Shifting to Neutral:
Equitable Climate Solutions Require Decreasing Auto-Dependency
Recommendations for Michigan's Council on Climate Solutions

Drafted by Megan Owens, Transportation Riders United, comments welcome!
Last updated 8/5 to incorporate Council Transportation VMT workgroup feedback

SUMMARY: **Governor Whitmer committed to build a carbon-neutral Michigan by 2050** and to make major reductions in the next 3-5 years. Her Council on Climate Solutions will help develop the MI Healthy Climate Plan by December 2021.

Transportation is the nation's top source of climate pollution. Renewable energy and vehicle electrification are essential parts of the solution, but they are not sufficient and have environmental downsides. **Providing attractive alternatives that enable people to drive less is one of the best ways to tackle the climate crisis**, while also improving equitable access to jobs, schools, and other necessities.

Core Recommendation: To achieve the state's commitments, **the MI Healthy Climate Plan must improve** the safety, availability, and convenience of **non-driving options** for all Michiganders by shifting transportation funding priorities and policies. This will **decrease the amount people have to drive**, often calculated as Vehicle Miles Traveled (**VMT**).

To guide these investments, the Council on Climate Solutions must **develop targets for reducing VMT that align with the Governor's climate commitments** and the MI Healthy Climate Plan. Transportation projects, plans, and investments by the Michigan Department of Transportation (MDOT) and regional Municipal Planning Organizations (MPOs) must align with those VMT reduction targets. *(recommendations detailed on page 5-7)*

To accomplish this, MDOT and MPOs and other state agencies and local governments must:

1) **Prioritize funding investments that improve transit, walking, and biking or otherwise decrease VMT**, including no longer funding projects that add vehicle capacity;
2) **increase investment in public transit and rail**, including providing municipalities more options for funding transit locally
3) **make walking and biking safe and accessible,** including adjusting engineering standards to prioritize safety over car speed and ensure all state investments provide safe, convenient access for people walking, riding, or rolling; and
4) **increase non-driving options** and create plans to every ten years double the number of people who commute in ways other than driving alone.

In addition, Michigan should take steps to **encourage increased density** and decrease state support for low-density development, since land use and transportation are inextricably bound.

These Climate Solutions will also make Michigan communities more attractive, keep families safe, improve equity, and expand affordable access to the splendors of our State.

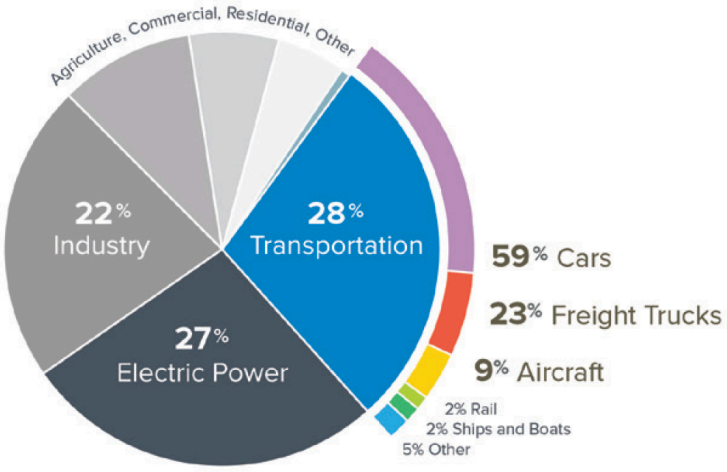
BACKGROUND & CONTEXT

On September 23, 2020, Governor Gretchen Whitmer committed to build a carbon-neutral Michigan by 2050 and make major reductions in the next 3-5 years. She said, “Michigan must be a leader in this fight… to reduce greenhouse gas emissions as quickly as possible.” We applaud that commitment and are eager to help the state achieve these vital goals.

Gov. Whitmer directed the Office of Climate and Energy to develop the MI Healthy Climate Plan to “serve as the action plan for this state to reduce greenhouse gas emissions and transition toward economy-wide carbon neutrality”. The Plan, due by December 31 with a draft due by September 1, will provide strategies and recommendations for achieving the statewide goals, with a focus on the five years.

