A GREEN NEW DEAL FOR CITY AND SUBURBAN TRANSPORTATION

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Smart Growth America
Improving lives by improving communities

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TransitCenter

TransitCenter is a national foundation that works to improve transit in order to make cities more just and environmentally sustainable. In recognition that the greatest challenges facing transit are human, not technological, TransitCenter supports, informs, connects, and funds the civic and public leaders working to make transit better. Through grant-making, research, technical assistance and public programs, TransitCenter provides a practical transportation agenda for cities across the country.

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Transportation for America

Transportation for America, a program of Smart Growth America, is an advocacy organization made up of local, regional and state leaders who envision a transportation system that safely, affordably and conveniently connects people of all means and ability to jobs, services, and opportunity through multiple modes of travel.

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The McHarg Center

In the spirit of Ian McHarg's renowned philosophy for "Designing with Nature", The Center's mission is to build on the University of Pennsylvania Stuart Weitzman School of Design's position as a global leader in urban ecological design by bringing environmental and social scientists together with planners, designers, policy-makers, and communities to develop practical, innovative ways of improving the quality of life in the places most vulnerable to the effects of climate change.

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Background

Federal transportation policy is broken. American communities are suffering as a result.

The U.S. transportation system is both an enormous source of carbon emissions and a major contributor to inequality. Access to safe, affordable, and reliable transportation is a fundamental right, yet most Americans are denied this right because of misguided federal transportation policies and funding priorities.

The overwhelming majority of federal transportation spending is allocated for roads, leaving limited funds available for more sustainable modes like transit, walking, and biking. As a result, fewer than 10% of Americans currently live within walking distance of frequent transit. The collective "sidewalk gap" in U.S. cities easily adds up to tens of billions of dollars, and the Americans with Disabilities Act mandate to make streets accessible remains unfunded, leaving too many people isolated in their homes. Our roadways are designed to move vehicles at the highest speeds possible, with devastating consequences. More than 35,000 Americans die in automobile-related accidents every year, and pedestrian fatalities have increased by 35 percent in the past decade. Americans are spending longer than ever in their cars - and taking on unsustainable levels of debt to pay for those cars. These realities are treated as a necessary part of the American transportation system, but it doesn't have to be this way.

With a Green New Deal for City and Suburban Transportation, we can transform our transportation system into a safe, just, low-carbon pillar of our economy. Americans will be able to walk or roll from their front door to a convenient transit stop, and catch a bus or train that will reliably get them where they need to go each day. We will be able to safely reach the store across the street instead of being forced to dodge dangerous, speeding traffic because there is no crosswalk. We'll feel confident biking for everyday, utilitarian trips rather than having to drive somewhere to go for a bike ride.

Environmentalism has often been framed as requiring sacrifice, but enabling more transportation options is in line with what Americans want. Recent polling conducted by Data for Progress shows that Americans across political affiliation and geography feel trapped by driving and wish they had other mobility options. A majority of both Democrats and Republicans want to see federal transit spending increased. When it comes to allocating federal transportation dollars for roads, 79% think that agencies should be required to fix what we have before building any additional road capacity, and 61% support an outright moratorium on new road building.

The problems:

Federal transportation spending incentivizes road-building above all else

For the better part of a century, federal transportation policy has prioritized building highways between job centers and typically wealthier, whiter areas. This has forced most Americans to drive more and further for jobs and necessities, increasing carbon emissions and limiting mobility and opportunity for people of color and people with low incomes.

The federal government guarantees nearly $45 billion annually for roads, money that is typically distributed to states with barely any strings attached. In practice, states devote a sizable share of these funds to highway expansion, further entrenching the solo car trip as the dominant mode of transportation. Car-based transportation networks are intensely polluting to build, and incentivize carbon-intensive travel and development patterns. Every new roadway we build induces more vehicle mileage and car trips that otherwise would not be made.

This policy regime has forced Americans to spend more and more time in their cars—an hour on average each day—that could otherwise be spent with friends, family, or in bed (if you like to sleep in).[1] Today, Americans must either shoulder the costs of car ownership, which consumes a punishingly high share of many household budgets, take their chances on scarce and unreliable transit service, or risk their life walking or biking, leaving most employment opportunities out of reach.

