Reducing the Need to Drive Is a Win for Both Climate Change and Quality of Life

Tim Evans

New Jersey Future

PA DEP Climate Change Advisory Committee Meeting February 22, 2022





Our mission:

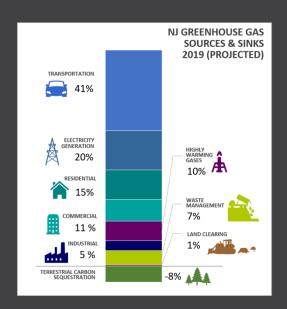
Founded in 1987, New Jersey Future is a nonprofit, nonpartisan organization that promotes sensible and equitable growth, redevelopment, and infrastructure investments to foster healthy, strong, resilient communities; protect natural lands and waterways; increase transportation choices beyond cars; provide access to safe, affordable, and aging-friendly neighborhoods; and fuel a strong economy for everyone. New Jersey Future does this through original research, innovative policy development, coalition-building, advocacy, and hands-on strategic assistance. Embracing differences and advancing fairness is central to New Jersey Future's mission and operations. New Jersey Future is firmly committed to pursuing greater justice, equity, diversity, and inclusion through its programs, internal operations, and external communications.

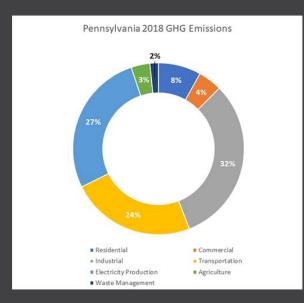


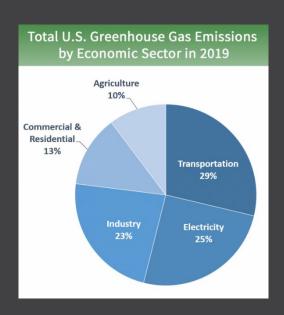




Transportation: Our GHG Achilles Heel







Transportation sector's contribution to total greenhouse gas emissions:

New Jersey: 41% [source: NJDEP Greenhouse Gas Emissions Inventory]

Pennsylvania: 24% [source: PA DEP Pennsylvania Greenhouse Gas Inventory]

US: 29% [source: US EPA]



Solution: Electrify everything!









EVs alone won't get us to our GHG reduction goals

Even if every single car were electric by 2030, and all production was carbon neutral (which isn't possible), we would only reduce global emissions somewhere between 15–20 percent — far short of the estimated 55 percent we need to cut. While the reduction would be greater in the U.S. as transportation comprises a higher proportion of our emissions than at a global level, it still isn't enough. Carbon emissions care little for international borders.

STREETS**BLOG** USA

Bicycling / Walking / Transit / Car Culture / Micromobility / Mobility Justice / COVID-19

Electric Vehicles Won't Save Us



Image: Karlis Dambrans via Creative Commons



Decarbonizing Driving vs. Driving Less





GHG emissions per mile

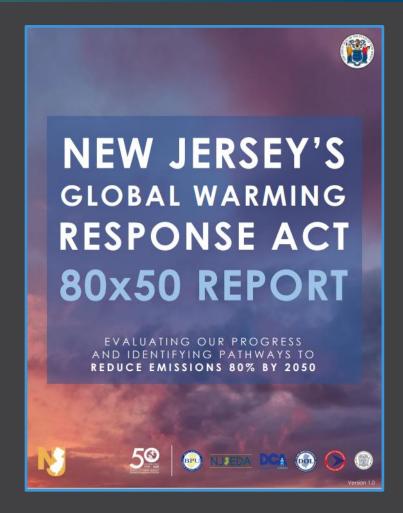


total vehicle miles traveled (VMT)



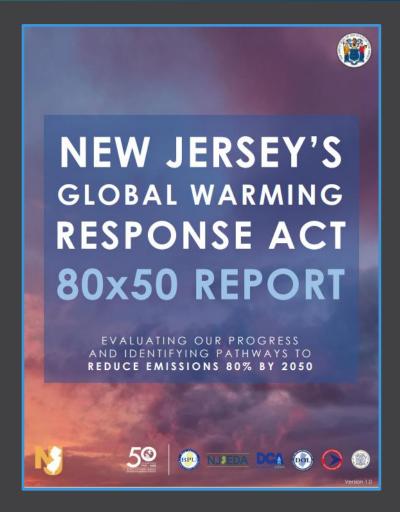
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"During the early years of building the market for electric vehicle adoption in New Jersey, the state should rely on meeting emission goals through VMT reduction strategies. Policymakers should focus on increasing public ridership of transit through the expansion of transportation options in heavily trafficked corridors of the state. Better coordination of transportation planning and land use, through transitoriented development and complete streets would also serve to reduce VMT. This, combined with expanding participation in work-from-home and flexible work hour programs, would help reduce the number of single passenger vehicle trips."