Transportation is the leading source of climate pollution and is not trending downwards, so decreasing climate emissions from transportation must be a top priority. **Widespread renewable energy and electrification of vehicles are essential components of Michigan’s climate solution, but they are not sufficient**, not as long as Michigan’s transportation system requires most people to drive everywhere and drastically limits many people’s access to jobs and opportunities.

2018 U.S. GHG EMISSIONS BY SECTOR & SOURCE[6]



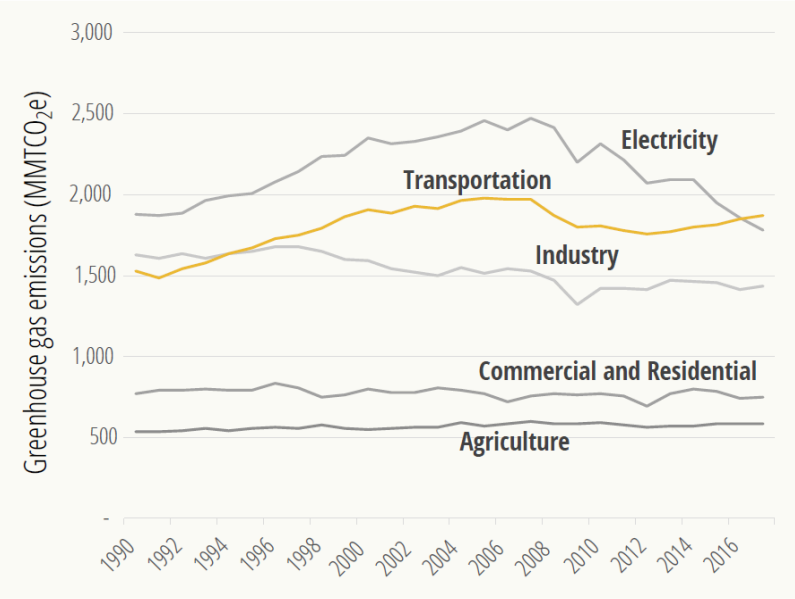
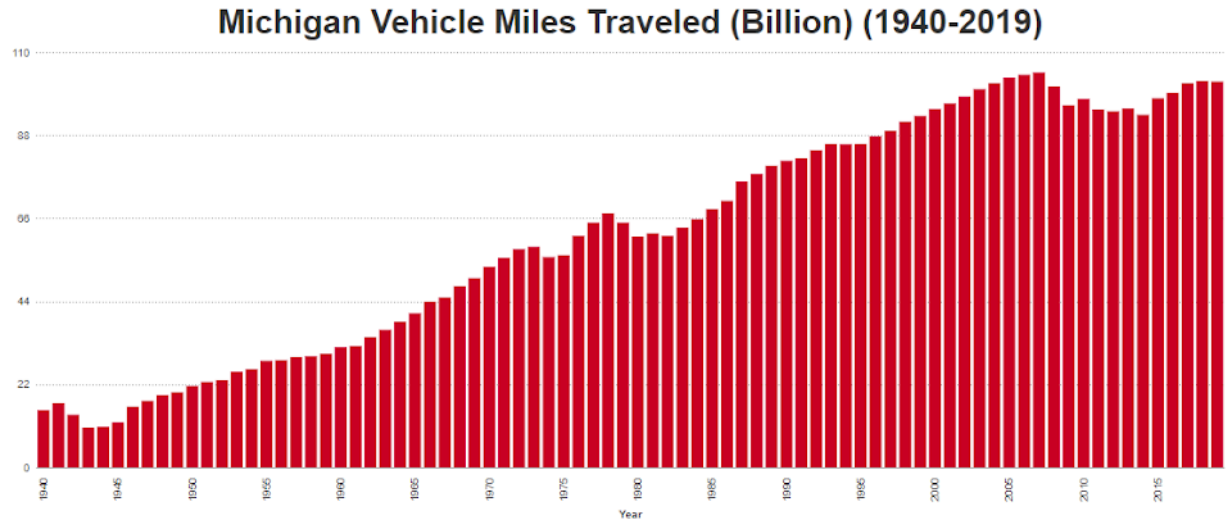


Figure 1. Transportation is now the leading source of greenhouse gas emissions in the U.S.[21]

To fully and fairly address urgent climate needs, Michigan needs to make it possible for residents to drive less - to reduce our state's Vehicle Miles Traveled (VMT). That requires investing in making substantial changes to our transportation system and investing to make non-car alternatives available, accessible, and convenient. Investments in infrastructure that enable people to drive less are more equitable than pricing strategies that could hurt rural Michiganders for existing spatial mismatches.