Expansion rather than repair, which results in increased driving and emissions

States are permitted to spend funding on road expansion while neglecting repair needs. In fact, funding formulas reward states where vehicle mileage is increasing with more federal money, while states that work to reduce how much their residents have to drive are punished with less federal funding. As a result, "crumbling infrastructure" has been a talking point for decades, but federal policy continues to provide states with money to expand roadways with no requirement that they fix the ones they have. The full public road network grew by 223,494 lane-miles nationally between 2009-2017, enough to drive across the U.S. 83 times. State transportation departments have added 5,325 lane-miles just since 2015.

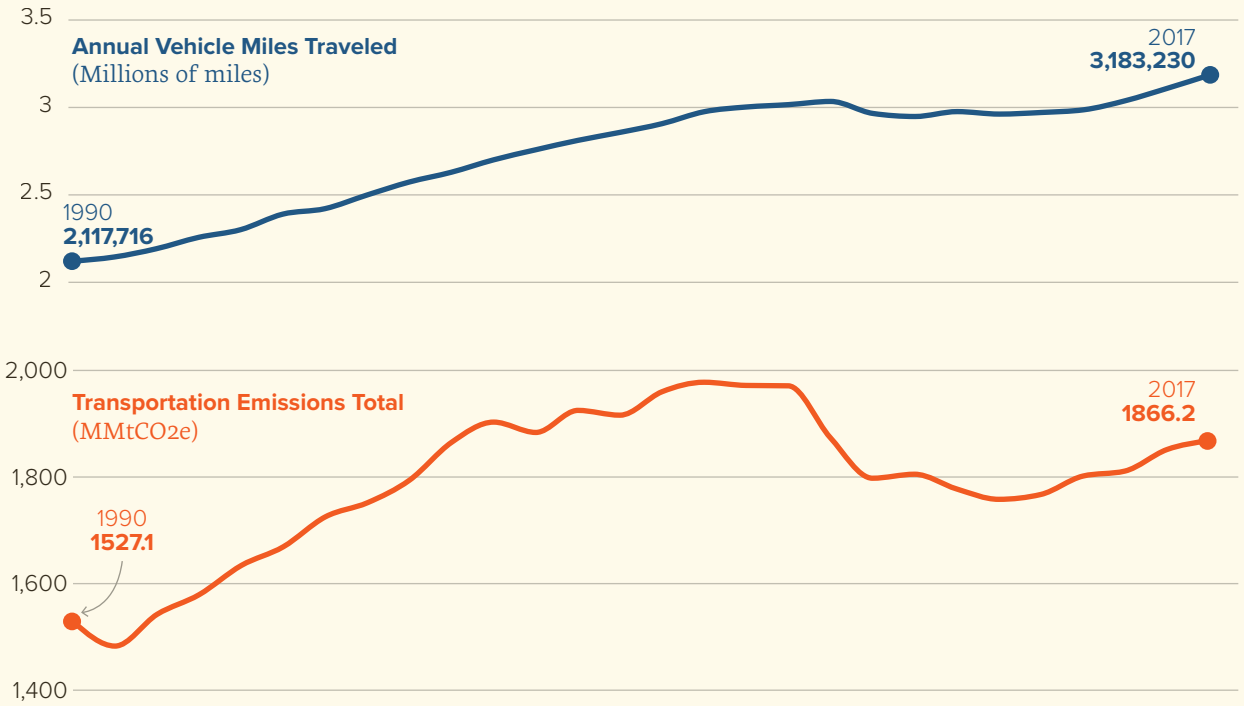
New highways, roads, and lanes induce more driving, leading to more emissions and ultimately more congestion, a feedback loop referred to as "induced demand." Driving increases in exact proportion with lane-mileage—a 10 percent increase in lane miles will lead to a 10 percent increase in driving. The growth of the road network has led to an increase in driving and emissions. Federal transportation spending on highways encourages more driving and undermines limited investments in low-carbon transportation options like biking, walking, and transit.

