

The cost of driving was also the top non-drive alone motivator in 2019/2020, when it was cited in over 30% of responses. One notable change is a lower percentage of respondents identifying free or employer-subsidized transit passes as a reason not to drive alone, which contributed to an overall drop in financial motivations. In 2019/2020, it represented the second most common response at 20%, but fell to only 13% of

all responses in 2021/2022, coinciding with a drop in transit use during the pandemic amid mass adoption of remote work. Additionally, according to program reports, fewer CTR employers offer employee transit passes today compared to before the pandemic (66% vs 75%). Additional response options related to health and safety led to growth in these categories while 'Convenience' and 'Other' increased slightly. Environmental motivations ('Climate' in Figure 11) also saw significant growth from 10% to 15% of responses between survey periods.

FIGURE 11. CTR EMPLOYEE NON-DRIVE ALONE MOTIVATION SHARE BY SURVEY CYCLE

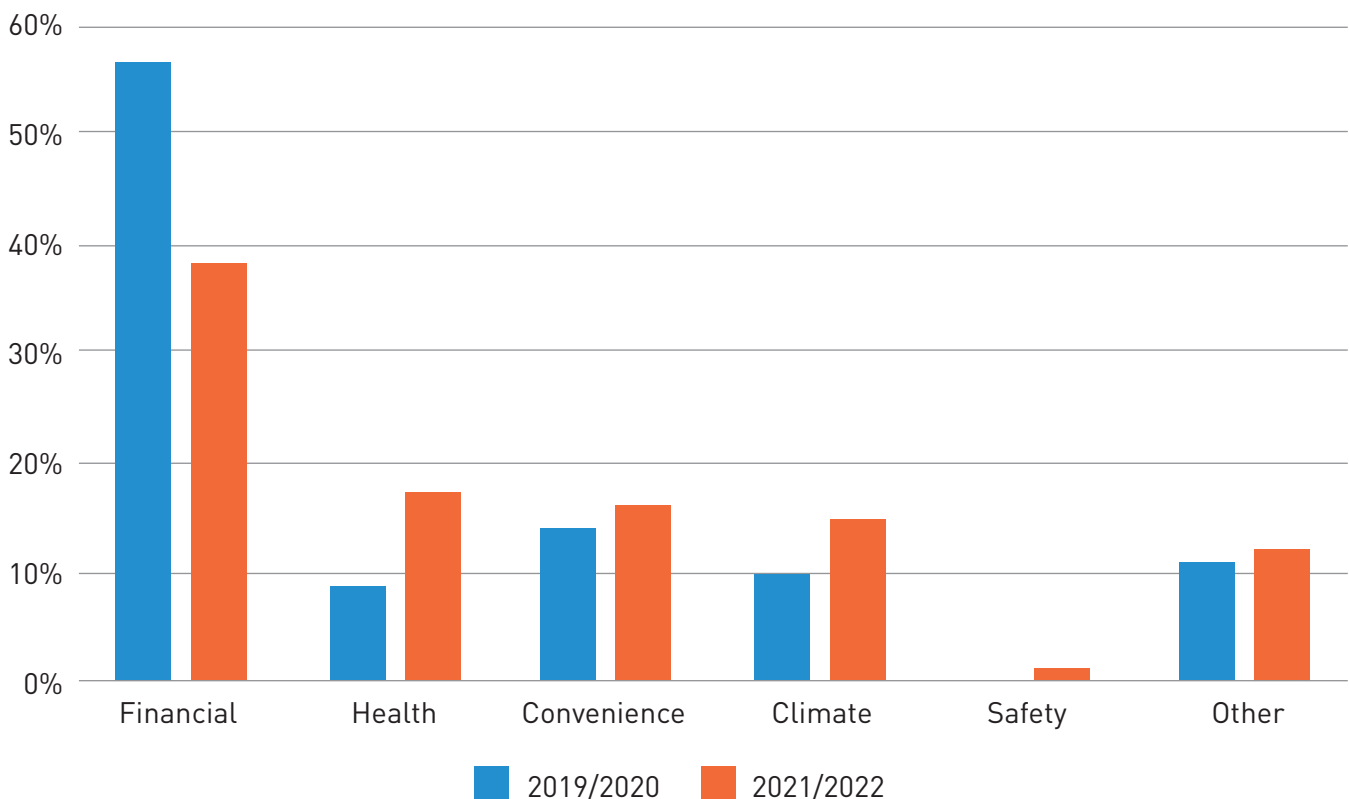


TABLE 7. TOP NON-DRIVE ALONE MOTIVATIONS AND CTR RESOURCES

Non-Drive Alone Motivation	CTR Resources Contributing to Motivation
It is expensive to drive and/or park	<ul style="list-style-type: none"> • Providing lower cost options (e.g., transit passes) to employees such as through ORCA Business Accounts • CTR requirements for worksites related to parking management such as offering daily parking rates versus monthly passes
I want to reduce my contribution to air pollution and carbon emissions	<ul style="list-style-type: none"> • Measuring and advertising environmental benefits of not driving alone through the collection of CTR survey data
I have a free or subsidized transit pass/incentives for using other options	<ul style="list-style-type: none"> • ORCA Business Programs provide low-cost transit passes to employers and are advertised by City of Seattle partners and offer a compliance option for the CTR program
It is stressful to drive	<ul style="list-style-type: none"> • Advertising benefits of transit, vanpool, walk, bike to communicate how easy and stress-free these modes can be

Climate Outcomes

The CTR program helps reduce transportation-related greenhouse gas (GHG) emissions¹⁶ by encouraging and supporting more sustainable alternatives to driving alone. Tracking GHG emissions is a new metric for SDOT that was recommended in the CTR Strategic Plan and aligns with the City's focus on reducing its emissions profile. It also aligns with SDOT's increased emphasis on reducing transportation emissions.

GHG EMISSIONS (ABSOLUTE AND PER EMPLOYEE)

CTR employees emitted an estimated annual total of 163,823 metric tons (MT) of greenhouse gasses (carbon dioxide equivalent, CO₂e) for the 2021/2022 survey cycle. This value was obtained by multiplying the 0.73 MTCO₂e per CTR employee per year at successfully surveyed sites by total number of employees in the program. Per employee metrics were averaged from successfully surveyed sites only. The following charts break down GHG emissions on an absolute and per employee basis by network.

¹⁶GHG emissions are estimated using a multistep process developed by WSDOT, which converts total VMT from CTR employees into metric tons of carbon dioxide equivalent emissions (MTCO₂e).

