



Smart Growth America

Improving lives by improving communities



**Transportation
for America**

A program of Smart Growth America

Driving Down Emissions

Michigan Council on Climate Solutions

May 25, 2021



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National Complete
Streets Coalition



State
Smart Transportation
Initiative
Practical Solutions to Move America Forward

LOCUS



GOVERNORS'
INSTITUTE
on community design

FBCI Form-Based
Codes Institute

“We envision a country where no matter where you live, or who you are, you can enjoy living in a place that is healthy, prosperous, and resilient.”



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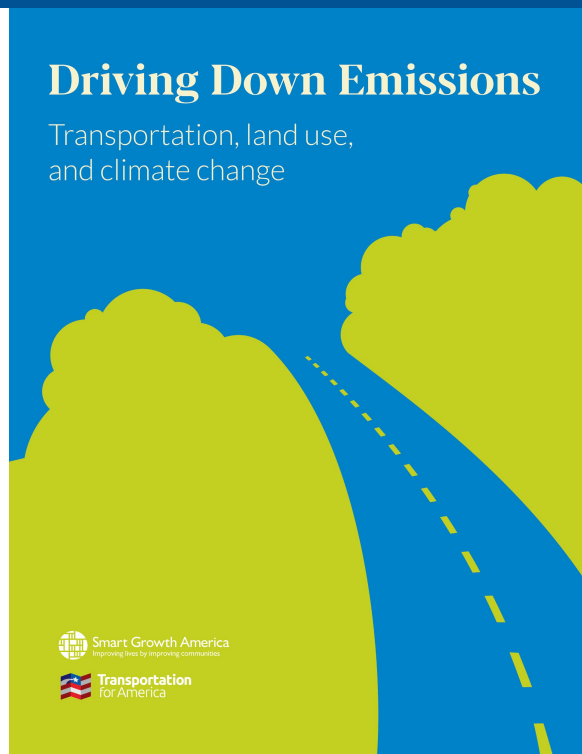
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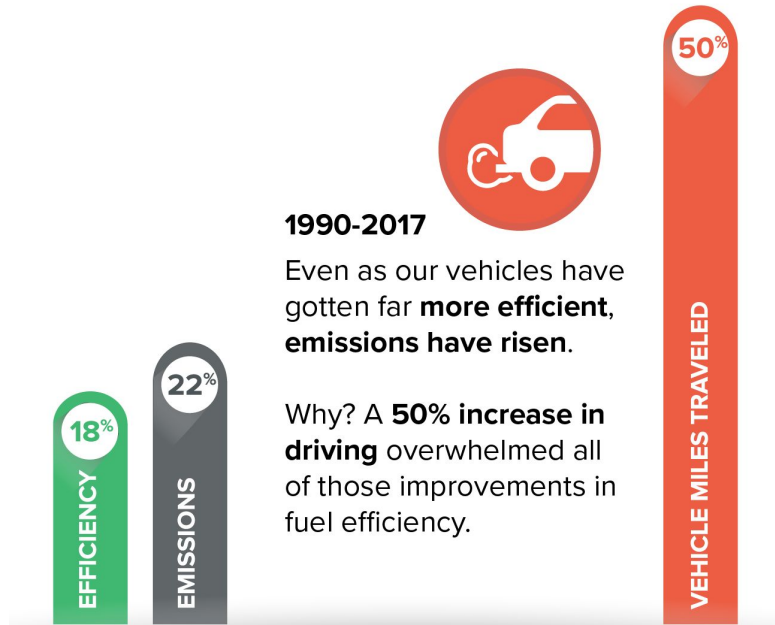
Driving Down Emissions report

Download *Driving Down Emissions*:

t4america.org/maps-tools/driving-down-emissions/



Why does how much we drive matter?



1990-2017

Even as our vehicles have gotten far **more efficient**, **emissions have risen**.