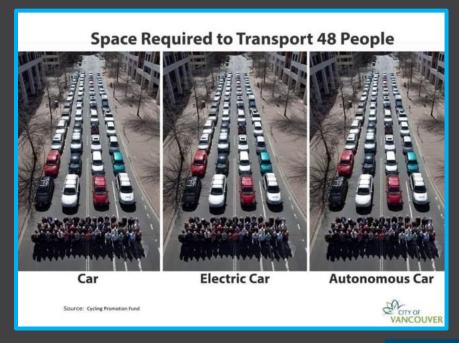
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"Co-Benefits"* of Driving Less

- Less congestion
- Fewer taxpayer \$\$ to expand road network
- Less wear and tear on roads
- More free time





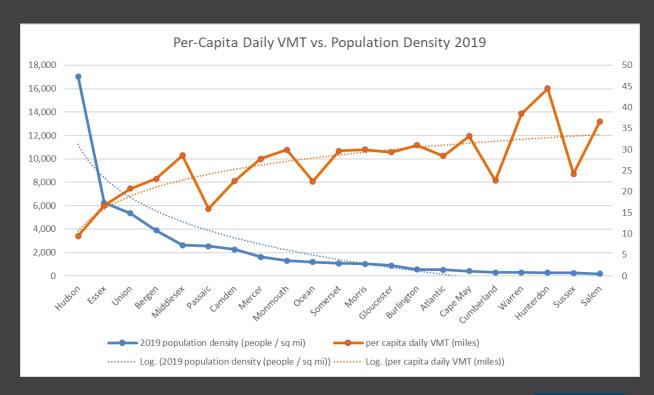
How do we reduce the need to drive?

- Build stuff closer together:
 - Density are destinations close together?
 - "Downtown" (mix of uses) are different kinds of destinations close together?



When things are closer together, people tend to drive less:

- more walking and biking
- shorter car trips
- transit becomes more viable



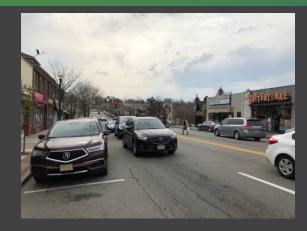
NOTE: Cumberland and Sussex counties illustrate the limitations of how VMT is currently measured



How do we reduce the need to drive?

- Build stuff closer together:
 - Density are destinations close together?
 - "Downtown" (mix of uses) are different kinds of destinations close together?
- Make walking (and biking, and skateboarding etc.) easier and safer
 - Street connectivity (grid rather than branching)
 - BONUS: Also makes car trips shorter
 - Complete streets design for people rather than vehicles





Cedar Lane in Teaneck



Westwood Ave in Westwood



White Horse Pike in Somerdale

These three places all score well (and similarly to each other) on metrics of street network connectivity!



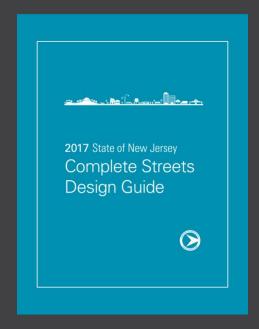
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 - Complete streets design for people rather than vehicles
- Make transit an option for more people (and consider making it free)



Make walking safer and more pleasant

(with or without a transit station)



NJDOT, 2017



NJ Transit, hot off the presses!



