

## Transportation Advisory Committee

Meeting date: December 16, 2024

Agenda Item #: 8 (Attachment F)

### **2023 Annual Report on Roadway Traffic Congestion in the Denver Region**

Agenda item type: Discussion

#### **Summary**

The *2023 Annual Report on Roadway Traffic Congestion in the Denver Region* was recently completed. Staff will present on key findings from the report.

#### **Background**

The United States Department of Transportation requires all metropolitan planning organizations serving large populations to undertake a Congestion Management Process to monitor the evolution of congestion in the region. DRCOG conforms to this requirement through a process comprised of two components: the calculation of congestion measurements for roadways in the region and the presentation of data within an annual report on traffic congestion. This process began in 2006 and continues in perpetuity.

This year's report addresses the following topics:

- Continued impacts of the COVID-19 pandemic on travel behavior.
- Vehicle miles traveled.
- Transit and shared micromobility ridership.
- Congestion projections for 2050.

#### **Action by others**

None.

#### **Previous discussion/action**

None.

#### **Recommendation**

None.

#### **Attachment(s)**

1. [2023 Annual Report on Roadway Traffic Congestion in the Denver Region](#)
2. Staff presentation

#### **For more information**

If you need additional information, please contact Max Monk, Assistant Planner, Transportation Planning and Operations, at 303-480-6731 or [mmonk@drcog.org](mailto:mmonk@drcog.org).







# 2023 Annual Report on Traffic Congestion in the Denver Region

Photo courtesy of RTD.





# Agenda

1. Overview of the congestion management process.
2. 2023 trends and observations.
  - a) Vehicle miles traveled.
  - b) Transit ridership.
  - c) Shared micromobility usage.
3. 2050 congestion projections.
4. Shifting dynamics of commute corridors.
5. Additional metrics influenced by telework.





# Congestion management process



# The congestion management process

- A **federally-required process** to monitor the evolution of congestion in the region.
- Components of DRCOG's process:
  - *Annual Report on Roadway Traffic Congestion in the Denver Region*
  - Database of roadway attributes, traffic counts and crash incidents.
  - Multimodal data metrics.