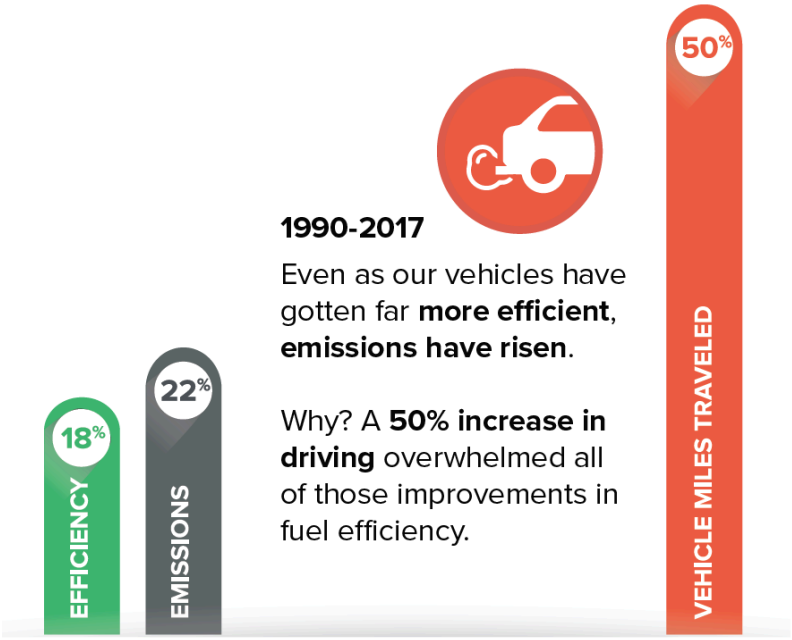


These changes will not only meet essential climate goals, but will make Michigan communities more attractive, keep families safer, improve equity, and expand affordable access to the splendors of our State. The need for decreasing VMTs is well documented.

At the May 25 Council meeting, Rayla Bellis from Smart Growth America summarized findings from their “Driving Down Emissions” report. She noted that VMT increased 50% between 1990-2017, despite vehicles getting more efficient, and that VMT is very closely tied to transportation emissions.

After extensive analysis, another state with a similar climate goal found that “even under the most aggressive scenarios for zero-emission vehicle adoption and a transition to cleaner fuels, **the state simply cannot meet its climate goals relying solely on a shift in transportation technologies**”.

The recommendations below are additional solutions to pair with conversion of our current gas-powered vehicle fleet to electricity in order to meet our climate goals and do it equitably.



Require MDOT to **prioritize investments that decrease VMT** and provide convenient alternatives to driving. *(state administrative action)*

a) The Climate Council should evaluate MDOT's underlying investment prioritization strategy (such as their central focus on pavement quality) and identify ways to incorporate decreasing VMT as a high priority.
b) MDOT should **stop funding roadway "capacity" projects** that add pavement primarily for single occupancy vehicle travel. "Safety" projects, such as adding a turn lane or merge/weave lane, should also be evaluated to determine their impact on VMT.
c) +1MDOT and MPOs should only use CMAQ (federal Congestion Mitigation Air Quality program) **funding for transit, walking, and biking** projects that decrease VMT. Projects that increase VMT (e.g. signal timing, turn lanes) should no longer be eligible for CMAQ funding.
d) Require MDOT to fund the full costs for construction and maintenance of non-motorized and transit lanes and related infrastructure along state roads, not solely the auto lanes.

