



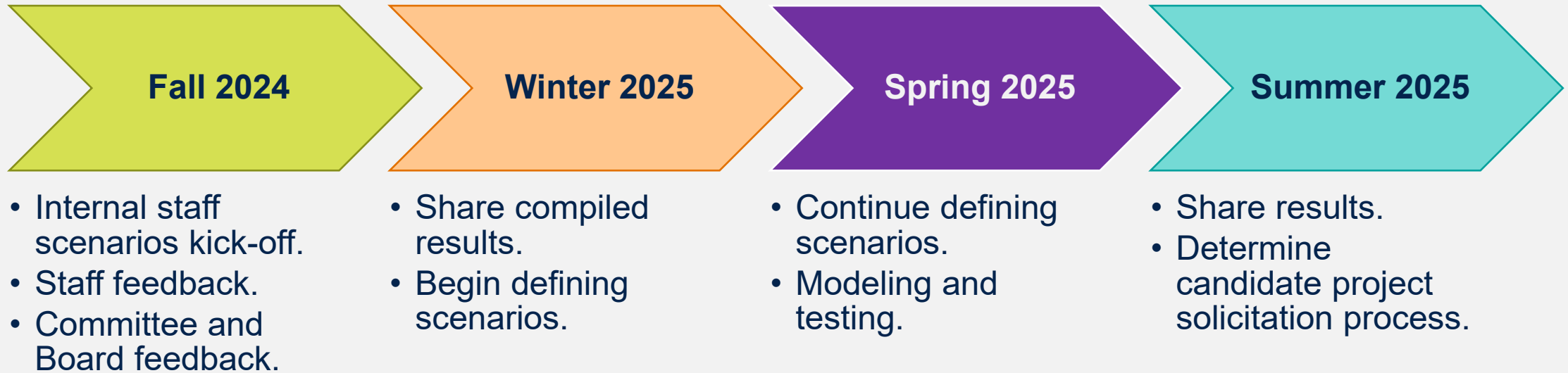
# 2050 RTP Update: Scenario results

Transportation Advisory Committee: May 19, 2025

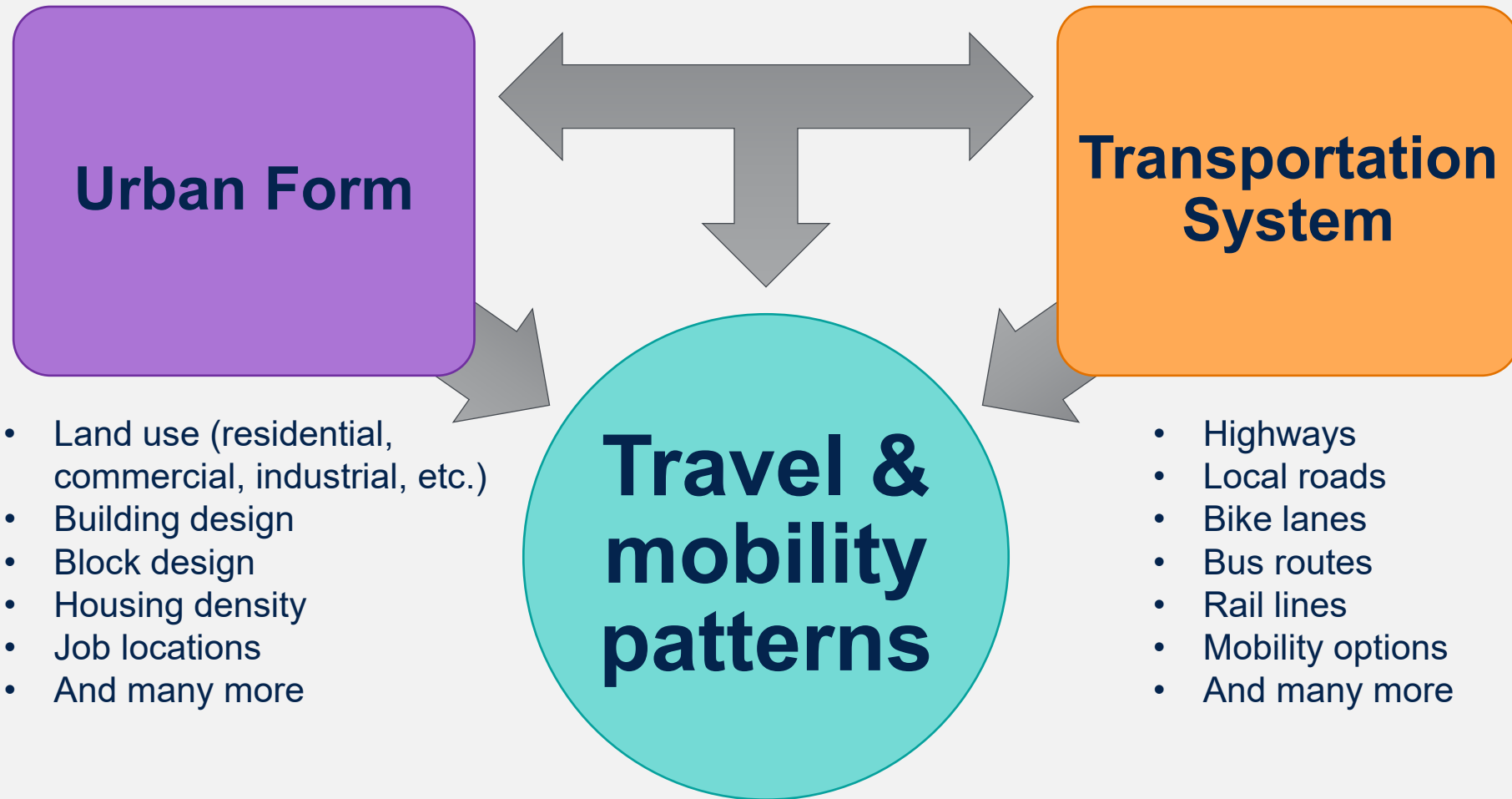
# Major activities

	2024				2025				2026			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Scenario planning</b>				Occurring	Occurring	Occurring						
<b>Financial planning</b>												
<b>Candidate projects</b>												
<b>AQ and GHG modeling</b>												
<b>Document development</b>												
<b>Public and stakeholder</b>												
<b>Adoption /finalization</b>												

# Schedule



# Understanding relationships



# DRCOG's approach



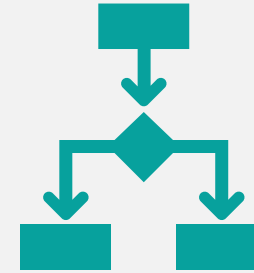
Explores “**what if**” alternative futures



