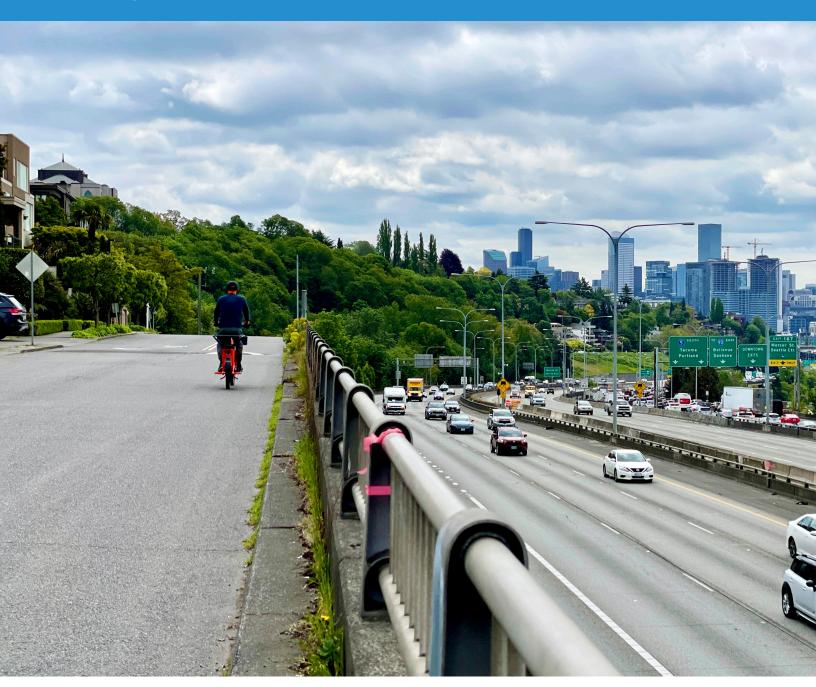
# **Seattle Commute Trip Reduction Program**

## 2023/2024 PERFORMANCE UPDATE





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# **Glossary of Terms**

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): Commute Trip Reduction Law is 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. 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. 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.

Drive Alone Rate (DAR): The percentage of trips driven alone as determined by single-occupant vehicle (SOV) adjusted 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 (e.g. carbon dioxide, methane, nitrous oxide, and ozone) trap heat in the atmosphere and thus 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 nationally as well as in Seattle.1

<sup>&</sup>lt;sup>1</sup> Sources of Greenhouse Gas Emissions | US EPA

Multimodal: Supporting multiple modes of transportation, e.g. walk/rolling, biking, riding transit, and driving.

**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 such as bike and scooter share, electric vehicles, and autonomous vehicles

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 occupied by one person. In the case of a TNC or taxi, occupied by one passenger plus the driver.

#### Single-Occupant Vehicle Equivalent (SOVe):

Method of adjusting SOV trips based on mode and occupancy. Includes carpool, vanpool, motorcycle and rideshare trips based on pooled occupancy.

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, walk/rolling, biking, and telecommuting.2

#### Transportation Management Program (TMP):

In Seattle a TMP is a 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):

Companies that allow consumers to directly request dispatch of for-hire drivers for trips using mobile interfaces such as smartphone applications. For the purposes of CTR, use of a TNC or taxi service with one passenger is considered equivalent to an SOV or driving alone.

Vanpool: Commute programs that use agencyprovided vans to transport groups of at least 5 people. Groups decide their own routes, schedules, and pickup/dropoff locations. Fare is based on number of days used, miles travelled, and passengers. Vanshare is a more limited service that focuses on connecting to other modes of transportation within a commute.3

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

<sup>&</sup>lt;sup>2</sup>Transportation Demand Management (TDM) | Puget Sound Regional Council

<sup>&</sup>lt;sup>3</sup> Vanpool and Vanshare - King County, Washington

## **Overview**

The 2023/24 period has been an eventful time for the City of Seattle and its Department of Transportation (SDOT). In 2023, SDOT released its first ever Climate Change Response Framework,4 adopted unanimously by City Council. In 2024, the Seattle Transportation Plan<sup>5</sup> – the City's first transportation plan that unites all travel modes under one document - was also unanimously adopted. These plans unite SDOT and the City of Seattle in the shared goal of creating a city that is livable, equitable, sustainable, mobile. economically successful, and safe, all while taking care of existing assets. The Commute Trip Reduction (CTR) program is one part of the larger SDOT portfolio of programs and projects that delivers on this mission.

The CTR program's main objective is to reduce drive-alone trips within Seattle, providing transportation, environmental, and social benefits. The program is a partnership between the City of Seattle, Washington State Department of Transportation (WSDOT), local transportation organizations, and large worksites and their employees. It is implemented by SDOT, which is responsible for regular program evaluation. Over the past decade, SDOT has produced biennial performance reports to draw insights from two primary data sources: employee commute surveys and worksite commute benefit program reports.

The 2023/24 CTR Performance Report utilizes survey data collected over the past two years to assess the progress on key metrics related to Seattle's CTR program. As the city recovers from the unprecedented changes caused by the COVID-19 pandemic, employers are adopting new work models that affect how their employees commute, with some worksites returning to fully in-person schedules. At the same time, the Puget Sound region has been making major investments in its transit network, leading to the expansion of light rail, bus rapid transit, and fast ferry service. These factors create an everchanging transportation landscape to which the CTR program must respond.

The 2023/24 CTR Employee Survey revealed a mixed picture for key performance indicator (KPI) success. The program did not meet its targets for the core goals of Drive Alone Rate (DAR) and Vehicle Miles Travelled (VMT). However, recent greenhouse gas (GHG) measure adjustments by WSDOT (that now account for electric vehicle adoption) show a continued reduction in programmeasured emissions. It is not yet clear whether these KPI results in 2023/24 represent an anomaly or are indicative of longer-term shifts in the program's trajectory.

<sup>&</sup>lt;sup>4</sup> Our Climate Response - Transportation | seattle.gov

<sup>&</sup>lt;sup>5</sup>Seattle Transportation Plan - Transportation | seattle.gov

SDOT recognizes the potential to gain unique insights in travel behavior through the CTR program. This report presents novel analysis using both CTR survey data and outside sources. Commute Outcomes now investigates employee start time and travel patterns across days of the week. The Equity benchmark has been expanded to include location analysis from a worksite and employee perspective. These areas of new analysis, alongside many others, provide a more comprehensive view of the program's performance and uncover opportunities for continued improvement.

Looking ahead, SDOT is committed to enhancing and expanding the CTR program to meet the City's ambitious goals. This work requires a clear understanding of the program's ongoing performance, including both strengths and weaknesses. The 2023/24 CTR Performance Report not only provides a snapshot of the current moment but serves as the starting point for the program's continued evolution and success.

## Introduction

In 1991, the Washington State Legislature passed the Commute Trip Reduction (CTR) Law. The law seeks to reduce congestion, reduce pollution, and conserve natural resources by shifting drive-alone commutes to other modes. As an affected jurisdiction, Seattle is required to maintain a local CTR program, defined in the Municipal Code and administered by the Seattle Department of Transportation (SDOT). Today, Seattle's CTR program oversees nearly onequarter of the State's CTR-affected worksites and is known nationally as an example of impactful Transportation Demand Management (TDM).

Seattle's CTR program is a partnership between the State, City, local Transportation Management Association, and major employers. The program provides education, events, communications, and data insights to support Seattle employees, employers, and worksites. It is an essential tool for creating a more sustainable transportation system and has had many positive impacts on the city as a whole.

After a decade of growth, Seattle faced an unprecedented challenge in the form of the COVID-19 pandemic. The pandemic fundamentally altered travel patterns at a local, regional, and national level. The CTR program has worked to adapt to these new conditions, developing new and innovative ways to encourage multimodal travel choices over single-occupancy vehicle (SOV) use.

### **GOAL SETTING**

SDOT's 2019-2023 Commute Trip Reduction Strategic Plan (referred to as the CTR Strategic Plan throughout this report) created a roadmap to guide the program's implementation, survey cycle and into the future. The CTR Strategic Plan established two core goals for the CTR program:

drive-alone rate (DAR) and vehicle miles traveled (VMT) per employee. The core program goal targets were set by the City of Seattle in compliance with the Washington State CTR law<sup>6</sup> and Transportation Demand Management Board guidance.7

The CTR Strategic Plan set the citywide DAR target at 25% by 2035/36, which aligned with the goals of the Move Seattle Plan and Seattle 2035 Comprehensive Plan. Within the CTR Strategic Plan, the citywide VMT per employee target is 3.5 miles<sup>8</sup> by 2035/36. The CTR Strategic Plan also included interim targets for 2023/24, displayed in Table 1.

**TABLE 1. CTR CORE PROGRAM GOAL TARGETS** 

Biennium	DAR Target	VMT per Employee Target
2023/24	28.8%	4.0
2035/36	25.0%	3.5

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 CTR Strategic Plan revamped SDOT's network areas, increasing the total number from 8 to 11, to reflect land use trends and changes. It should be noted that these targets were set prior to the onset of the COVID-19 pandemic and its impact on travel patterns.

<sup>&</sup>lt;sup>6</sup> Chapter 70.94.521 RCW Dispositions: WASHINGTON CLEAN AIR ACT

<sup>&</sup>lt;sup>7</sup> Policies – Transportation Demand Management (tdmboard.com)

<sup>&</sup>lt;sup>8</sup>One way trip length average

#### FIGURE 1. CTR NETWORK GEOGRAPHY

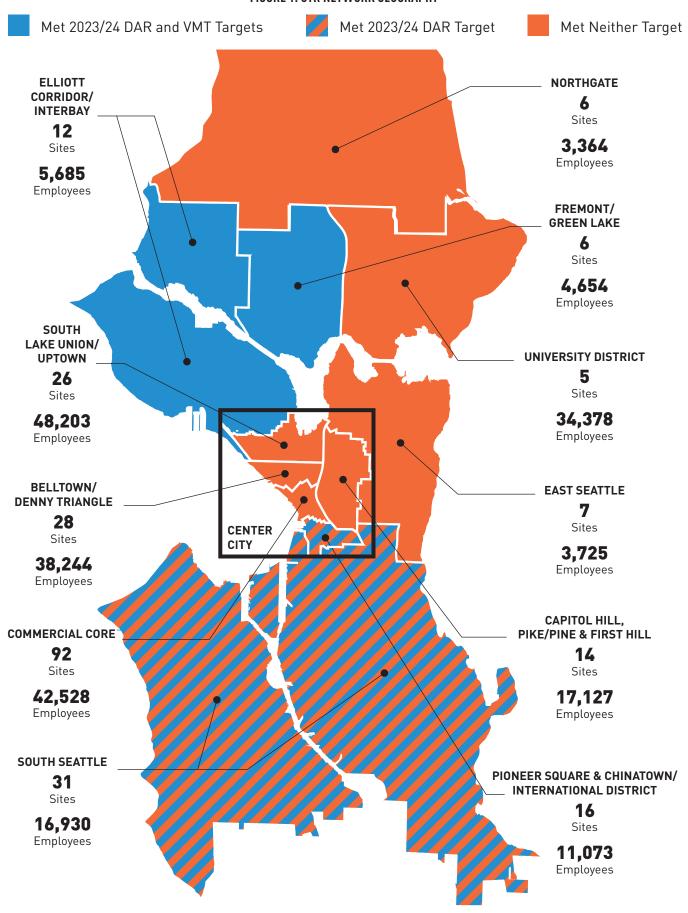


TABLE 2. DAR TARGETS BY NETWORK

Network	2023/24	2035/36
Belltown & Denny Triangle	18.0%	14.1%
Capitol Hill, Pike/Pine, & First Hill	41.6%	38.9%
Commercial Core	15.2%	14.4%
East Seattle	47.6%	45.3%
Elliott Corridor/Interbay	49.1%	42.4%
Fremont/Green Lake	46.2%	43.5%
Northgate	59.4%	53.4%
Pioneer Square & Chinatown/ International District	20.4%	18.1%
South Lake Union & Uptown	24.5%	19.7%
South Seattle	60.4%	53.4%
U District	29.2%	26.6%