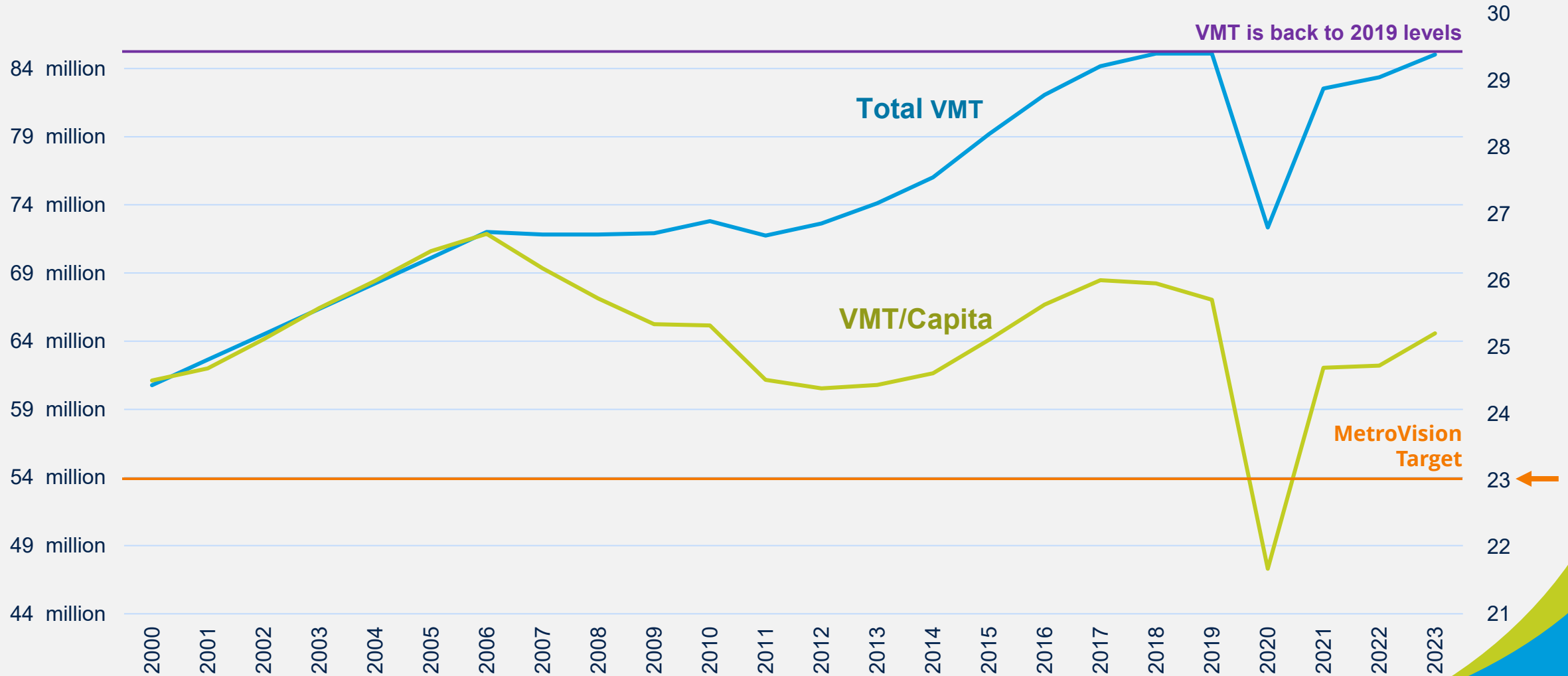


# 2023 trends and observations



# Vehicle miles traveled (VMT)

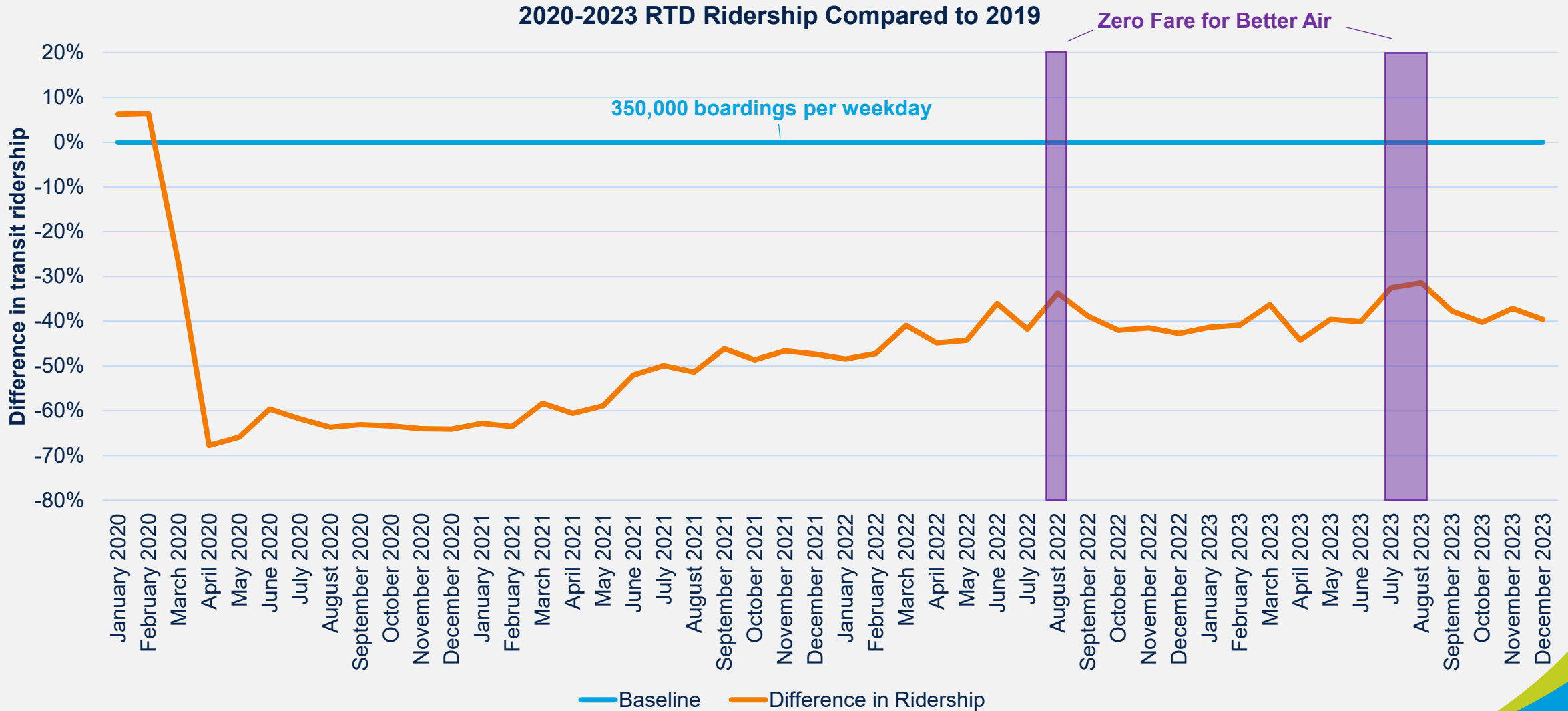
Average daily VMT in the Denver region (2000-2023)



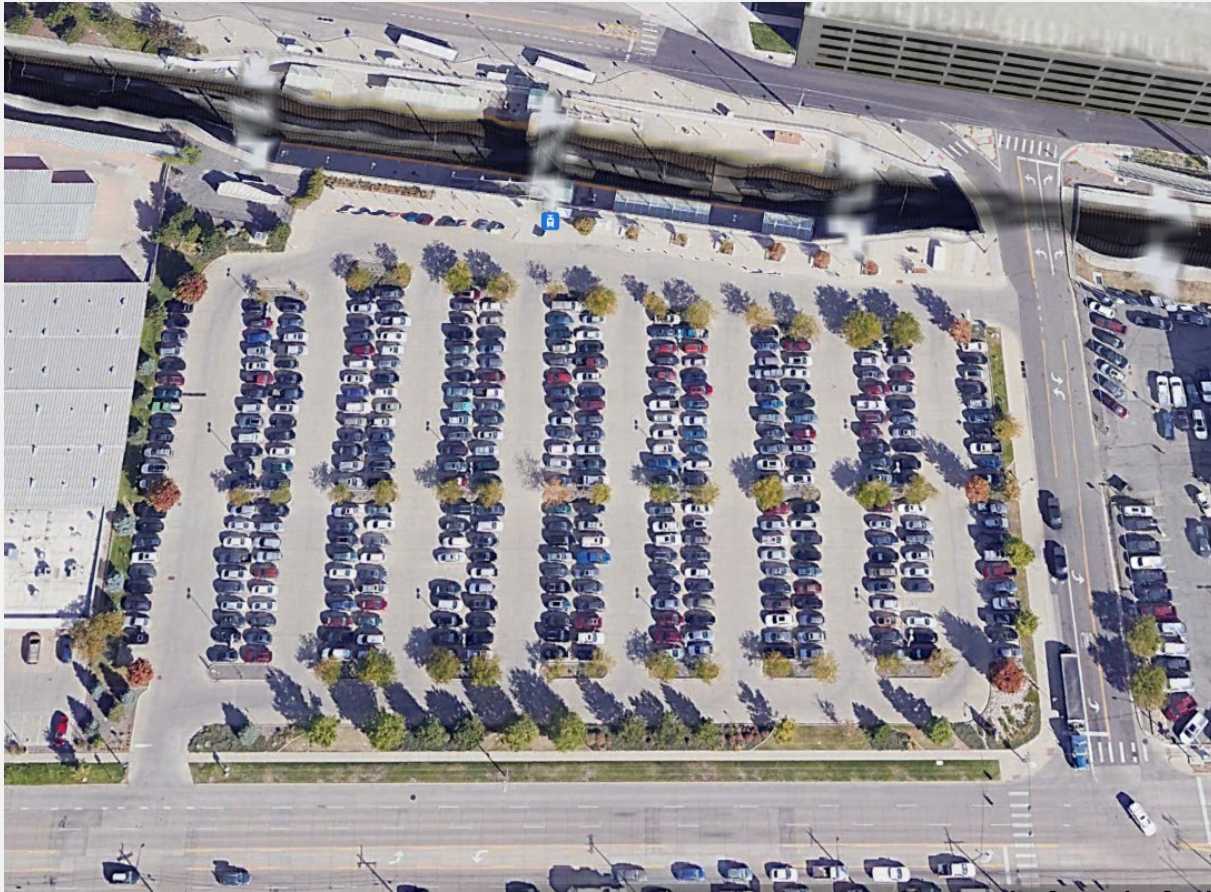
Source: CDOT, DRCOG, Federal Highway Administration