RECOMMENDATION DETAILS

First and foremost, Michigan must create a plan to improve the availability, safety, and convenience of **alternatives to single-occupancy driving** that will **significantly decrease vehicle miles traveled (VMT).**

Essential action steps to accomplish this include:

2) The Council on Climate Solutions must **develop targets for reducing VMT** in 2025, 2030, 2040, and 2050 that align with the Governor's climate commitments and the MI Healthy Climate Plan. *(largely state administrative actions)*
    a) Those targets could potentially be to return to 2010 levels by 2025, then to decrease by 5% from 2010 level by 2030, by 20% by 2040 and by 30% by 2050. These statewide targets may be met by focusing VMT reductions in urban and suburban areas where existing land use patterns and densities make transit, biking, and walking more readily achievable. Other states are considering 20-50% VMT reduction targets.
    b) **MDOT and MPOs must evaluate** their long range plans, each Transportation Improvement Program (TIP), and each project submitted to the TIP for **how they are projected to affect VMT**. MDOT and MPOs must also re-evaluate projects in current TIPs for VMT impact and alternatives. Projects projected to substantively increase VMT should become ineligible for funding.
    c) MDOT and MPO long-range transportation **plans must meet the state's VMT reduction targets** by only approving and funding projects that will achieve the needed VMT reductions.

d) To ensure **transparency and accountability,** require all VMT evaluations be made public and MDOT to clearly post on their website their VMT reduction targets, work plan, and progress.

3) **Ensure that Michigan residents have access to public transportation that is reliable, frequent, affordable, safe, and well-integrated with local bike and pedestrian infrastructure.***(largely state legislative/budget actions)*
   a) Significantly **increase state investment** in public transit, passenger rail, and active transportation to increase the availability, frequency, accessibility, and reliability of these services
   b) **Increase options for municipalities** to fund public transit locally, including enabling county sales taxes for public transit and eliminating the Headlee amendment *(requires constitutional amendment)*
   c) **Increase frequency of state Amtrak lines** to provide more convenient travel
   d) Fund and implement **new passenger rail service** to Traverse City and Toledo and connecting Grand Rapids, Lansing, and Detroit (or other cross-state transportation services)
   e) Develop a system to **supplement public transit funding** with parking taxes, TNC (like Uber and Lyft) taxes, and other related taxes and fees
   f) Eliminate the constitutional requirement of 90% of fuel tax dollars going to roads and increase transit, rail, and active transportation funding as needed to meet VMT goals *(requires constitutional amendment)*
   g) Remove transit funding opt-out option for municipalities and increase maximum millage time period (Act 196 of 1986)

4) **Make walking and biking safer and more accessible** *(mostly state administrative actions)*
   a) Modify road design and traffic engineering standards to **prioritize safety for all**, including people walking, biking, in wheelchairs, and using public transit, **and access to jobs** and other essentials, including for those without cars
      i) Direct MDOT to change transportation engineering standards to stop measuring success by the speed of car travel (Level Of Service).
      ii) Stop setting speed limits at the 85% percentile of current automotive traffic.
      iii) Adopt and develop a plan to implement the Vision Zero goal of eliminating traffic deaths and serious injuries
      iv) Encourage MDOT to follow NACTO guidance, not just AASHTO guidelines.
   b) MDOT should reevaluate implementation of the Complete Streets law to **ensure all MDOT investments provide safe, convenient access for people walking, riding, or rolling.**

c) **Increase funding dedicated to** safety, complete streets, sidewalk, bikeway and related projects that **increase the safety and convenience of walking, riding**, and rolling, including a grant program that funds local municipalities' projects
    i) Increase funding for protected bike lanes and other infrastructure that improves safety and mobility of travelers outside cars.
    ii) Add to the existing TEDF program a category for projects that improve walking, biking, and rolling *(legislative action)*
d) Encourage pedestrian-only streets or districts and other ways to reallocate roadways for walking, biking, transit, restaurant tables, and other social uses

5) **Increase non-driving options** by requiring MDOT to develop a plan to double the number of people who commute by non-Single Occupancy Vehicle (SOV) modes by 2030 and again by 2040. *(state administrative action)*
    a) MDOT could develop programs with measurable impacts to decrease SOV commuters, such as offering incentives to corporations or local governments to decrease SOV commutes.

While investments in infrastructure that improve the safety and convenience of non-driving modes are critical, the Council on Climate Solutions may also want to consider **cost considerations**:

1) Consider a VMT tax for electric vehicles, as a means to garner some revenue from EVs without creating disincentives to EV adoption or eliminating the gas tax
2) Explore enabling pay-as-you-drive insurance
3) Evaluate the equity impact of the gas tax and explore ways to minimize harm to low-income drivers while discouraging GHG-producing driving

A shift in transportation investment priorities is essential, but alone may not be sufficient to drive VMT and GHG reduction goals. The Council on Climate Solutions also needs to identify ways for the State of Michigan to **encourage greater density**, so people don't have to drive so far to reach essential destinations.