**Relative** comparisons between scenarios and baseline



**Not** rigorous evaluation of scenarios, nor choosing/ judging scenarios



**Choices & tradeoffs** from individual scenarios



Provide **guidance and direction** for plan development

# Scenarios modeled

## Land Use Scenarios

2050 Base



Transit-Focused



Transit-Focused +



## Transportation Scenarios

2050 Base



Limited Roadway Expansion



Complete Streets

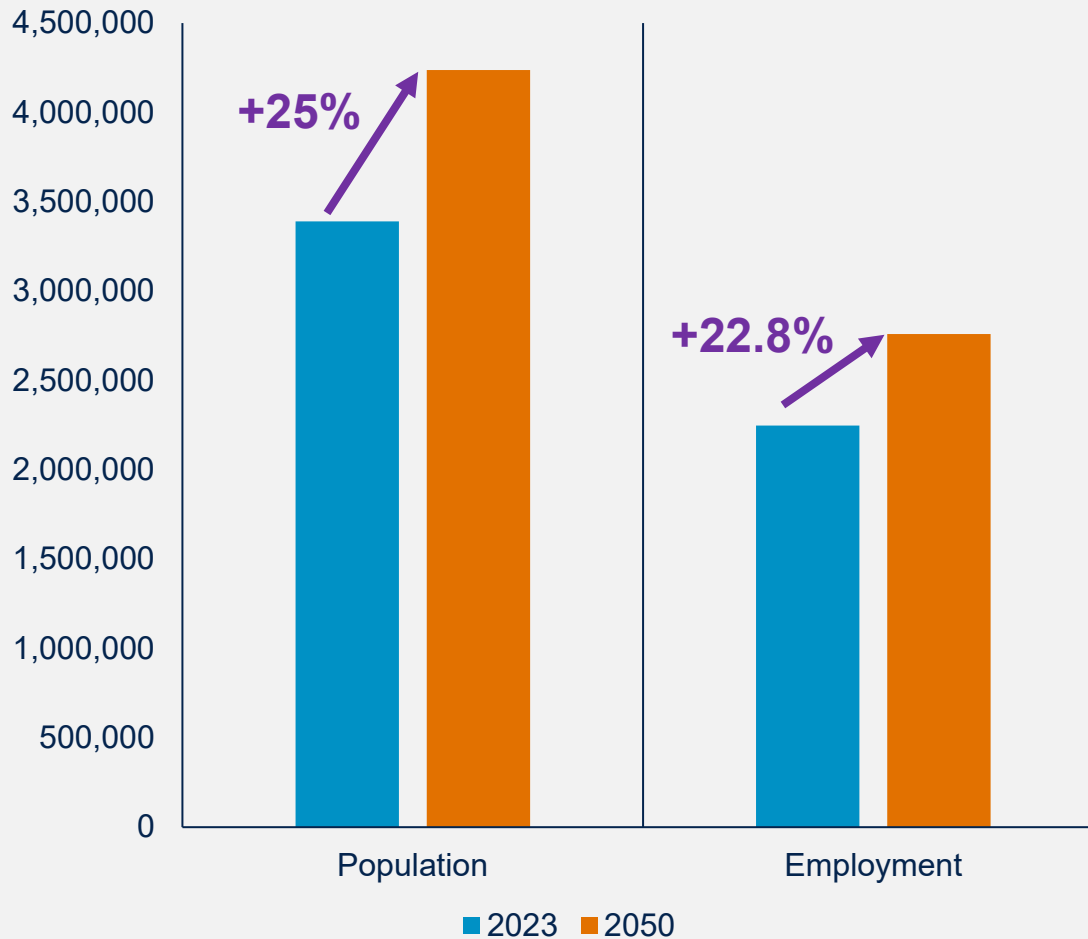


Transit

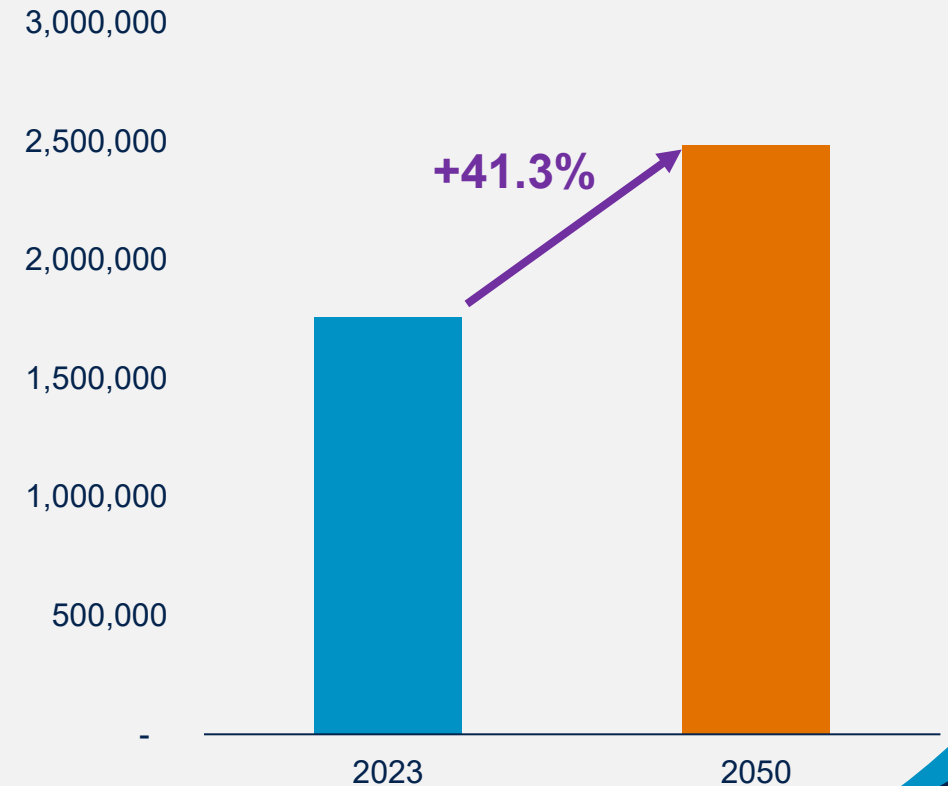


# A growing region

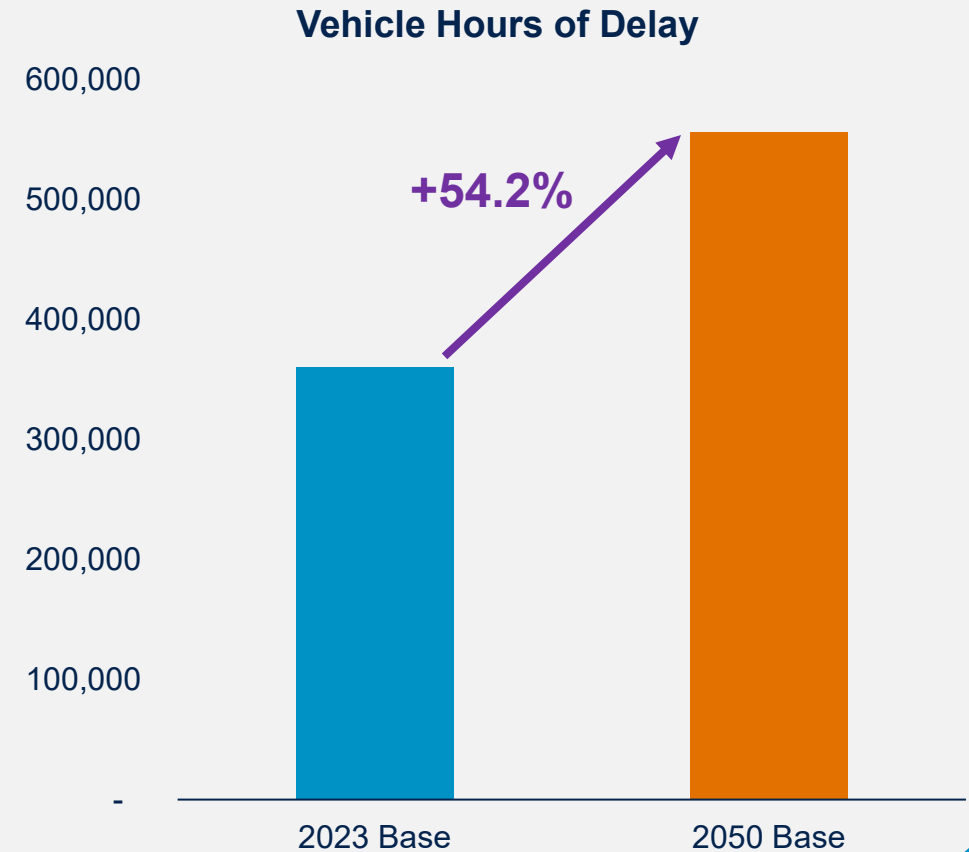
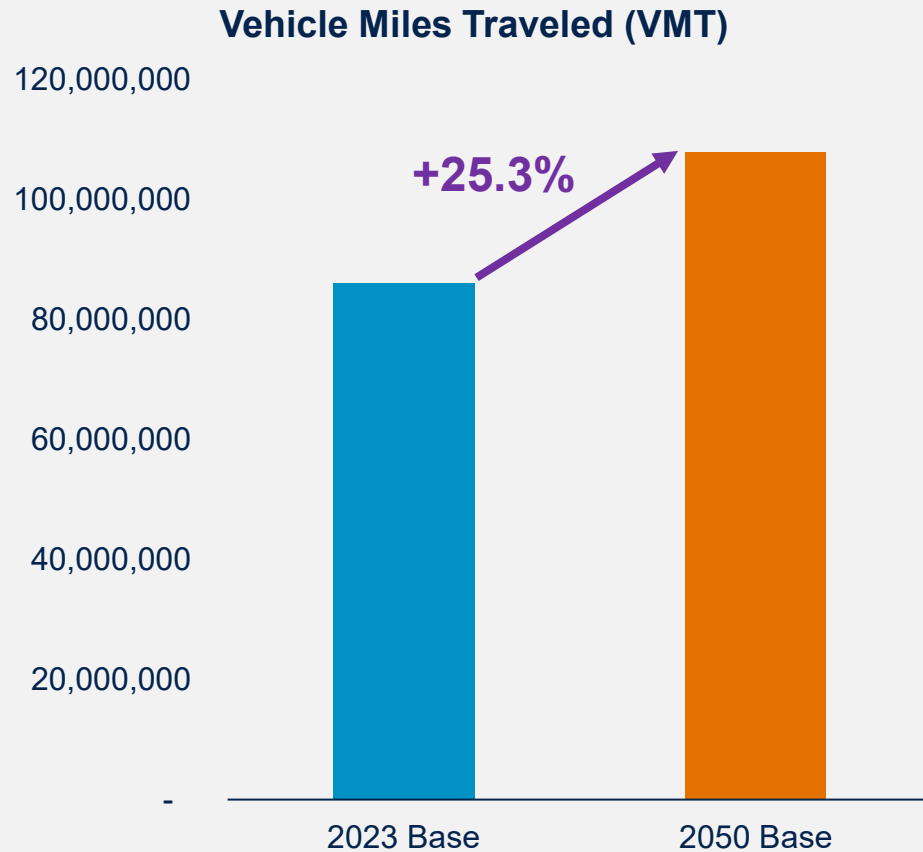
Population and Employment Estimates from 2023 to 2050



Transit, Walk, and Bike Trips



# A growing region – transportation impacts





# Transportation scenarios

# Transportation scenario combinations

2050 Base Land Use



**2050 Base  
Transportation**



**Limited  
Roadway  
Expansion**



**Complete  
Streets**



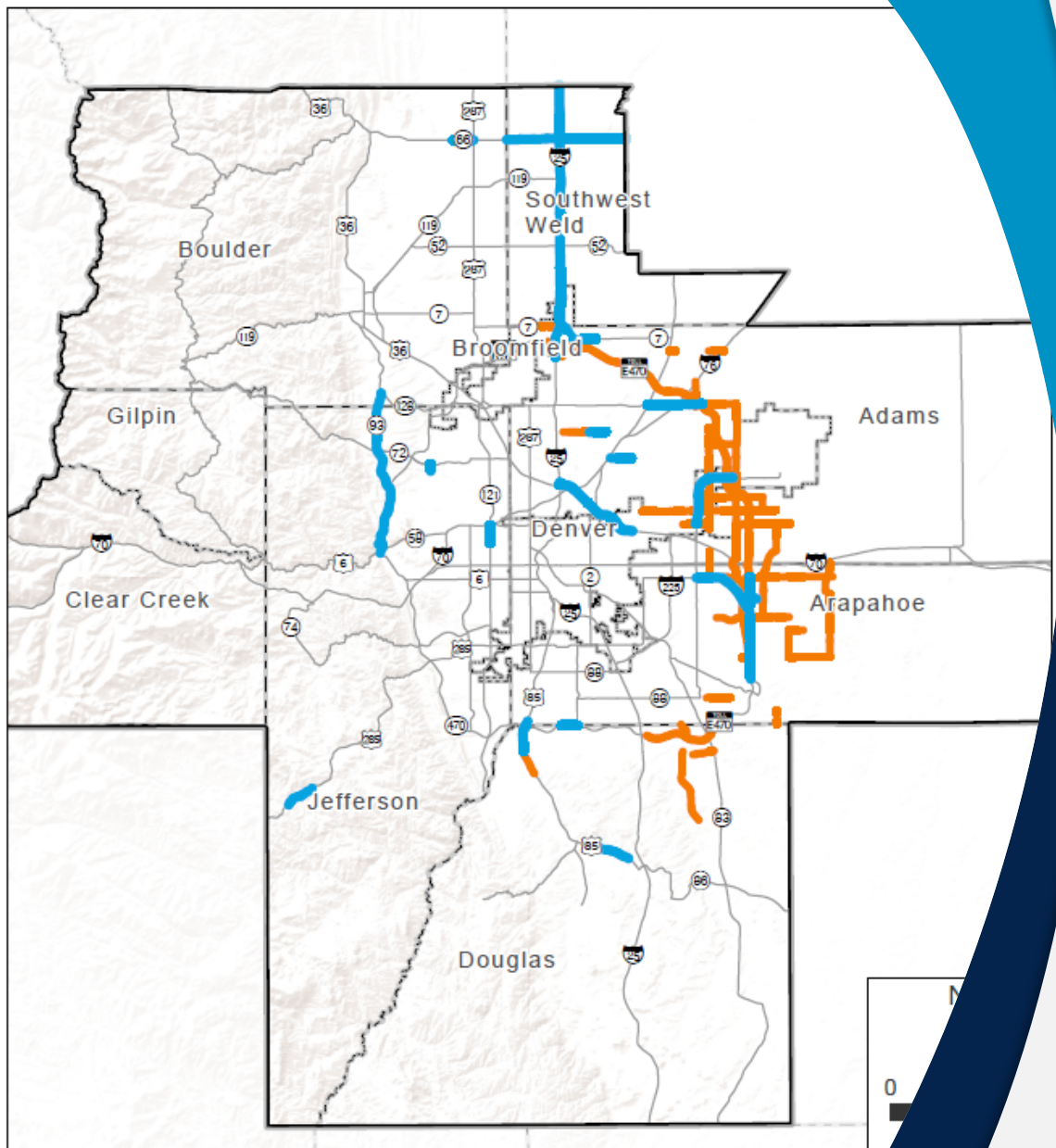
**Transit**



# Limited roadway expansion scenario

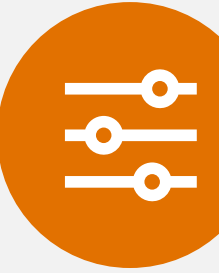
**i** The region does not achieve the GHG transportation planning standard.

- No additional regionally-funded **roadway capacity** projects.
- No additional locally-funded roadway capacity projects **wider than 4-lanes**.



**Funding Type**  
— Local  
— Regional

— Major roads  
— County boundaries  
— DRCOG boundary



# Limited roadway expansion outcomes

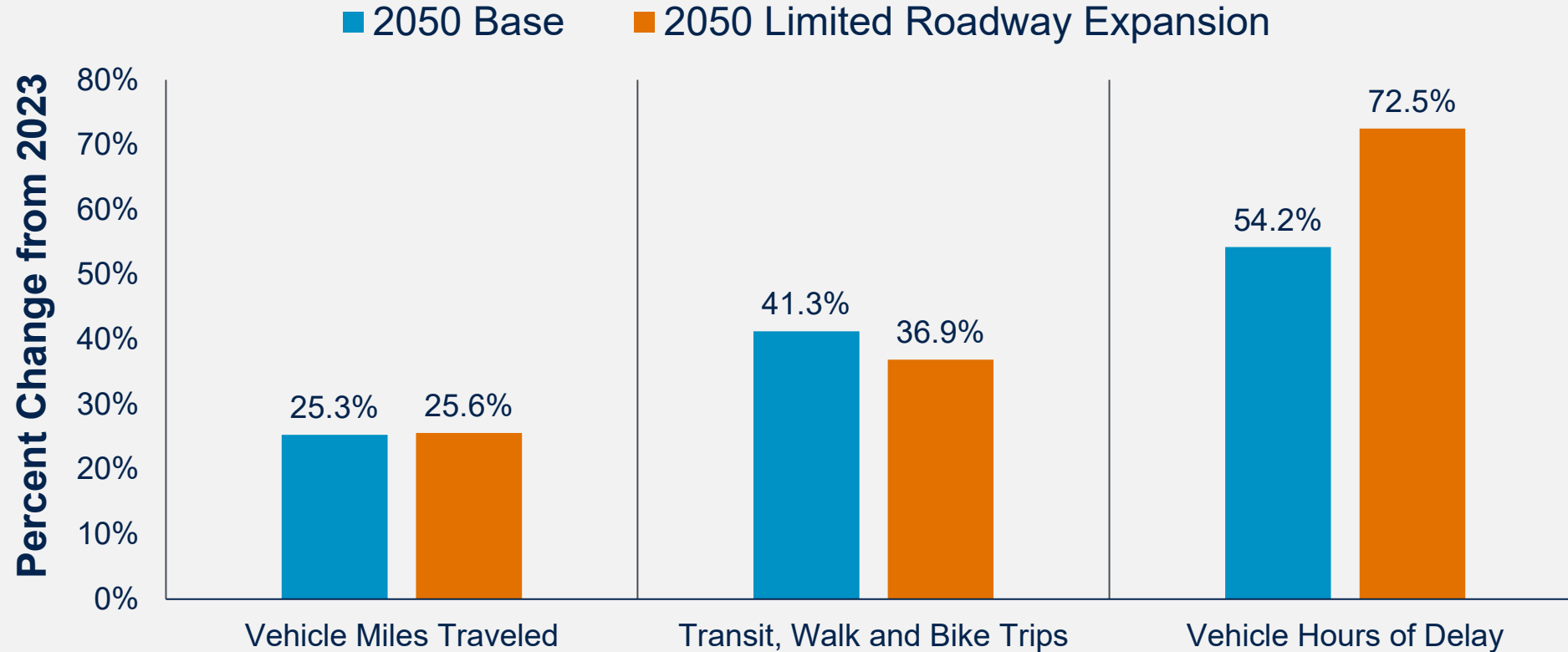
**i** Compared to the 2050 Base.

- **11.8% more** vehicle hours of delay.
- **9.8% growth** in the number of severely congested lane miles.
- **4.2% increase** in passenger miles traveled by transit.
  - Adding more transit service to this scenario can be expected to reduce these burdens, making transit more attractive.