# Transit ridership

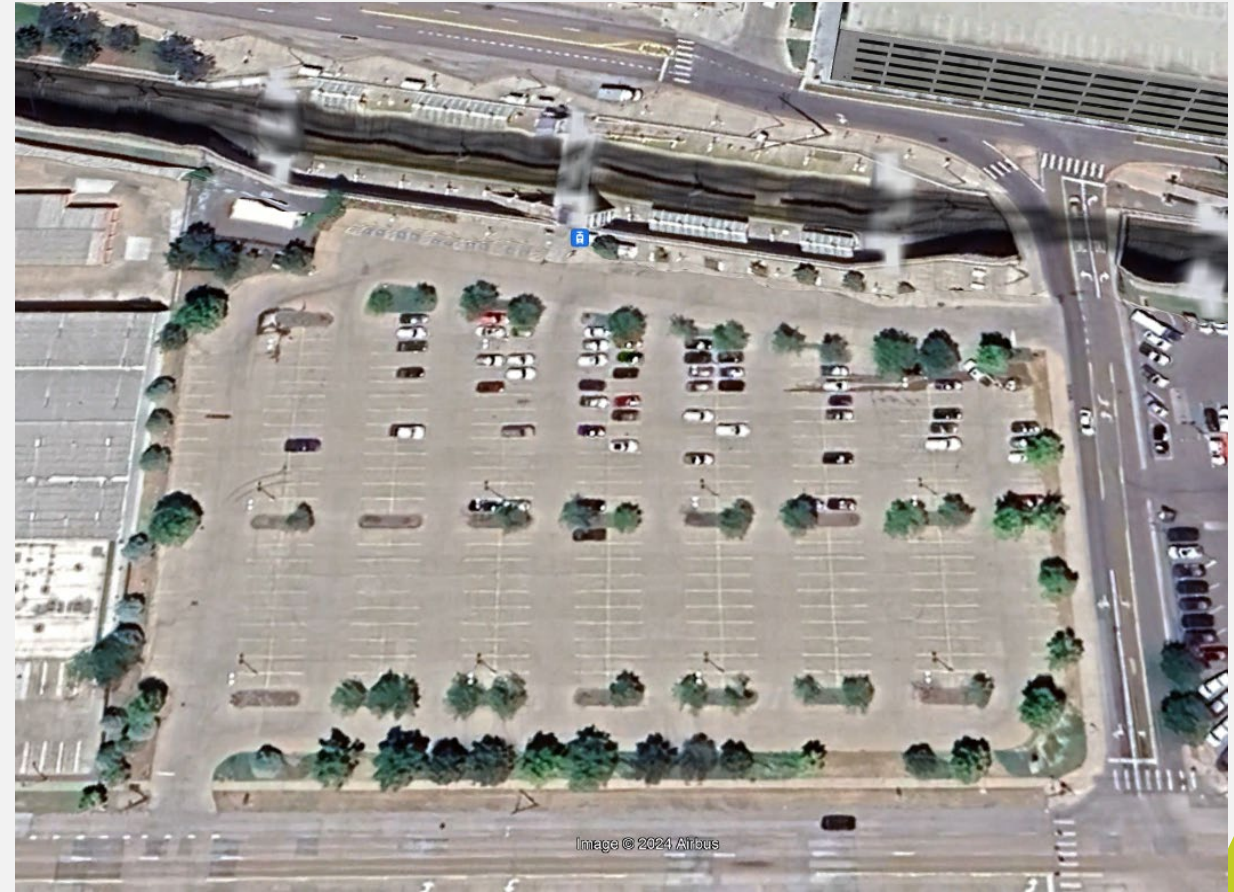


# Real world example: RTD's Colorado Station



2019

Source: Google Earth



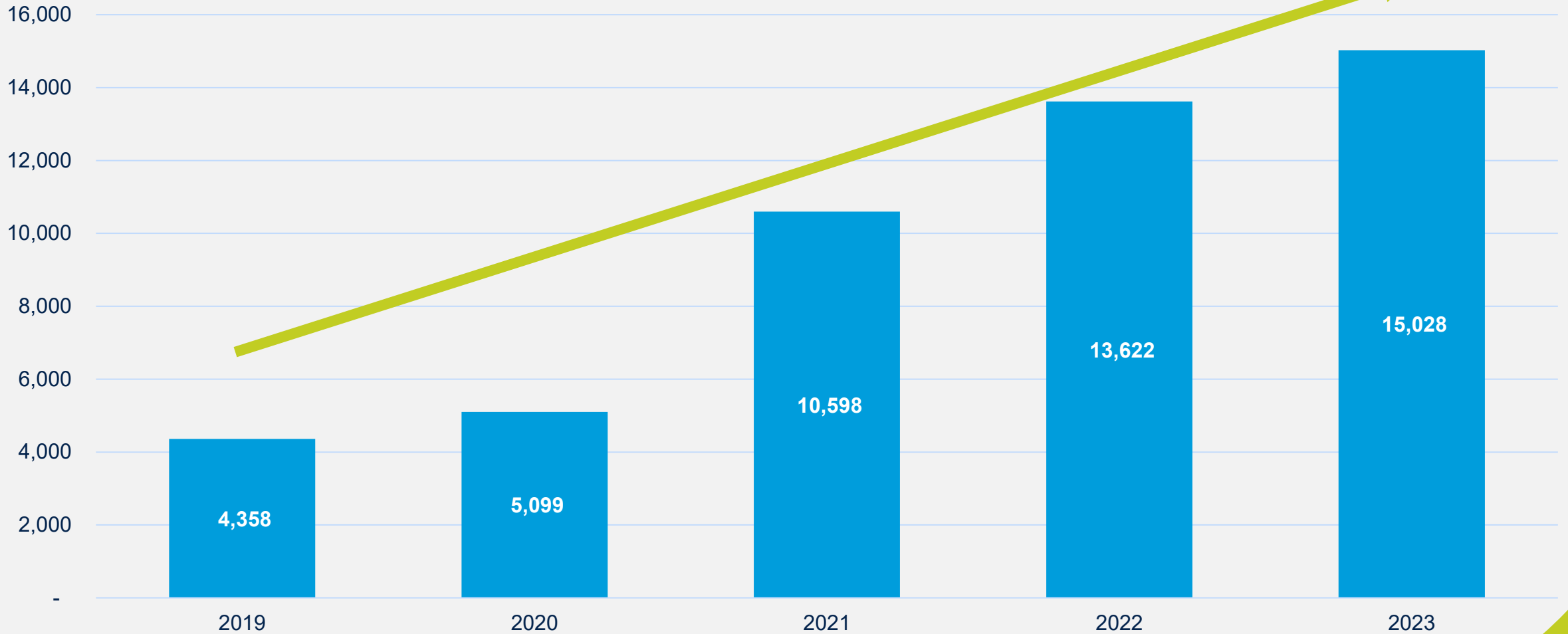
2024



# Shared micromobility usage

Average number of shared micromobility trips per day

More than triple ridership!