FIGURE 12. ABSOLUTE GHG EMISSIONS BY NETWORK (MTCO2E/YEAR)

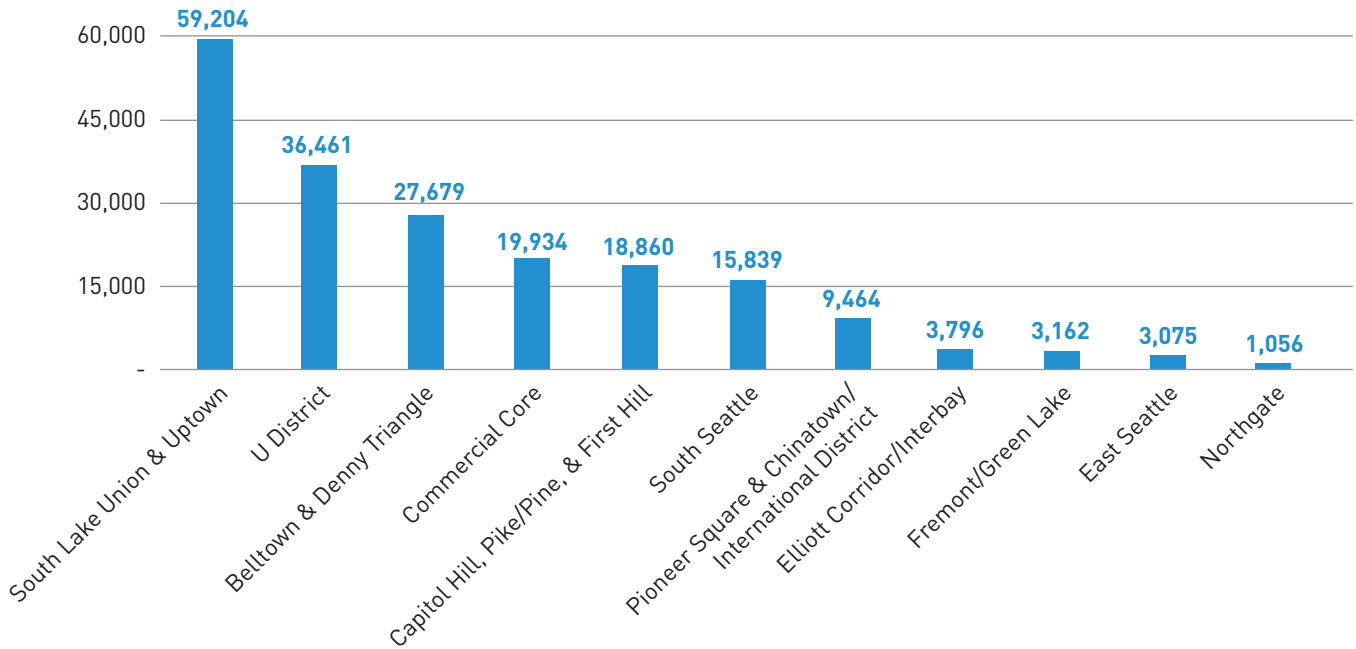
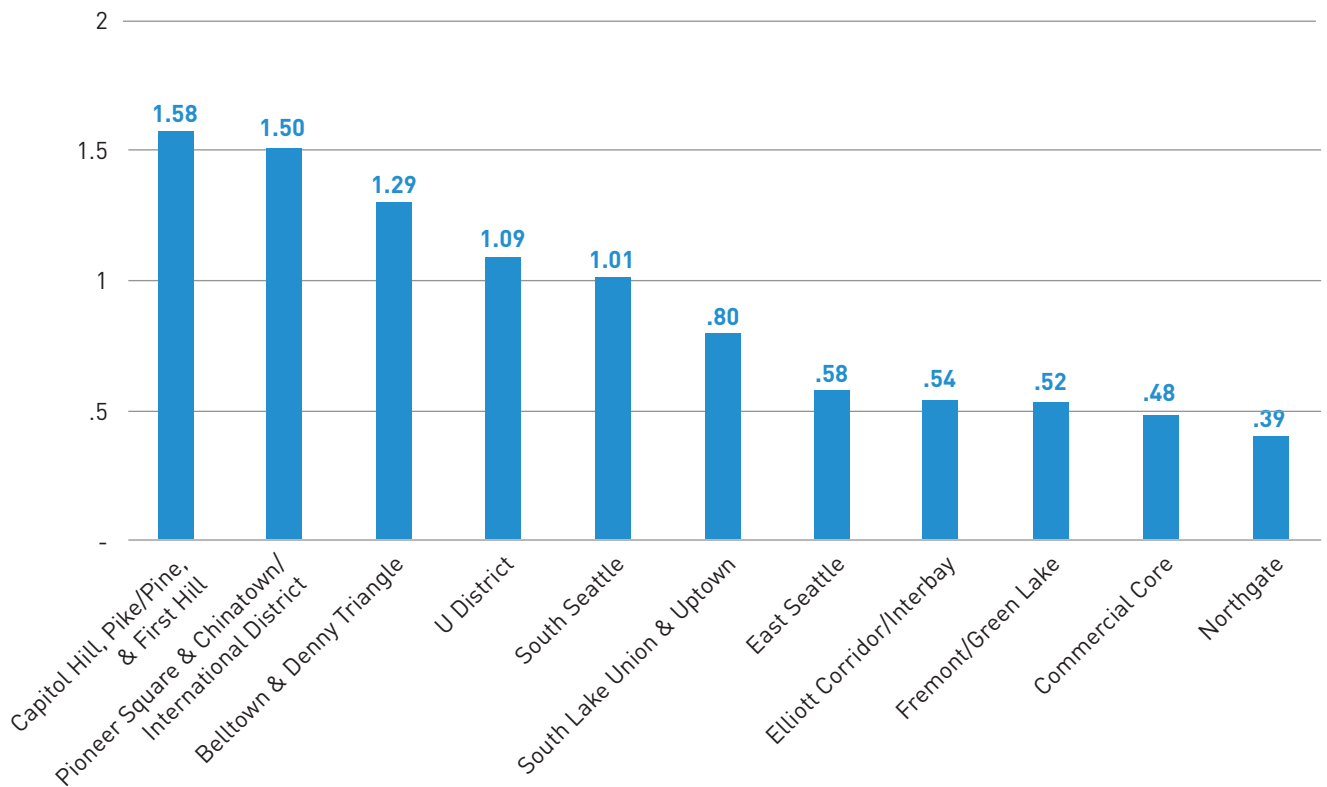


FIGURE 13. PER EMPLOYEE GHG EMISSIONS (MTCO2E/YEAR)