## TABLE 3. VMT PER EMPLOYEE TARGETS BY NETWORK

Network	2023/24	2035/36
Belltown & Denny Triangle	3.3	2.8
Capitol Hill, Pike/Pine, & First Hill	6.1	5.4
Commercial Core	2.4	2.1
East Seattle	7.8	6.8
Elliott Corridor/Interbay	8.1	7.0
Fremont/Green Lake	4.1	3.5
Northgate	6.0	5.2
Pioneer Square & Chinatown/ International District	3.2	2.8
South Lake Union & Uptown	2.9	2.4
South Seattle	9.3	8.0
U District	3.6	3.3

In addition to the core program goals, SDOT has established a number of program benchmarks in the CTR Strategic Plan to better track the CTR program's performance over time. Program benchmarks are grouped into seven categories:

- 1. Commute Outcomes
- 2. Climate Outcomes
- 3. Program Reach
- 4. Cost Effectiveness
- 5. Programming Impact
- 6. Cross-Program Integration
- 7. Societal Impact

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

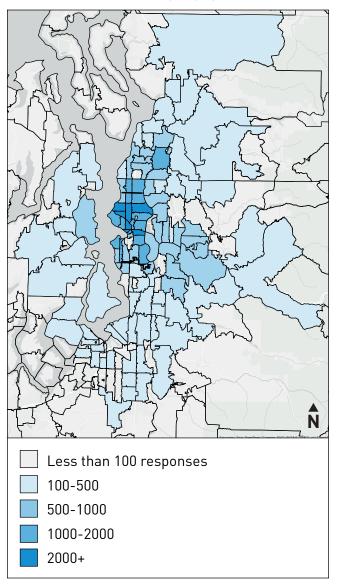
## **DATA COLLECTION AND CHALLENGES**

This report uses two primary data sources to measure progress on core program goals and benchmarks: the CTR Employee Survey and CTR Program Reports. Because the data collection process extends across two years, survey cycles are referred to by their biennium (e.g. 2023/24).

The employee survey is given to employees at CTR worksites every two years to gather information on commuting choices, behaviors, and motivations. The 2023/24 CTR Employee Survey was administered in the fall of 2024. Due to the unique challenges of the previous survey in 2021/22, SDOT worked closely with partners at Commute Seattle and University of Washington to develop a streamlined survey tool and refine questions to obtain more detailed information. This resulted in a more robust data collection process, borne out in the survey results. The 2023/24 Employee Survey collected 86,155 responses, a 50% increase from the previous cycle. Despite improved engagement overall, some individual worksites did not achieve a high enough response rate to produce statistically significant results. To avoid skewing the data, these sites were excluded from calculations of DAR, VMT, emissions, and mode split in this report. After filtering out these sites, the overall response rate of the 2023/24 Employee Survey is 48.9%, nearly 10-percentage points higher than 2021/22.

The 2023/24 Employee Survey captured responses from employees living throughout the Puget Sound region. Respondents were prompted to enter their home ZIP code, allowing SDOT to analyze how the home location of CTR employees affects key outcomes. Figure 2 maps 2023/24 Employee Survey responses by home ZIP code, showcasing the wide reach of Seattle's CTR program across the Puget Sound region.

FIGURE 2. CTR EMPLOYEE SURVEY RESPONSES BY ZIP CODE (2023/24)



CTR Program Reports are prepared by Employee Transportation Coordinators (ETCs) and detail how their employer implements SDOT-required CTR strategies to reduce worksite SOV trips. The most recent round of program reports was submitted between November 2023 and February 2024. All program reports submitted were included in the analysis, as employee response rate has no effect on this data.

This 2023/24 CTR Performance Report includes data from the 2023 American Community Survey (ACS) for additional context. While the ACS offers a valuable comparison at the citywide scale, it cannot be used on the network level. This 2023/24 CTR Performance Report also uses data prepared by Commute Seattle; however, its results may differ from the 2024 Seattle Commute Survey report because it excludes data from non-CTR and unsuccessfully surveyed worksites.

#### RECENT DEVELOPMENTS

The COVID-19 pandemic and subsequent stayat-home orders had a drastic impact on travel patterns across the U.S. In Seattle, a large number of workers began working from home. The 2021/22 CTR Employee Survey recorded telecommuting as the top travel mode for the first time in the CTR program's history, accounting for over 50% of commute trips. This correlated with all time lows in DAR. VMT. and emissions.

The shift to remote and hybrid work led to concerns that the program's reach could be diminished. Many CTR implementers at local jurisdictions feared that hybrid worksites would lose their CTR-affected status, reducing the number of employees and worksites in the program at the local and statewide level. In response, WSDOT released new guidelines on July 28, 2023, which state 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.

Following the distribution of the COVID-19 vaccine and mass immunization campaigns, many employers have implemented return to work policies. These range from voluntary hybrid work programs to mandatory in-person requirements. While the employee survey data was collected in Fall 2024, many regional large employers launched new or stricter in-office requirements following the survey period and these effects may not be captured in this report.

The impact of return-to-work efforts is visible in the shift in travel patterns captured by the 2023/24 Employee Survey, which shows a noticeable decline in telecommuting compared to 2021/22, paired with increases in DAR and VMT. SDOT has developed a suite of strategies to counter this trend in the TDM Programs 5-Year Strategic Plan<sup>10</sup> (referred to as the TDM Strategic Plan throughout this report), published in December 2024.

<sup>9</sup> Remote Work: The Biggest Legacy Of Covid-19 (forbes.com) COVID-19 Pandemic Continues To Reshape Work in America I Pew Research Center

<sup>&</sup>lt;sup>10</sup> seattle tdm programs 5 year strategic plan final[33].pdf

## **Program Performance**

#### **CORE PROGRAM GOALS**

The CTR program saw regression on meeting core targets during the 2023/24 survey cycle. Citywide, actual DAR exceeded its target by 2.7 percentage points and VMT per employee was 1.1 miles above its target.

### Drive Alone Rate (DAR)

Citywide CTR program DAR rose from 20.5% in 2021/22 to 30.7%, a 10.2-percentage point increase in surveyed drive alone trips. The program did not meet its citywide 2023/24 DAR target of 28.8%, established in the 2019 CTR Stategic Plan. Only 4 of the 11 network areas met their 2023/24 DAR targets (Elliott Corridor/Interbay, Fremont/Green Lake, Pioneer Square & Chinatown/International District, and South Seattle).

## Vehicle Miles Travelled (VMT) per **Employee**

Citywide CTR program VMT per employee rose from 3.1 miles in 2021/22 to 5.0 in 2023/24. a 60% increase. CTR sites did not meet the 2023/24 VMT per employee target of 4.0. Only 2 of the 11 network areas met their 2023/24 VMT per employee targets (Elliott Corridor/Interbay, Fremont/Green Lake).

TABLE 4. CTR CORE PROGRAM GOAL PERFORMANCE (2023/24)

Network	Actual DAR	Target DAR	Met Target?	Actual VMT/ Employee	Target VMT/ Employee	Met Target?
Citywide	31.5%	28.8%	NO	5.0	4.0	NO
Belltown & Denny Triangle	26.5%	18.0%	NO	4.4	3.3	NO
Capitol Hill, Pike/Pine, & First Hill	43.6%	41.6%	NO	6.9	6.1	NO
Commercial Core	18.3%	15.2%	NO	3.1	2.4	NO
East Seattle	57.4%	47.6%	NO	9.5	7.8	NO
Elliott Corridor/Interbay	26.7%	49.1%	YES	4.8	8.1	YES
Fremont/Green Lake	33.7%	46.2%	YES	4.0	4.1	YES
Northgate	61.7%	59.4%	NO	8.1	6.0	NO
Pioneer Square & Chinatown/ International District	19.7%	20.4%	YES	3.4	3.2	NO
South Lake Union & Uptown	31.9%	24.5%	NO	4.9	2.9	NO
South Seattle	55.0%	60.4%	YES	10.1	9.3	NO
U District	39.4%	29.2%	NO	6.5	3.6	NO

#### HISTORICAL TRENDS

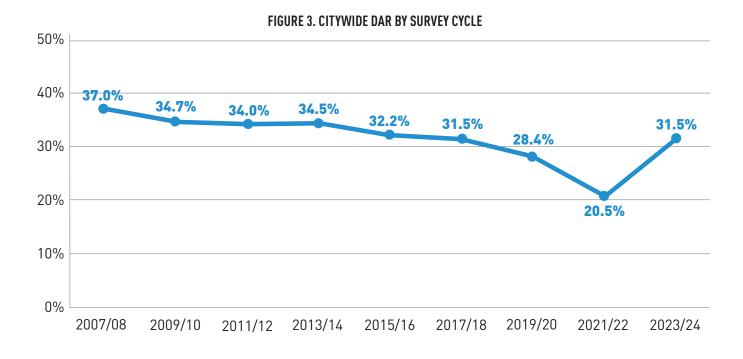
Between 2007/08 and 2021/22, the CTR program's DAR decreased by nearly half from 37.0% to 20.5% of all commute trips. However, the most recent survey cycle saw this trend reverse, with DAR increasing 11 percentage points to backtrack to its 2017/18 level. All 11 network areas recorded an increase in DAR in the latest survey. Pioneer Square & Chinatown/International District saw the largest relative increase over the past two survey cycles, while East Seattle saw the smallest.

Since 2007/08, DAR has decreased in 9 of the 11 network areas, with an average reduction of 12-percentage points. East Seattle and U District have seen DAR increase, reaching all time highs in 2023/24 after decreasing for several survey cycles.

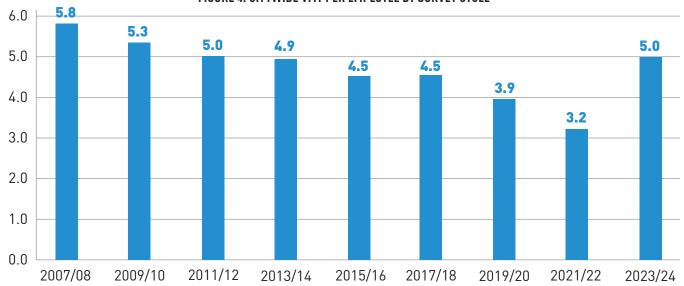
Citywide VMT per employee fell by nearly 50% between 2007/08 and 2021/22, from 5.8 to 3.2 miles. The 2023/24 survey recorded the first rise in VMT per employee since tracking began, increasing nearly 60% from 2021/22 to 5.0 miles, equal to its 2011/12 level.