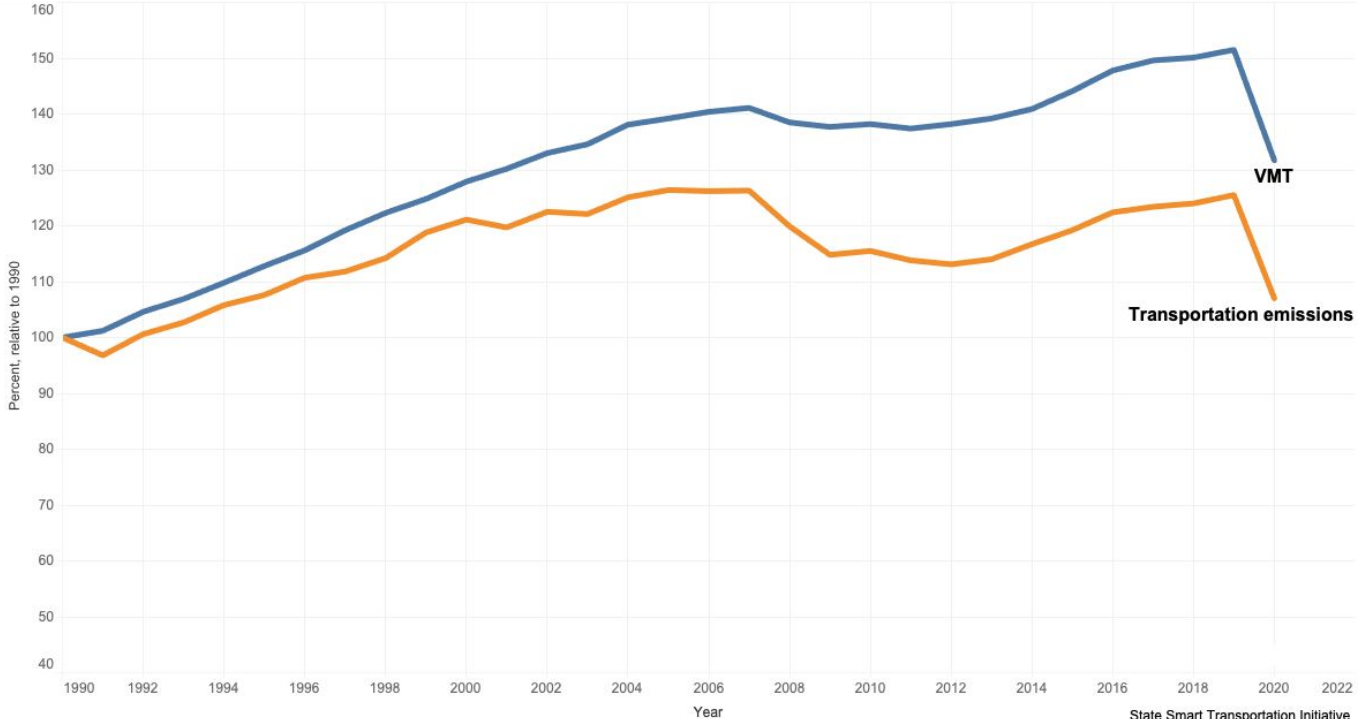
Why? A **50% increase in driving** overwhelmed all of those improvements in fuel efficiency.

If vehicle miles traveled (VMT) increases 25-30% by midcentury, 73-79% electrification is required.

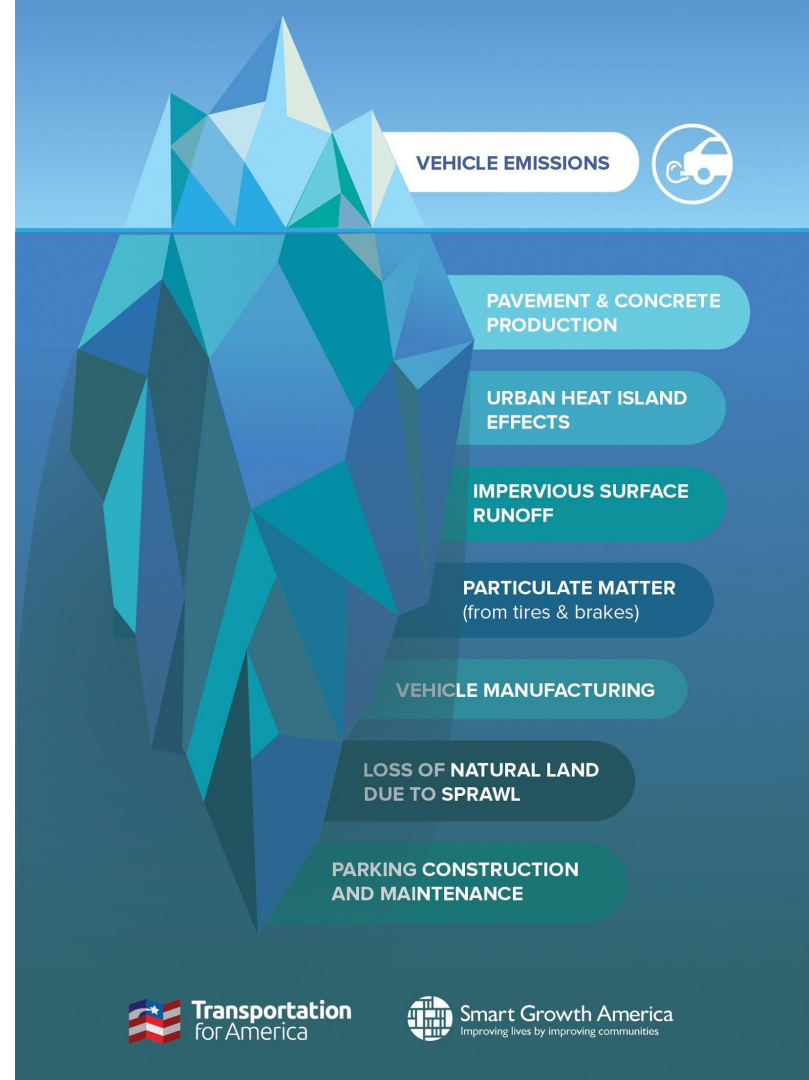
If VMT drops to 1991 levels, <50% electrification is required.