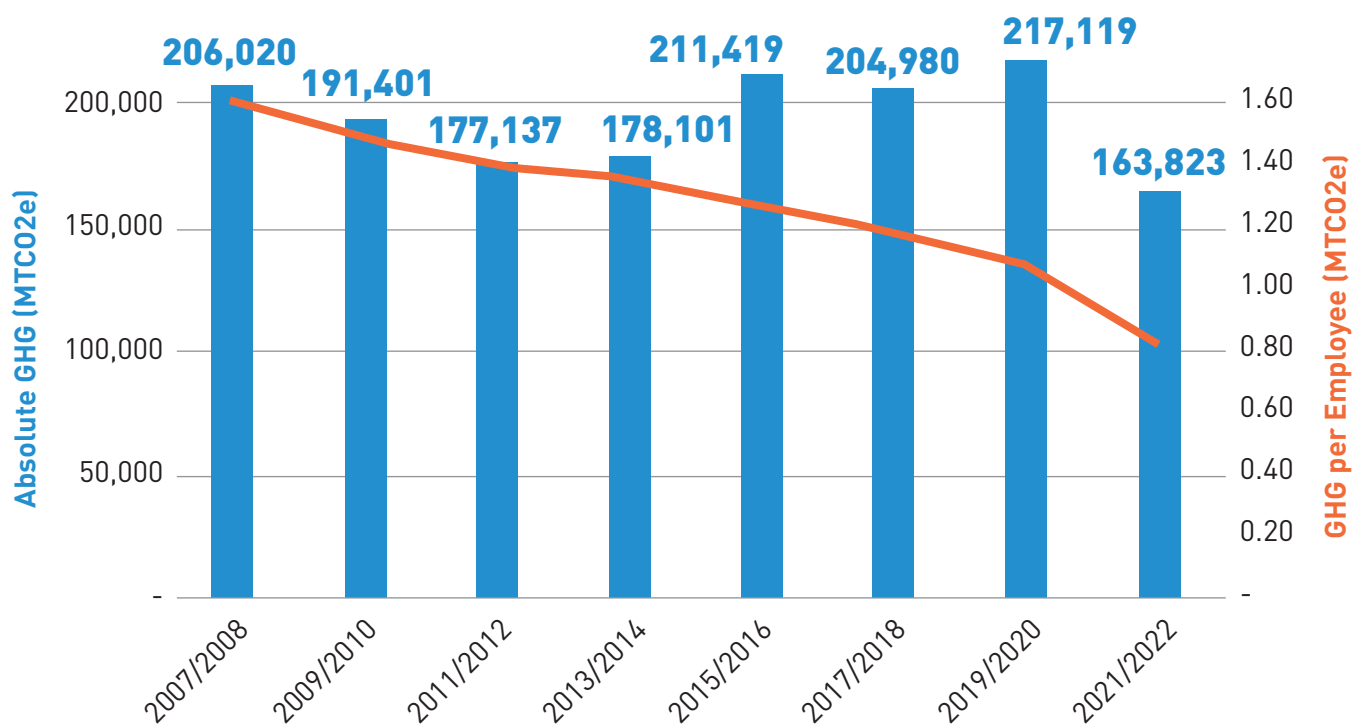
HISTORICAL TRENDS FOR GHG EMISSIONS

GHG emissions generated by CTR employees commuting to work are directly related to VMT and have mirrored trends in both absolute and per employee metrics. However, DAR is less correlated, as it does not account for the distance employees are driving, which contributes greatly to emissions. GHG emissions per employee have fallen 51.0% since 2007/2008 from 1.43 MTCO₂e per employee per year to 0.73.

Despite a consistent reduction in GHG emissions per employee since 2007/2008, absolute emissions continued to grow, reaching a peak of 217,119 MTCO₂e in 2019/2020. However, the shift to remote work during the pandemic reduced this number by nearly 25%, reaching a historic low of 163,823 MTCO₂e in 2021/2022. SDOT hopes to build on this progress and continue to limit emissions even as employees return to the office.

With the adoption of electric vehicles and less-polluting vehicle models, SDOT is also investigating how to reflect a vehicle's fuel source in future surveys. This will provide the most accurate GHG emissions profile for worksites and employees regardless of commute mode.

FIGURE 14. GHG EMISSIONS (ABSOLUTE AND PER EMPLOYEE) BY SURVEY CYCLE



Program Reach

Program Reach is used as a metric to analyze to what degree the CTR program is affecting area employers and their staff, and to what extent CTR eligible sites are captured by the CTR program.

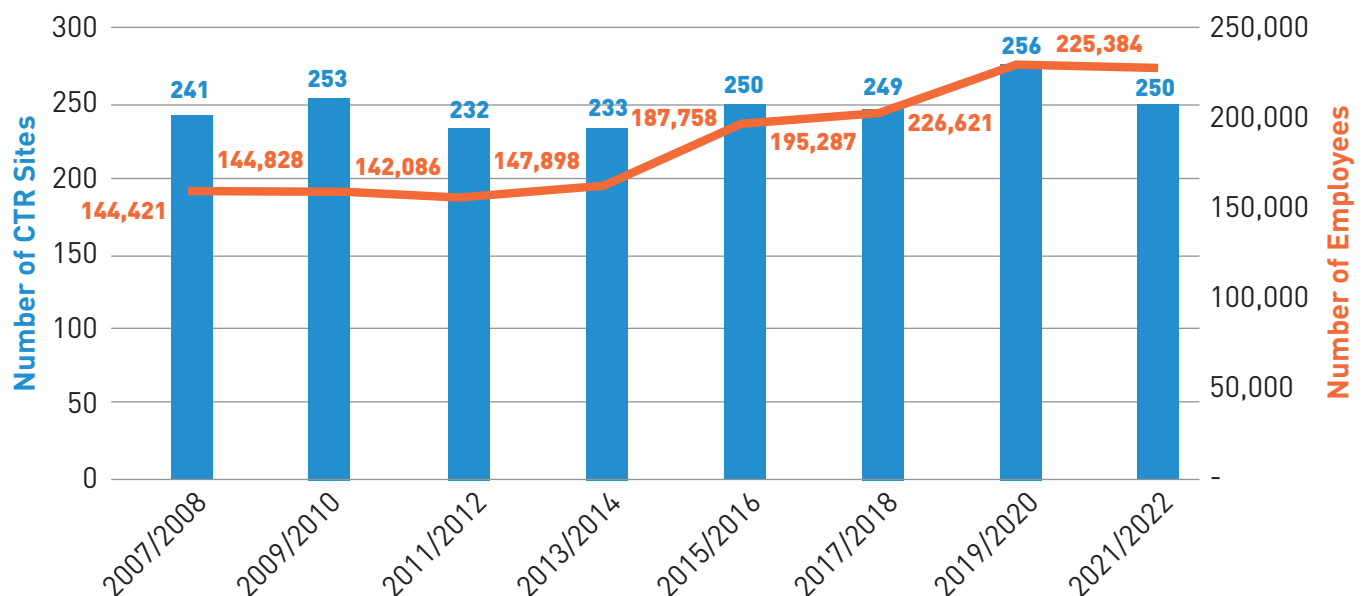
CTR EMPLOYEE AND SITE INFORMATION

38% of workers in Seattle are employed at a CTR worksite. In 2021/2022, this equated to 225,384 CTR-affected workers out of a total workforce of 589,793 citywide.¹⁷ This is a rough measurement but provides an estimate of the scale of the CTR program. However, the capture rate of CTR-eligible sites is not currently available. The Strategic Plan highlights site identification as a key challenge for the CTR program as there is currently no consistent, reliable, and readily available data source that SDOT can use to assess this metric. At this time, SDOT relies on its Employee Transportation Coordinators, news articles, and employer databases to determine which organizations may be CTR-affected.

After a decade of growth, the CTR program contracted slightly between 2019/2020 and 2021/2022. The number of CTR sites decreased from 256 to 250 while the number of employees covered by the program fell by around 1,000. The decrease in worksites was driven largely by the move to fully remote work during the pandemic that included the closure or consolidation of physical worksites located in the City of Seattle.

The change in CTR employees was not uniform across all parts of the city. Sites in South Lake Union & Uptown experienced the most growth, adding over 5,000 employees, though at a slower rate than in previous survey cycles. Belltown & Denny Triangle and Capitol Hill, Pike/Pine, & First Hill also added over 2,000 employees each. Meanwhile, networks like South Seattle, East Seattle, and Commercial Core each lost over 3,000 CTR employees. Seven out of 11 networks saw a reduction in the number of CTR sites while three added sites, leading to a net loss of six

FIGURE 15. CTR PROGRAM SITES AND TOTAL EMPLOYEES BY SURVEY CYCLE



¹⁷Population & Demographics - OPCD | seattle.gov

worksites overall. Much of the site loss took place in core networks while geographically peripheral areas like South Seattle, East Seattle, and Northgate added CTR sites. New CTR sites can represent both brand new organizations to the City of Seattle or organizations that have added staff, passing the threshold at which they become CTR-affected worksites.

In recent years, SDOT has emphasized extending the reach of the CTR program benefits to smaller employers (particularly in the Center City) and engaging more voluntary sites. In 2021/2022, there were 25 voluntary sites participating in the program with 1,972 employees. Voluntary sites are often worksites poised to eventually become CTR-affected or which were until recently affected. By engaging these worksites early in their employee growth trajectory, SDOT and Commute Seattle can achieve DAR and VMT goals before they are a worksite requirement. This sets employers and their staff up for program success once they do become affected by CTR regulations.