Eight networks have experienced a drop in VMT per employee since 2007/08. Elliott Corridor/ Interbay has seen the largest decrease of any network at 5.6 miles. Meanwhile, East Seattle, South Seattle, and U District have had net increases. U District has seen the largest net increase at 0.9 miles, driven by a 1.7 mile jump in the most recent survey results.

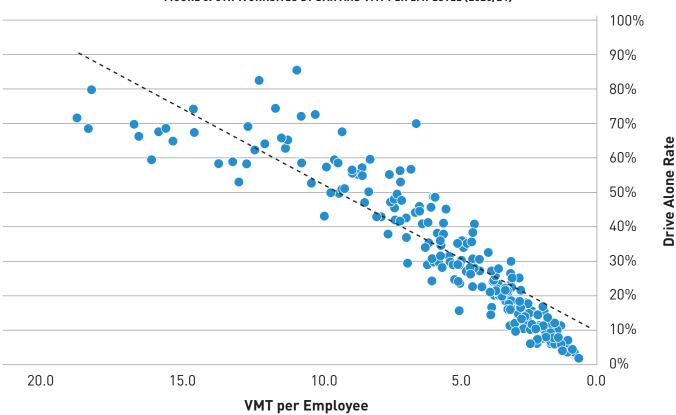
As expected, there is a clear relationship between a CTR worksite's DAR and VMT per employee. In the most recent survey cycle, every 1% change in worksite DAR correlated with a 0.17 change in VMT per employee, displayed in Figure 5.



#### FIGURE 4. CITYWIDE VMT PER EMPLOYEE BY SURVEY CYCLE



#### FIGURE 5. CTR WORKSITES BY DAR AND VMT PER EMPLOYEE (2023/24)

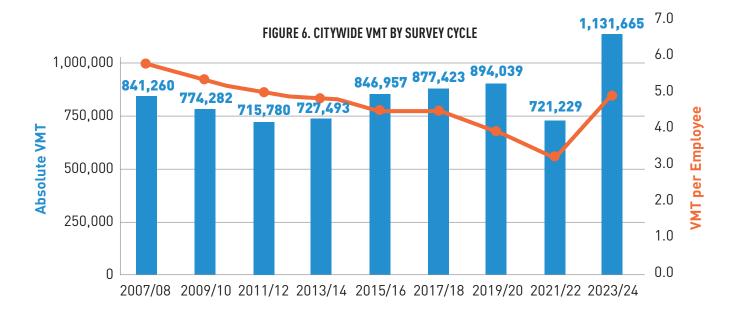


In addition to analyzing VMT on a per-employee basis, it is also important to consider the total amount of VMT generated by the CTR program. Prior to the wider adoption of electric vehicles, this metric served as a direct indicator of transportation-related greenhouse gas emissions. Absolute VMT decreased from 2007/08 through 2011/12 but then increased in each of the next four survey cycles, reaching a peak of nearly 900,000 in 2019/20. It dipped nearly 20% during the COVID-19 pandemic before rising 57% to an all time high of 1,131,665 miles in 2023/24.

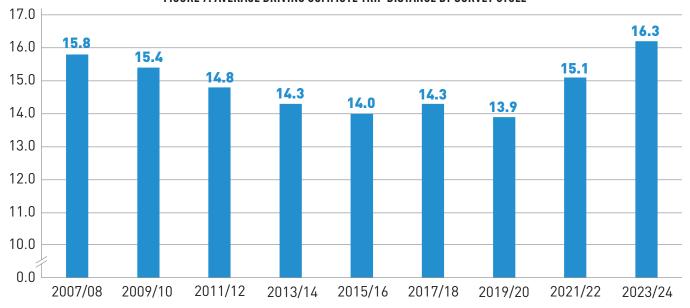
Despite this setback, if VMT per employee remained at 2007/08 levels, absolute VMT would have been over 1.3 million miles in 2023/24.

demonstrating Seattle's progress in reducing drive-alone commuting amid employment growth. Due to data challenges in the most recent survey cycle, 2023/24 absolute VMT was calculated by multiplying VMT per employee at successfully surveyed sites by the total number of employees in the program.

Driving trip distance measures the number of miles driven alone in a typical CTR employee's commute. This metric experienced a steady decline from 2007/08 to 2019/20 before rebounding during the pandemic, as shown in Figure 7. This trend has accelerated in the most recent survey cycle, with average solo driving trip distance increasing 5% to an all time high of 15.9 miles in 2023/24



#### FIGURE 7. AVERAGE DRIVING COMMUTE TRIP DISTANCE BY SURVEY CYCLE



The 2023/24 Employee Survey revealed significant disparities in average driving trip distance among networks. CTR employees working in Fremont/ Green Lake had the shortest average driving trip distance at 11.9 miles while those in South Seattle had the longest at 18.3 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.<sup>11</sup> The shift to remote work during the pandemic also enabled people to live further away from where they work<sup>12</sup> while subsequent return-to-office mandates saw many employees return to driving alone.

The 2023/24 survey also found variance in average driving trip distance by industry. CTR employees in the Life Sciences sector had the shortest average driving trip distance (12.0 miles), while those in Construction had the longest (21.2). Other sectors with high driving distances included Manufacturing (20.8 miles) and Government

# PROGRAM BENCHMARKS Commute Outcomes

The Commute Outcomes benchmark measures how Seattle's CTR affected commutes are changing in terms of mode, length, and other key characteristics.

#### **MODE SPLIT**

Table 5 shows the mode split of CTR program commute trips according to the 2023/24 CTR Employee survey data. The majority (68.5%) of commute trips used a mode other than driving alone. Telecommuting fell from its highest ever share (50.3%) in the 2021/22 survey but still represented the largest share of trips at 32.1%. This 18.2 percentage point decrease in telecommuting coincided with a rise in the use of every other mode. Transit and Driving alone accounted for the majority of this growth, with increases of 7.8 and 11 percentage points respectively.

<sup>(18.7).</sup> Industry specific knowledge can provide insight as to what is contributing to these trends and how to work with employees to reverse them.

<sup>&</sup>lt;sup>11</sup> Housing Costs and Commuting Distance by Kevin A. Park, Roberto Quercia :: SSRN

<sup>&</sup>lt;sup>12</sup> Remote Workers Are Making Permanent Moves. What Happens When Offices Reopen? : NPR

Telecommuting had the largest mode share in 6 of the 11 networks. However, this distribution is highly variable. Telecommuting dominated commute trips in networks like Pioneer Square & Chinatown/International District (52%) and Commercial Core (45%) but was not widely used in areas like East Seattle (14%) and Northgate (13%). The ability for employees to telecommute is heavily dependent on the type of work they do, pointing to the distribution of industries within the city as a potential source for these network disparities.

Transit use also varied widely by network, from a high of 29% of commute trips in Commercial Core to a low of 10% in Fremont/Green Lake. The use of this mode correlates with the availability of transit service, evidenced by a greater mode share in networks with high transit frequency, convenience, and connectivity to other regional centers.

TABLE 5. CTR MODE SPLIT (2023/24)

Network	Drive Alone	Carpool/ Vanpool	Transit	Bicycle	Walk/Roll	Tele- commute	Other*
Citywide	31.5%	4.9%	21.7%	3.3%	6.1%	32.1%	2.8%
Belltown & Denny Triangle	27%	5%	20%	3%	10%	31%	5%
Capitol Hill, Pike/Pine, & First Hill	44%	7%	28%	3%	5%	14%	1%
Commercial Core	18%	3%	29%	2%	3%	45%	0%
East Seattle	57%	7%	15%	2%	4%	14%	1%
Elliott Corridor/Interbay	27%	9%	12%	4%	3%	39%	7%
Fremont/Green Lake	34%	3%	10%	8%	6%	38%	2%
Northgate	62%	7%	13%	2%	4%	13%	0%
Pioneer Square & Chinatown/ International District	20%	2%	24%	2%	1%	52%	0%
South Lake Union & Uptown	32%	6%	17%	5%	10%	26%	5%
South Seattle	55%	5%	12%	1%	1%	24%	1%
U District	39%	6%	27%	3%	3%	18%	2%

<sup>\*</sup>Includes employer shuttle, scooter, other

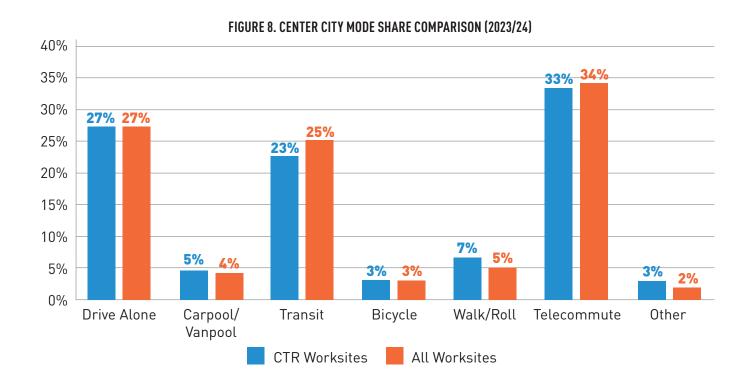
Note: All values rounded to the nearest full percent, lowest drive alone share and highest share of other modes highlighted green

#### **CTR VS NON-CTR COMPARISON**

Employees at CTR worksites drive less and use more multimodal transportation options than the average Seattle worker. According to 1-year estimates from the American Community Survey, 39% of all workers who live in Seattle drove alone for their commutes in 2023. This figure is 7.5 percentage points higher than the CTR program's 2023/24 DAR of 31.5%. Seattle is working with regional partners to reduce its overall DAR through significant investment in regional multimodal transportation, including expansion of the Sound Transit Link light rail, King County Metro RapidRide, and Kitsap Transit Fast Ferry systems.

The 2019-2023 CTR Strategic Plan established full market DAR targets for all Center City employees, regardless of worksite size or CTR status. These targets are tracked using data from the Seattle Commute Survey, 14 conducted every two years in conjunction with the CTR Employee Survey.

According to the 2024 Seattle Commute Survey, the DAR of all Center City employees was 27%, the same share as Center City CTR employees. CTR employees had a higher walk/roll share (+2-percentage points) and lower transit share (-2-percentage points) than all Center City employees. Every other mode was within a 1-percentage point difference in share, showing remarkable consistency between the commute patterns of CTR employees and all employees in Center City. This finding contrasts with the 2021/22 survey cycle, which found that CTR worksites in Center City had a 4-percentage point lower DAR than their non-CTR counterparts.



<sup>13</sup> American Community Survey Data

<sup>&</sup>lt;sup>14</sup> Seattle Commute Survey 2024 - Commute Seattle

#### **HISTORICAL TRENDS**

#### **Driving Alone:**

Driving alone experienced a steady decline in mode share from 2007/08 to 2021/22, falling from 37.0% of commute trips to an all-time low share of 20.5% during the COVID-19 pandemic. The 2023/24 Employee Survey saw citywide DAR rise to 10.2 percentage points to 31.5%, equal to its 2017/18 level.

#### Carpooling/Vanpooling:

Carpooling and vanpooling declined from its peak in the 2007/08 Employee Survey, when it held a 12.7% mode share. After a steady decrease through 2019/20, carpool/vanpool use fell precipitously during the pandemic to an all time low of 3.1% in 2021/22. It has since rebounded, representing 4.9% of commute trips in 2023/24.