# Limited roadway expansion comparison

**i** Compared to the 2023 Base.

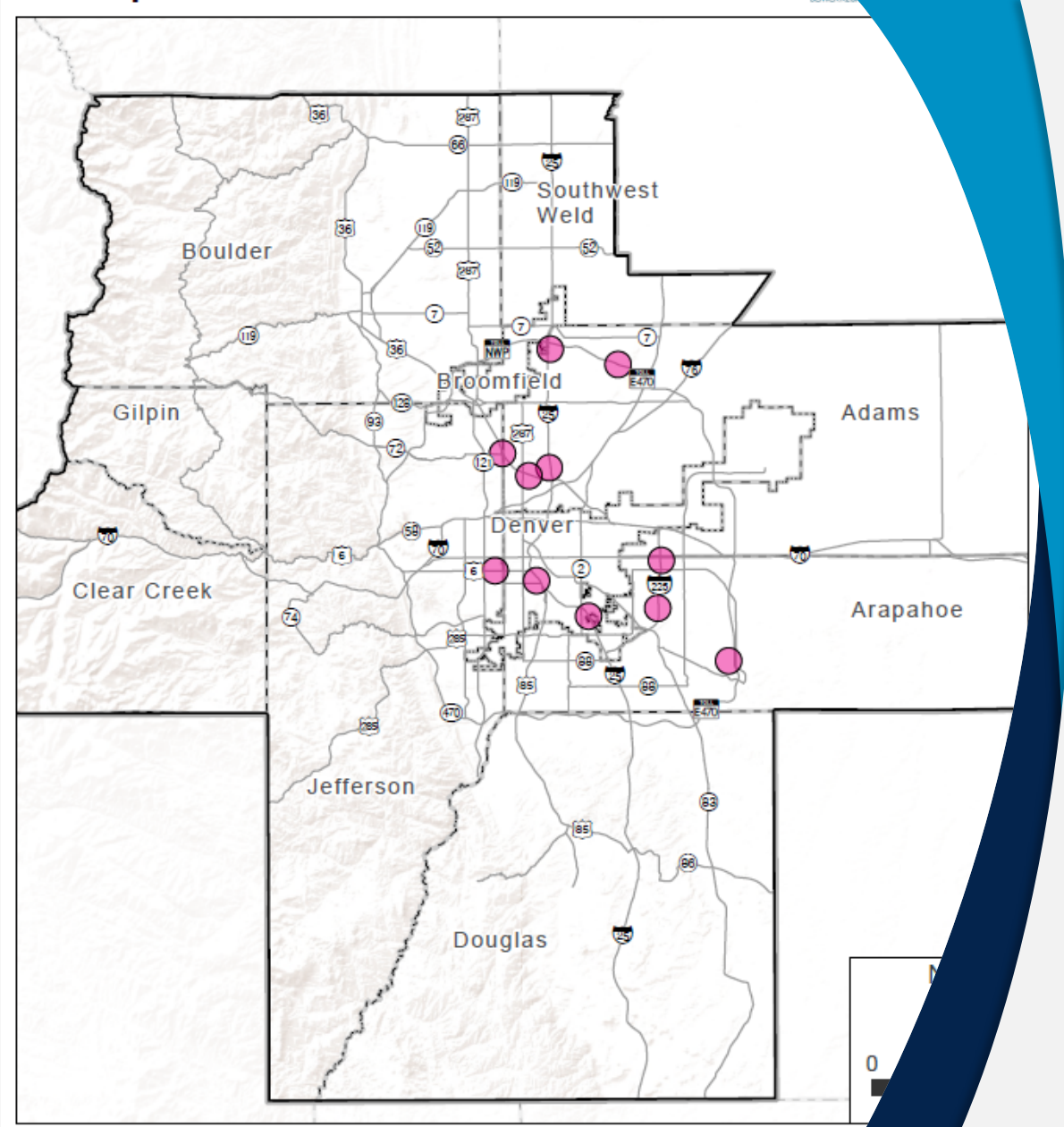




# Complete Streets scenario

**i** A safe and comfortable transportation network for all modes and users.

- Active transportation is encouraged through **better infrastructure** and **more e-bikes** and **e-scooters**.
- **Increasing telecommuting.**
- **Communities are reconnected** by building new overpasses or underpasses across select limited access freeways.



- New Overpass/Underpass
- Major roads
- ▭ County boundaries
- ▭ DRCOG boundary

Source  
Esri P  
Local  
Mod



# Complete Streets outcomes

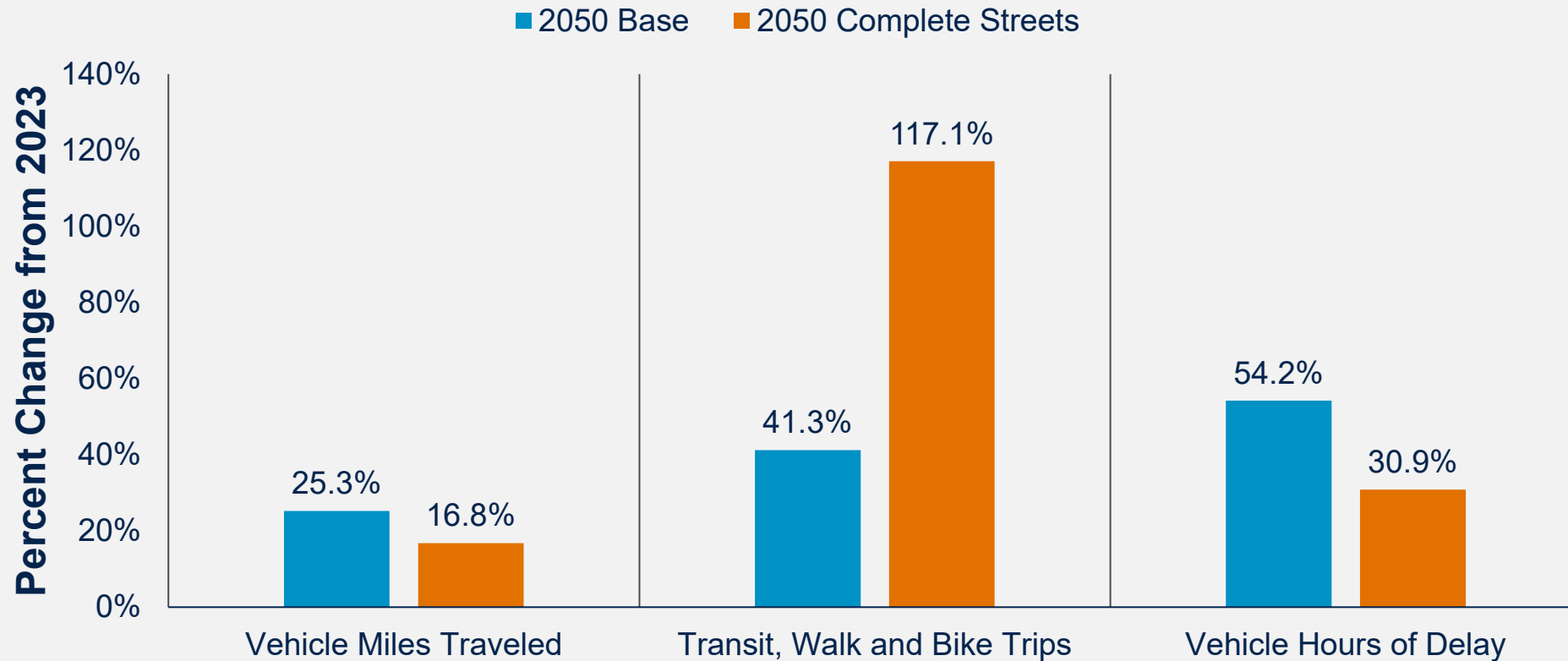
**i** Compared to the 2050 Base.

- **53.4% growth** in person miles traveled by walking and biking.
- **8.4% growth** in passenger miles traveled by transit.
- **1.8% reduction** in vehicle miles traveled in severe congestion.



# Complete Streets comparison

**i** Compared to the 2023 Base.

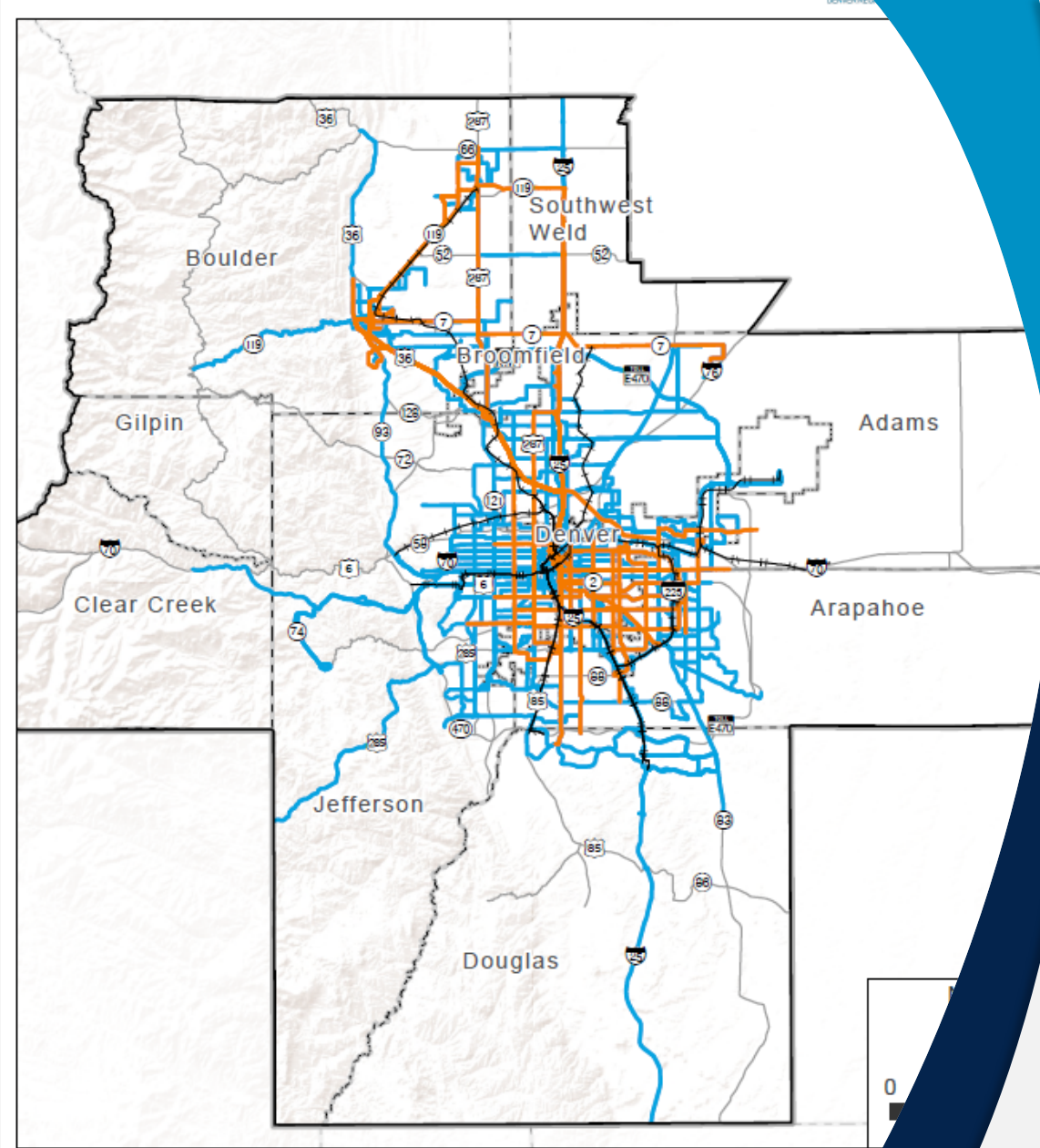




# Transit scenario

**i** Provide more transit options and expand the region's rapid transit network.

- Complete **FasTracks** and **additional rail**.
- Expand **bus rapid transit network**, additional **high-frequency transit** corridors, and **increased transit service**.
- Expand **microtransit** service.
- **Zero fares** and improved **bus stops**.



— Bus  
— Bus Rapid Transit  
— Rail  
— Major roads  
— County boundaries  
— DRCOG boundary

Source  
Esri  
Local  
Mod



# Transit outcomes

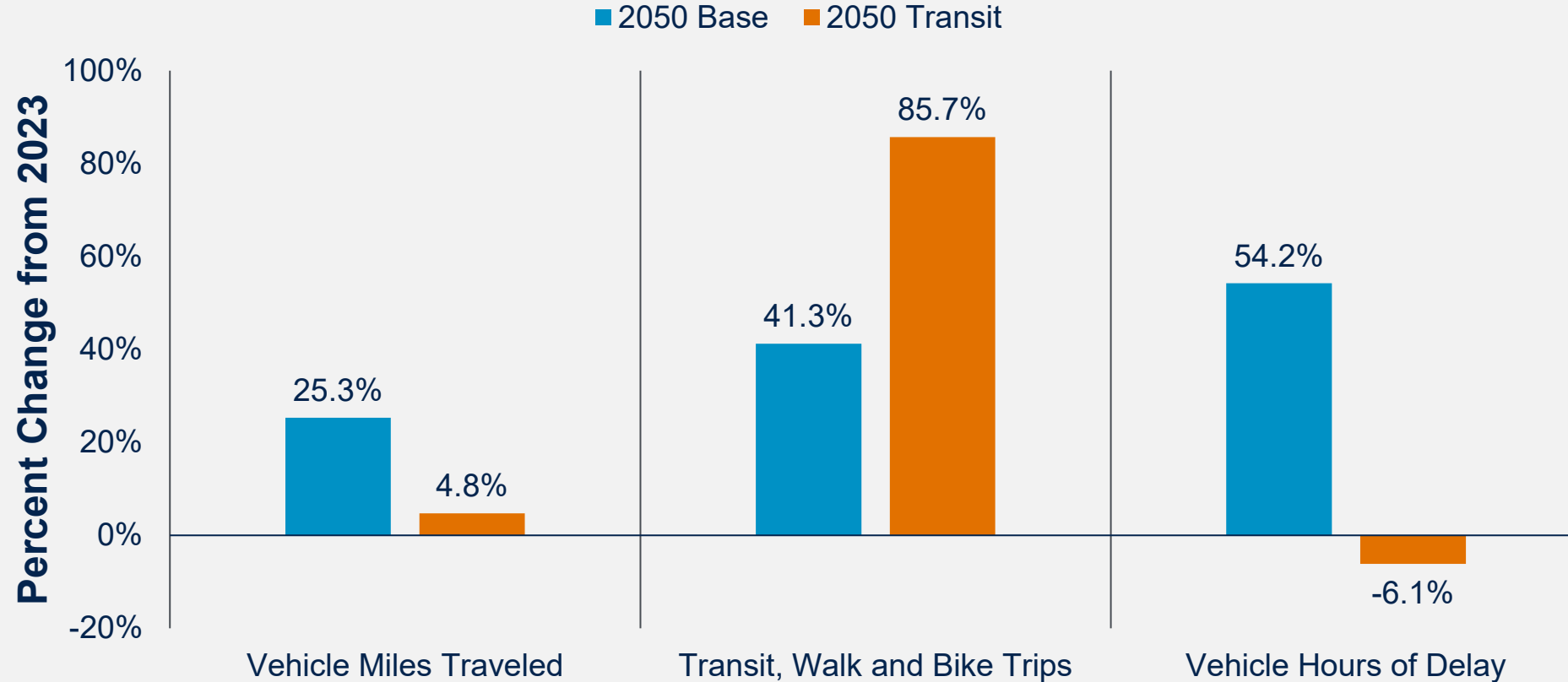
**i** Compared to the 2050 Base.