Cross-Program Integration

This benchmark is utilized to capture the extent of the CTR program integration with other local trip reduction programs. Furthermore, this benchmark is used to assess how the CTR program supports other trip reduction efforts in the city.

COMBINATION SITES, EMPLOYEES, AND TRIPS

154 of the 250 sites participating in the CTR program are also affected by Transportation Management Program (TMP) requirements. TMPs are designed to mitigate the traffic and/or parking impacts of large buildings during the permitting process as opposed to the CTR program, which focuses on employers and their employees. While 61% of CTR employers are located within TMP buildings, 70% of all CTR employees (157,388) are employed at a site affected by TMPs.

Programming Impact

The programming impact benchmark informs the quality of CTR programs through measures like program satisfaction and impact on DAR and VMT Trends. Furthermore, it provides CTR employees with information on services offered by their employer and the SDOT team information on program compliance. The CTR program utilizes several tools to encourage sustainable transportation behavior and the Programming Impact benchmarks are designed to track the implementation of those tools and strategies. Using information from the 2021/2022 Program Reports, employer-offered CTR programs were assessed through multiple methods.

DRIVE-ALONE AND MULTIMODAL SUBSIDIES

Employer-offered CTR subsidies are divided into two categories. Drive-alone subsidies include free parking, parking subsidies or reimbursement, or general transportation subsidies that allow for parking payments. Multimodal subsidies include subsidized ORCA transit passes, vanpool subsidies, carpool subsidies, active transportation subsidies, or parking cash out options.

FIGURE 16. TRANSPORTATION SUBSIDIES OFFERED AT CTR SITES

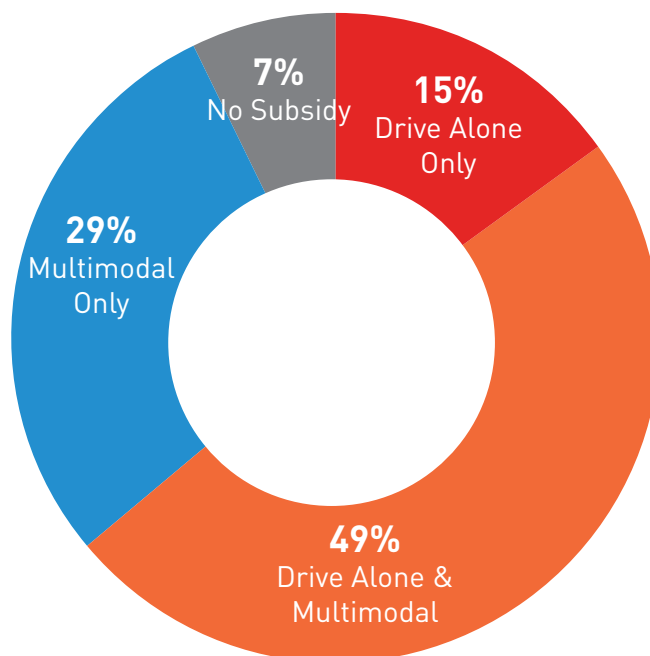


TABLE 8. DETAILED BREAKDOWN OF TRANSPORTATION OFFERINGS FOR CTR SITES

Network	Pre-Tax Benefits	Transit Passes	Bike/Ped Incentive	Shared Mobility	Ride-matching	Alt. Work Schedule	Parking Mgmt
Citywide CTR Sites	74%	66%	31%	59%	44%	97%	60%
Citywide CTR Employees	87%	79%	63%	77%	67%	99%	79%

78% of CTR sites offer multimodal subsidies compared to 64% of sites that offer drive-alone subsidies. Nearly one-third of all sites (29%) only offer multimodal subsidies, while 15% of sites only offer drive-alone subsidies. Only a small number of sites (7%) offer no transportation subsidies.

At CTR sites that only offer multimodal subsidies, the average DAR is 24.2%. At CTR sites that offer both drive-alone and multimodal subsidies, the average DAR is 26.2%. And at CTR sites that offer only drive-alone subsidies, the average DAR is 27.0%. These findings indicate that subsidy programs offered correlate with drive alone rate, which increases in sites that offer drive alone incentives.

The most common multimodal subsidies offered by CTR sites are employee transit passes (66% of sites), parking management programs (60%), and shared mobility services or incentives (59%). 74% of sites allow employees to set aside a portion of pre-tax income for certain transportation purposes, a requirement of the 2020 Commuter Benefit ordinance that impacts for-profit employers with more than 20 employees worldwide including all for-profit CTR worksites.¹⁸ Less common incentives include ridematching services (44% of sites) and bike/pedestrian incentives (31%). However, every incentive program is available to a majority of CTR employees in the city, as shown in the chart above.

¹⁸Employers may comply with Seattle's Commuter Benefit ordinance via pre-tax benefits or by providing transit passes; the ordinance does not apply to governmental and non-profit organizations

PROGRAM CONSULTATIONS

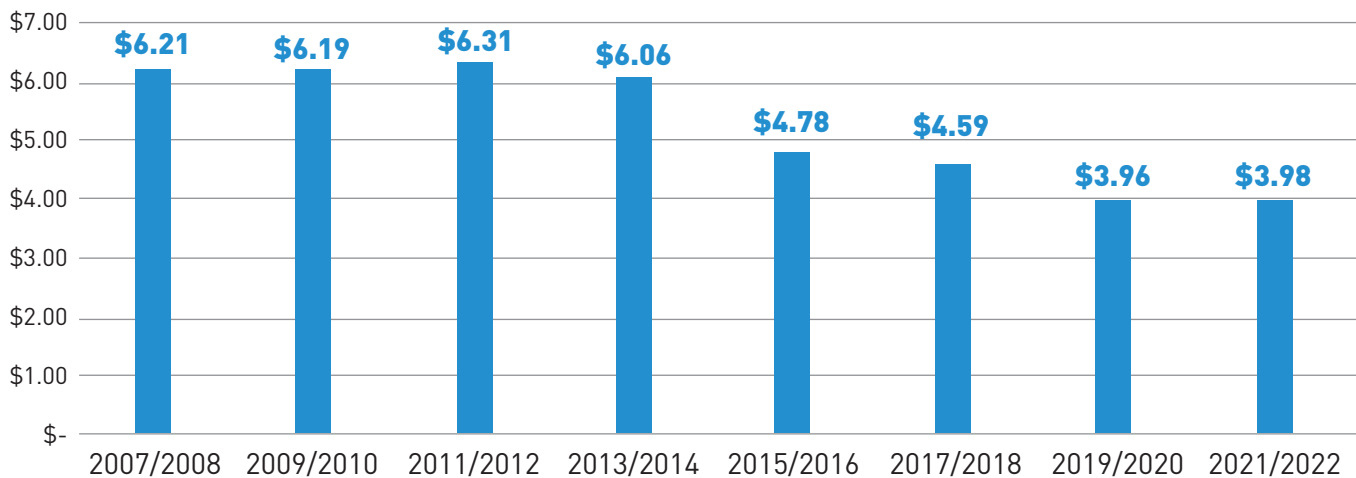
Following the 2022 Employee Survey and Program Reports, SDOT and Commute Seattle engaged in 261 program consultations with ETCs at CTR sites (on average, more than one consultation per site). Commute Seattle also significantly increased newsletter subscriptions (from 687 to 915 between 2022 and 2023) and average open rates (188 vs 233) following newsletter updates to send updates less frequently and shorten content into more easily digestible segments. Commute Seattle also reported an average feedback score of 5 out of 5 for their consultation work, reflecting ETC program satisfaction.