1) Michigan should **stop subsidizing low-density development** and require such developments to fully pay their own full costs, including those of expanded road, transit, water, sewer, police, fire, schools, and other public infrastructure.
2) Explore how to incentive or possibly require development of schools, health care, and state supported buildings to be built in areas with existing infrastructure
3) Explore how to incentivize and otherwise encourage development of essential services in areas that lack things like banks, groceries, health care

Additional ideas that have been suggested for inclusion or consideration by the Mobility Workgroup include:

- Modify ACT 51 to prioritize wholistic mobility instead of focusing funding on centerline miles
- Require all charging stations to include charging and parking options for e-bikes and personal mobility devices.

- Help MDOT figure out how to better count and quantify use and quality of transit, bikes, pedestrians, wheelchair/scooters
- Add enforcement for reckless driving/parking and education funding
- Emphasize context-sensitive design, acknowledge small-town/rural issues
- Address in economic equity analysis that MPOs do
- Prioritize public funding to go to public projects that provide the greatest public benefit (note: some private entities like TNCs ignore ADA)
- Require all Michigan fuel pumps display a warning label that the use of fossil fuels contributes to climate change.

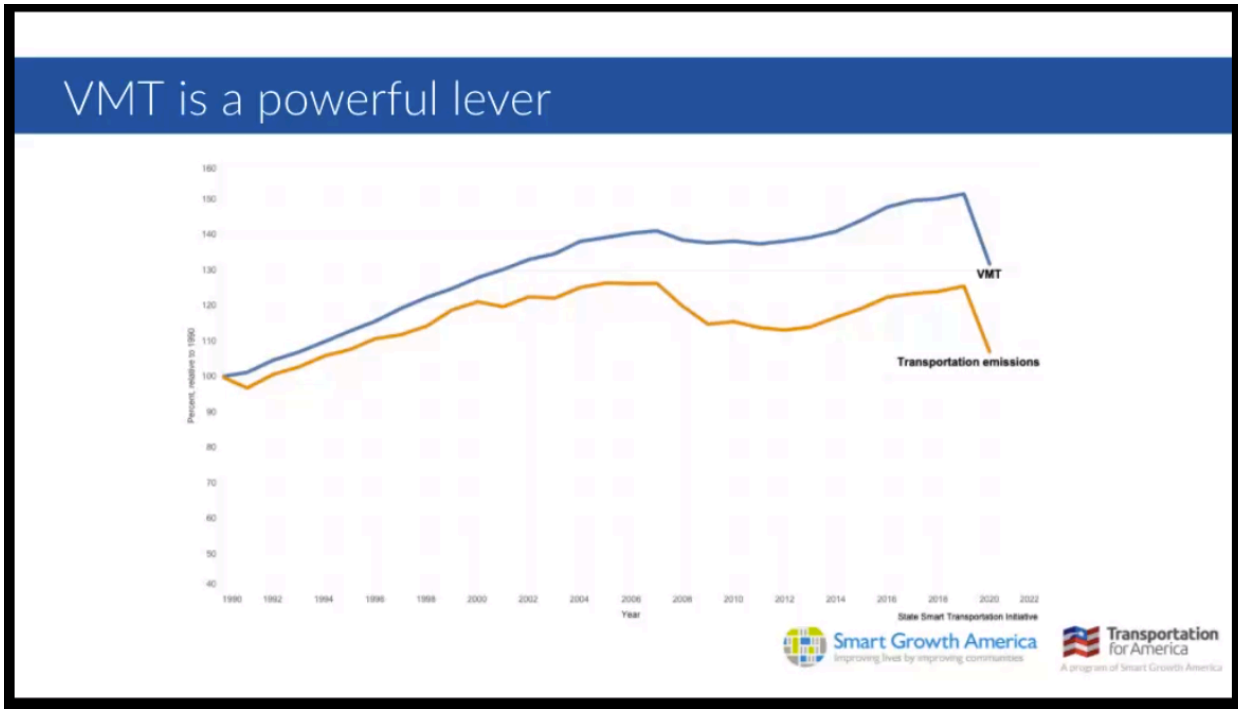
Please note, these recommendations focus primarily on passenger transportation. Freight transportation and goods delivery must also be addressed in the MI Healthy Climate plan. Hopefully others will provide substantive recommendations to address those important areas.