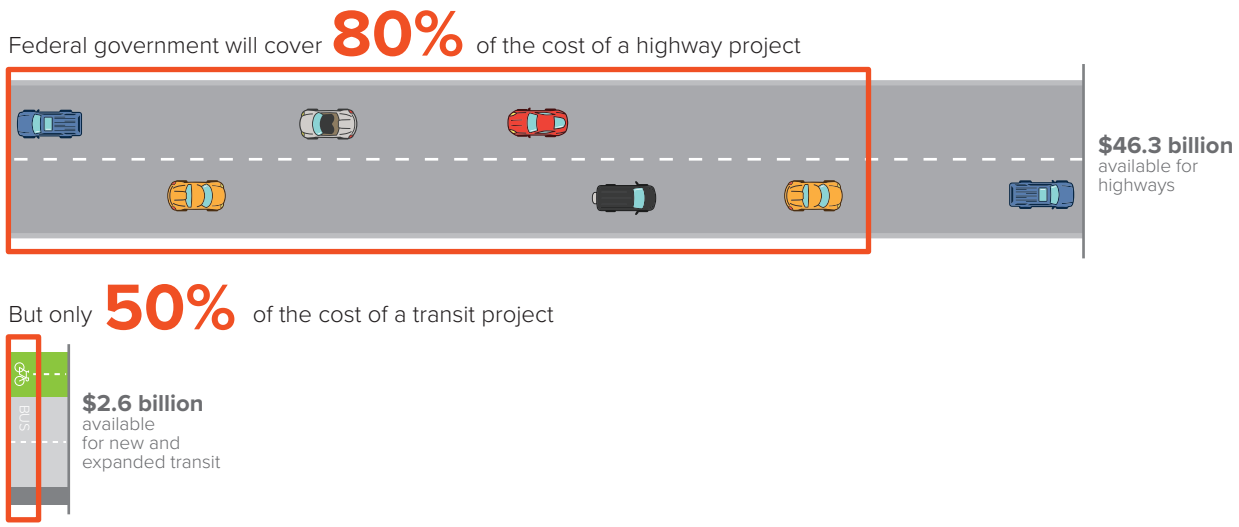
Transportation and Emissions

Transportation is now the nation's single largest source of greenhouse gases (GHG), accounting for 29 percent of GHG emissions, 83 percent of which comes from cars and trucks.[2] Vehicle emissions are the result of a combination of three things: fuel efficiency, the carbon content of fuel, and the distance people drive (vehicle miles traveled, or VMT). Progress in two of these areas can be undermined by reversals in the third. This is why growth in VMT has caused emissions to rise despite increases in vehicle efficiency and the number of electric vehicles. Between 1990-2017, a 50 percent increase in driving overwhelmed an 18 percent increase in overall fleet fuel efficiency brought on by the implementation of CAFE standards.[3,4] This caused emissions to rise 22 percent over the same time period.[5]

In addition to GHG emissions, particulates from tailpipes, tires, and brakes poison the air, with the harm disproportionately concentrated in Black and Latino neighborhoods. In most American cities, those same communities were the targets of an eviction and highway construction program during the 1950s and 60s known as urban renewal – a massive federal initiative that displaced and dispossessed poor communities of color and forced major new highways into downtowns, waterfronts, and parks. These communities are now subjected to disparate public health impacts, including higher asthma rates, as a result of exposure to tailpipe and non-tailpipe emissions from automobiles.[6]

As transportation emissions continue to increase, too many policy makers at the federal, state, and city levels continue to call for building more roads that induce driving, exacerbate inequality, and accelerate our climate crisis.





Meager leftovers for transit, biking, and walking

The generous federal funding lavished on roads comes at the expense of transit, biking, and walking. Only $2.6 billion is dedicated to transit expansion through the Capital Investment Grants program, funding which is difficult for agencies to obtain and isn't guaranteed. Unlike highway dollars, transit capital grants are not sourced from a trust fund that ensures their availability. They are discretionary, leading to annual budget fights each year. And while the federal government routinely covers 80-90 percent of the cost of a highway project, it limits federal funding to 50 percent of the cost of a transit project. This places a huge burden on local communities that choose to build or expand transit and incentivizes highway construction. Further, since 1998, federal transportation policy has only helped to fund operations at very small transit agencies, leaving most to scrape together funding to run trains and buses through a combination of fare revenue and local taxes.