No data set was available regarding employee program satisfaction that is easily analyzed – current CTR surveys do include an optional space for survey takers to provide freeform feedback and could provide information on transportation satisfaction. This work involves sentiment and word analysis, representing a future opportunity for the City's CTR program team.

Cost Effectiveness

The Cost Effectiveness benchmarks track program investment, both at the state- and employer-level, over time.

FIGURE 17. CTR FUNDING PER EMPLOYEE BY SURVEY CYCLE



SDOT CTR FUNDING PER EMPLOYEE

As of the 2021/2022 performance reporting period, SDOT's CTR funding from the State has remained flat at \$897,500 for over a decade. As the program has grown, adding more employees, the amount of funding per employee has eroded significantly. Between 2011/2012 and 2019/2020, the amount of funding per CTR employee fell by 37% from \$6.31 to \$3.96. This number saw a slight uptick in 2021/2022 as the amount of CTR employees declined. However, as long as funding remains flat, the program will struggle to maintain the same level of benefits to employees as the city continues to grow.

EMPLOYER MOBILITY INVESTMENTS AT CTR SITES

According to data reported by Employee Transportation Coordinators (ETCs) in the 2021/2022 Program Reports, CTR employers invested a total of \$71,804,354.21 into their individual CTR programs, including ETC staff time, materials, financial incentives and subsidies, facilities, and other costs. It should also be noted that only 168 out of a total of 221 program reports included details on program costs. This equates to an average investment of \$427,406 into the program from sites that provided financial information. However, this amount varies drastically across sites, with a minimum self-reported contribution of \$20 to a maximum of \$6,075,000.

Program reports capture this information to recognize the private investment in programs and emphasize the public-private partnerships are key to the CTR program's success. High monetary contributions are not the only factor in an effective worksite CTR program nor do they correlate exactly with a lower DAR. Employee Transportation Coordinators can comply fully with current Commute Trip Reduction regulations through no- or low-cost solutions.

Equity

Equity is one of SDOT's core values, imagined in the Transportation Equity Framework as creating a holistic transportation system that contributes to the greater well-being and livelihood of Black, Indigenous, and people of color in the Seattle area along with other vulnerable communities. The CTR program's goal of shifting drive-alone commutes to other modes contributes toward reducing the transportation sector's contribution to pollution and greenhouse gas emissions. Understanding the impacts of past and present environmental injustices on marginalized communities helps frame this goal through a lens of equity.

TABLE 9. CTR SITE COMPARISON BY CITY OF SEATTLE RSE PRIORITY

RSE Priority	CTR Sites	CTR Employees	CTR Investment per Employee	Multimodal Subsidy Offered	Drive Alone Subsidy Offered	Drive-Alone Rate	GHG per Employee (MTCO2e/year)
Low	28	27,393	\$292.14	71%	75%	26.9%	0.86
Moderate	73	47,956	\$493.82	79%	71%	26.8%	0.90
High	120	129,899	\$308.86	78%	57%	23.8%	0.65

RACIAL AND SOCIAL EQUITY

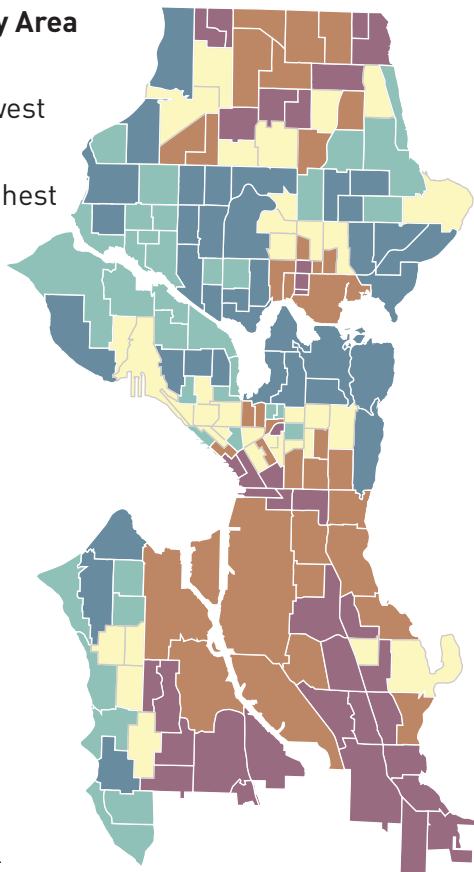
The City of Seattle created a Racial and Social Equity (RSE) Index¹⁹ to identify where historically marginalized communities exist within the city. It combines demographic, socioeconomic, and health data of the residential population to produce an equity index score at the census tract level. Census tracts are then categorized by quintile to produce their equity priority. The following table compares CTR worksites based on the RSE priority of where the worksite is located, specifically in the measures of investment, subsidies, and drive alone rate.

A majority of CTR worksites are located in high equity priority areas, accounting for 63% of all CTR employees. The average investment per employee is highest in moderate equity priority areas and relatively similar in low and high priority areas. Subsidies are offered at mostly the same rate regardless of equity area other than drive alone subsidies, which are much less common at worksites in high equity priority areas. Drive alone rate is almost equivalent between low and moderate equity priority areas but is roughly 3 percentage points lower in high equity

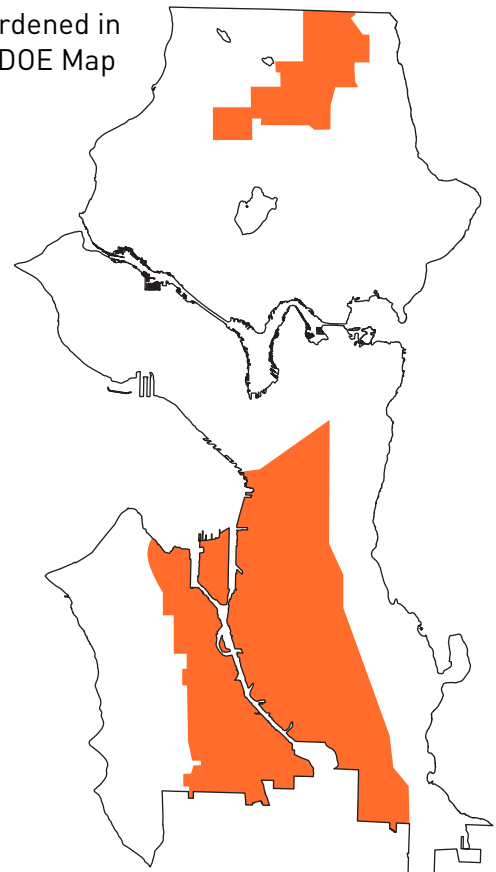
FIGURE 18. CITY OF SEATTLE RSE AND WASHINGTON STATE DEPARTMENT OF ECOLOGY (WSDOE) OVERBURDENED COMMUNITIES MAPS

Equity Priority Area

- Lowest
- Second lowest
- Middle
- Second highest
- Highest



- Overburdened in the WSDOE Map



¹⁹Racial and Social Equity Index | seattle.gov

areas, possibly correlated with fewer drive alone subsidies. Thus, it can be inferred that CTR is helping to decrease negative environmental impacts and improving environmental justice efforts by reducing drive alone rates more significantly in areas of higher equity needs. Less driving leads to lower pollution, safer streets, and is supported by more transportation options and sites that receive CTR benefits.