#### **Transit:**

The share of commute trips on transit peaked in 2009/10 at 41.6% but remained in the high 30% range for the next several survey cycles while total trips grew. Transit mode share then fell 24.1 percentage points from 38% in 2019/20 to 13.9% in 2021/22, corresponding with the widespread shift to telecommuting during the pandemic. Transit use rebounded significantly in the 2023/24 survey cycle, reaching a mode share of 21.7%., though it has not fully recovered to pre-pandemic levels.

#### Bicycling:

Bicycling has remained relatively steady at around 3% of commute trips since 2007/08. It saw a minor decrease during the pandemic, falling 0.5 percentage points before stabilizing at a 3.3% mode share in 2023/24.

### Walking/Rolling:

Walking and rolling saw consistent growth in commute mode share from a starting point of 3.6% in 2007/08 to a peak of 8.8% in 2019/20. This share fell to 5.0% during the pandemic before rising to 6.1% in 2023/24. Walking/rolling tends to require a short commute distance and is therefore dependent on land use choices that locate housing near employment for continued growth as a mode.

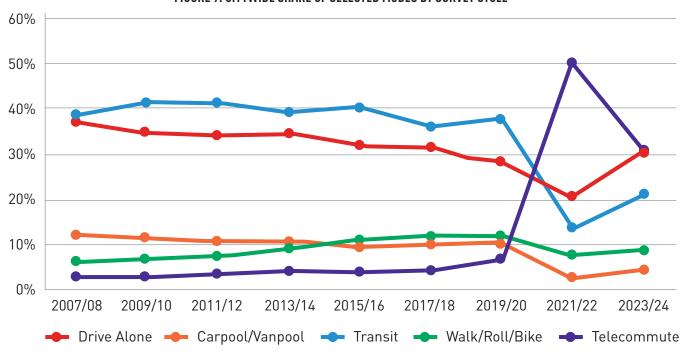
#### Telecommuting:

The share of CTR trips made by telecommuting more than doubled from 3.0% in 2007/08 to 6.4% in 2019/20, which used survey data collected prior to the start of the COVID-19 pandemic. Due to stay-at-home orders, telecommuting became widely used during the pandemic, reaching an unprecedented mode share of 50.3% in 2021/22, a majority of CTR commute trips. The 2023/24 survey saw telecommuting fall 18.2 percentage points as some employers implemented return to work policies, however it still represented the largest share of citywide commute trips at 32.1%.

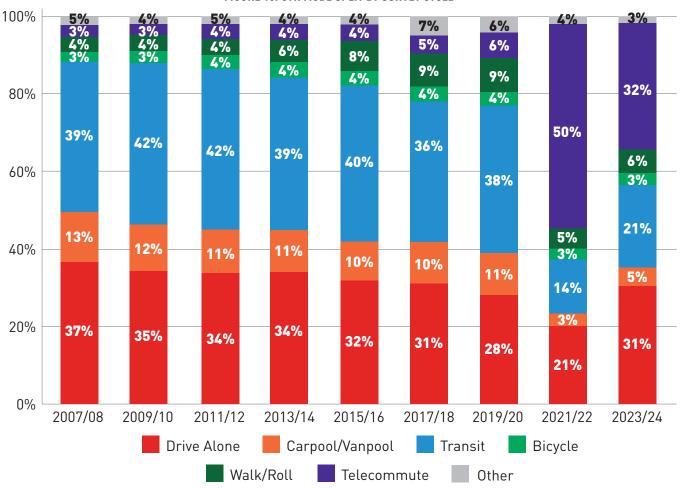
#### Other:

Scooter and Employer Shuttle use were captured as individual mode choices in the 2023/24 Employee Survey. However, due to their low overall shares, they were combined with 'Other' to create this category, accounting for 2.8% of CTR commute trips.

#### FIGURE 9. CITYWIDE SHARE OF SELECTED MODES BY SURVEY CYCLE





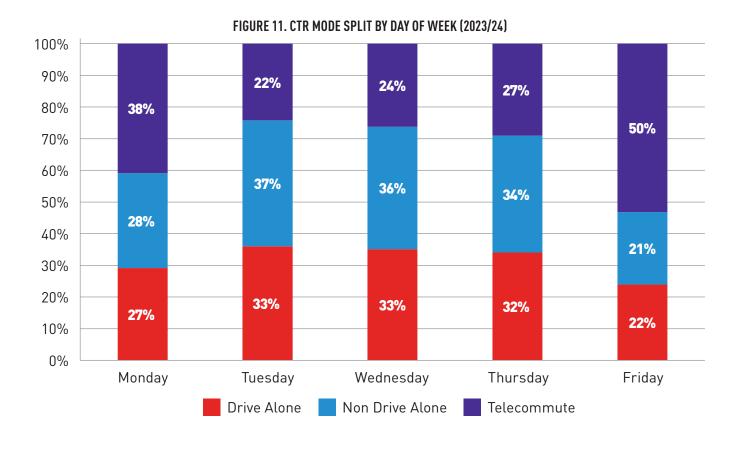


#### **WEEKDAY TRENDS**

The widespread adoption of hybrid work schedules has significantly affected commute patterns based on which day of the week employees work in-person. The 2023/24 Employee Survey found that this phenomenon is affecting CTR employees, who had a significantly higher telecommuting rate on Mondays (38%) and Fridays (50%). The middle of the week saw telecommuting fall to less than 30% of commute trips while driving alone and alternate modes increased in use. Non-drive alone modes accounted for the largest share of trips on Tuesdays (37%), Wednesdays (36%), and Thursdays (34%). This weekday mode shift reflects what Program Reports have reported about required in-person days largely falling in the middle of the week.

#### **EMPLOYEE START TIME**

The CTR program is legislatively mandated to focus on employees who begin work during the 6:00 - 9:00 AM morning peak hour period. However, the Employee Survey allows respondents to select their start time, which may fall outside of this range. In 2023/24, 73% of surveyed employees started work during peak hours (6:00 - 9:00 AM), while 27% did not, the latter comprising over 21,000 responses. While these employees are not considered CTRaffected, their responses provide additional information about commute patterns in Seattle. SDOT has identified off-peak commuters as an underserved population and is working to develop solutions that meet their transportation needs (see TDM Strategic Plan Strategy C2.3).



Previous studies have investigated the relationship between employee start time and mode choice. An analysis of employee commute patterns in San Ramon, CA found that drivealone rate significantly increases outside of peak hours due to varied start times making carpooling harder to coordinate. 15 This result is not replicated in the 2023/24 Employee Survey data, which instead found that employees that start work in non-peak hours had a lower DAR. The main difference was a higher rate of telecommuting during peak hours, offset by the use of non-drive alone modes in non-peak hours. 11% of non-peak commute respondents said they made their mode choice because they did not own a car, compared to just 5.5% of peak commute respondents. This dynamic may be one

of many factors that contribute to the difference in peak and non-peak mode split and should be investigated further using demographic data collected during the 2023/24 Employee Survey.

#### **EMPLOYEE COMMUTE DISTANCE**

The distance an employee must commute has a major impact on their mode choice. 2023/24 Employee Survey respondents' home ZIP codes were paired with the location of their worksite to estimate an average commute distance. Respondents were then categorized by commute distance and mode split was calculated for each group. It should be noted that the number of survey respondents is less than total employees, as not every CTR employee filled out a survey.

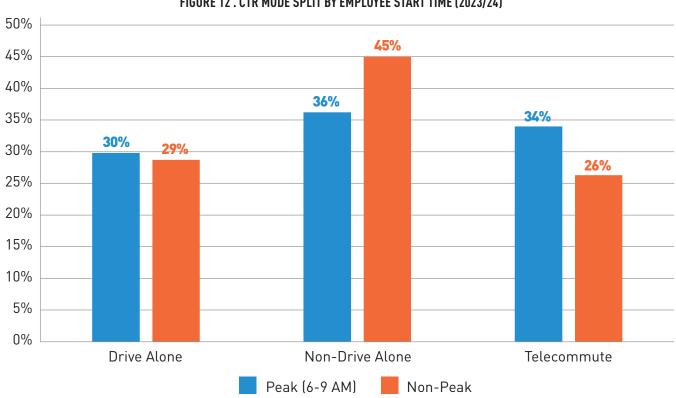


FIGURE 12. CTR MODE SPLIT BY EMPLOYEE START TIME (2023/24)

<sup>&</sup>lt;sup>15</sup> Beroldo, Steve J. 1990. "Improving the Effectiveness of a Transportation Demand Management Program Through Evaluation: A Case Study." Transportation Research Record, no. 1280, 22-29. onlinepubs.trb.org/Onlinepubs/ trr/1990/1280/1280-003.pdf

TABLE 6. CTR MODE SPLIT BY EMPLOYEE COMMUTE DISTANCE (2023/24)

Distance (mi)	Survey Respondents	Drive Alone	Non-Drive Alone	Telecommute
0 to 5	30,815	24%	50%	26%
5 to 10	17,082	36%	32%	32%
10 to 20	21,058	33%	33%	34%
20 or more	12,749	28%	27%	45%

Note: Lowest drive alone share and highest share of other modes highlighted green

Respondents with a commute distance of less than 5 miles had the lowest DAR, at only 24%. Driving alone saw its highest share in the 5-to-10-mile category, at 36%. A majority of respondents in this group cited time and convenience as their motivation in choosing this mode. Walking and rolling more than five miles is not a realistic option for most commuters while biking and using transit can be more challenging at these distances. For context, the distance from Commercial Core to the northern and southern boundaries of Seattle is roughly 8 miles in both directions.

Drive alone rates were lower in the 10-to-20 and 20+ mile categories, while telecommuting usage increased compared to shorter distances. Overall, this data reflects trends SDOT has observed in the past, with non drive alone modes being more common for short commutes and telecommuting being used for longer ones. It also points to the existence of a range in the middle distances where driving alone becomes a top commuter choice. Creating a strategy to reach employees commuting between 5 and 20 miles is a critical step towards meeting program goals and modal solutions that match the time and convenience of driving alone such as carpool, vanpool and employer shuttles should be encouraged.

#### **EMPLOYEE MOTIVATIONS**

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

To compare results between surveys, which asked different questions to gather employee motivations, responses were grouped within a general category of motivation. However, the different wording and offering of response options and the ability of respondents to select up to three responses create complexity that cannot be fully accounted for in this analysis. Tables 6 and 7 connect common motivations cited by respondents to relevant CTR program offerings.

#### **Drive Alone:**

In 2023/24, the main reasons employees cited for driving alone were related to time and convenience, accounting for more than 67% of responses. This category has been the most cited drive-alone motivation for the past three survey cycles but reached its largest share of responses in 2023/24. Family care and other obligations were the second most common drive alone motivation, at 21% of responses. This category has remained relatively steady throughout the past three Employee Surveys. Health and safety related motivations fell from 21% of responses in 2021/22 to just 3% in 2023/24. This is driven by a reduction in respondents citing fear of catching or spreading COVID-19, coinciding with the widespread distribution of vaccines and public health measures taken by transit agencies.