- Passenger miles traveled on transit **nearly triples**.
- **6.3% increase** in the share of work trips by any mode other than driving alone.
- **8.1% reduction** in vehicle miles traveled in severe congestion.
- **53% fewer** severely congested lane miles.



# Transit comparison

**i** Compared to the 2023 Base.



# Complete Streets and Transit combination scenario



**i** A safe and comfortable transportation network for all modes and users. + Provide more transit options and expand the region's rapid transit network.

- Active transportation is encouraged through **better infrastructure** and **more e-bikes** and **e-scooters**.
- **Increasing telecommuting.**
- **Communities are reconnected** by 'stitching' across select limited access freeways.



- Completion of **FasTracks** and **additional rail**.
- Expanded **bus rapid transit network**, additional **high-frequency transit** corridors, and **increased transit service**.
- Expanded **microtransit** service.
- **Zero fares** and improved **bus stops**.

# Complete Streets and Transit outcomes



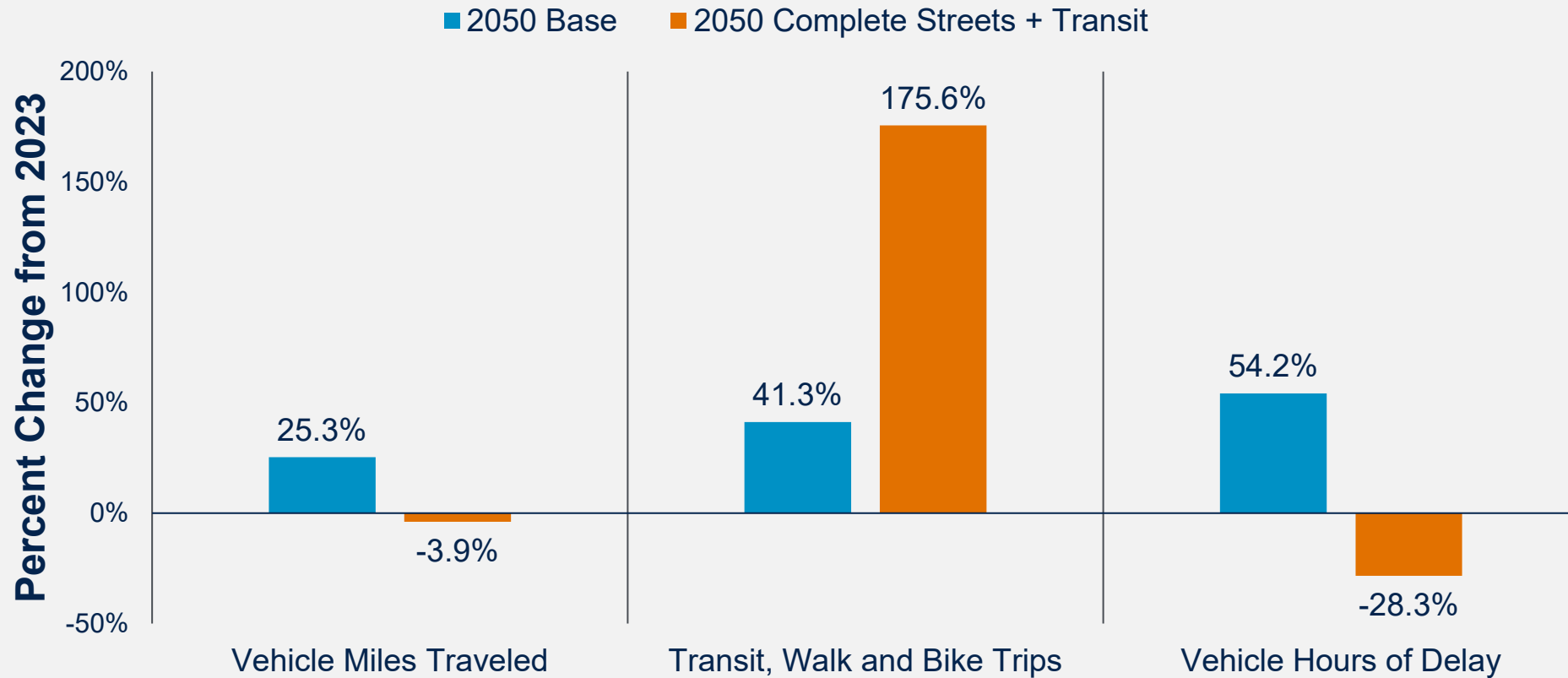
**i** Compared to the 2050 Base.

- Over **one quarter** of all trips were made by walking, biking and transit.
- The percentage of households making transit trips **doubled**.
- **71% fewer** severely congested lane miles.
- Nearly **40%** of all work trips used a mode other than driving alone.
- Combining with the Limiting roadway expansion scenario can be expected to further increase the attractiveness of walking, biking and transit in this scenario.

# Complete Streets and Transit comparison

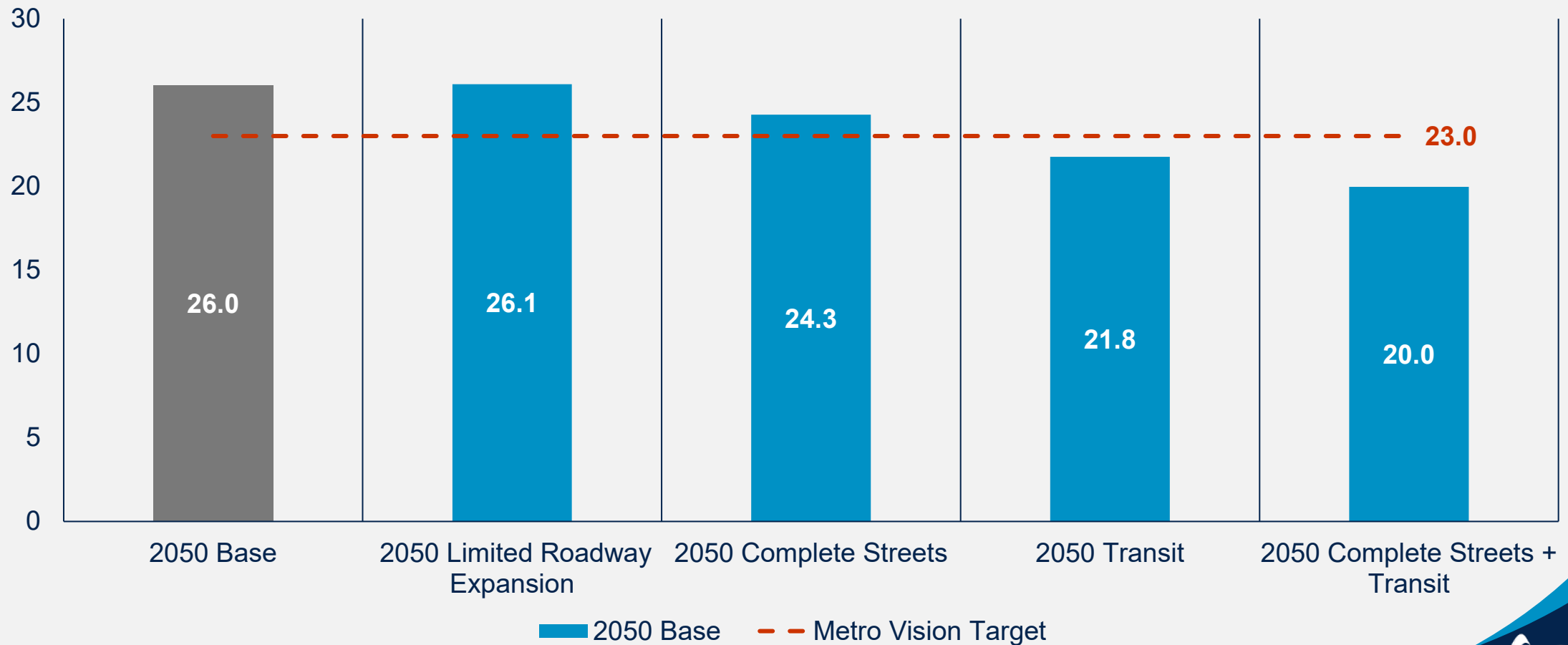


**i** Compared to the 2023 Base.



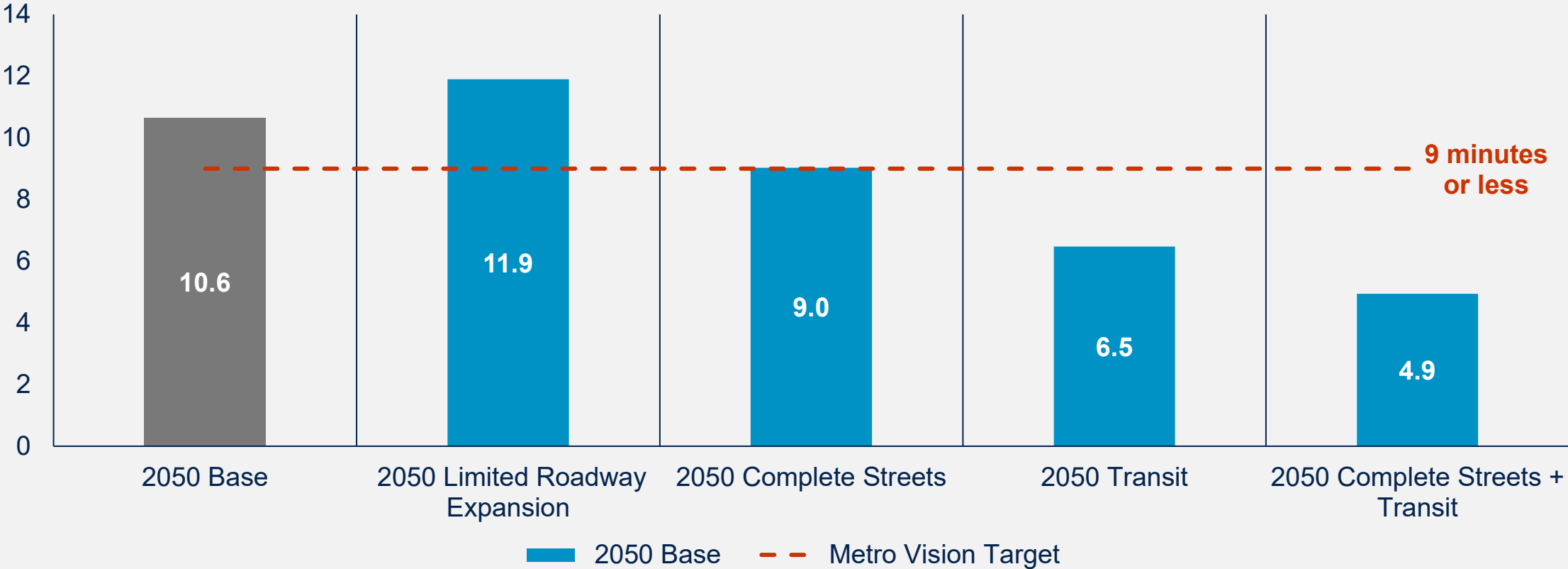
# VMT per Capita Metro Vision Target

Vehicle Miles Traveled per Capita (VMT/capita)