Only $850 million per year is set aside for biking and pedestrian safety—a drop in the bucket for solving a problem that is growing in urgency every year, with more pedestrians killed in 2018 than any year since 1990. The incentives are simply all stacked to deliver more highways, whether they're wanted or not, in lieu of more equitable and efficient travel options. As our polling memo (http://dataforprogress.org/memos/voters-want-better-transit) indicates, Americans broadly support a halt on new highway construction, a redirection of transportation funds to infrastructure repair and upgrade, and new investments in other transit options like buses, trains, walking, and biking.

Speed and Road Design

Federal transportation guidelines have done little to discourage the practice, deployed by engineers at state departments of transportation across the country, of designing streets primarily for speed and vehicle throughput. As a result, streets in U.S. cities and suburbs are optimized for the unimpeded movement of cars at high speeds, resulting in communities where it is increasingly unsafe to travel outside of a car, whether you take transit, bike, or walk. Tens of thousands of Americans lose their lives in traffic crashes each year—four times the per-capita fatality rate of leading nations. People outside of vehicles are especially vulnerable to roadway design that prioritizes high speeds. Pedestrian fatalities are

the highest in decades, and total fatalities have increased more than 35 percent since 2007.[7]

High speeds serve a purpose on interstates and other arterial highways. But treating residential and other community-scale streets as nothing more than high-speed transportation corridors results in an appalling death and injury toll, and a disconnection from the local commercial and retail activities lining our streets. We get drive-through communities, instead of livable, connected places where transit, biking, and walking are viable options. Further, by designing communities which are only safe to navigate by car, we make it more dangerous to access transit, and place an enormous burden on the 30% of Americans who are unable to drive, either due to the costs of car ownership, age, or disability.

Building a better transportation system

The great promise of a Green New Deal (GND) for transportation is that it provides an opportunity for reimagining our transit and roadway systems, for investing in carbon-free personal vehicles, and for broadening our conception of where the frontline communities in this sector lie—namely, the rural, suburban, and working class urban communities where public transit service is sparse or non-existent and owning a personal vehicle is all but required.

We can use the transportation sector as a strategic lever in the march to a Green New Deal by tackling our highest sources of carbon emissions, putting millions of people to work upgrading and repairing existing infrastructure (itself a far lower-carbon form of work than simply building new highways), and reducing the impacts of personal vehicles on human mortality and morbidity rates. Bringing our road and transit systems into a state of good repair over the next 10 years could support or create over 6.6 million job-years across the U.S. economy.[8]

By making our cities and suburbs easy to navigate without driving, we'll also equitably grow our economy. In an America with abundant transit and safe streets for walking, biking, and rolling, more jobs will be within reach of people with low incomes, and transportation costs will consume far less of their earnings. Tens of thousands of lives will be saved annually by reducing traffic collisions, and many more premature deaths will be averted by improving air quality. The incidence of asthma, cardiovascular disease, and other chronic ailments caused by car pollution will fall.

By prioritizing transportation access, we'll enable millions of people to take advantage of jobs and opportunities throughout their cities and regions, ending the current disparities in mobility linked to race, economic status, age, or ability. And hundreds of thousands will be employed operating dramatically expanded transit systems and constructing safer, more sustainable transportation networks.

A Green New Deal for transportation will also reduce traffic by giving people safe and reliable choices other than a car trip. This will improve the functioning of existing road networks for those who must drive, as well as facilitate freight movement.

Electric vehicles (EVs) can help accomplish the primary goals of a GND, but only if federal policy is designed intentionally, with socioeconomic equity in mind. Simply swapping gas guzzlers for EVs will not improve safety for people biking, walking, and taking transit, will leave our communities overwhelmed by congestion and non-tailpipe emissions, and will not make jobs and services available to people who cannot afford to purchase a car.