<https://ssti.us/2020/09/29/travel-budget-needed-to-meet-climate-goals/>

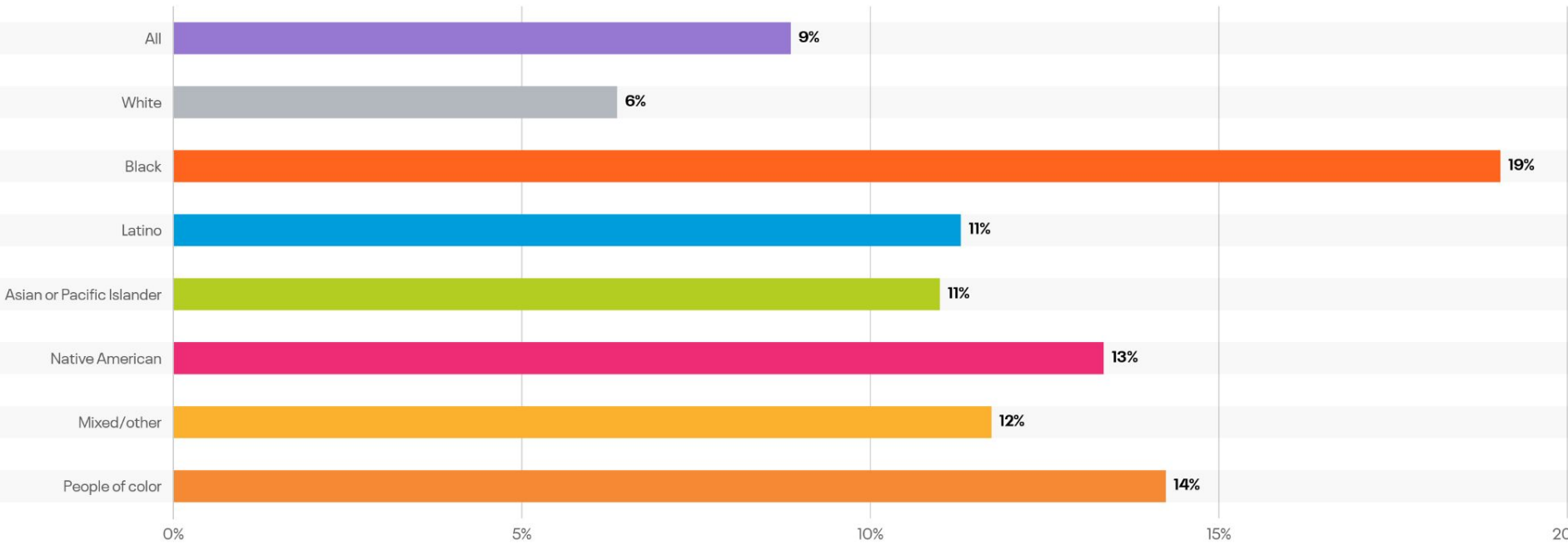
VMT is a powerful lever



We need electric vehicles AND other solutions



Percent of households without a vehicle by race/ethnicity: United States; Year: 2017



Data source: IPUMS USA | National Equity Atlas

Via the National Equity Atlas: https://nationalequityatlas.org/indicators/Car_access#/?breakdown=2