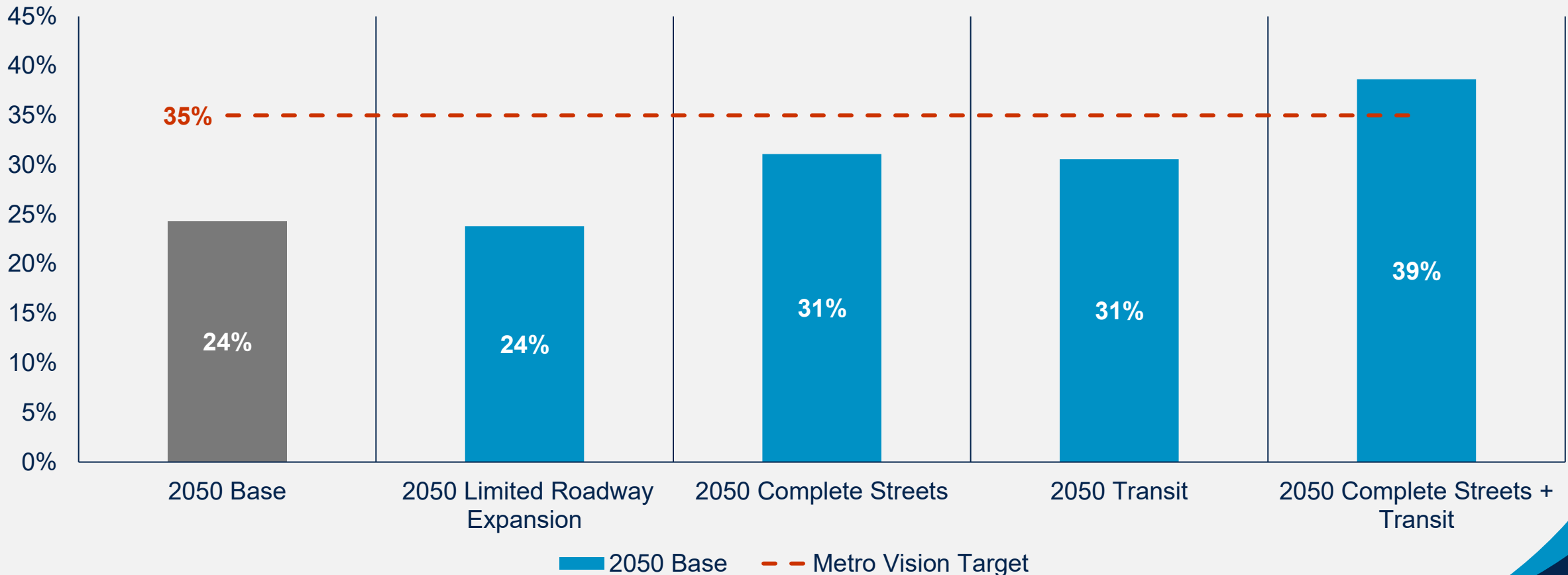
# Person Delay per Capita Metro Vision Target

Person Minutes of Delay per Capita



# Non-SOV Mode Share to Work Metro Vision Target

Share of Work Trips Non-SOV





# Land use scenarios

# Households and employment



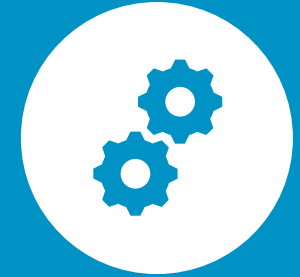
**Regional household growth to 2050**



**Regional job growth to 2050**



**Anchored to local zoning and planned development**



**Location choice models' estimation**



# Making different choices available

## Transit-focused

*What if local governments allow for more residential development in transit-oriented communities?*

Transit-oriented Communities

**3.1%**  
of region's  
land area

## Transit-focused +

*What if local governments also allow for more residential development around additional planned transit corridors and station areas?*

**4.6%**  
of region's  
land area

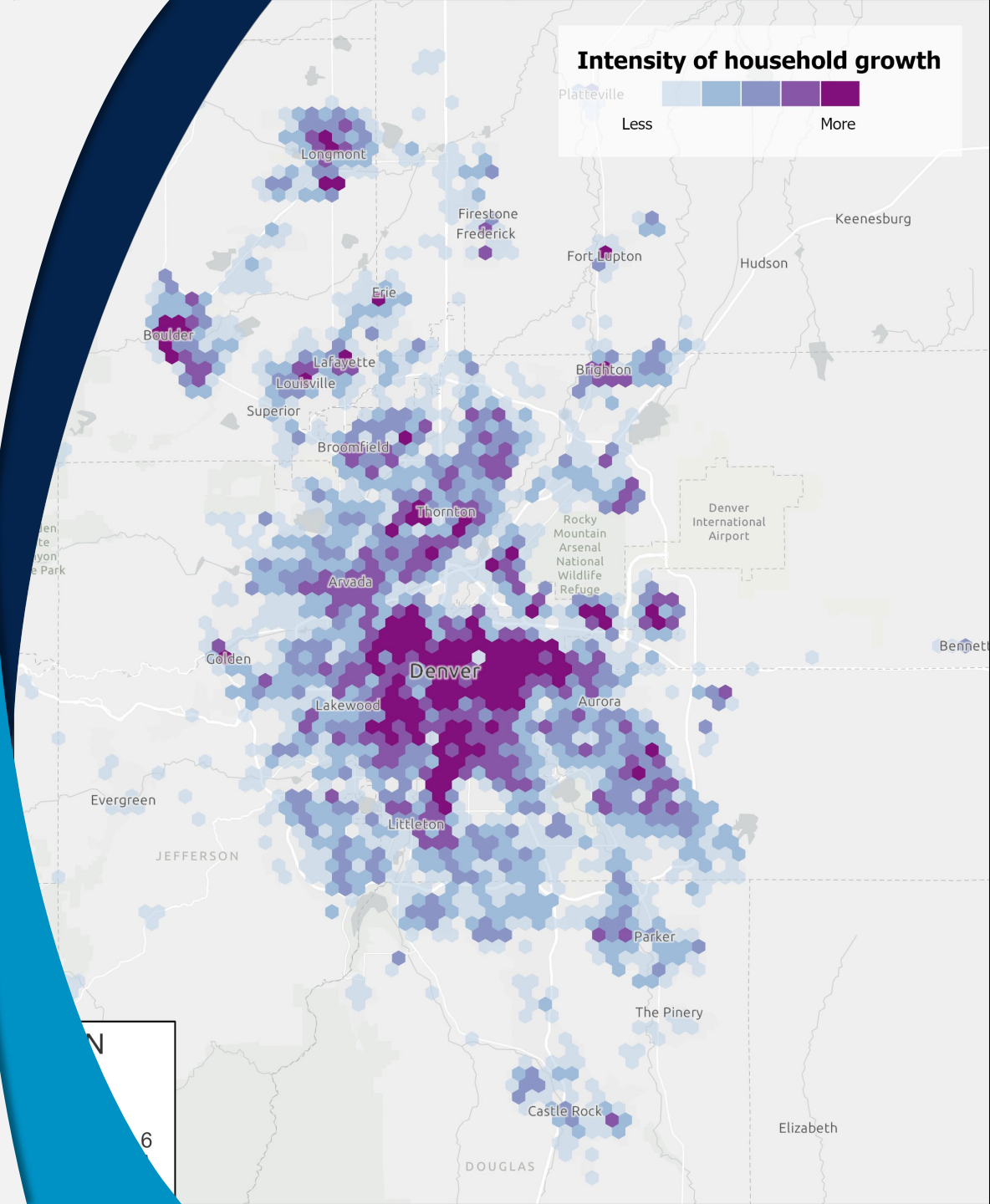
Transit-oriented Communities + additional transit corridors

# Location choice in scenario geographies

Scenario	Geography	2023 share of households	2050 share of households	Share of household growth
Baseline	Transit-focused	26%	27%	31%
Transit-focused	Transit-focused	26%	32%	51%
Baseline	Transit-focused+	35%	36%	38%
Transit-focused+	Transit-focused+	35%	41%	57%

# Baseline

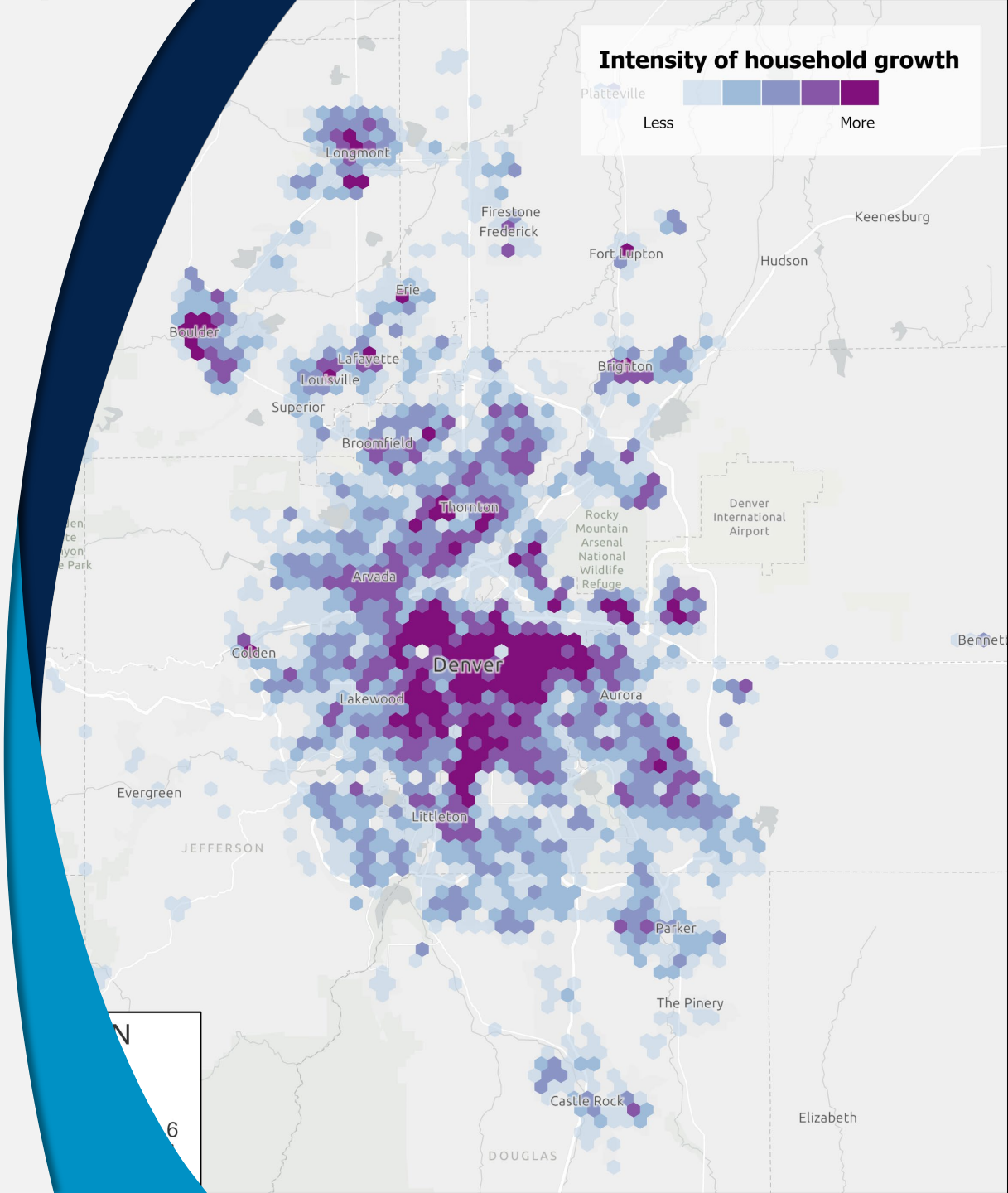
- Based on existing zoning across region.



# Transit-focused

**i** Allow for more residential development in transit-oriented communities.

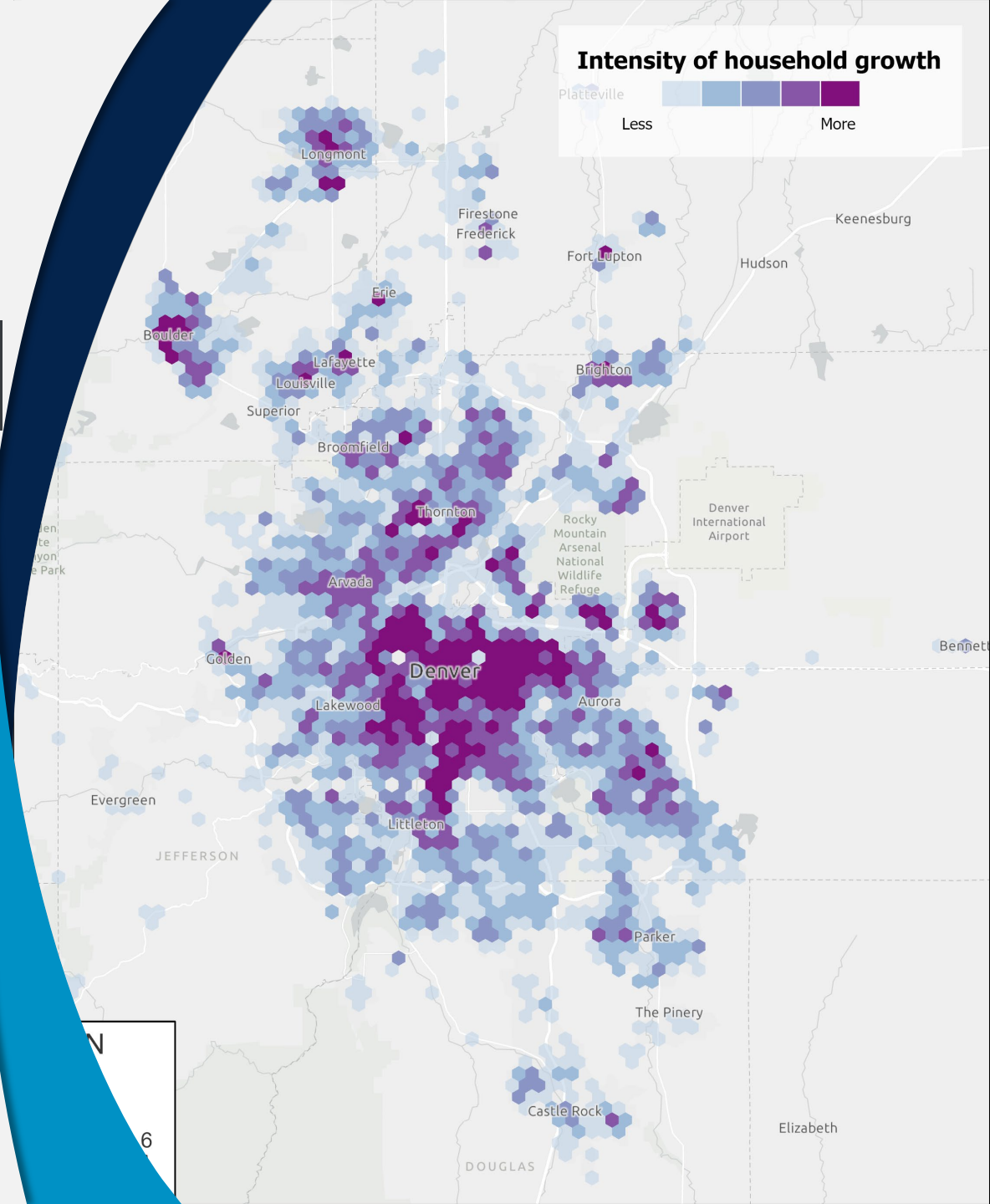
- Transit Oriented Communities **corridors** and **station areas**.
- Increase capacity to **40 dwelling units per acre**.
- Decrease capacity outside Transit Oriented Communities



# Transit-focused +

**i** Allow for more residential development around additional planned transit corridors and stations.

- Transit Oriented Communities **corridors** and **station areas**.
- 2050 RTP **fiscally constrained transit investments**.
- Increase capacity to **40 dwelling units per acre**.
- Decrease capacity outside Transit Oriented Communities, corridors and station areas.