COSTS, BENEFITS, AND IMPACTS OF THESE RECOMMENDATIONS

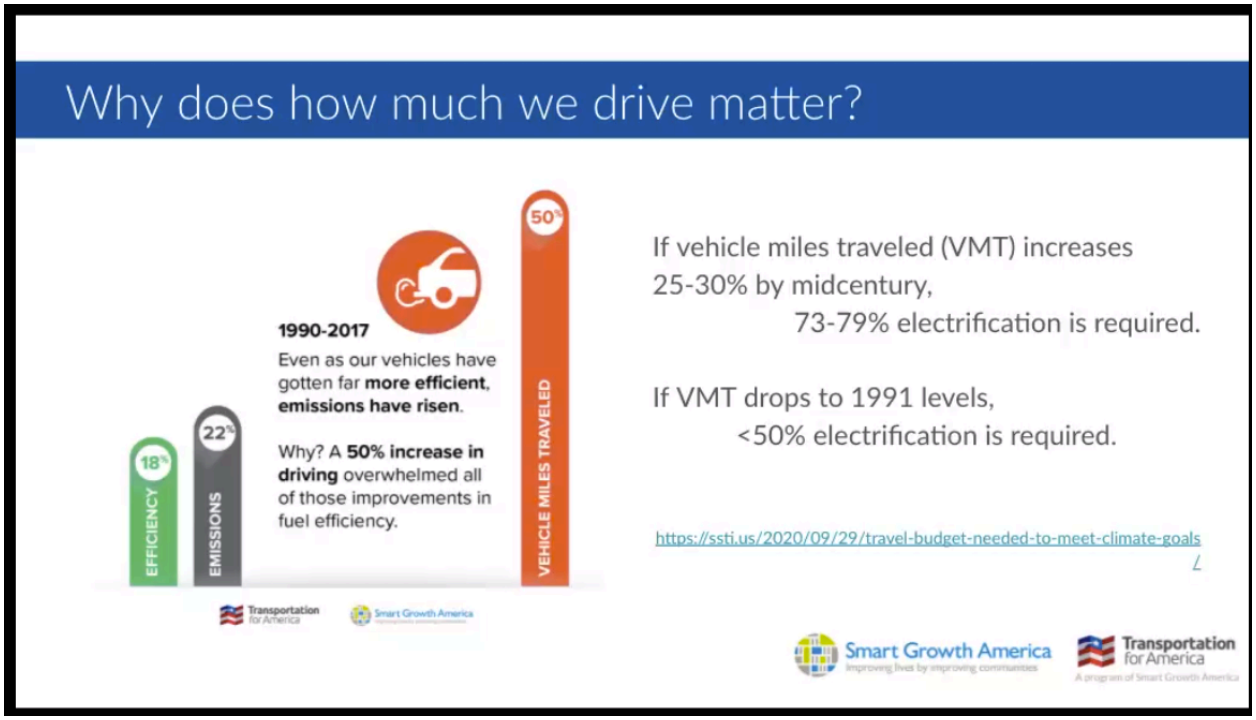
Could decrease future road maintenance costs...

Adding pavement is a huge contributor of GHGs thanks to the mining/manufacturing process and the stripping of land and other natural resources to actually mine/lay pavement.