Reducing VMT and making shared mobility possible



Clustered development allows drivers to take fewer, shorter trips

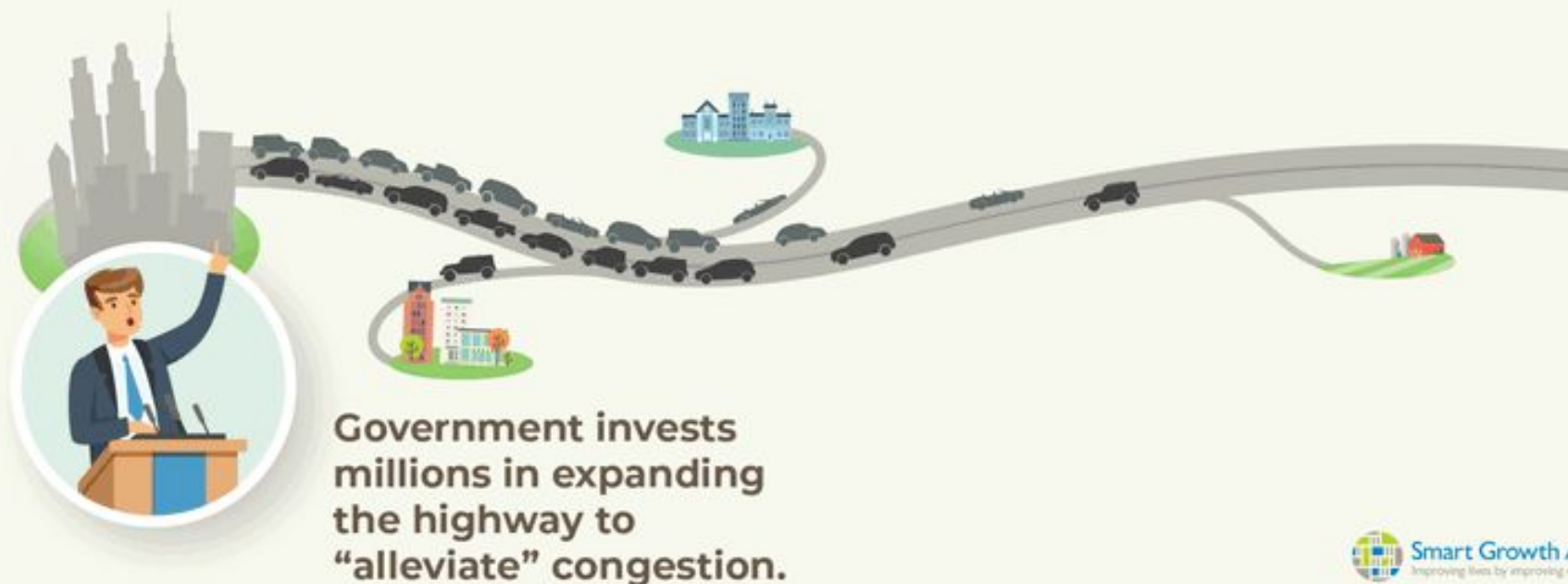


Sprawling development requires drivers to take more trips—and longer trips

More highways, more driving, more emissions

Induced demand

How highway expansion actually creates more traffic



Building new road capacity

Freeway capacity grew faster than population, yet delay exploded



42%



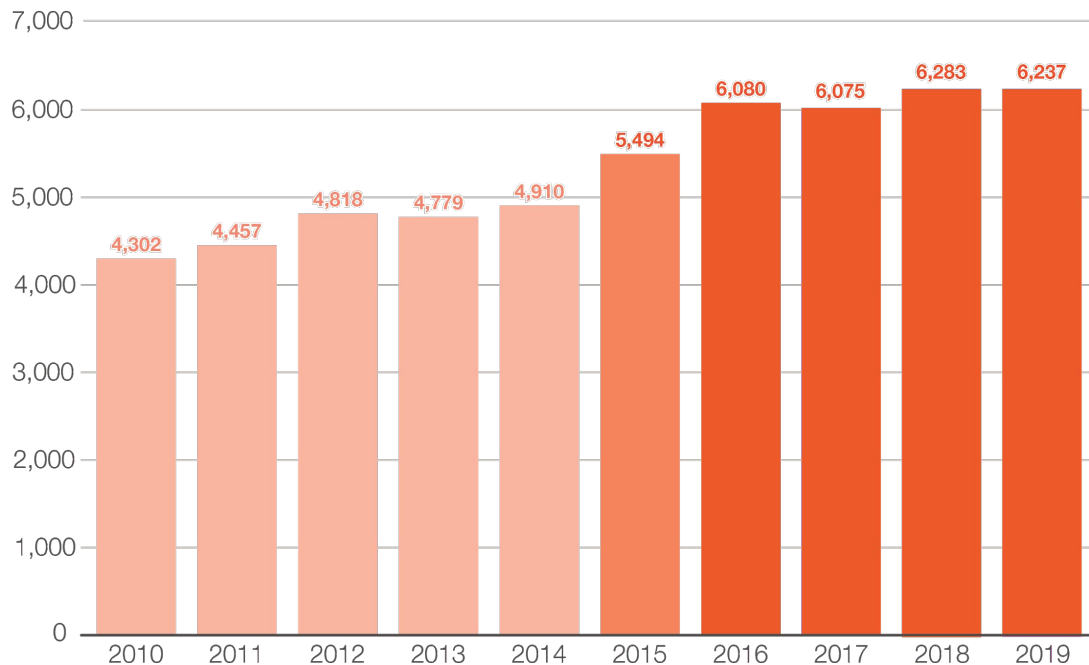
32%



144%

Change in freeway lane-miles, population growth, and annual hours of delay in the largest 100 urbanized areas from 1993-2017. Delay is defined as extra time spent traveling at congested rather than free-flow speeds. While FHWA only provides data on lane-miles of freeway, TTI's delay metrics capture both freeways and arterial roads.

2010-2019: historic increase in fatalities



- **45 percent** increase in people struck and killed while walking.
- **53,435** people were hit and killed by drivers.
- **It is trending worse almost everywhere:** Since our 2019 report **49/50** states and **84/100** metro areas got worse.

Nearly 50 percent of all driving trips in the U.S. are three miles or less