Health Equity

The Washington State Department of Ecology’s (WSDOE) Overburdened Communities initiative²⁰ identified two areas of Seattle that have historically been faced with health, social, and environmental inequities and overburdened with air pollution. These areas contain 42 active CTR sites. The following table compares these sites to those in non-overburdened areas of the city in the categories of investment, subsidies offered, and DAR.

CTR sites in overburdened areas of the city have a 67% higher drive alone rate and 58% lower level of investment than those in non-overburdened areas of the city. While this may seem like a direct correlation, the fact that subsidies are offered at almost exactly the same rate creates a more complicated picture. The two overburdened areas of the city are on the periphery, making transit passes cheaper for sites that provide them through the ORCA Business Passport program. While this lowers the investment per employee, it still provides them with the same benefits as employees in core areas. The higher drive alone rate in overburdened areas may not be a result of CTR underinvestment but rather a less developed multimodal transportation network in these outlying areas of the city, which is also reflected in higher GHG emissions per employee. In response, the CTR program should continue to advertise existing transportation options and continue to advertise vanpool and carpool options for worksites poorly supported by the existing transit, walk, and bike networks.

TABLE 10. CTR SITE COMPARISON BY WSDOE OVERBURDENED COMMUNITY STATUS

Category	CTR Sites	CTR Employees	CTR Investment per Employee	Multimodal Subsidy Offered	Drive Alone Subsidy Offered	Drive-Alone Rate	GHG per Employee (MTC02e/year)
Non-Over-burdened	179	170,867	\$380.06	78%	64%	23.8%	0.67
Over-burdened	42	34,381	\$199.67	79%	64%	31.5%	0.97

²⁰Overburdened Communities | ecology.wa.gov

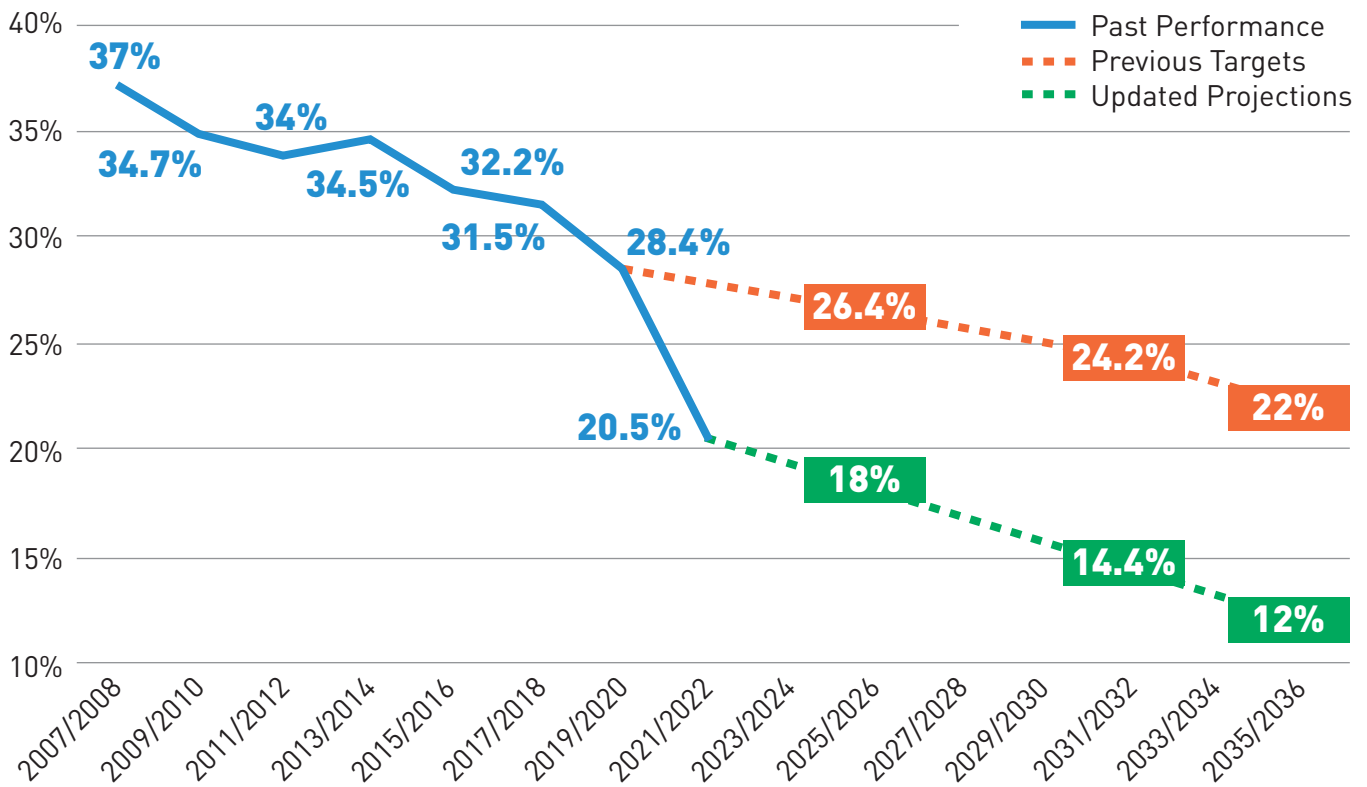
Future CTR Goals and Targets

As part of the CTR Strategic Plan, future targets were set for the CTR program's two core goals: DAR and VMT per employee. DAR targets were set based on analysis of past CTR survey data and a 2035 future DAR target of 25%, which was identified as the citywide commute trip goal by the 2015 Move Seattle Plan and as the citywide all trips goal by the Seattle 2035 Comprehensive Plan. To calculate the DAR target for interim years, a constant relative rate of reduction of

2.87% was used. To assess potential updates to the CTR targets, two approaches were selected:

1. *Strategic Plan Methodology with 2019/2020 Data*—Follow the same methods used in the Strategic Plan to develop targets updated with the 2019/2020 data, and
2. *Climate-Focused Methodology*—Develop targets to align with 2030 climate and emissions goals.

FIGURE 19. HISTORICAL AND PROJECTED DAR



CORE GOAL PROJECTIONS

Considering the significant drop in DAR from 2019/2020 to 2021/2022, the previous constant relative rate of reduction was recalculated incorporating the new data. Figure 19 compares these new projections to the projection from the 2019/2020 CTR Performance Update, illustrating the potential impact of pandemic era-powered DAR reductions moving forward.

The Strategic Plan states that the same rate of reduction was applied to the current VMT per employee performance to calculate a VMT per employee target for each horizon biennium. The 2019/2020 CTR Performance Update created new projections of VMT per employee, based on the constant relative rate of reduction up to that point. Due to a significant drop in VMT per employee in the 2021/2022 survey, new projections have now been developed, shown in Figure 20. Looking ahead to 2035/2036, VMT per employee is now projected at 1.2, far lower than the previous projection of 2.3.

The projected DAR and VMT per employee figures for 2023/2024 and 2035/2036, incorporating the 2021/2022 data, are listed in Table 11.