It works. VMT is directly correlated with the amount of GHG emissions from the transportation sector:

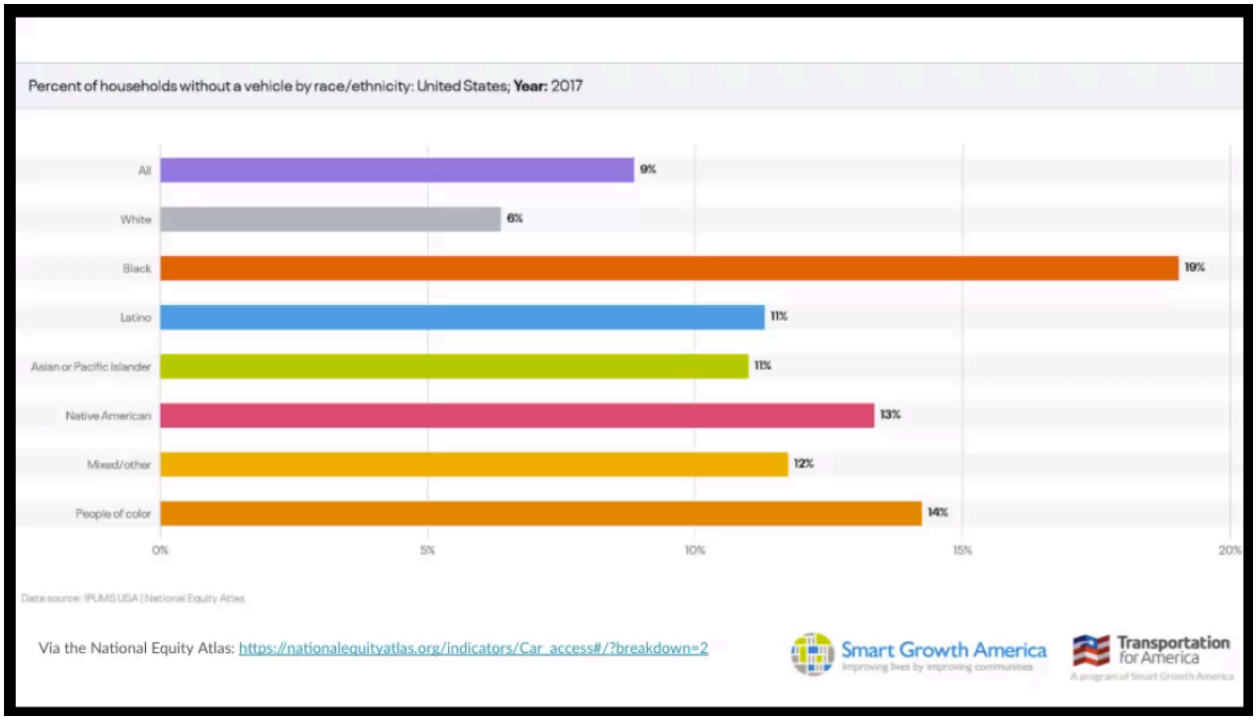


It's necessary.



It's possible. More than half of auto trips are under six miles long and 35% are under two miles long. With safe infrastructure, many of those could comfortably be walking, biking, or transit trips.

Equity - Expanding public transit and increasing street safety are especially important to people of color, who are more than twice as likely as white households to not have a vehicle.


Percent of households without a vehicle by race/ethnicity: United States; Year: 2017
All
White
Black
Latino
Asian or Pacific Islander
Native American
Mixed/other
People of color
9%
6%
19%
11%
11%
13%
12%
14%
0%
5%
10%
15%
20%
Data source: IPUMS USA | National Equity Atlas
Via the National Equity Atlas: https://nationalequityatlas.org/indicators/Car_access#/?breakdown=2
Smart Growth America
Improving lives by improving communities
Transportation for America
A program of Smart Growth America

Template for MI Council on Climate Solutions Recommendations

*1. **Overview** of recommendation (250 word limit).*
*2. In what **timeframe** is this recommendation achievable? (by what date or multi-step)*
*3. What is the relative **magnitude** of this recommendation, in terms of **GHG emissions** reductions? (# of metric tons of CO2 equivalent per year and by what year)*
*4. Describe the potential **impacts** of this recommendation on **environmental justice**.*
*5. Describe the potential impacts of this recommendation on **labor**.*
*6. Describe the potential impacts of this recommendation on the **environment**.*
*7. Describe the potential impacts of this recommendation on **economic development**.*
*8. What are the relative **costs** of this recommendation? ($# per year; $# total by 2050)*
*9. **Who** is empowered to implement this recommendation (local, state, federal govt, private)*
*10. Is there **consensus** among the subgroup for this recommendation, or are there differing perspectives? If differing perspectives, what are they?*
*11. What are the most important **considerations** for **achievability** and **feasibility** of this recommendation?*