Policy recommendations

Federal transportation policy should reduce greenhouse gas emissions by:

- Putting the majority of Americans within walking distance of frequent, high-quality public transit by 2030, by providing agencies with operating assistance to run more buses and trains, expanding overall funding for transit projects, and encouraging transit-oriented development.
- Incentivizing and requiring communities to design transit-friendly streets and safe roadways for all users.
- Prioritizing roadway maintenance over expansion, and ensuring that any new road capacity meets environmental goals.
- Ensuring a "just transition" that creates secure, well-paying jobs and funds training and apprenticeship programs in the transit industry.
- Providing funding for research into barriers to equitable transit provision.
- Creating an EV incentive program weighted by income, geography, and vehicle size.

> ***A major new program of federal funding for transit operations is the only way to expand access to bus and train service on the rapid timetable that the climate emergency demands.***

Electrifying Every Vehicle in America

Nearly every candidate running the 2020 Democratic Primary has released a plan to invest in EVs through a tax credit or rebate program that assumes a 1:1 replacement of internal combustion engine (ICE) vehicles. While there is a great need for investments that accelerate the penetration of EVs into the personal vehicle market, simply replacing the 272 million ICE vehicles on the road today with EVs won't do nearly enough to satisfy the aims of the GND.

Cleaner and electric vehicles are essential to reduce emissions, but they're only one piece of the solution. For one, it takes a long time for the vehicle fleet to turn over. Even if Americans purchased nothing but electric vehicles starting today, gas-powered cars would still be on the road for at least another 15 years. Modeling consistently shows that rapid emissions reduction depends on taking fewer, shorter car trips and shifting trips from cars to transit, walking, and biking. With nearly half of all car trips just 3 miles or less, reducing the distance we drive and shifting trips to other modes of travel can and must be done.[9]

Despite an aggressive effort to promote electric vehicle adoption and higher fuel efficiency standards, multiple states have determined that they will not be able to reach ambitious climate targets through vehicle electrification alone.

California estimates that in addition to EV adoption, every person in the state would need to reduce their daily driving by 1.6 miles to reach the state's 2030 climate target.[10] A recent report from Smart Growth America and Rhodium Group showed that, in order to meet Hawaii's ambitious climate goal of 100 percent clean energy by 2045, the state will need to reduce VMT through strategies that improve transit and encourage walking and biking.[11] Minnesota has also found that the state will need to reduce driving to reach its climate targets, even as the adoption of EVs increases.[12]

National VMT is projected to continue to rise at a rate of roughly one percent per year for the next thirty years. Climate policy must be aimed at preventing such a scenario, or else the growth in driving will erase emissions savings from more fuel efficient and electric vehicles.

Further, an analysis by the International Energy Agency based on the World Energy Outlook 2019 found that SUVs will offset emissions savings from electric vehicles. SUVs consume about a quarter more energy than medium-sized cars. IEA writes, "If consumers' appetite for SUVs continues to grow at a similar pace seen in the last decade, SUVs would add nearly 2 million barrels a day in global oil demand by 2040, offsetting the savings from nearly 150 million electric cars."[13]

Any serious climate proposal will include both an EV incentive program that accelerates their broad adoption and policies that reduce driving and the total number of vehicles on the road.

Put the majority of Americans within walking distance of frequent transit by 2030

Increase funding for transit, especially transit operations

The federal transportation program currently allocates four dollars to highway agencies for every dollar that goes to transit agencies, after spending decades to build out the system. The federal program subsidizes up to 90 percent of a road project while transit expansion projects are effectively capped at fifty percent. A Green New Deal should correct this imbalance through **a major new investment in transit, increasing annual federal support for public transportation to $50 billion/year (up from today's $13 billion/year)**, or $300 billion over the course of a typical six-year federal transportation reauthorization.

Such an investment would have public support; a recent poll from Data for Progress found that Americans were more likely than not to support a $300 billion investment in public transportation (45% in support; 35% opposed)—even after hearing the argument that transit is a local responsibility.[14]

The way federal transportation funds are allocated for transit must also be reformed. That requires re-orienting federal programs around enabling agencies to operate transit networks with routes that run every 15 minutes or less, connecting people to jobs, schools, stores, doctor's offices, and other daily destinations.