FIGURE 13. CTR EMPLOYEE DRIVE ALONE MOTIVATION SHARE BY SURVEY CYCLE

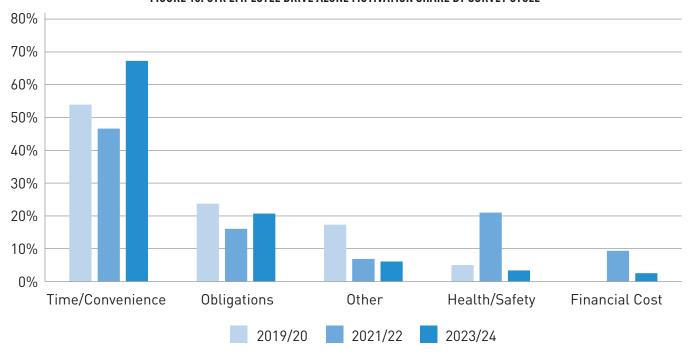


TABLE 7. TOP DRIVE ALONE MOTIVATION RESPONSES AND CTR RESOURCES

Drive Alone Response	CTR Resource or Requirement Addressing Motivation
"I like the convenience of having my car"	<ul> <li>Park and Ride options with car easily accessible to transit</li> <li>Daily parking rates vs. Monthly allows employees to drive when needed without sunk cost of a monthly parking pass</li> </ul>
"Driving makes my commute significantly faster"	• Vanpool/Vanshare/Employer Shuttles/Carpool offer trips at comparable speeds to driving alone to employees who live in areas without rapid transit options
"Family care or other obligations"	• Guaranteed Ride Home (through ORCA Business Programs) allows an employee who didn't drive alone to work to access emergency rides in case of family care needs or personal illness
"I do not feel safe using other types of transportation"	<ul> <li>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</li> <li>Marketing other options to share commute modes that might serve some travelers better when safety and/or hygiene concerns exist</li> </ul>

#### Non-Drive Alone:

The top motivation CTR employees cited for not driving alone was commute benefits offered by their worksite, accounting for 25% of responses. This category saw a major decrease during the COVID-19 pandemic as the widespread use of telecommuting may have obscured the impact of transportation benefits; of note and interestingly, employees did not typically identify telecommute

support or availability as a commute benefit. The next most commonly cited motivations for not driving alone were Time/Convenience (22% of responses) and Health/Safety (17%). Both categories of response became much more common during the pandemic and while health concerns have since declined slightly, time and convenience related motivations continue to grow. The financial costs of driving alone as a factor has seen a major decrease over the past three cycles for why people choose another mode. In 2019/20 it was the second most common motivation, with 31% of responses. Financial costs of driving alone accounted for only 14% of responses in 2023/24, the fourth largest non-drive alone share. CTR employees are no longer seeing non-drive alone modes as a significantly cheaper alternative possibly due to employer benefits being a top motivation for non-drive alone trips, highlighting an opportunity for increased employer benefits and incentives. The financial value of these commute benefits should be made visible so that employees are informed of the true cost of their transportation options. After a brief rise during the pandemic, environmental concerns (e.g., climate change) returned to their pre-pandemic share of responses at 10%.

It should be noted that non-drive alone motivations are remarkably evenly distributed with all six categories receiving between 10% and 25% of responses. This indicates that a single unifying message across all CTR employee is not the best strategy to encourage the adoption of non-drive alone commute modes. Further analysis may help SDOT hone messages to meet the needs of specific employee populations.

FIGURE 14. CTR EMPLOYEE NON-DRIVE ALONE MOTIVATION SHARE BY SURVEY CYCLE

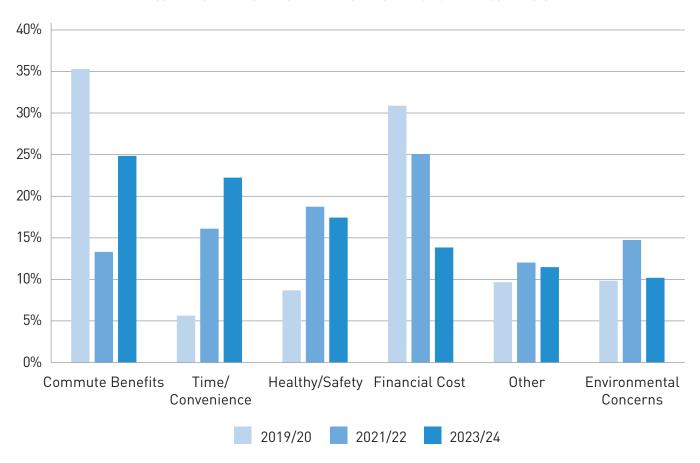


TABLE 8. TOP NON-DRIVE ALONE MOTIVATION RESPONSES AND CTR RESOURCES

Non-Drive Alone Response	CTR Resource Responsible
"It is less expensive than driving"	<ul> <li>Providing lower cost options (e.g., transit passes) to employees such as through ORCA Business Accounts</li> <li>CTR requirements for worksites related to parking management such as offering daily parking rates versus monthly passes ensure alternate modes remain cheaper than driving</li> </ul>
"I want to reduce my contribution to air pollution and carbon emissions"	Measuring and advertising environmental benefits of not driving alone through the collection of CTR survey data
"I have a free or subsidized transit pass"	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"	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) emissions<sup>16</sup> by encouraging and supporting sustainable alternatives to driving alone. Tracking GHG emissions enables SDOT to measure the performance of the CTR program in the context of broader emission reduction efforts by the City of Seattle. As noted in the Seattle Transportation Plan, over 60% of Seattle's emissions are generated by transportation, making CTR and related programs a key piece of meeting climate goals.

#### **GHG EMISSIONS**

CTR employees emitted an estimated annual total of 149,371 metric tons (MT) of greenhouse gasses (carbon dioxide equivalent, CO2e) based on data from the 2023/24 Employee Survey. This value was calculated by Commute Seattle, using a methodology created by WSDOT. It should be noted that the emissions formula has changed over time and now excludes electric vehicle (EV) generated VMT from the calculations. Dividing this number by the total employee count of all CTR worksites gives a per employee annual emission metric of 0.66 MTCO2e. Figure 15

breaks down per employee GHG emissions by CTR network.

#### **HISTORICAL TRENDS**

2023/24 saw both absolute and per employee GHG emissions fall to record lows. Absolute GHG emissions decreased nearly 9% from the previous survey cycle and 31% from its high point in 2019/20. Per employee emissions fell 12%, continuing a trend of consistent decline since the 2007/08 survey cycle. GHG emissions per employee have decreased 46% since this data was first tracked in 2007/08.

GHG emissions generated by CTR employees commuting to work were historically tied to VMT and mirrored trends in both absolute and per employee metrics. This relationship seems to have weakened, considering that CTR emissions fell in the 2023/24 survey cycle despite a rise in total and per employee VMT. This is impacted by the new WSDOT methodology for calculating GHG emissions, which removes VMT generated by electric vehicles (EV) and uses a smaller per mile emissions factor. EV's accounted for roughly 20% of total VMT in the 2023/24 Employee Survey, following years of rapid growth in EV ownership throughout the Puget Sound region.<sup>17</sup>

<sup>&</sup>lt;sup>16</sup> GHG 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).

<sup>&</sup>lt;sup>17</sup> EV sales have soared in WA; our map shows where they're registered | The Seattle Times

#### FIGURE 15. PER EMPLOYEE GHG EMISSIONS BY NETWORK (2023/24)

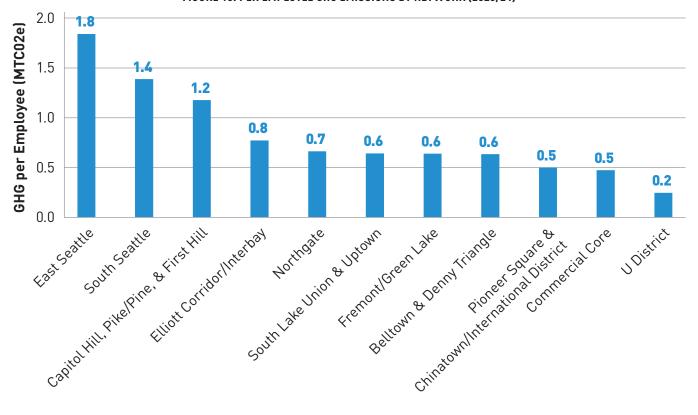


FIGURE 16. GHG EMISSIONS BY SURVEY CYCLE



### Program Reach

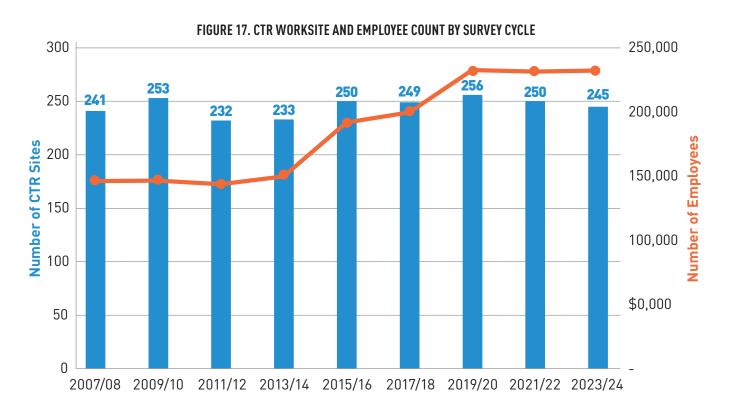
Program reach metrics analyze the extent to which the CTR program is engaging Seattle's employers and their staff, and how many worksites are included in the program.

CTR Employee and Site Information After a decade of growth, the CTR program contracted slightly in 2021/22, losing 6 worksites and roughly 1,000 employees. The decrease in sites was driven by an increase in fully remote work during the COVID-19 pandemic that resulted in the closure or consolidation of physical worksites located in the City of Seattle. 2023/24 saw continued worksite contraction, losing a net of 5 CTR sites to reach a citywide total of 245. However, the program added nearly 1,000 employees for a total of 226,312.

The change in CTR employees was not uniform across all networks. Capitol Hill, Pike/Pine, & First Hill added 5,182 employees and 3 sites while Pioneer Square & Chinatown/International District added 4,772 employees and 2 sites. The Amazon South of Denny site and its 28,394 employees was reclassified from South Lake

Union & Uptown to Belltown & Denny Triangle. Without this change, Belltown & Denny Triangle would have lost 9 CTR worksites and over 10,000 employees while South Lake Union & Uptown would have added 2,790 employees. Three other networks lost employees from the previous survey cycle: East Seattle (-1,614), Elliott Corridor/Interbay (-1,369), and Fremont/Green Lake (-1.392).

In recent years, SDOT has emphasized extending the CTR program to smaller employers by engaging more voluntary worksites. In 2023/24 there were 13 voluntary sites participating in the program, providing CTR benefits to their 2,085 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 employment growth trajectory, SDOT and Commute Seattle help them achieve core goal targets before they are a requirement, setting them up for program success. This aligns with Strategy C3.3 of the SDOT TDM Strategic Plan, which seeks to engage small businesses to access transportation options support.



In 2023/24, 35% of workers in Seattle were employed at a CTR worksite, equating to 226,312 CTR-impacted workers out of a total city workforce of 638,290.18 This is a rough measurement but provides a sense of the scale of the CTR program. However, the capture rate of CTR-eligible sites is not currently available as there is no consistent, reliable, and readily available data source that SDOT can use to assess this metric. At this time, SDOT relies on Employee Transportation Coordinators, news articles, and employer databases to determine which new or existing organizations may be CTR-affected. The TDM Strategic Plan has made it a priority (see Strategy C1) to review new employment data sources while supporting regulatory changes at the State level to grow the CTR program.