# Metro Vision target comparisons

	Outcome Metric	Baseline	Transit-focused	Transit-focused +	MV Target
<b>Density</b>	Regional population-weighted density	6,418 people per mi. <sup>2</sup>	7,026 people per mi. <sup>2</sup>	6,821 people per mi. <sup>2</sup>	6,063 people per mi. <sup>2</sup>
<b>Urban Centers</b>	Share of total households in urban centers	14.1%	15.5%	15.2%	25%
	Share of total jobs in urban centers	34.1%	34.1%	34.1%	50%

# Additional metrics

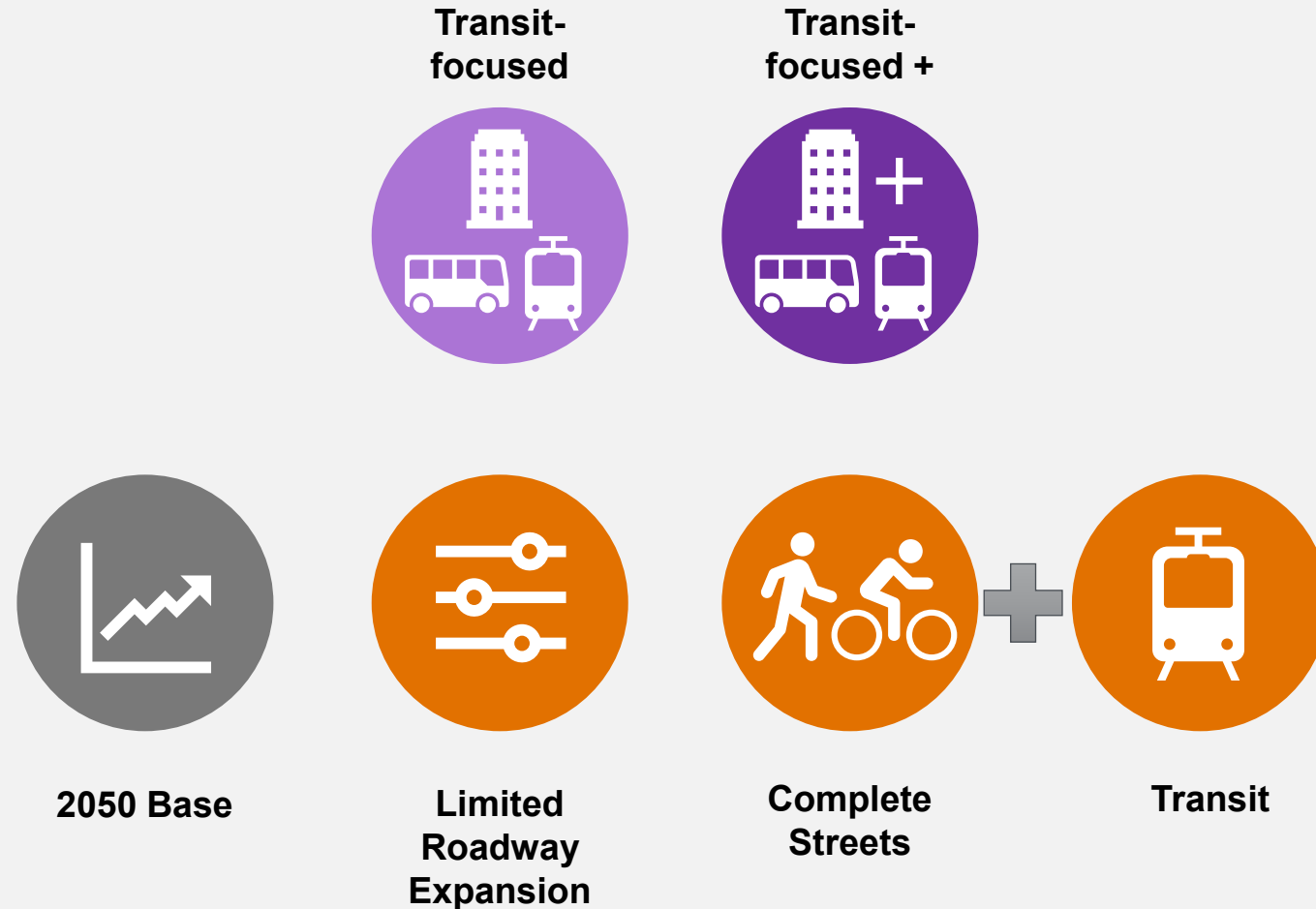
Outcome Metric		2023	Baseline	Transit-focused	Transit-focused +
Share of Households	Lowest range of development intensity (less than 8 hh/acre)	79.8%	74.3%	70.9%	71.0%
	Middle range of development intensity (8 – 29 hh/acre)	17.7%	21.2%	24.3%	24.5%
	Highest range of development intensity (30 hh/acre or more)	2.5%	4.5%	4.8%	4.5%

Outcome Metric		Baseline	Transit-focused	Transit-focused +
Share of Household Growth	Lowest range of development intensity (less than 8 hh/acre)	70.3%	58.1%	59.6%
	Middle range of development intensity (8 – 29 hh/acre)	22.9%	34.5%	33.5%
	Highest range of development intensity (30 hh/acre or more)	6.9%	7.4%	6.9%



# Scenario combinations

# Land use and transportation scenario combinations





# Transit-focused land use outcomes

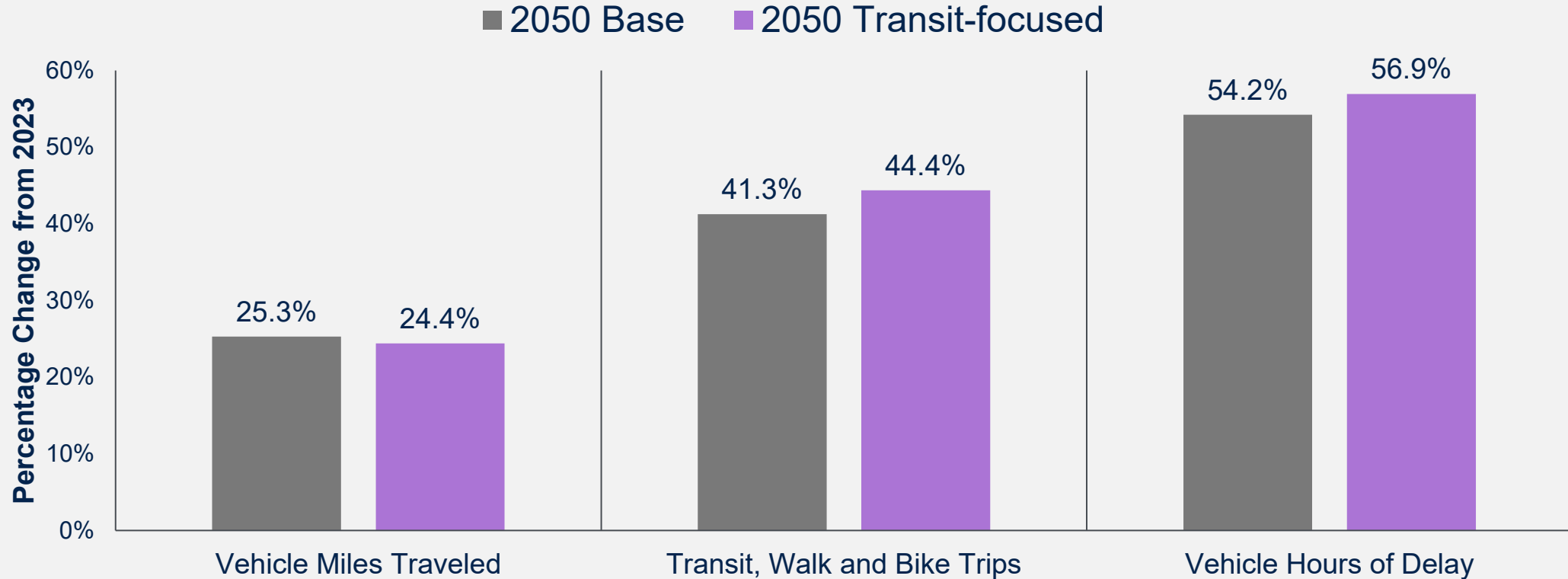
**i** Compared to the 2050 Base

- There was a **10% increase** to the number of households in urban centers.
- The number of jobs in urban centers **dropped very slightly** in reaction to the additional housing.
- Vehicle miles traveled per capita **dropped by about 1%**.



# Transit-focused land use comparison

**i** Compared to the 2023 Base.



# Transit focused land use and Complete Streets transportation scenario



**i** A safe and comfortable transportation network for all modes and users.

- Allow for more residential development around **additional planned transit corridors** and **station areas**.



- Better **active transportation infrastructure** and **more e-bikes** and **e-scooters**.
- **Increasing telecommuting**.
- **Communities are reconnected** by ‘stitching’ across select limited access freeways.

# Transit focused land use and Complete Streets transportation scenario outcomes



**i** Compared to the 2050 Base.

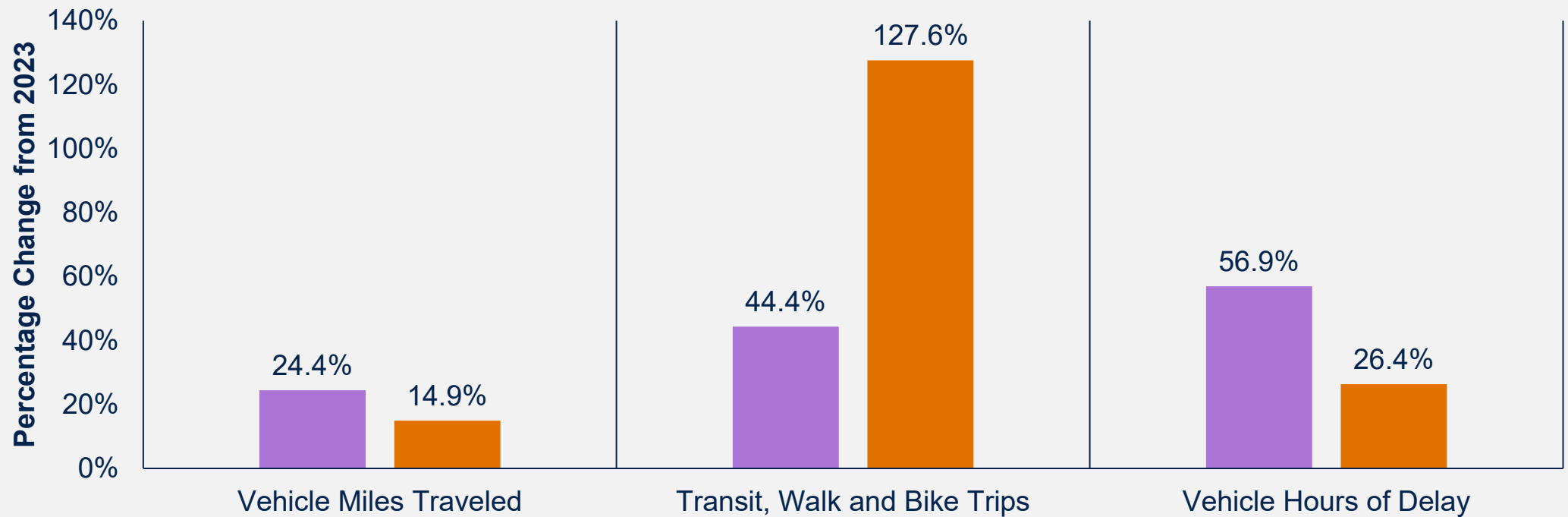
- There was a **45% increase** to telework on the typical weekday.
- Vehicle miles traveled per capita **dropped by 8%**.
- Person miles traveled on transit **increased by 10%**.
- Person miles traveled by walking and biking **increased by about 60%** (about 8% more than with the Base land use).