Additional co-benefits of compact, walkable places:

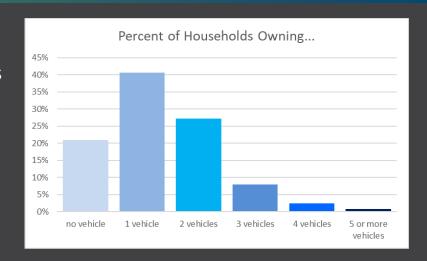
Social justice: facilitates travel for people who can't afford cars

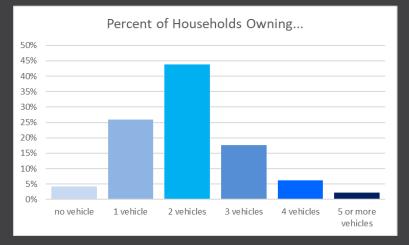


When the built environment is more compact and walkable, people don't need to own as many cars

119 municipalities scoring well on all 3 smart-growth metrics (density, mixed use, street network connectivity)

163 municipalities not scoring well on any of the 3 smart-growth metrics





- Social justice: facilitates travel for people who can't afford cars
- Safety: shorter travel distances at slower speeds make pedestrians safer



Car-centric vs. People-centric



Density is a substitute for speed. We can increase the number of places we can visit by putting destinations close together, just as easily as we can by traveling quickly among destinations that are far apart.



- Social justice: facilitates travel for people who can't afford cars
- Safety: shorter travel distances at slower speeds make pedestrians safer
- Healthier lifestyles: more time walking, less time behind the wheel



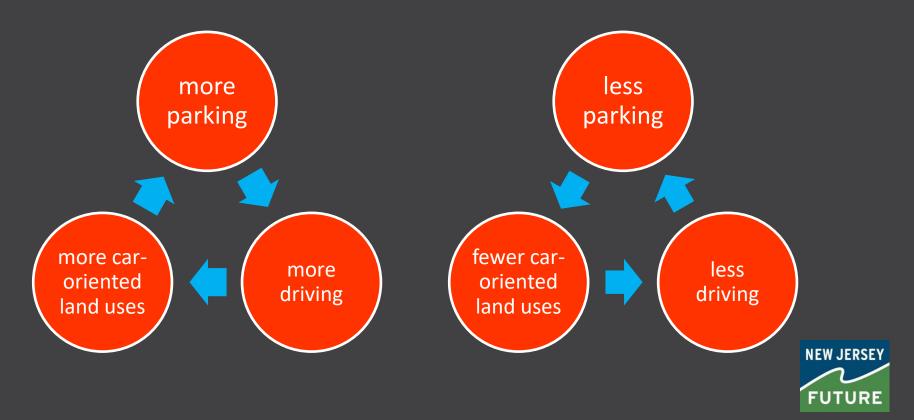
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- Land savings: less need to devote land to parking



Driving and Parking: A Vicious Cycle



Reclaiming Land from Vehicles

- Reduced incentive to drive everywhere
- More land for infill development
 - Increase housing supply → reduce housing prices
 - Increase housing diversity: rediscover the "missing middle"
 - Make walkable neighborhoods available to more people
- More land for urban open space
 - Reduce urban heat island effect
 - Improve mental health





Interacting With Nature in Cities Can Reduce Loneliness



View of Sheep Meadow in Central Park and the midtown Manhattan city skyline on October 12, 2019 in New York ISTOCK.COM/STOCKINASIA

By Andre Claudio

JANUARY 12, 2022

Local officials should improve access to existing green spaces, among other things, to help lessen loneliness, one study shows.





Social equity issues in VMT reduction:

- Development that de-emphasizes driving will naturally benefit carless households, a disproportionate % of whom are lower-income and/or people of color
 - Contrast with simply hoping everyone will drive an electric vehicle (\$\$)
- Street design that improves pedestrian safety will disproportionately benefit people who are already not driving
- Improved (and maybe even free!) transit would most benefit transitdependent populations



Social equity issues in VMT reduction:

- Reclaiming car-oriented land for urban green space can disproportionately benefit lower-income neighborhoods that have been undersupplied with park space
 - Similarly for mitigation of urban heat islands
- Infill development offers opportunities to diversify housing stock
- Pent-up demand for in-town living can risk displacing long-time residents; inclusionary zoning might be needed even in places that have long been thought of as "distressed" (like Newark), to stay ahead of housing price increases stimulated by new development



How do we make this happen?

- Require new development to estimate VMT/GHG impacts: e.g. California, Colorado
- Zoning reform: e.g. Oregon disallowing single-family-only zoning
 - May need to pair with inclusionary zoning requirements, to reduce risk of displacement of long-time residents with lower incomes
- Reduce or eliminate parking requirements: e.g. Buffalo, Berkeley CA, Fayetteville AR
- Change in culture at state DOTs, to re-learn the difference between a "road" and a "street" and to treat streets as places where people take priority over vehicles





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Thank you!

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