#### Cost Effectiveness

The Cost Effectiveness benchmark tracks CTR program investment at both the worksite and citywide level over time. SDOT receives grant funding from the Washington State Department of Transportation (WSDOT) to implement the CTR program. Affected worksites must also invest in their CTR programs to comply with SDOT requirements, however it is possible to achieve compliance using little-to-no additional monetary investment beyond staff time.





<sup>---</sup> With increase in state CTR funding

<sup>&</sup>lt;sup>18</sup> Population & Demographics - OPCD | seattle.gov

#### **WASHINGTON STATE CTR FUNDING**

For over a decade, SDOT received \$897,500 from the State government every two years (biennium) to implement Seattle's CTR Program. Meanwhile, as Seattle's economy grew, the number of affected worksites and employees increased. This caused funding per CTR employee to erode significantly, falling 37% between 2011/12 and 2021/22. In 2023/24, WSDOT increasing funding to local CTR programs following the passage of the 2021 Climate Commitment Act by the Washington State legislature. SDOT alone received \$1,459,100 in the 2023/24 biennium to support CTR, a 63% increase in State funding. Per employee funding reached a new high of \$6.45, 2% higher than its previous peak in 2011/12. Increased State funding allows jurisdictions implementing the CTR law to better support affected worksites through educational materials, events and trainings while conducting more robust and detailed program evaluations.

#### **CTR EMPLOYER INVESTMENT**

According to data reported by Employee Transportation Coordinators (ETCs) in 2023/24 Program Reports, CTR employers invested a total of \$131,528,140 into their worksite CTR programs, including ETC staff time, materials, financial incentives, facilities, and other costs. It should also be noted that 38 of the 232 program reports submitted did not share any information on program investment. Employers are not required to disclose financial investment, but it provides useful context for SDOT to understand how worksite CTR programs are supporting being implemented. Worksites that provided financial information invested an average of \$677,980 into their CTR programs. The amount of employerprovided funding varied drastically across sites, from a minimum self-reported contribution of \$50 to a maximum of \$29 million.

Program reports capture financial information to recognize private investment and emphasize the public-private partnerships that are key to the CTR program's success. However, major financial support is far from the only factor in an effective

worksite CTR program. Employee Transportation Coordinators can comply fully with current CTR regulations through no- or low-cost solutions.

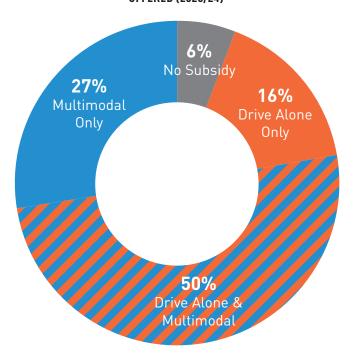
## **Programming Impact**

The Programming Impact benchmark tracks the implementation of TDM tools and strategies through worksite CTR programs. Employers provide implementers with this information through biennial program reports, allowing them to better assess the performance and outcomes of workplace CTR and TDM strategies.

#### TRANSPORTATION SUBSIDIES

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

FIGURE 19. CTR TRANSPORTATION SUBSIDIES OFFERED (2023/24)



In 2023/24, 77% of all CTR worksites offered multimodal subsidies compared to 66% of sites that offered drive-alone subsidies, 27% of sites only offered multimodal subsidies, while 16% of sites only offered drive-alone subsidies. Only a small number of sites (6%) offered no transportation subsidies. Compared to 2021/22, the percentage of CTR sites offering multimodal subsidies fell by 2-percentage points while those offering drive alone subsidies rose by 1.

CTR sites that only offered drive-alone subsidies had a slightly higher DAR than those that only offered multimodal subsidies (29% to 28%). Sites that offered both subsidies had an even higher DAR of 33%. These findings indicate that removing drive-alone incentives may be a more impactful strategy for reducing DAR than offering all subsidies, though this is likely dependent on worksite context.

#### TRANSPORTATION BENEFITS

The most common multimodal benefits offered by CTR employers were alternate work schedules, which include compressed workweek, remote, and hybrid work options (97% of worksites), employee transit passes (64%) and parking

management (59%, includes parking cash-out, reserved stalls, daily/monthly passes). 63% of sites allowed employees to set aside a portion of pre-tax income for multimodal transportation purposes, a requirement of the 2020 Commuter Benefit ordinance that affects for-profit employers with more than 20 employees worldwide. 19 Less common offered benefits included shared mobility (39% of sites), ridematching services (37%) and bike/pedestrian incentives (29%).

Despite the disparity in benefit offerings by worksite, a majority of CTR employees received each of the seven major benefits. This is due to larger employers offering more benefits on average, providing access to a greater share of employees overall.

Table 10 shows the relationship between workplace transportation benefits offered and employee commute outcomes . CTR sites that offered a particular benefit are compared against those that did not, with the difference indicating the impact of providing each benefit on worksite DAR and VMT per employee. Further analysis is possible with this data, using combinations of benefits or regression modelling.

TABLE 9. CTR TRANSPORTATION BENEFITS OFFERED (2023/24)

Transportation Benefit	Pre-Tax Multimodal Benefit		Bike/Ped Incentive			Alt Work Schedule	Parking Mgmt
Citywide CTR Sites	63%	64%	29%	39%	36%	97%	58%
Citywide CTR Employees	76%	78%	56%	67%	62%	99%	76%

<sup>&</sup>lt;sup>19</sup> Employers 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

TABLE 10. CTR TRANSPORTATION BENEFITS AND COMMUTE OUTCOMES (2023/24)

Transportation Benefit	Drive-Alone Rate	VMT per Employee
Pre-Tax Multimodal Benefit	+0%	-0.2
Transit Pass	+7%	+1.5
Bike/Ped Incentive	-1%	-0.5
Shared Mobility	+1%	+0.1
Ridematching	+4%	+0.7
Alternate Work Schedule	-5%	-1.0
Parking Management	+11%	+1.6

Note: Highest increase highlighted orange, highest decrease highlighted green

Only 2 of the 7 benefits correlated with a lower DAR and VMT per employee in workplaces that implemented them: bike/ped incentives and alternate work schedules. Worksites that provided pre-tax multimodal benefits also saw slightly lower VMT per employee. Alternative work schedules were associated with the largest decreases in DAR and VMT per employee due to higher telecommuting rates at workplaces that offered them. Parking management programs had the opposite trend, with lower telecommuting rates compensated by the highest increase in DAR and VMT per employee.

#### **WORKSITE PERFORMANCE**

The link between worksite transportation benefits and core program goals is crucial to the success of CTR. Worksites were separated by whether they met network targets for DAR and VMT per employee, then compared by the transportation benefits they offered. Table 11 shows the difference in availability of specific transportation benefits between sites that met each major target and those that did not.

TABLE 11. CTR WORKSITE PERFORMANCE AND TRANSPORTATION BENEFITS OFFERED (2023/24)

Target Met	Multimodal Subsidy Offered (% difference)	Drive-Alone Subsidy Offered (% difference)	Parking Mgmt. Offered (% difference)
Drive-Alone Rate	+4%	-17%	-16%
VMT per Employee	+3%	-24%	-18%
Both	+4%	-23%	-20%

Worksites that met their DAR and VMT per employee targets offered multimodal subsidies at a slightly higher rate. Instead, the main factor differentiating performance appears to be whether a worksite offered drive-alone subsidies, linked to parking management programs. This supports prior findings that removing drive-alone incentives may be the most impactful worksite CTR strategy towards meeting core program goals. SDOT also recognizes the importance of ETC leadership in achieving workplace performance targets and is coordinating with Commute Seattle to develop training materials catered to key audiences (see TDM Strategic Plan Strategy CM2.3).

## **Cross-Program Integration**

This benchmark captures how the CTR program works with other local trip reduction efforts to meet shared goals and the ways in which it supports other programs.

#### **COMBINATION SITES, EMPLOYEES, AND TRIPS**

133 of the 245 worksites 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

construction permitting process as opposed to the CTR program, which focuses on employers and employees. In addition, 16 sites are affected by CTR, TMP and Major Institution Master Plans (MIMPs). The MIMP program applies to large institutions and requires a long-term development and transportation management plan.

81% of CTR employees work in a site affected by TMP while 24% work in those with MIMP status. Since 2021/22, the share of CTR employees working in TMP sites has increased by 11 percentage points despite there being 21 fewer TMP sites in 2023/24.

The 2023/24 Employee Survey found that TMP sites had lower DAR and VMT per employee than sites only affected by CTR. They tended to offer multimodal subsidies at a slightly higher rate while providing drive alone subsidies at a lower rate. This trend is even more pronounced at MIMP affected sites, which all offer multimodal subsidies. However, workers at MIMP affected sites were much less likely to telecommute, increasing the use of all other modes, including driving-alone. This may be due to the inclusion of large hospitals and universities among MIMP sites where inperson work is required for core job duties.

TABLE 12. CTR WORKSITE COMPARISON BY TMP/MIMP STATUS (2023/24)

Status	Sites	Employees	Drive Alone Rate	Non- Drive Alone Rate	Tele- commute Rate	VMT per Employee	Multi-modal Subsidy (% of sites)	Drive Alone Subsidy (% of sites)
CTR only	112	42,968	35%	33%	32%	6.1	75%	70%
CTR & TMP	117	128,185	26%	38%	36%	4.2	77%	65%
CTR, TMP, & MIMP	16	55,159	45%	41%	13%	7.2	100%	50%

## Societal Impact

Equity is a core value at SDOT that is centered throughout the agency's work. SDOT's Transportation Equity Framework (TEF) envisions a holistic transportation system that contributes to the greater well-being and livelihood of Black, Indigenous, and People of Color (BIPOC) residents and vulnerable communities.<sup>20</sup> The CTR program contributes to this mission by promoting transportation benefits impactful to underserved communities and reducing the negative and unequal impacts of the transportation system in the form of congestion, pollution, and greenhouse gas emissions. It is imperative to assess the program's current impact through a lens of societal impact to ensure it is making progress toward these goals.

#### **RACIAL AND SOCIAL EQUITY**

The Social Vulnerability Index (SVI) was created by the Center for Disease Control (CDC) in 2011 to identify communities whose socioeconomic factors make them susceptible to greater impacts from natural and human-caused disasters.<sup>21</sup> The index incorporates 16 variables grouped into the themes of socioeconomic status, household characteristics, racial and ethnic minority status, and housing type and transportation. People living in communities with high SVI scores are likely to have experienced poorer health, lower income, and worse opportunity outcomes compared to an average US resident. High SVI areas may also have different land use patterns and transportation options than other locations. Tables 12 and 13 categorize CTR worksites and employee homes by their location within areas with a high SVI score and compare them across the measures of employer investment, benefits, and commute outcomes.