# Transit focused land use and Complete Streets transportation scenario comparison



**i** Compared to the 2023 Base.

- 2050 Transit-focused, Base Transportation
- 2050 Transit-focused, Complete Streets scenario





# Transit-focused+ land use outcomes

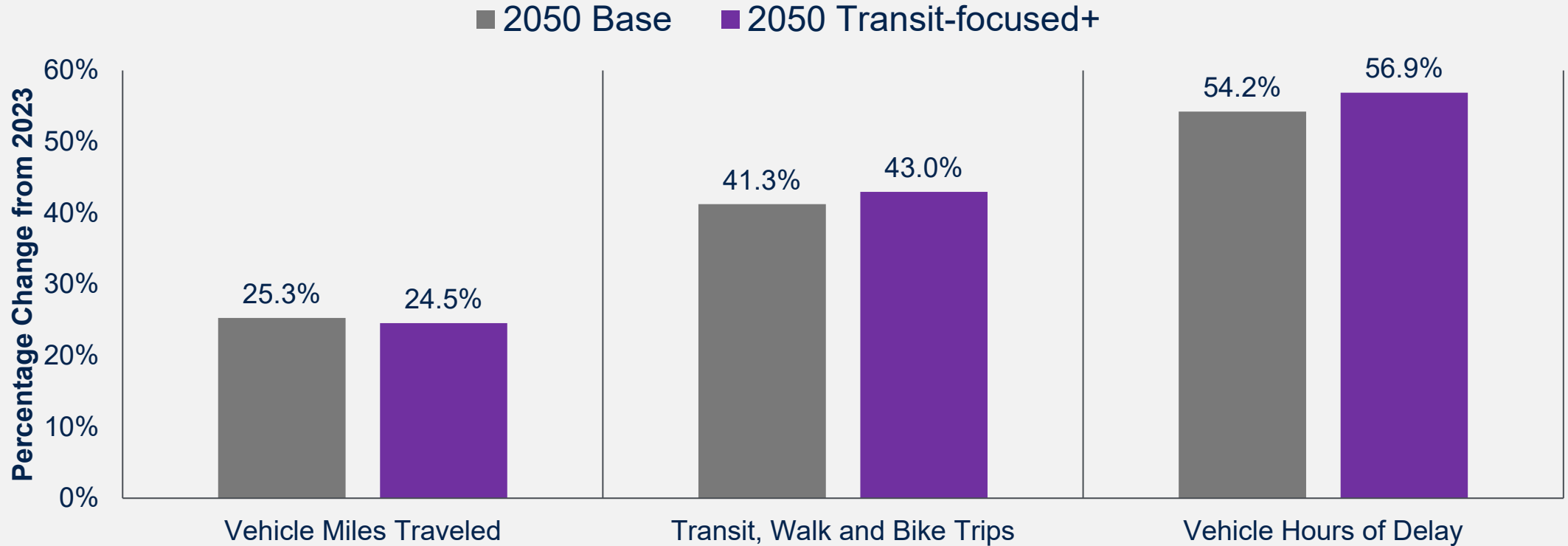
**i** Compared to the 2050 Base.

- **7% increase** in the number of households in urban centers – this is lower than the transit-focused land use as the same amount of housing was distributed across a larger area.
- The number of jobs in urban centers **remains the same** despite additional housing.
- Vehicle miles traveled per capita **dropped by about 1%**.



# Transit-focused+ land use comparison

**i** Compared to the 2023 Base.



# Transit-focused+ land use scenario and Transit transportation scenario



**i** Provide more transit options and expand the region's rapid transit network.

- Allow for more residential development around **additional planned transit corridors** and **station areas**.



- Completion of **FasTracks** and **additional rail**.
- Expanded **bus rapid transit network**, additional **high-frequency transit** corridors, and **increased transit service**.
- Expanded **microtransit** service.
- **Zero fares** and improved **bus stops**.

# Transit-focused+ land use scenario and Transit transportation scenario outcomes



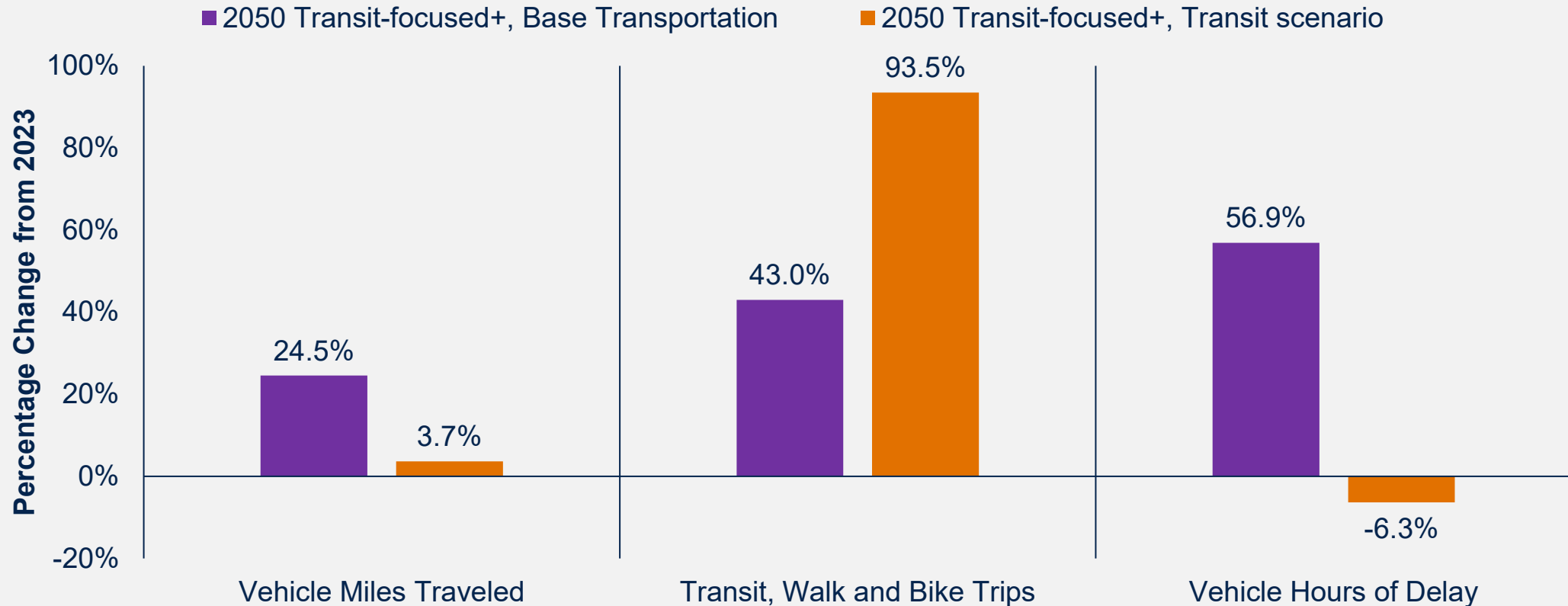
**i** Compared to the 2050 Base.

- There was a **1.8% increase** to telework on the typical weekday.
- Vehicle miles traveled per capita **dropped by 17.5%**.
- Person miles traveled on transit **tripled** (8.7% points more than with the Base land use).
- Person miles traveled by walking and biking **increased by about 14%**.

# Transit-focused+ land use scenario and Transit transportation scenario comparison



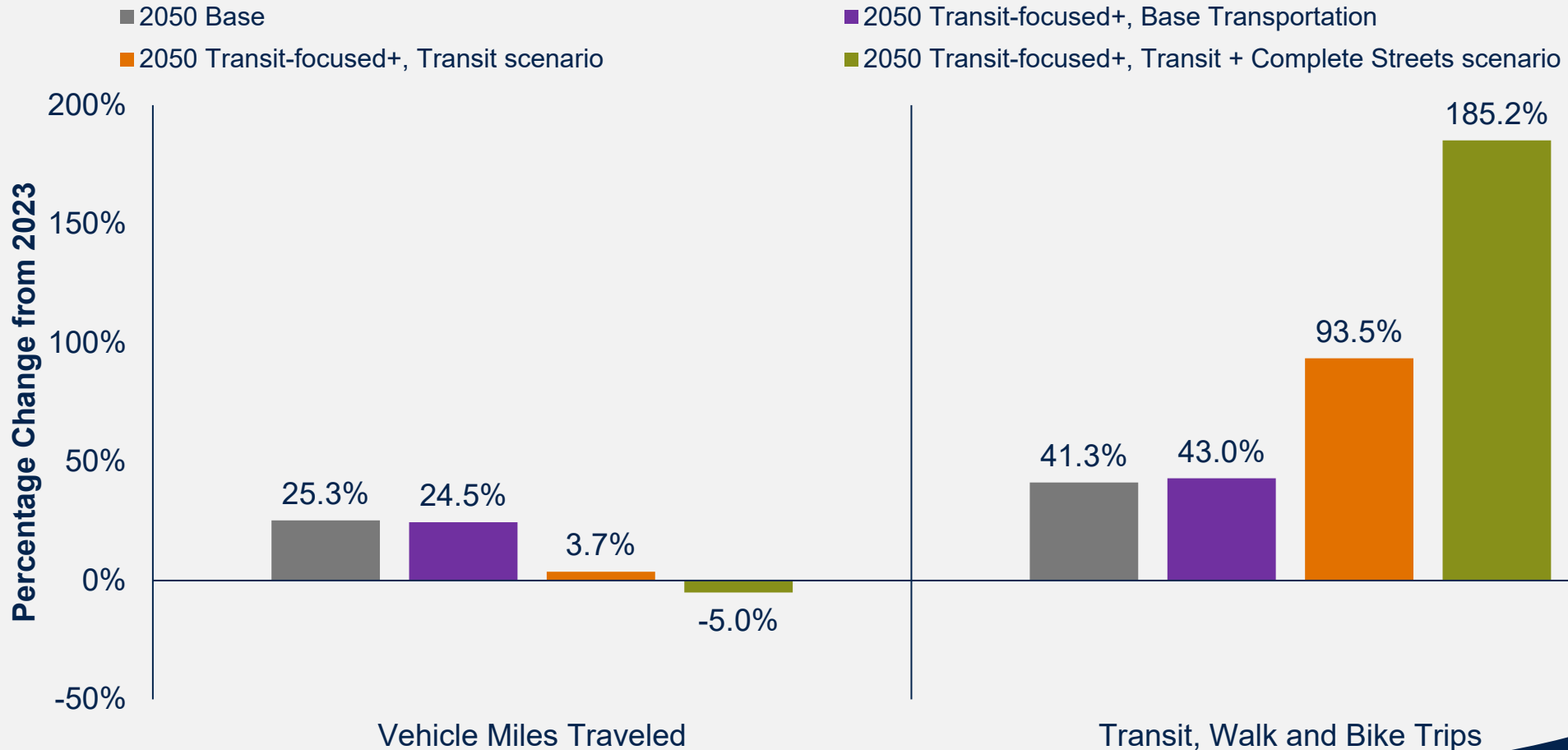
**i** Compared to the 2023 base.



# Scenario comparisons



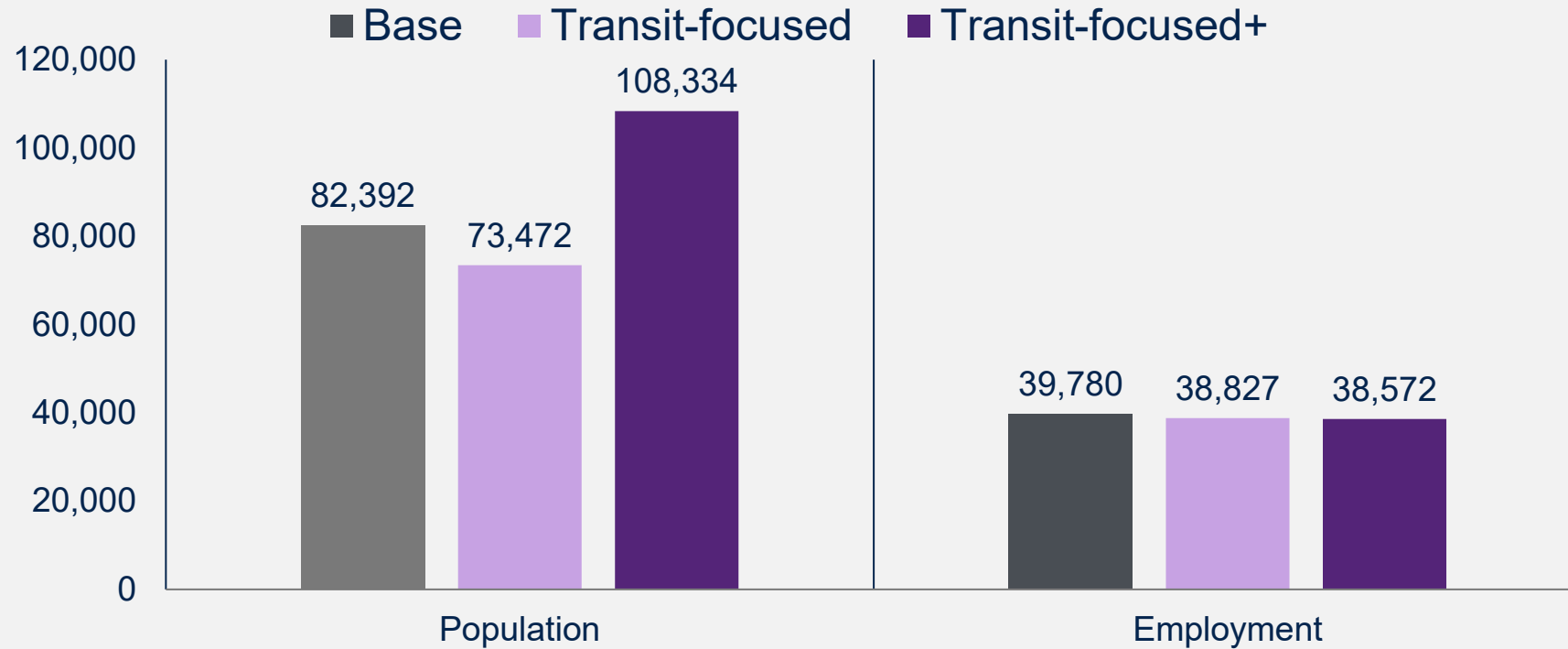
**i** Compared to the 2023 Base.