FIGURE 20. HISTORICAL AND PROJECTED VMT PER EMPLOYEE

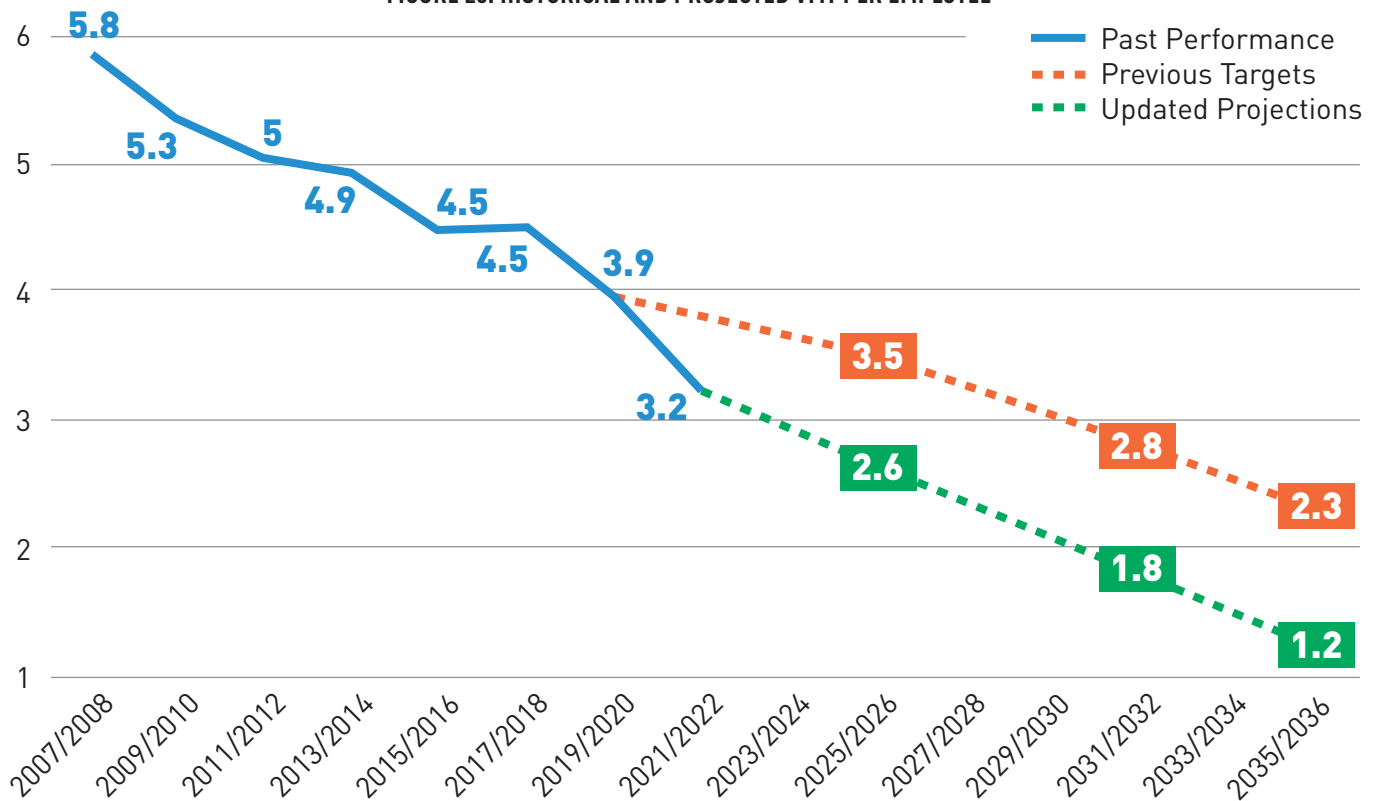


TABLE 11. PREVIOUS CTR PROGRAM TARGETS AND UPDATED PROJECTIONS

Survey Cycle	Previous DAR Targets	2021/2022 Performance and Updated DAR Projections	Previous VMT per Employee Targets	2021/2022 Performance and Updated VMT per Employee Projections
2021/2022	29.7%	20.5%	4.2	3.2
2023/2024	28.8%	19.3%	4.0	2.9
2035/2036	25.0%	12.0%	3.5	1.2

While the impacts of the pandemic on both DAR and VMT were significant, it's important to note that this reduction was an acceleration of preexisting trends. As the City invests in expansion of transit service, any shift away from remote work by regional employers will be supported by a strong menu of new travel options. Between the 2021/2022 cycle and 2025/2026 the Seattle region is expected to add 33.7 miles and 19 new stations to its Link light rail network, providing connections to Lynnwood, Bellevue, Redmond, Federal Way, and communities in between. With this expansion of high-capacity public transit, and as some employers opt to shift to hybrid or in-office work, the CTR program will empower employees to keep commute trips within non drive alone modes.

CLIMATE GOALS

Seattle's 2013 Climate Action Plan aimed to reduce transportation emissions 83% by 2030 (from a 2008 baseline).²¹ To help project current and future transportation emissions, SDOT began development of a Climate Calculator tool in 2020. The Climate Calculator uses data from PSRC's 2019 Household Travel Survey to establish a baseline VMT estimate for all trips to, from, and within Seattle. The Climate Calculator also estimates the potential impacts of a wide range of transportation strategies (including the CTR program), which are derived using a mix of Seattle-specific data, peer city data, and information from peer-reviewed literature.

In 2021, Mayor Durkan issued Executive Order 2021-09: Driving Accelerated Climate Action that states that the City should move more quickly toward meeting its previous goals set for 2030.²² This order urges SDOT to implement the actions necessary to reduce GHG emissions from the city's transportation sector by at least 82% from the 2008 baseline by 2030 and reach net-zero carbon by 2050. The Executive Order also calls for the development of the Seattle Transportation Plan – the first all-encompassing long-term multimodal transportation planning document in the City's recent history.

According to the Mayor's Office of Sustainability & Environment, transportation emissions in Seattle fell 24.5% from 2018 to 2020, due in large part to COVID-19 pandemic travel restrictions and work from home orders. This moved the City closer to its goals with a reduction in vehicle emissions of 27.7% between 2008 and 2020. However, achieving significant, sustained results will require new programs and approaches.

²¹Climate Action Plan - Environment | seattle.gov

²²Understanding Our Emissions - Environment | seattle.gov

To meet the 2030 goal of reducing carbon emissions by 83% from 2008 levels, Seattle would need to achieve greater emissions reductions than ever previously realized. Average biennial emissions reductions would need to meet or exceed 24.6% from present day to 2030. This level of change would be the equivalent of an emissions reduction at the scale of the COVID-19 pandemic every two years for the next six years. Without implementing large scale, internationally proven strategies, it is not possible for Seattle to attain its 2030 transportation goals for climate action.

However, the CTR program is a bright spot in the overall emissions story. The 2021/2022 CTR DAR results surpassed the previously set 2030 goal of 25.25%, reaching an all-time low of 20.5%. In addition, average GHG per employee at CTR worksites fell to an all-time low of 0.73 MT CO₂e, a 49% reduction from the 2007/2008 baseline. The shift to telecommuting during the COVID-19 pandemic is partially responsible for this dramatic drop in emissions but the CTR program was delivering strong results prior to the start of the pandemic as well. Between 2007/2008 and 2019/2020, CTR worksites saw an average per employee GHG reduction of 33%, accounting for more than half of the total emissions reductions since the program began tracking them.

Due to the unforeseen nature of the pandemic, shifts toward less carbon-intensive commutes may not be sustainable and DAR may rise once employees return to in-person work. The CTR program remains committed to its climate goals and seeks to build on progress made during the pandemic to achieve them.