Currently, federal transit policy is oriented around building infrastructure, not providing service. The perverse result is that local agencies may spend large quantities of federal funds upgrading or extending a handful of routes while neglecting the broader network of service, and ridership stagnates or shrinks.

Federal transit funding has not always been so unbalanced. In the 1970s and 1980s, the federal government provided as much as $1 of operating assistance to transit agencies for every $2.25 provided by local and state governments.[15] If a similar ratio existed today, the federal government would provide about $13 billion a year in operating support.[16] But since 1998, only the smallest transit agencies have received federal operating support.

Under this policy paradigm, transit service in the U.S. remains incredibly sparse.[17] There are only a handful of cities where most people can walk from their house to a transit stop with buses or trains that come every 15 minutes or less. This is the fundamental scarcity that federal transit policy must address.

A major new program of federal funding for transit operations is the only way to expand access to bus and train service on the rapid timetable that the climate emergency demands. By devoting **$20 billion/year** of the federal transit program to operating assistance (two-fifths of the overall federal transit program we have proposed here), transit agencies could quickly scale up service, providing networks of frequent routes to underserved urban and suburban destinations, and expanding lifeline transportation for non-drivers in rural areas.

This program should be distributed by formula, with the volume of operating support pegged to agency ridership. To ensure that these funds add to local sources of operating revenue instead of supplanting them, they should be structured as a federal match conditioned on maintaining local funding levels for transit operations.

Federal transit funding formulas should also incentivize better networks of frequent transit service at the local level. Transit agencies that meet benchmarks for delivering frequent, all-day service should be rewarded with additional capital and operating funds. This would set in motion a virtuous circle of additional service, better maintenance, and higher ridership.

Put America to Work Building Transit

Public dollars devoted to making capital improvements to public transportation systems support thousands of manufacturing jobs, in communities small and large, in nearly every state across the country. Every $1 billion invested in public transit creates more than 50,000 jobs and returns $3.7 billion over 20 years.[18]

The supply chain for public transportation touches every corner of the country and employs thousands of Americans who produce everything from tracks, to seats, windows, communications equipment, wheels and everything else in between. More than two thousand manufacturing facilities and companies, spread across 49 states, are tied directly to the manufacture or supply of new transit systems and repairs and upgrades to existing systems. This supply chain employs tens of thousands of workers assembling transit vehicles, manufacturing components and electronics, and building infrastructure. Recent capital improvements made in just four transit systems — San Francisco, Denver, Chicago, and Portland — supported jobs in 21 states.[19]

Modernize our transit infrastructure

Twenty percent of the highway trust fund is allocated to transit. Unlike in the highway program (which allows states to neglect their repair needs), these funds are primarily spent on maintenance. Unfortunately, this still underfunds our transit maintenance needs. In its most recent "conditions and performance report," the U.S. Department of Transportation estimates a national transit maintenance backlog of approximately $99 billion. The DOT estimates that transit agencies would have to increase spending by $7 billion/year to eliminate the backlog over a twenty-year period.[20]

We shouldn't have to wait that long. Truly prioritizing maintenance of public transit systems requires the necessary resources. We recommend an **$18 billion/year** program (representing a significant increase from current programs that fund transit state of good repair, bus and bus facilities, and urban and rural formula programs) which would allow transit agencies to go on a nationwide repair blitz, cutting the maintenance backlog in half in six years - and procuring modern, low- and no-emission fleets.

A re-imagined, $12 billion program for transit expansion projects

The main federal source for construction of new and expanded transit projects is the Capital Investment Grants (CIG) program (colloquially known as New Starts and Small Starts). Projects that enter the CIG program are reviewed by the Federal Transit Administration (FTA) at multiple stages and rated on cost-effectiveness, environmental benefits, land use, congestion relief, and mobility improvements.