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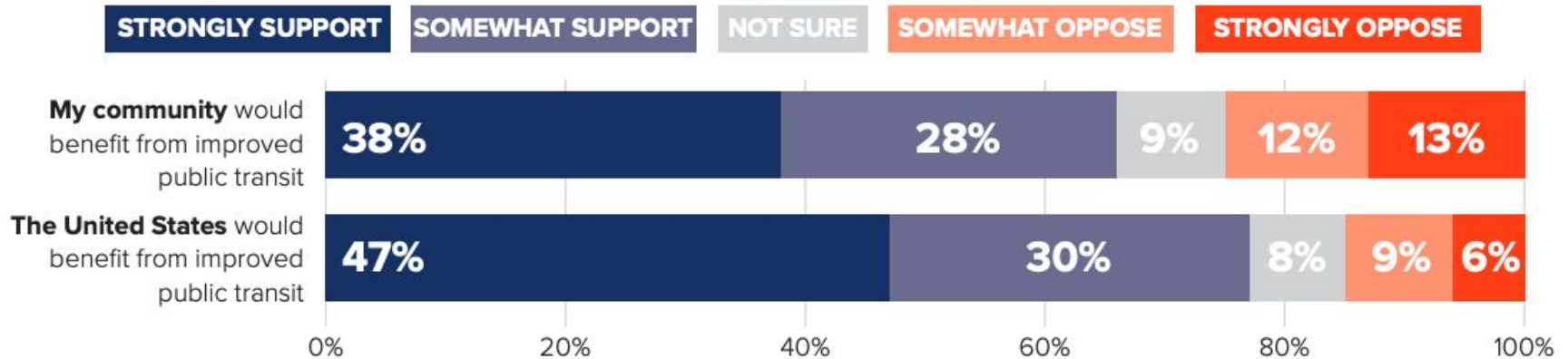


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Voters want better transit

IMPROVING PUBLIC TRANSIT the US v. my community



Among those who reported a car was their primary mode of transportation, about 80 percent reported agreeing with the statement they have “no choice” but to drive as much as they do.

How to drive down emissions

- Institute GHG and VMT reduction as goals of the transportation system
- Measure access to destinations instead of vehicle delay in transportation decisions
- Provide more (and more affordable housing) in areas where people can take trips outside a car
- Make streets safer to encourage more short trips and invest heavily in transit

State findings

- **California** found that in addition to its aggressive EV adoption and fuel standards, every person in the state would need drive 1.6 fewer miles per day to reach its 2030 climate target.
- **Hawaii** found that it will need to reduce its VMT through improved transit, walking, and biking to meet climate goals.
- **Minnesota** found that the state will need to reduce driving to reach its climate targets, even as they work to increase the adoption of EVs.