While the CTR program continues to help reduce emissions at worksites under its purview, there are significant opportunities to revise CTR from a policy level to grow the program's impact and bring Seattle closer to its climate goals. These include:

- **Update the definition of 'commute trip' in Revised Code of Washington (RCW) and Seattle Municipal Code (SMC)**
 - Remove time of day language so that all commutes are affected, not just those taking place between 6AM-9AM
 - > Seattle area traffic congestion
 - which CTR aims to reduce – is defined as severe by WSDOT in both directions at peak hours. However, work shifts beginning between 3PM-6PM are not currently affected by CTR law.
 - > Many worksites with 100+ employees are not currently affected by CTR due to shift starts that fall outside of the 6-9AM window. These employee populations are those most often in need of CTR support.
 - Remove day of week language so that commutes on Saturday and Sunday are affected – currently, only work commutes Monday-Friday are affected
 - > Many worksites run 24/7 operations that need additional support such as hospitals, hotels, and grocery stores

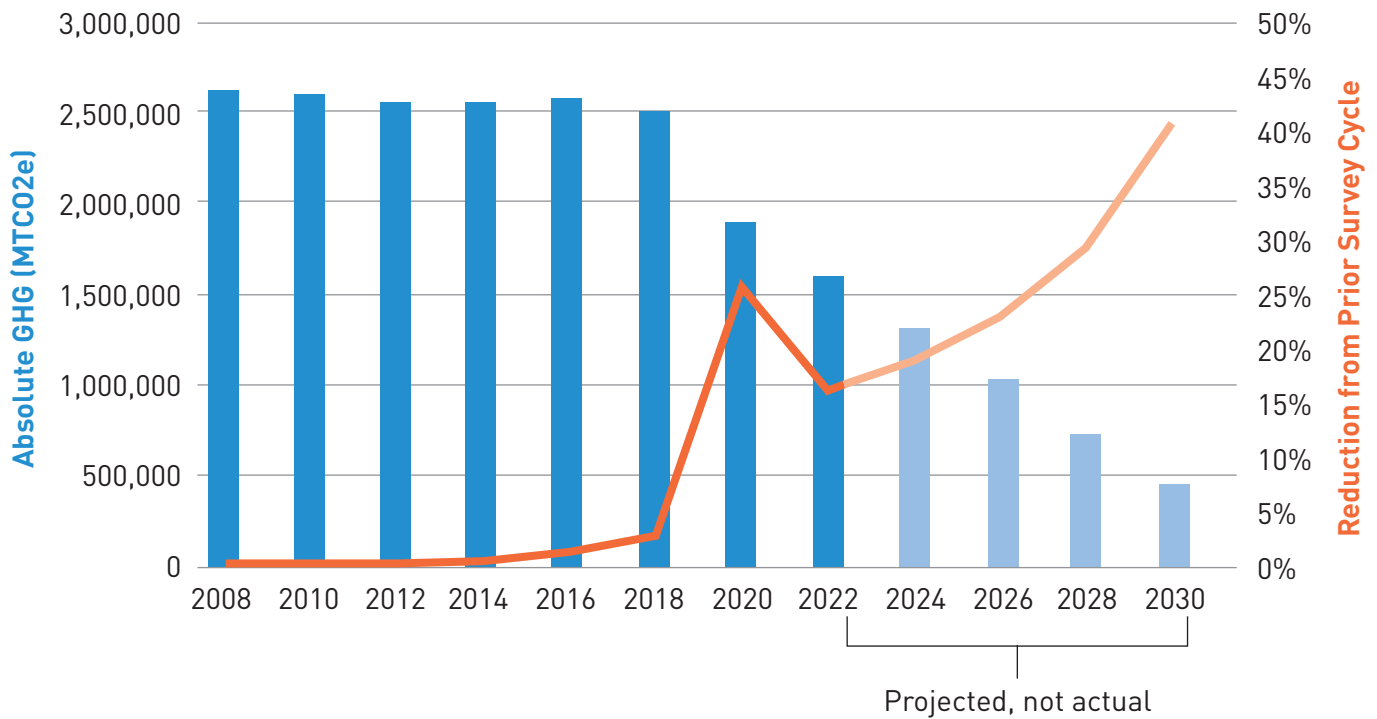
- **Redefine CTR worksite size requirements, extending the program to employers who have fewer than 100 employees**

- In 2021, the Seattle-Bellevue-Tacoma Metropolitan Statistical Area (MSA) had 7,131 firms with 20-99 employees, representing a total of 254,948 employees.²³

- **Move toward an ‘all trips’ definition of CTR and Transportation Demand Management to provide programming to any trip and not just commutes**

- Every trip someone takes, can add to congestion, air pollution and the overuse of natural resources – the key focus areas for CTR law as written in 1991. A move to all trips programming and regulation could support the goals of CTR and benefit all residents, not just those working at CTR sites.

FIGURE 21. EMISSIONS REDUCTIONS NEEDED TO MEET SEATTLE’S 2030 CLIMATE GOALS²⁴



²³2021 Statistics of U.S. Businesses | census.gov

²⁴Understanding Our Emissions - Environment | seattle.gov

Conclusion and Lookahead



Seattle's CTR Program continued to make progress on its core program goals, deliverables, and benchmarks in 2021/2022. The program exceeded the 2023/2024 targets for both DAR and VMT per employee and surpassed even the 2035/2036 targets that were set before the COVID-19 pandemic.

The rise of telecommuting represented a major shift in commute mode share over the past cycle, which contributed to significant reductions in DAR and VMT per employee. This trend is associated with work from home mandates during the

COVID-19 pandemic. In the post-pandemic world, the CTR program faces important questions moving forward. Will CTR worksites change employee counts as they move back and forth between remote, hybrid and in-person schedules? How many employees will continue working from home or adopt hybrid working models? The way these questions play out will have significant impacts on the reach of the CTR program, commute travel patterns, the quality and reliability of CTR Survey data, and SDOT's ability to consistently monitor the performance of the program.

Looking ahead to 2035, the CTR program is on track to significantly outperform both DAR and VMT per employee targets if performance from the 2021/2022 survey continues. Given the program's continued progress, SDOT will reevaluate the existing targets for both core program goals, potentially setting more aggressive targets that align with the current trajectories for DAR and VMT per employee. If SDOT were to adopt more aggressive targets based on current trends, the potential outcomes would better align with Seattle's goal to reduce transportation emissions 83% by 2030. As more employees return to work, it is critical that the CTR program is leveraged to convert trips from telecommuting to non-drive alone alternatives such as walking, rolling, bicycle, vanpool, carpool or transit. In 2024, SDOT will begin work on updating its four-year Strategic Plan as required by State law for the 2025-2029 period. This work will closely align with the goals and methodology used in the 2024 Seattle Transportation Plan²⁵ and the 2023 Climate Change Response Framework.²⁶

Seattle is now crafting its Seattle Transportation Plan as a set of new implementation and performance frameworks. In addition, the Transportation Options team is drafting a 5-year Transportation Demand Management (TDM) Strategic Plan in 2023/2024 that will highlight key TDM strategies, many of which are implemented through CTR. These new tools and strategic documents will inform how the CTR program continues to grow and improve upon past performance.

Key future challenges include keeping worksites engaged as they adopt permanent work from home or hybrid policies, identifying new worksites that should be affected by CTR in a hybrid work environment, and strengthening the City's ability to advocate for changes in policy, planning, and programming that make choosing non-drive alone transportation options competitive or even preferred for CTR employee commutes.

Over the past decade, the CTR program has played an integral role in Seattle's progress toward creating a more sustainable transportation system as the city experienced rapid growth followed by a major pandemic. For the City of Seattle to progress towards its 2030 climate goals, the CTR program will need to continue to shift employees from driving alone to more sustainable transportation options. To do so, SDOT must pursue aggressive and novel strategies while working with partners at the City and State to expand the reach of the CTR program to serve new populations, worksites, and travel patterns.

²⁵Seattle Transportation Plan - Transportation | seattle.gov

²⁶SDOT Climate Change Response Framework | seattle.gov

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