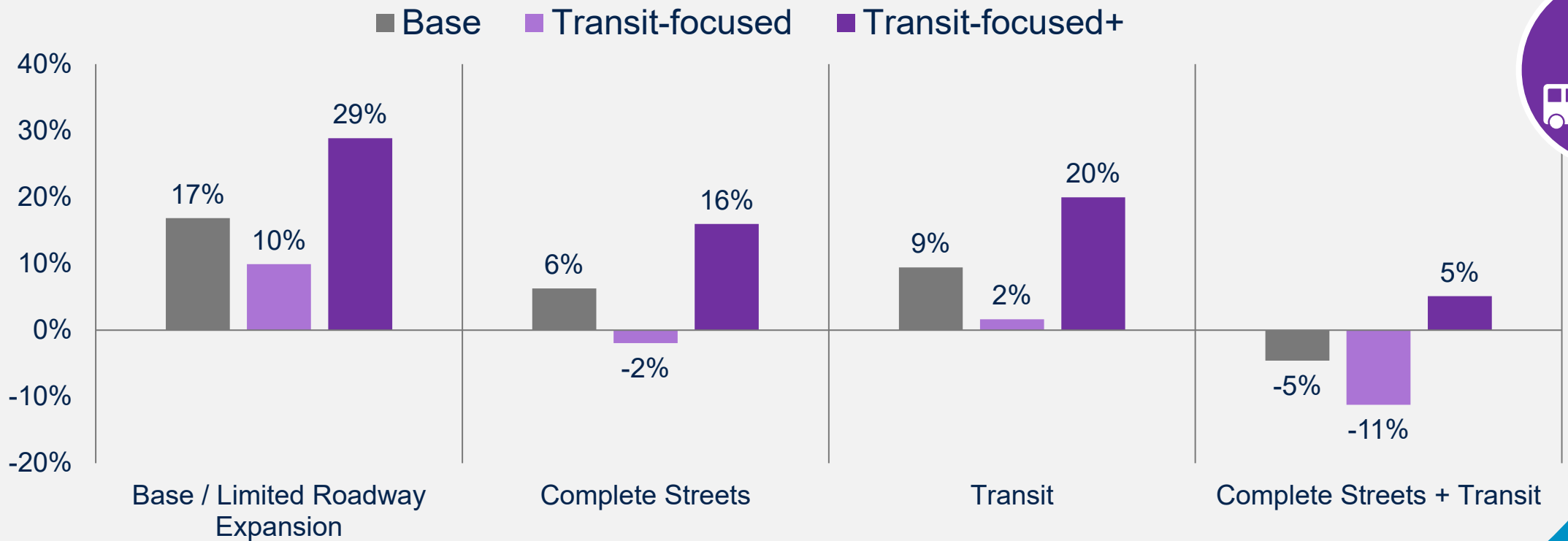
# Potential local impacts

# Select corridor - land use changes



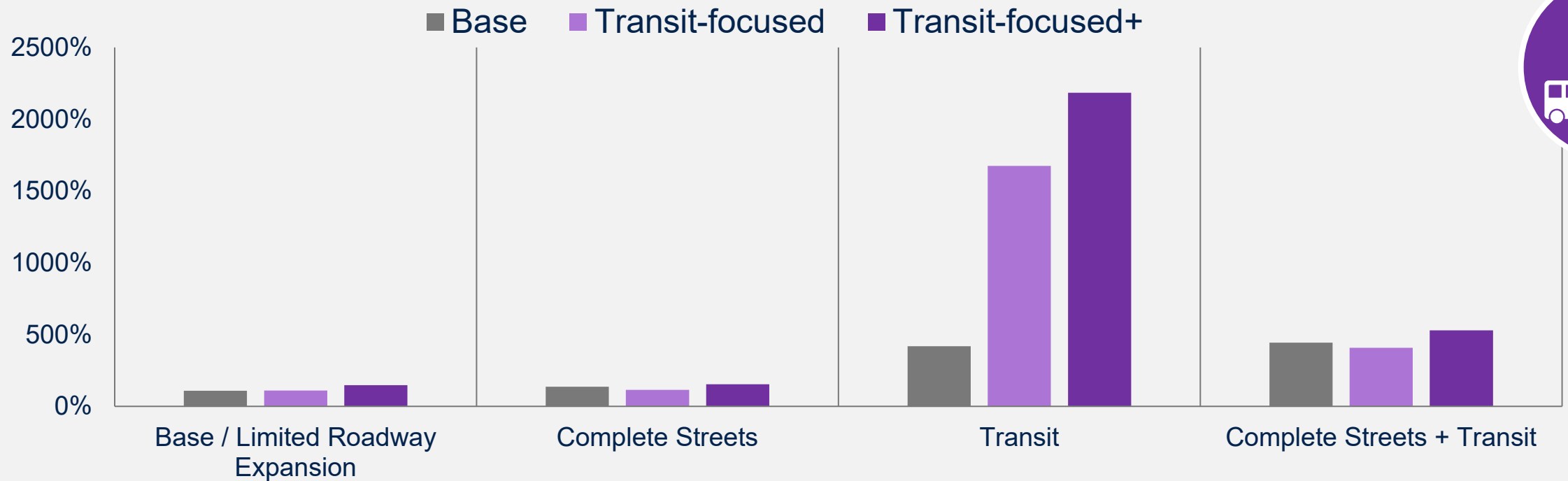
# Select corridor - vehicle trip origins

**i** Compared to the 2023 Base.



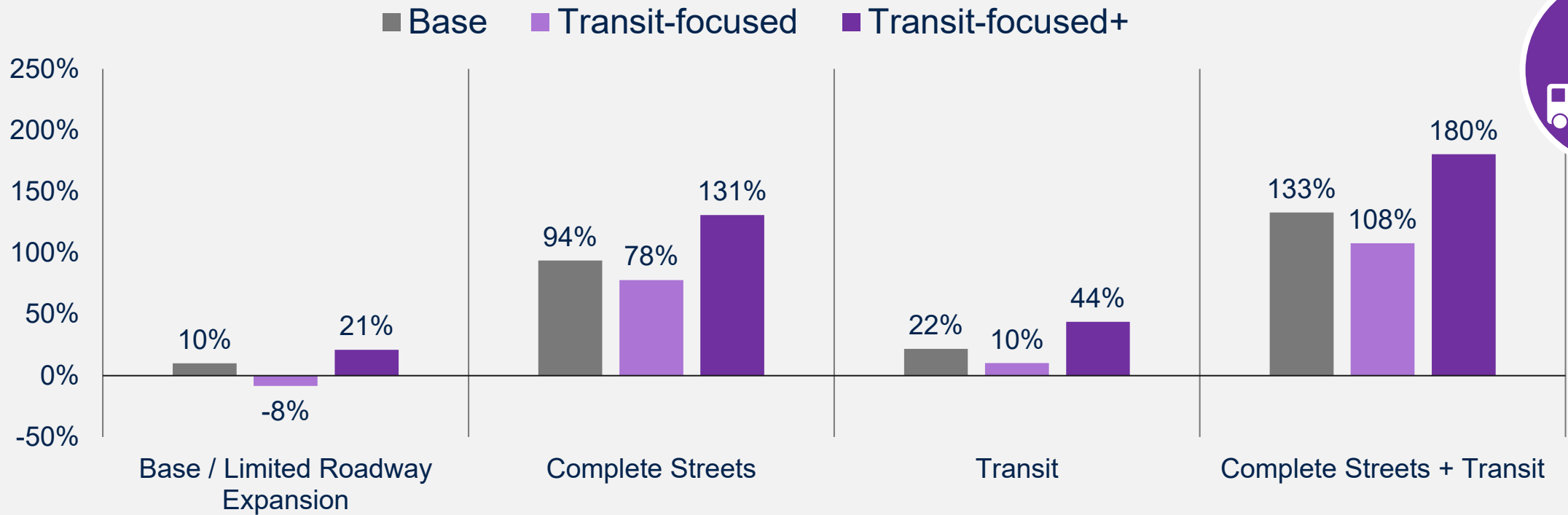
# Select corridor - transit trip origins

**i** Compared to the 2023 Base.



# Select corridor - walking and bicycle trip origins

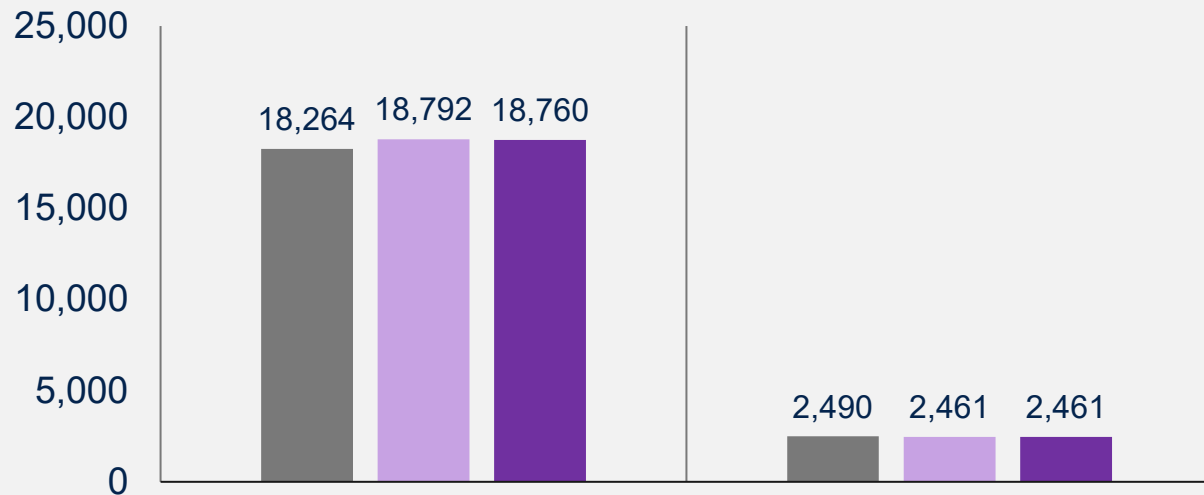
**i** Compared to the 2023 Base.



# Select location – Complete Streets

**i** No significant changes in land use. Community connectivity is restored through a new connection across the highway.

### Households and Employment



**2050  
Base**

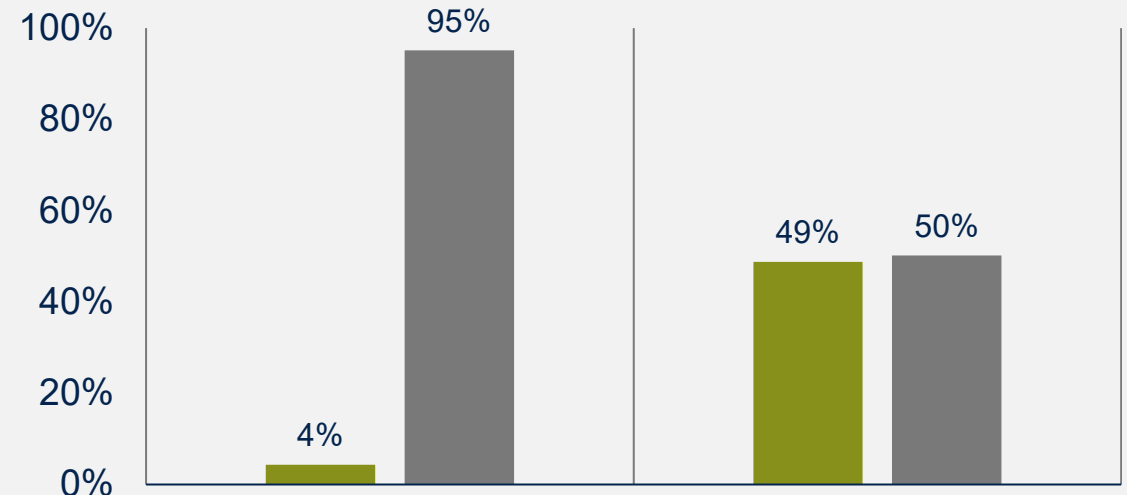


**Transit-  
focused**



**Transit-  
focused +**

### Mode shift



**Walk and  
Bike**



**Auto**

# Microtransit example



Microtransit services extend the reach of RTD's fixed-route transit service and present a convenient option for riders.

- Residents have **more freedom and are better connected** to everyday services like healthcare, grocery stores, laundromats, pharmacies, and schools.
  - Additional 150-250 rides per day.
- Hiring preferences provide **jobs to local residents** who know the community.



# Next steps

- **Develop a report** on this scenario planning effort.
- **Future TAC meeting discussion** on leveraging the results from scenarios:
  - Candidate project identification, evaluation?
  - Financial plan strategies?

# Contact information

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*Manager*  
[jriger@drcog.org](mailto:jriger@drcog.org)

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