TABLE 13. CTR WORKSITE LOCATION COMPARISON BY SOCIAL VULNERABILITY INDEX STATUS (2023/24)

High SVI Area?	CTR Sites	CTR Employees	Employer Investment per Employee		Drive Alone Subsidy Offered (% of Sites)	Drive- Alone Rate	VMT per Employee (mi)
Yes	153	135,251	\$638.74	79%	64%	33%	4.9
No	92	91,061	\$1,024.06	75%	70%	37%	5.1

TABLE 14. CTR EMPLOYEE HOME ZIP CODE COMPARISON BY SOCIAL VULNERABILITY INDEX STATUS (2023/24)

High SVI Area?		Avg. Commute Distance (mi)		Non-Drive- Alone Rate	Telecommute Rate
Yes	36,535	9.1	32%	39%	29%
No	37,775	9.7	36%	31%	33%

<sup>&</sup>lt;sup>20</sup> Transportation Equity Framework Report

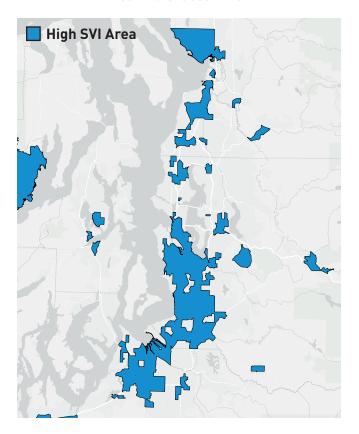
<sup>&</sup>lt;sup>21</sup> Social Vulnerability Index | Place and Health - Geospatial Research, Analysis, and Services Program (GRASP) | ATSDR

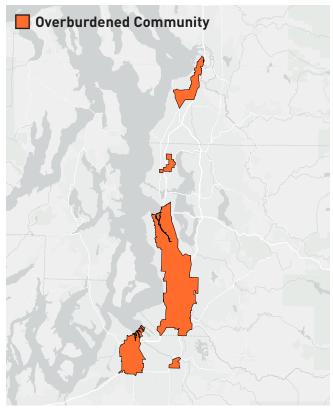
A majority of CTR worksites are located in high SVI areas, accounting for nearly 60% of all employees. The average employer investment was 60% lower per employee in high SVI areas, though multimodal subsidies are offered at a higher rate. While this may seem contradictory, it may be influenced by the fact that high-SVI areas in Seattle tend to be on the periphery. This makes transit passes cheaper for sites that provide them through the ORCA Business Passport program, reducing employer investment costs despite these worksites offering the same benefits to their employees.

Worksites in high SVI areas performed slightly better on core program metrics with a 4-percentage point lower average DAR and 0.2-mile smaller VMT per employee. However, it should be noted that CTR networks that heavily overlap with high SVI areas had some of the highest DAR, VMT per employee, and GHG emissions, such as South Seattle and East Seattle. Approximately half of CTR survey respondents live in a ZIP code that overlaps with a high SVI area. Respondents living in high SVI areas had a slightly shorter average commute distance and 4-percentage point lower drive-alone and telecommuting rate. This difference is made up by an 8-percentage point higher usage rate of all other modes.

CTR is successfully reaching worksites and employees in high SVI areas. It plays an important role in combatting negative environmental impacts by reducing drive-alone rates in these areas. Less driving leads to lower pollution, safer streets, and opens more opportunities to utilize CTR benefits. However, there is more work to be done. The TDM Strategic Plan calls on SDOT to develop closer relationships with BIPOCled organizations and businesses to facilitate mode shift in partnership with marginalized communities (see Strategy C2).

FIGURE 20. CDC SOCIAL VULNERABILITY INDEX AND WSDOE OVERBURDENED COMMUNITIES MAPS





## **Environmental Health Equity**

The Washington State Department of Ecology's (WSDOE) Overburdened Communities initiative<sup>22</sup> identifies areas of the state that have historically been faced with health, social, and environmental inequities and overburdened with air pollution. These areas contained 79 CTR worksites and housed 17,413 employee survey respondents in 2023/24. Tables 14 and 15 categorize CTR worksites and employees by overburdened status and compare them across the measures of employer investment, benefits, and commute outcomes.

CTR employers in overburdened areas provided roughly one third of the investment per employee compared to those in non-overburdened areas. Worksites in these areas had worse outcomes on core goal metrics, with a 2-percentage point higher DAR and 1.0-mile greater VMT per employee. However, the location of overburdened areas in the periphery of Seattle makes benefits like transit passes less expensive. The higher DAR and VMT per employee at overburdened worksites may not be a result of underinvestment but rather a less developed multimodal transportation network in these outlying areas of the city and their greater distance from population centers. The CTR program should emphasize carpool and vanpool use at worksites poorly supported by existing transit, pedestrian, and bike networks.

#### TABLE 15. CTR WORKSITE LOCATION COMPARISON BY OVERBURDENED COMMUNITY STATUS (2023/24)

Overburdened Area?		CTR Employees	Employer Investment per Employee	Multi-modal Subsidy Offered (% of Sites)	Drive Alone Subsidy Offered (% of Sites)	Drive- Alone	VMT per Employee (mi)
Yes	79	54,918	\$362.79	78%	64%	36%	5.7
No	166	171,394	\$971.39	77%	71%	34%	4.7

#### TABLE 16. CTR EMPLOYEE HOME ZIP CODE C OMPARISON BY OVERBURDENED COMMUNITY STATUS (2023/24)

Overburdened Area?		Avg. Commute Distance (mi)	Drive-Alone Rate	Non-Drive- Alone Rate	Telecommute Rate
Yes	17,413	9.6	36%	33%	31%
No	56,897	9.3	34%	35%	31%

<sup>&</sup>lt;sup>22</sup> Overburdened Communities Highly Impacted by Air Pollution (arcgis.com)

CTR employees living in overburdened areas did not experience substantially different commute outcomes than those who do not. They had a slightly longer average commute distance at 0.3 miles and a 2-percentage point higher drive alone rate. Employees in overburdened areas telecommuted at the same rate as those outside of them. While overburdened status impacted workplace performance, it did not seem to greatly affect employee commute outcomes or mode choice. This suggests that SDOT should focus its efforts on workplaces in overburdened communities to most effectively address inequities in the CTR program.

## **Essential Worker Mobility**

The 2023-2025 Washington State Commute Trip Reduction Plan highlights the need to support essential workers' access to multimodal transportation. This became a major point of emphasis during the COVID-19 pandemic, as essential workers that could not work remotely were negatively impacted by changes like reduced transit service. To assess the impact of Seattle's CTR program on essential workers, worksites were categorized by whether they belong to an essential industry (defined as Education, Government, Health & Hospital, Non-Profit ), and compared by employer investment, benefits, and core goal metrics.

In 2023/24, 97 CTR worksites in Seattle belonged to an essential industry, employing 46% of the CTR workforce. Employer investment tended to be much lower at these sites, though this does not determine the quality of each program. Essential worksites were more likely to provide multimodal subsidies, while offering drive-alone subsidies at a much lower rate. However, they had a much higher DAR and VMT per employee than non-essential sites. It is clear that essential workers are less successfully served by the CTR program. This could be due to the nature of their work, gaps in communication, or a lack of transportation options near essential worksite locations or during non-traditional shifts. This topic should be explored further in future performance reports, possibly using a more direct indicator of essential workers to understand the root causes of this disparity. This effort could overlap with the TDM Strategic Plan goal of developing solutions for off-peak commuters (see Strategy C2.3).

## **Location Analysis**

The CTR Strategic Plan describes land use and transportation as inherently linked. While major land use and infrastructure decisions are outside the scope of the CTR program, it is important to understand how these location factors affect the program's performance from a worksite and employee perspective. This informs more effective transportation demand management strategy and advocacy moving forward.

|--|

Essential Industry?	CTR Sites	CTR Employees	Employer Investment per Employee	Multimodal Subsidy Offered (% of Sites)	Drive Alone Subsidy Offered (% of Sites)	Drive- Alone Rate	VMT per Employee (mi)
Yes	97	104,937	\$323.76	84%	58%	39%	5.7
No	146	121,375	\$1,187.68	74%	72%	28%	4.5

#### TABLE 18. CTR WORKSITE LOCATION COMPARISON BY GROWTH CENTER STATUS (2023/24)

PSRC Growth Center?	CTR Sites	CTR Employees	Employer Investment per Employee	Multimodal Subsidy Offered	Drive Alone Subsidy Offered	Drive- Alone Rate	VMT per Employee (mi)
Yes	179	107,609	\$660.52	76%	63%	31%	4.4
No	65	40,049	\$1,540.06	81%	76%	50%	7.6

TABLE 19. CTR EMPLOYEE HOME ZIP CODE COMPARISON BY GROWTH CENTER STATUS (2023/24)

PSRC Growth Center?		Avg. Commute Distance (mi)	Drive-Alone Rate	Non-Drive- Alone Rate	Telecommute Rate
Yes	16,892	3.7	21%	55%	24%
No	57,418	11.1	38%	29%	33%

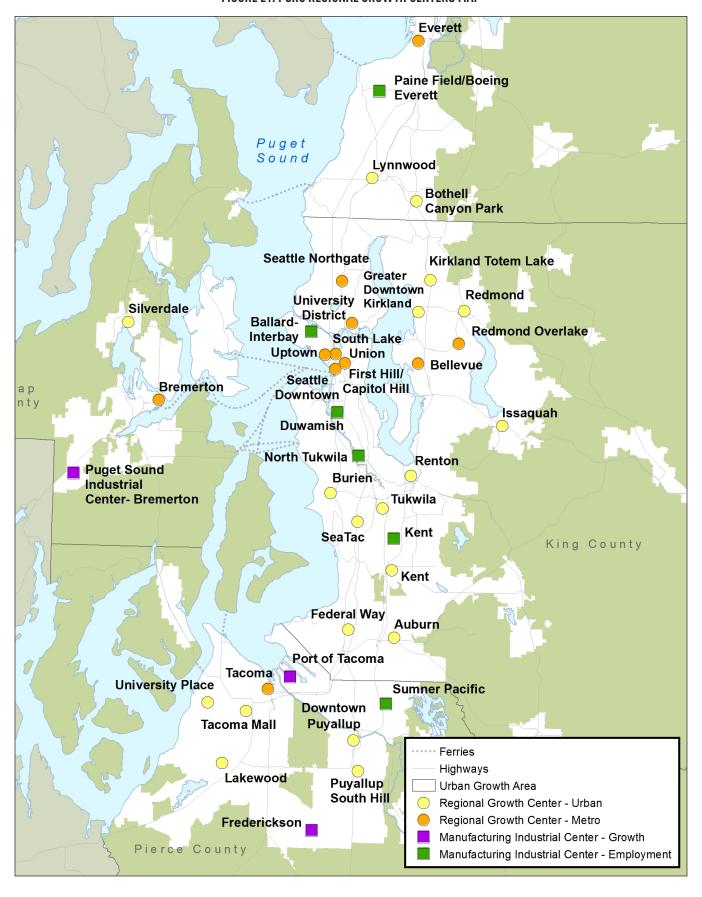
As part of their Vision 2050 plan, the Puget Sound Regional Council (PSRC) has designated 30 locations in and around Seattle as regional growth centers. These are defined as central places with a mix of uses and activities connected by efficient non-drive alone transportation.<sup>23</sup> They tend to contain dense, diverse land uses that facilitate non-drive alone commuting. Locating housing near employment helps reduce employee commute distance, which was shown in Table 6 to correlate with lower drive-alone rates.