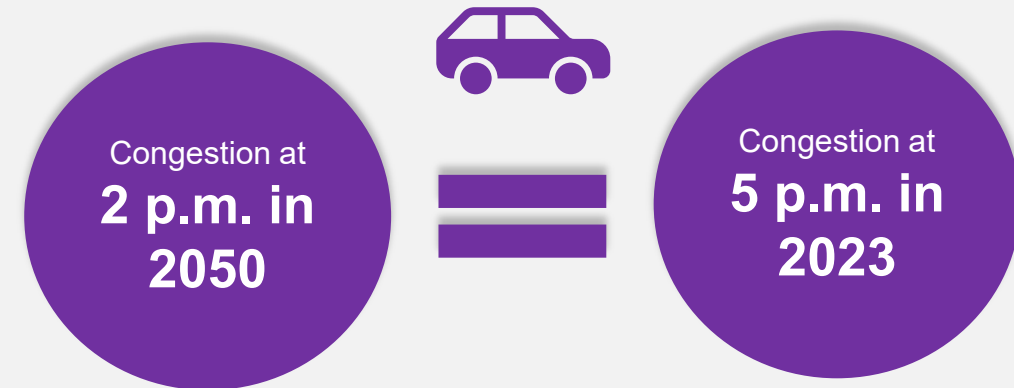


# 2050 congestion projections

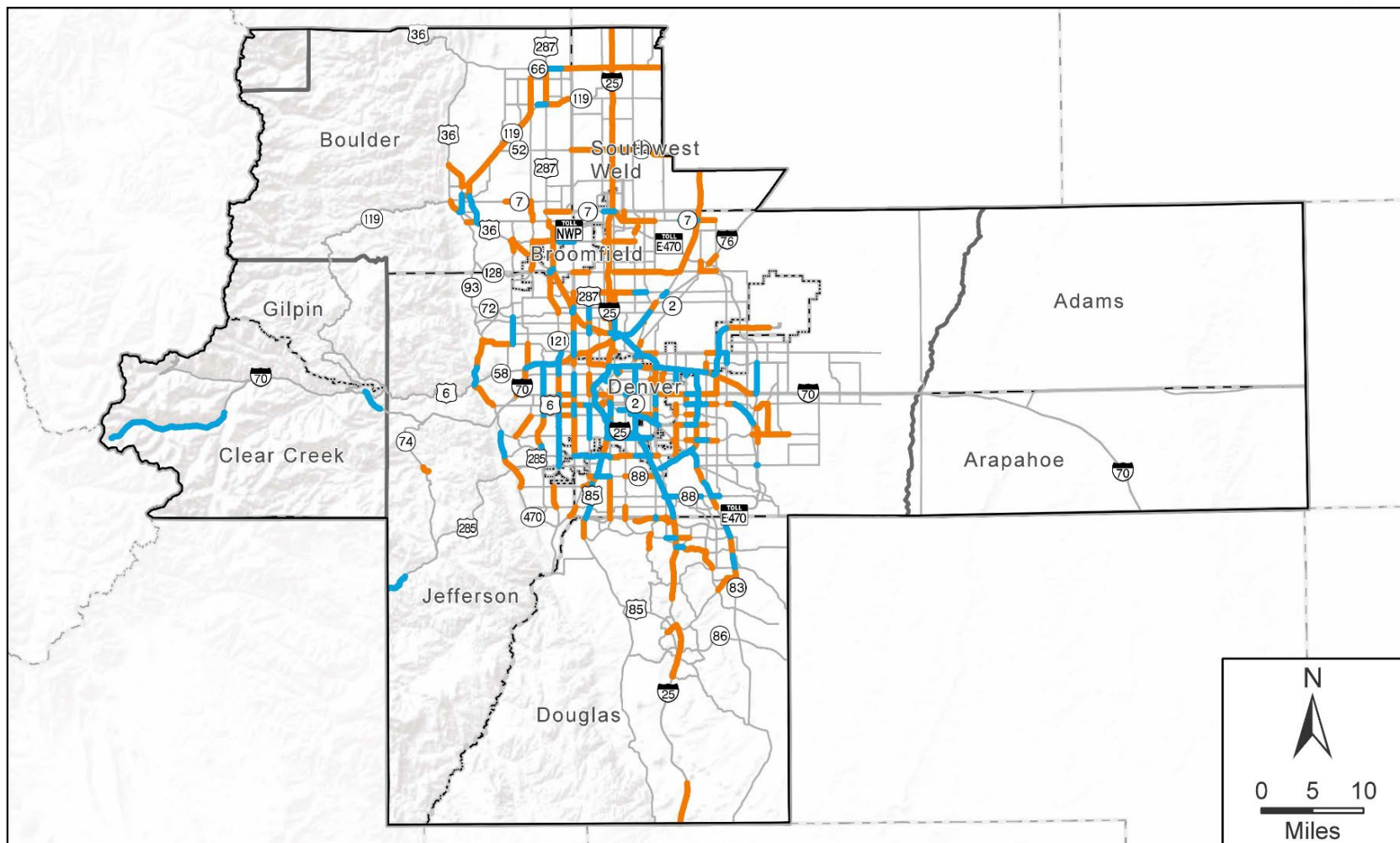


# 2050 congestion projections

- Vehicle miles traveled is projected to grow by **42%** on the average 2050 weekday.
- The cost of congestion in the region is expected to increase by **123%** between 2023 and 2050.
- Over **one third** of lane miles are expected to be congested for **three hours or more** in the region in 2050.



# Key Congested Locations in 2023 and 2050



- Corridors Congested in 2023
- Additional Corridors Congested by 2050
- Regional Roadway System
- County Boundaries
- DRCOG Boundary

Source Data: DRCOG,  
Esri Basemap; SR 6428  
Creator: PJordan, 8/16/2024  
Location: \\TPO\CMPP\AnnualReport  
\2023\0 - CMPP 2023 ArcPro Maps

Map disclaimer found at [data.drcog.org/about](http://data.drcog.org/about).  
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# Shifting dynamics in commuting





# Overview of analysis

- Telework became a **public health necessity** with COVID.
- Telework remains **prevalent**.
- Building on analysis from previous report to see how dynamics have **continued** to evolve.
- Examined **travel time and traffic volume data** from 2019 to 2023.

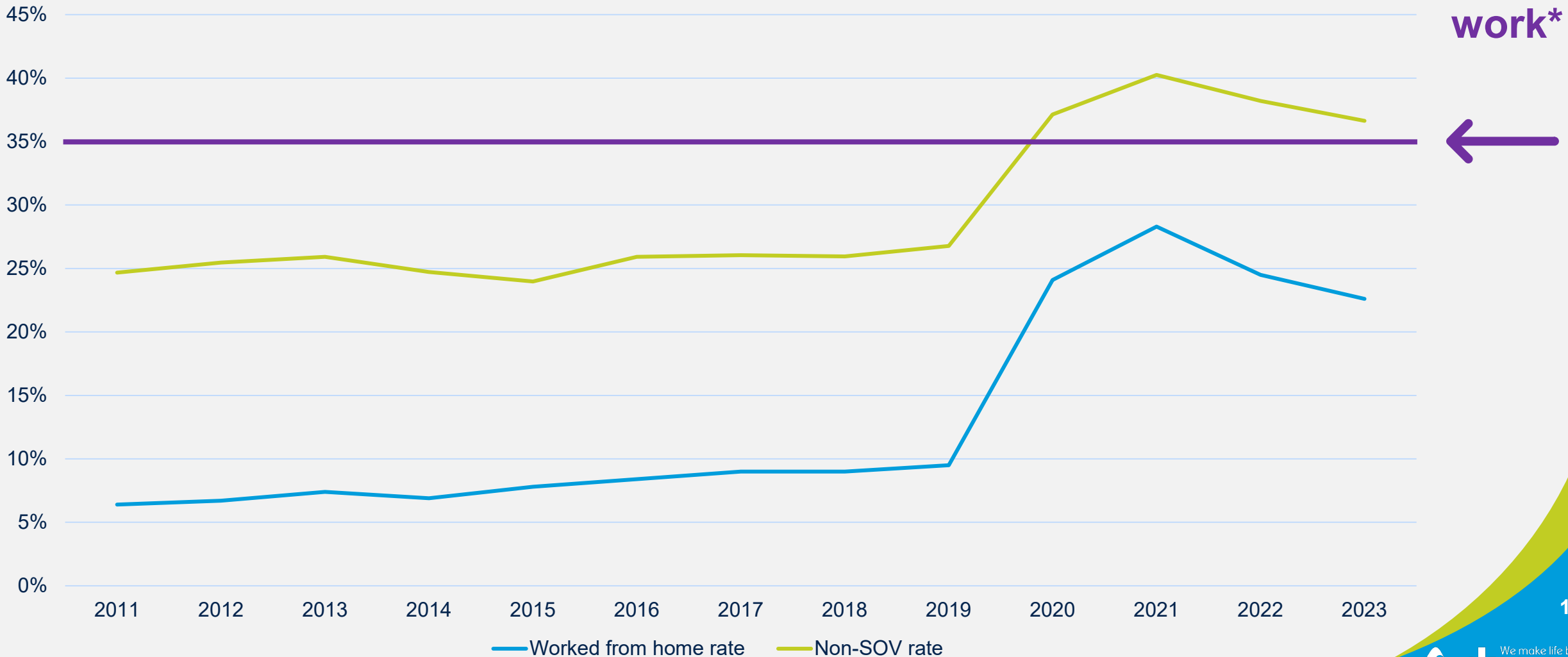
Photo courtesy  
of CDOT.



# Telework and commuting

Percentage of people who typically work from home in the Denver region from 2018 to 2023

MetroVision target of 35% non-SOV mode share to work\*



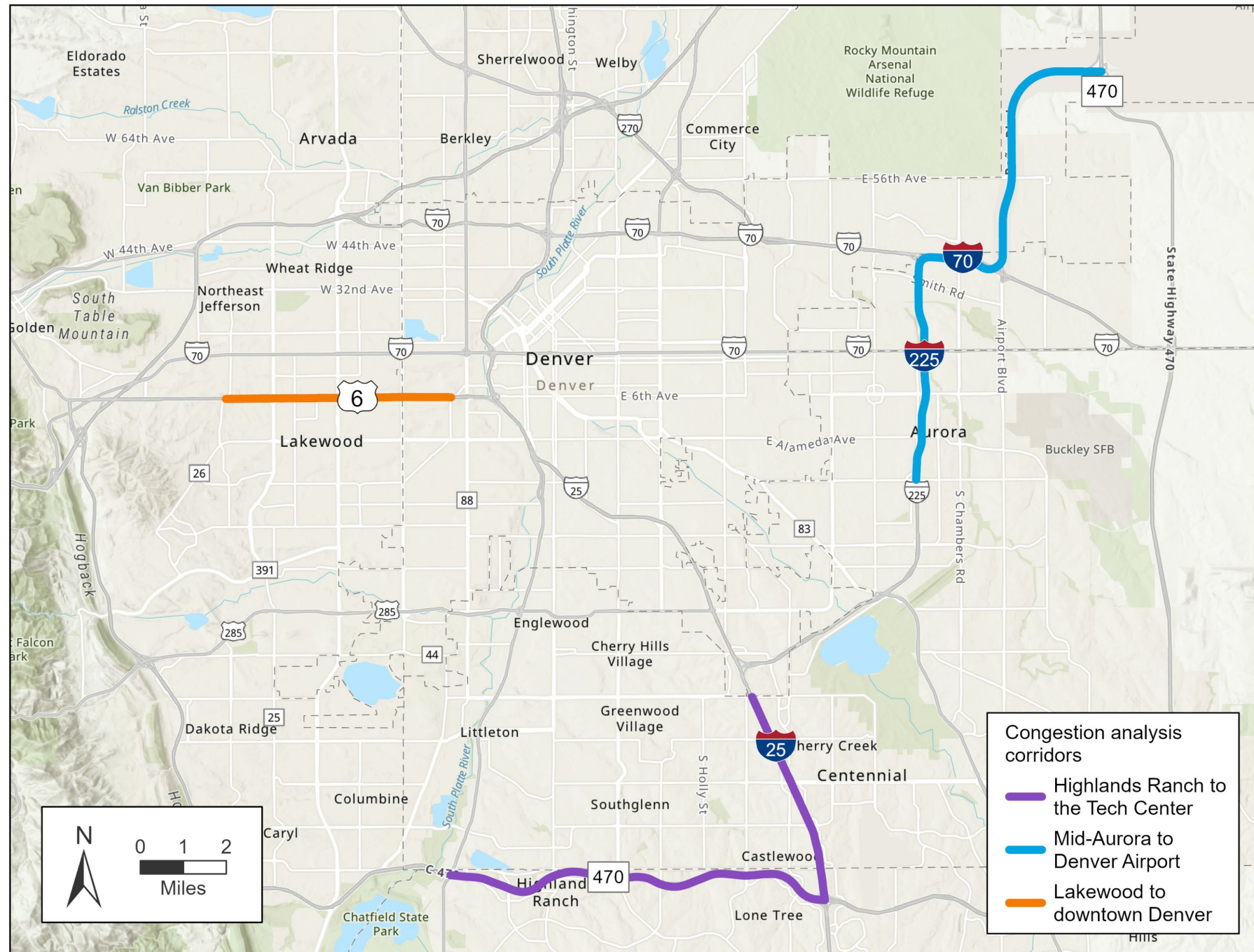
Source: American Community Survey 2011-2023 one-year estimates

# Selected corridors

Source data: DRCOG  
Esri Basemap; SR 6428  
CConnally, 10/07/2024

Location:  
RPDshare\GIS\Requests\Annual  
ReportTrafficCongestion

Map disclaimer found at  
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# Lakewood to Denver morning commute

Photo courtesy of CDOT.

- **Higher traffic levels** in 2023 than 2019, considering all time periods.
- **6% fewer vehicles** during the a.m. peak.
- Telecommuting and flexible schedules are a key answer – their **impacts are starting to decline.**



2.1% higher volumes



1% higher speeds



2.6% lower travel times







# Mid-Aurora to Denver International Airport

- Traffic was down 8% from 2019 levels in 2020 – in 2023, **traffic was nearly 8% higher** than those same levels.
- This area continues to see **new development and jobs** coming online.
- Denver airport is still seeing **increases** in passenger ridership.