The majority of CTR worksites in 2023/24 were located within growth centers. Despite receiving less employer investment and fewer transportation subsidies, these worksites had a significantly lower DAR and VMT per employee. Employees who lived in ZIP codes that overlap with growth centers had a 17-percentage point lower DAR than those who did not while being nearly twice as likely to use a non-drive alone mode. They had a much shorter commute distance, corresponding with a lower telecommuting rate. Only 23% of employee survey respondents lived in growth centers, pointing to the need for more housing in these areas and greater density overall. Land use choices that promote non-drive alone modes are critical to achieving core CTR goals.

Access to transit is another crucial factor in enabling employees to utilize non-drive alone modes. Table 20 compares CTR survey respondents by the transit access in their home ZIP code, determined by the percentage of land within a quarter mile of a high-capacity transit stop. A plurality of respondents lived in areas with high transit access, which also recorded the lowest drive-alone and telecommuting rates. Areas with moderate transit access tended to be further from employment centers and had the highest drive alone rate at 41%. Low transit access areas were the furthest from jobs but had a 3-percentage point lower drive-alone rate than moderately served areas. This difference was mostly due to higher telecommuting use among survey respondents in low transit access areas.

<sup>&</sup>lt;sup>23</sup> Centers | Puget Sound Regional Council

#### FIGURE 21. PSRC REGIONAL GROWTH CENTERS MAP



### TABLE 20. CTR EMPLOYEE HOME ZIP CODE COMPARISON BY QUARTER-MILE TRANSIT ACCESS (2023/24)

Transit Access	Survey Respondents	Avg. Commute Distance (mi)	Drive-Alone Rate	Non-Drive- Alone Rate	Telecommute Rate
High (50%+)	32,800	3.1	27%	46%	27%
Moderate (10%-50%)	26,942	11.7	41%	26%	33%
Low (0%-10%)	14,568	19.3	38%	25%	37%

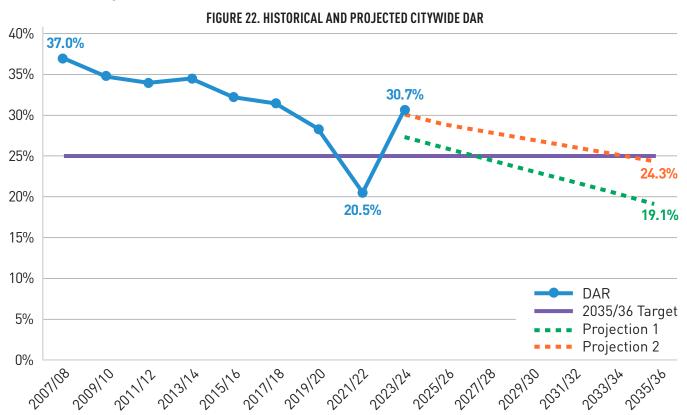
## Future CTR Goals and Targets

The 2019-2023 CTR Strategic plan set 2035/36 targets for the program's core goals: drive-alone rate and vehicle miles traveled per employee. These long-term targets were based on analysis of previous CTR survey data and were set to align with goals established in the 2015 Move Seattle Plan and Seattle 2035 Comprehensive Plan. Constant relative rates of reductions were determined for each core goal metric and used to calculate targets for interim years. To assess potential updates to these targets, SDOT selected two approaches:

- 1. Strategic Plan Methodology with New CTR Data—Follow the same methods used in the Strategic Plan to develop targets updated with new CTR survey data, and
- 2. Climate-Focused Methodology—Develop targets to align with Seattle's climate and emissions goals.

#### STRATEGIC PLAN METHODOLOGY

Considering the unique circumstances created by the COVID-19 pandemic, two projections were developed to estimate the trajectory of the CTR program's core goals. Projection 1 includes data from all previous survey cycles while Projection 2 excludes data from 2021/22, which overlaps with the height of the pandemic, resulting in a more gradual decrease. Figures 22 and 23 compare these projections to targets established in the 2019-2023 CTR Strategic Plan. Despite setbacks in the most recent survey cycle, both projections show the CTR program meeting its 2035/36 DAR target. However, Projection 2 shows the program missing its 2035/36 VMT per employee target by 0.059 miles.



#### FIGURE 23. HISTORICAL AND PROJECTED CITYWIDE VMT PER EMPLOYEE

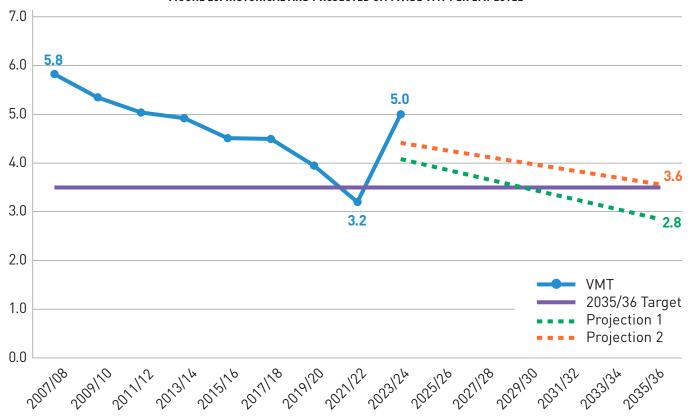


TABLE 21. CTR PROGRAM TARGETS AND UPDATED PROJECTIONS

Survey Cycle	DAR Target	2023/24 Performance and Updated DAR Projection	VMT per Employee Target	2023/24 Performance and Updated VMT per Employee Projection
2023/24	28.8%	30.7%	4.0	5.0
2035/36	25.0%	19.1%	3.5	2.8

While the increase in DAR and VMT per employee in the 2023/24 survey cycle were significant, these results exist in the context of a long-term downward trend. SDOT is optimistic that the Puget Sound region's investment in expanding transit service will make it easier for CTR employees to commute using non-drive alone modes when coupled with existing programming support. For example, Sound Transit's Link light rail is expected to add 25.8 miles of track and 8 new stations by 2026, providing connections from Seattle to Bellevue, Redmond, Federal Way, and communities in between.

### **CLIMATE FOCUSED METHODOLOGY**

The City of Seattle has set ambitious climate goals centered around reducing greenhouse gas emissions. The 2013 Climate Action Plan set a goal of reducing transportation related greenhouse gas emissions 82% between 2008 and 2030.<sup>24</sup> This goal was reaffirmed in SDOT's 2023 Climate Change Response Framework, which included new and innovative strategies to meet it.<sup>25</sup> The 2024 Seattle Transportation Plan added the goal of creating a carbon neutral transportation system by 2050.<sup>26</sup>

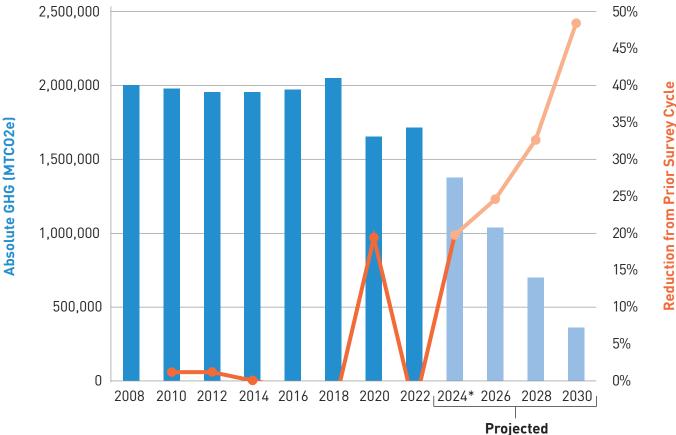
<sup>&</sup>lt;sup>24</sup> 2013\_CAP\_20130612.pdf (seattle.gov)

<sup>25</sup> Climate\_Change\_Response\_Framework.pdf26 STP Part I.pdf

As of 2022, the transportation sector accounted for 60% of Seattle's core emissions. Transportation emissions increased 4% between 2020 and 2022 and were anticipated to continue rising, spurred by increases in DAR and VMT.<sup>27</sup> This prediction does not track with the preliminary findings of the 2023/24 Employee Survey, which saw GHG emissions decline amid increases in both DAR and VMT. It may be necessary to reassess how to record and connect these metrics to inform future CTR goals and targets given the changing transportation landscape.

To meet its 2030 Climate Action goal, Seattle would need to reduce transportation emissions at an unprecedented rate of 16% per year starting in 2022. This would be the equivalent of a COVID-19 pandemic scale emission reduction every year until 2030. The CTR program is an important basis for the necessary mode shift strategies, but more measures are needed to meet this ambitious target.





<sup>\*2024</sup> emissions data not available at time of publication

<sup>&</sup>lt;sup>27</sup> Community Greenhouse Gas Emissions Inventory

## Conclusion and Look-Ahead

Seattle's CTR Program successfully navigated a challenging two-year period as the city recovered from the COVID-19 pandemic. The program was forced to adapt to rapidly changing travel patterns and fundamental shifts in where, when, and how employers and their employees worked. While the program did not achieve its core goal targets for 2023/24, SDOT made significant progress in assessing program impact and advancing key benchmarks. This Performance Report is a prime example of these efforts, containing novel analysis and highlighting areas for further investigation.

The COVID-19 pandemic brought about a major shift towards telecommuting in the 2021/22 survey cycle, which contributed to significant reductions in DAR and VMT per employee. The 2023/24 survey cycle saw these trends reverse as many worksites and employees returned to in-person work. Despite the increase in drivealone rate being the most important takeaway, it should be noted that carpooling, transit use, and active modes saw growth as well. Telecommuting now represents the largest single share of all commute trips and is likely to remain as a viable transportation option for employees in the future. The main challenge of the CTR program following the 2023/24 survey cycle is supporting the communication and uptake of transportation benefits offered by employers. As shown in this report, the majority of employers offer multimodal subsidies, making the re-education and re-introduction of these benefits to staff a key focus on the CTR program moving forward.

The CTR program's success also depends on policy and planning actions within SDOT and with regional partners. The department is currently deploying new implementation and performance frameworks set by its 2024 Seattle Transportation Plan. The Transportation Options team completed its TDM Programs 5-Year Strategic Plan in 2024 that highlights key TDM strategies including those to be implemented through CTR. In addition, the team completed its 4-year CTR plan as required by state law for the 2025-2029 period. This work closely aligns with goals and methodologies used in the 2023 Climate Change Response Framework and 2024 Seattle Transportation Plan. These new tools and strategic documents inform how the CTR program will continue to grow and improve upon past performance.

Looking ahead, CTR implementers have identified opportunities to improve the program at a policy level. SDOT completed an internal study in 2024 assessing the impact and feasibility of several policy changes that could expand the CTR program's reach. These include lowering the minimum number of employees for CTRaffected worksites and increasing the number of CTR-affected jurisdictions. Ideas like a statewide commuter benefit ordinance and an all-trips TDM program were proposed as future opportunities. SDOT is a strong advocate for the CTR program's continued evolution and expansion and has been working to update the Seattle Municipal Code ordinance to reflect the changing transportation landscape. One example includes expanding allowable CTR employer benefits to encompass

scooter and bikeshare employee passes once micromobility vendors launch these services. Given that the ordinance reopens only every 4 years or so for an update, the CTR program will continue working on future-proofing its empowering legislation.

Throughout its history, the CTR program has played an integral role in moving Seattle towards a more sustainable transportation future. For Seattle to achieve its ambitious climate goals, the CTR program will need to continue to shift commuters from driving alone to multimodal options with support from City policy and planning efforts, as well as collaboration with partner agencies.

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