5.5% higher volumes



4.2% lower speeds



7.7% higher travel times

Photo courtesy of RTD.

Source: CDOT, DRCOG, INRIX



# Highlands Ranch to the Denver Tech Center

Photo  
courtesy of  
CDOT.

- **Higher traffic levels** in 2023 than 2019, considering all time periods – most likely due to **construction**.
- Travel times are **lower** despite higher traffic levels.
- The C-470 managed lane project likely has a **stronger impact** than given credit in 2022.



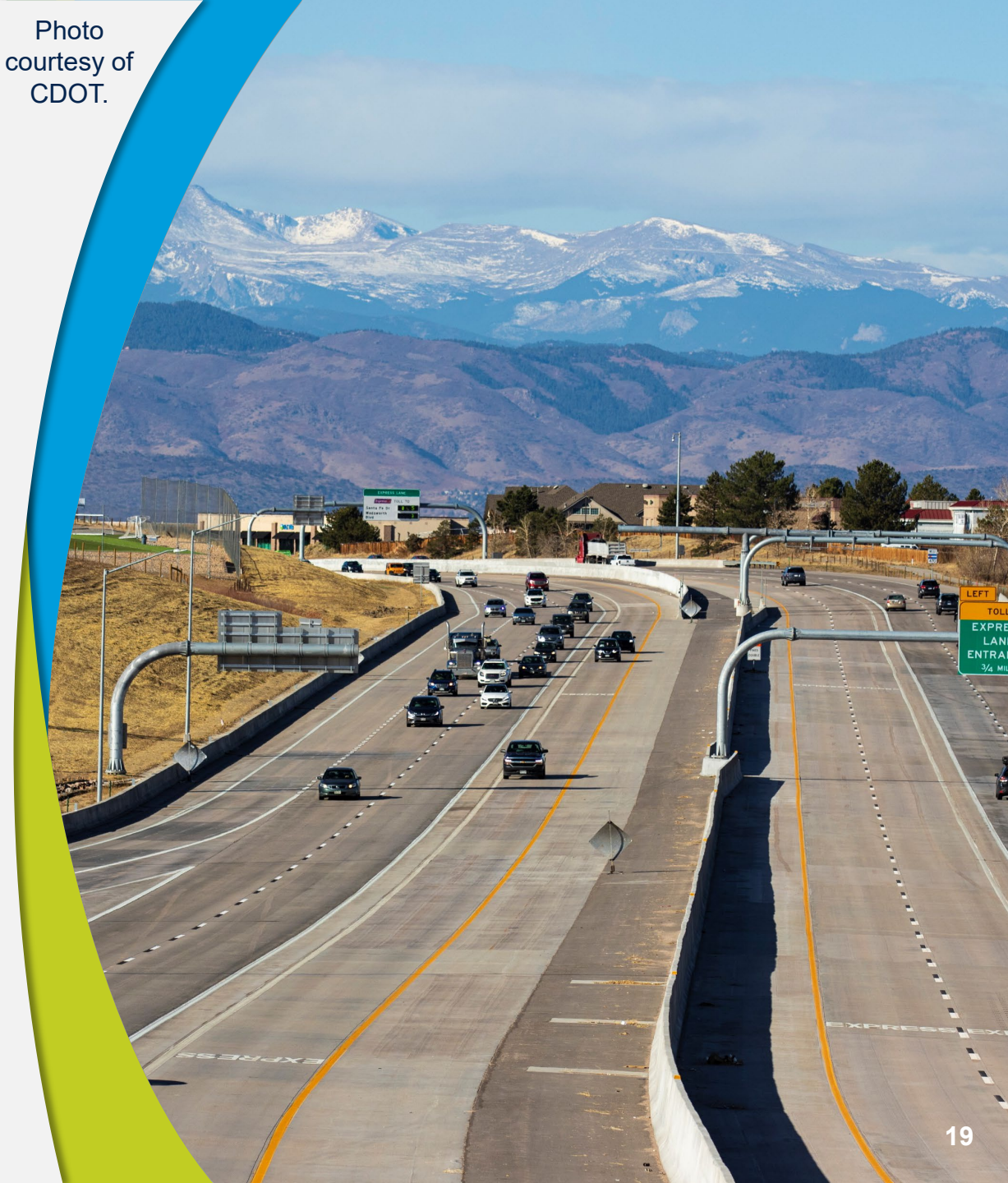
25% higher  
volumes



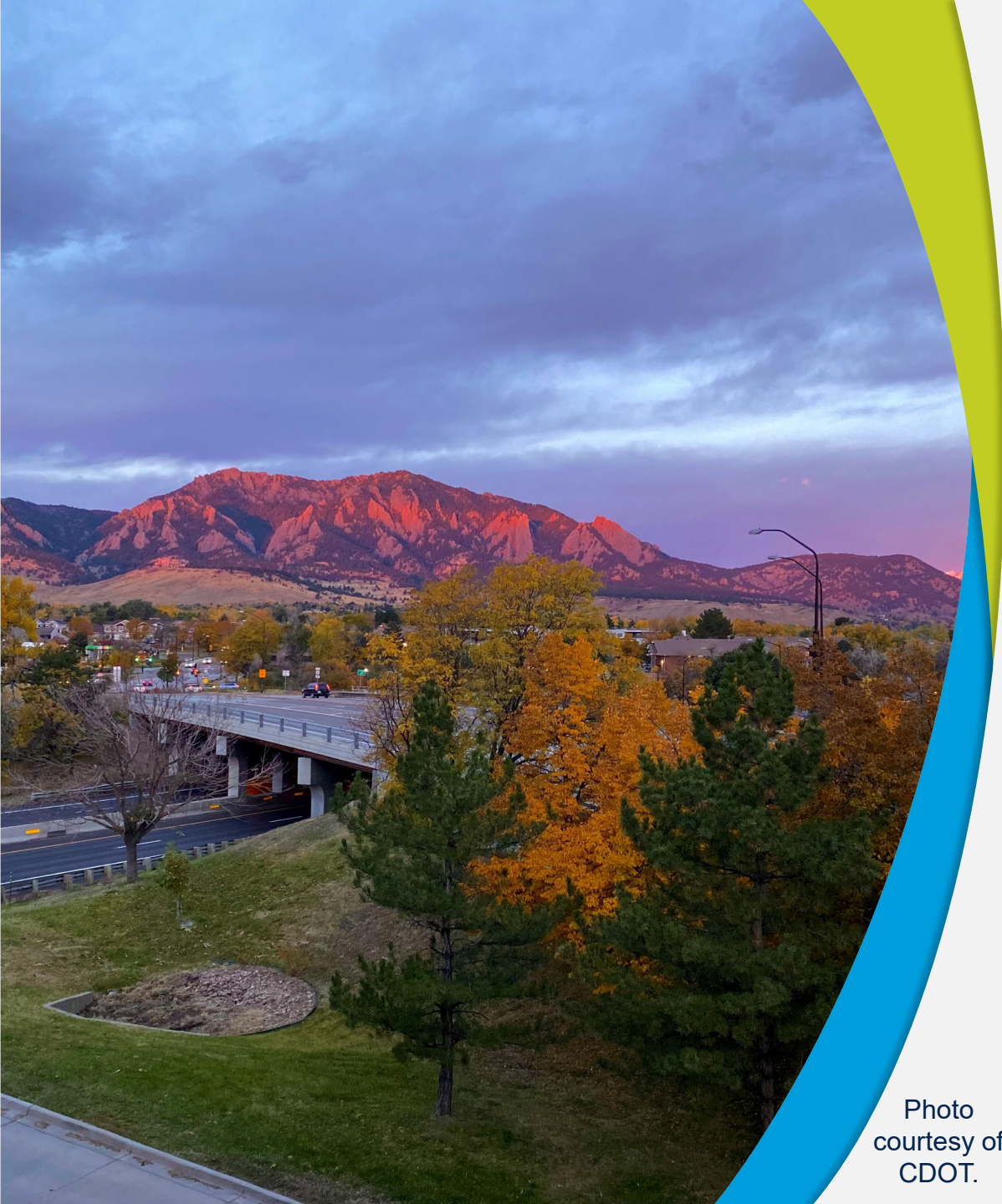
10.6% higher  
speeds



12% lower  
travel times







# Key takeaways

- Telework continues to impact **travel behavior**.
- As telework rates decline and more people move to the region, more **traditional travel trends increase**.
- Trends continue to evolve **geographically**.

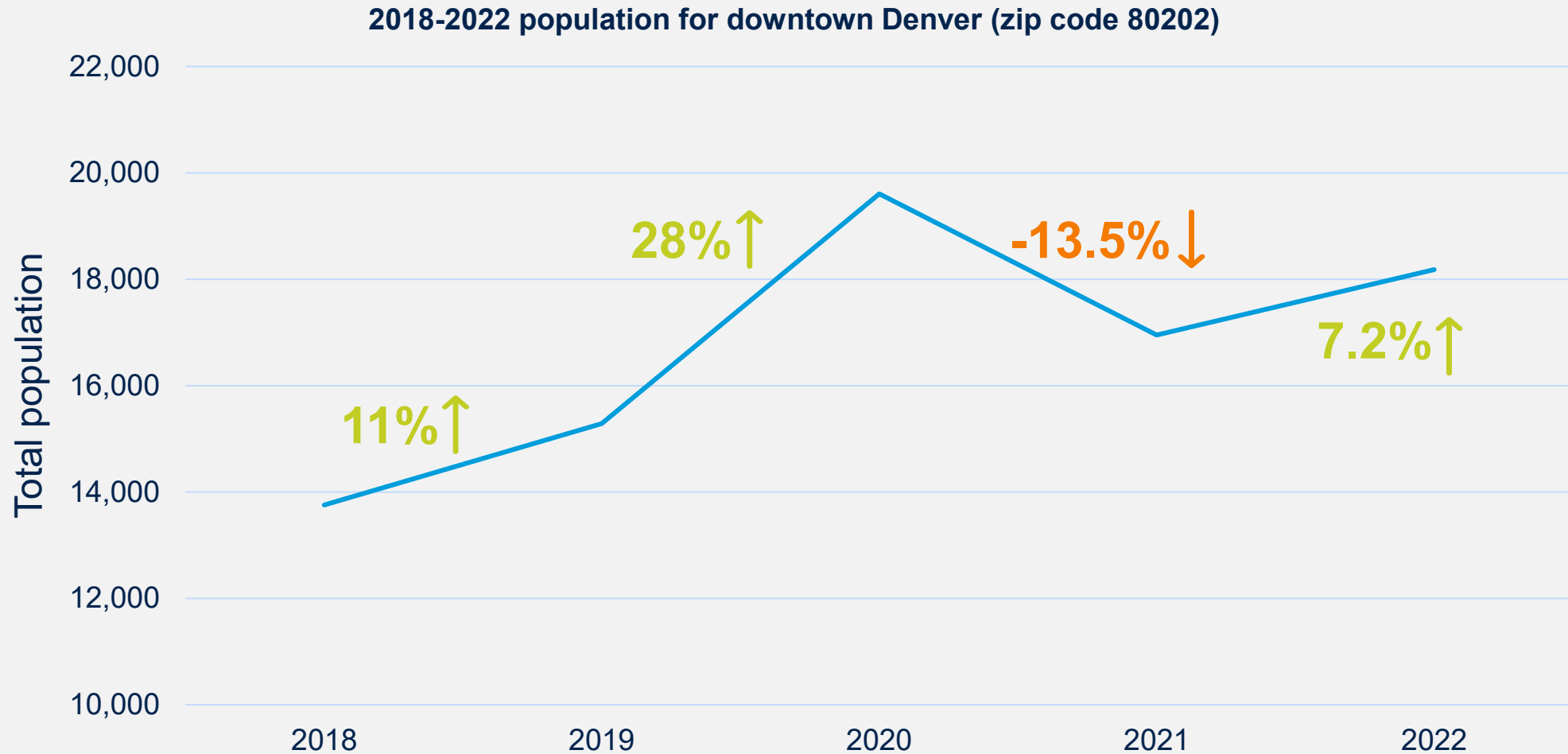
Photo  
courtesy of  
CDOT.





# Additional metrics influenced by telework and the pandemic

# Changes to downtown Denver's population

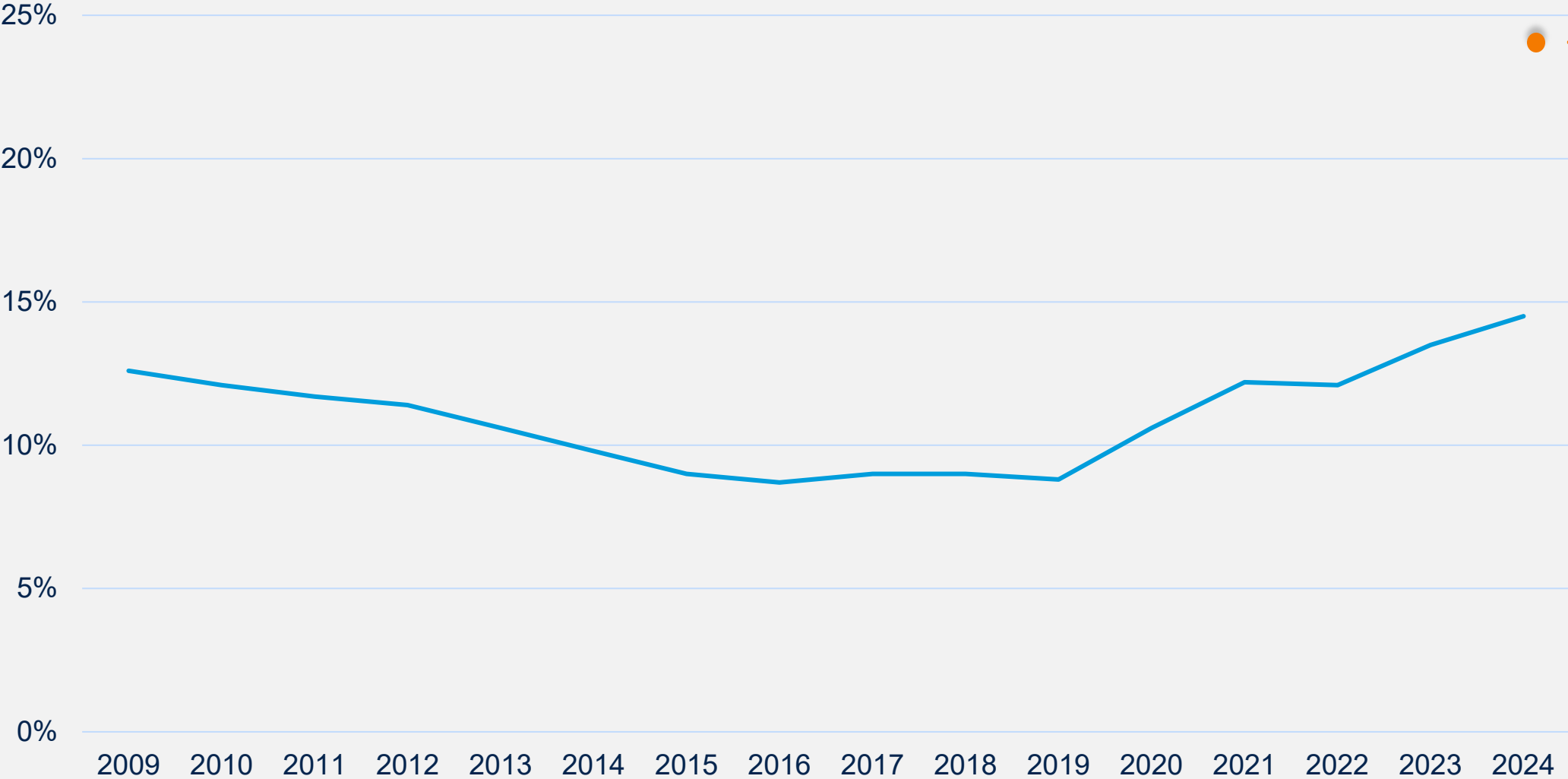


Source: American Community Survey, 5-year estimates, 2018-2022



# Office vacancies across the region

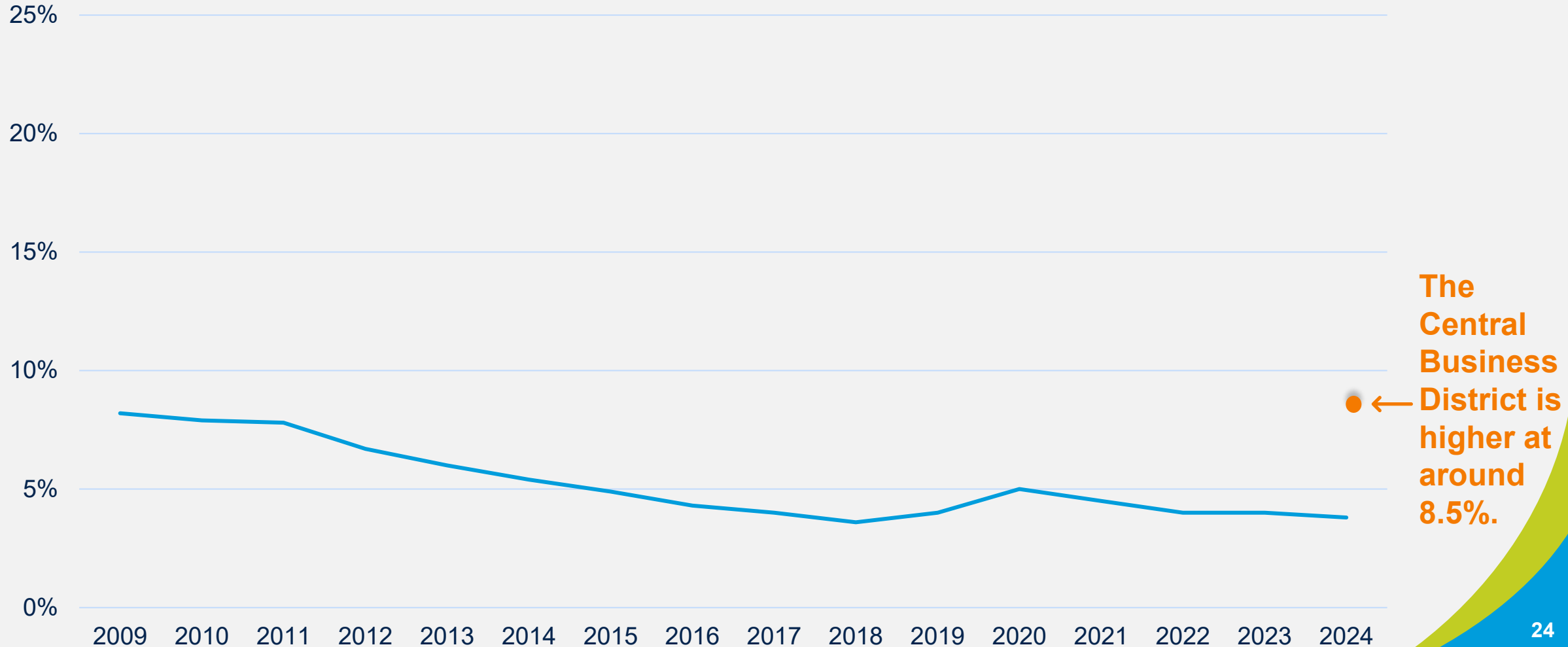
Office vacancy rates across the Denver region, 2009-2024



● ← The Central Business District is much higher at around 24.5%.

# Retail vacancies across the region

Retail vacancy rates across the Denver region, 2009-2024



Source: Costar



# Trends in multiunit residential

- **36,595 multiunit homes** developed between 2020-2022.
- **14,734 multiunit homes** developed in 2023.
- Given 2024 year-to-date trends, we estimate roughly **20,400 new multiunit homes by the end of this year.**
- Adjusted for inflation, rents are high but **not outside of the norm.**

Source: Costar







# Conclusion





# Conclusion

- Transportation demand management.
- Projects that facilitate travel choices to **avoid** and **adapt** to congestion.
- State household travel survey.
- Denver Region ITS.



Program of **DRCOG**

Photo  
courtesy of  
CDOT.



**COLORADO**  
Department of Transportation



# Thank you! Questions?

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