Fundamentally, the CIG program is problematic for a number of reasons:

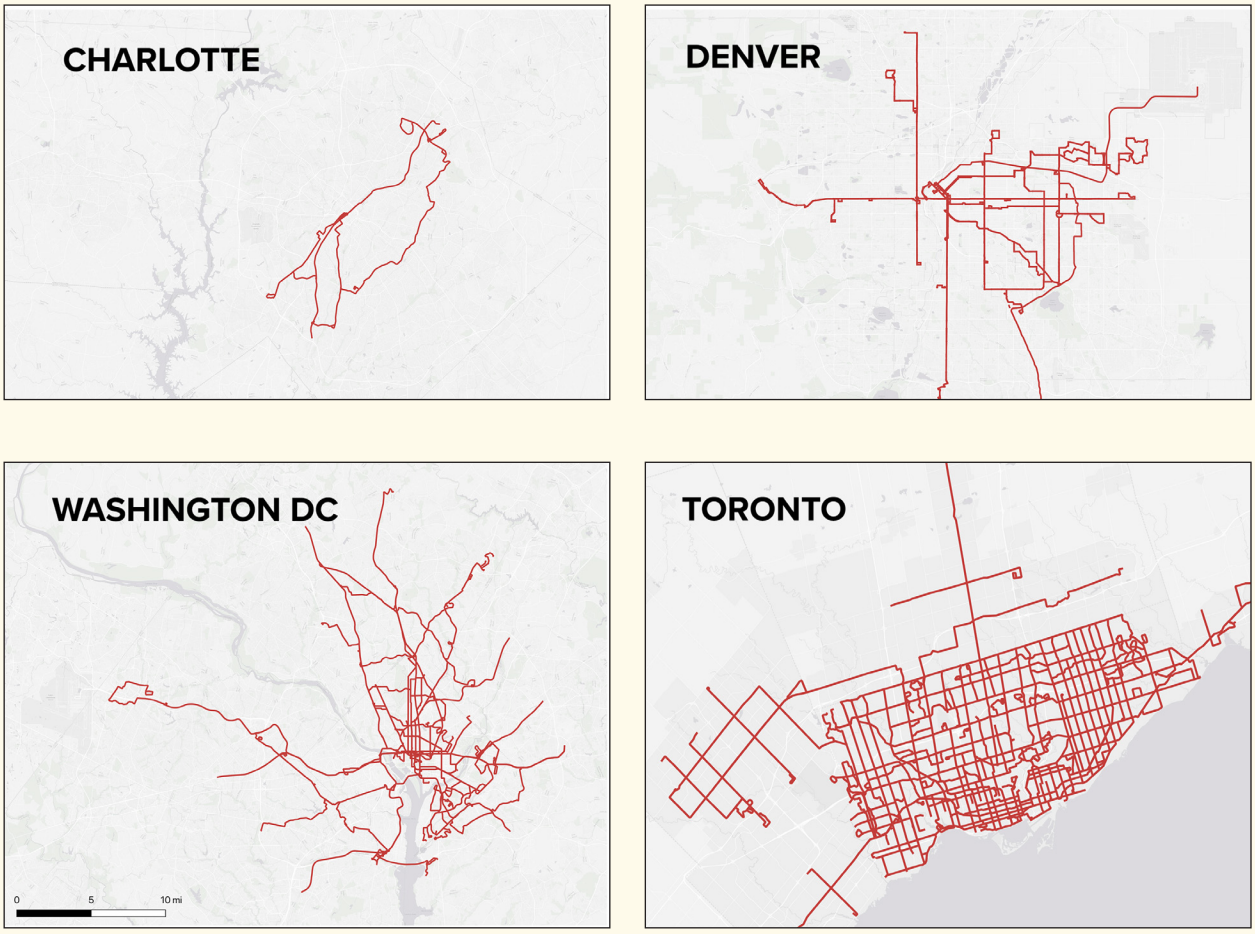
- Project sponsors face more requirements than those of nearly any other transportation grant program, and FTA often uses its discretion to change how it weights different factors and how it directs transit agencies to calculate them. The result is longer project timelines and higher costs.
- Most transportation grant programs require a 20 percent local match. Current law prohibits any project where the local match is below 50 percent.
- CIG funds corridor-based improvements, but the most critical capital projects at an agency may have systemwide benefit—like new bus depots and rail yards that enable expanded service, new fare payment systems that facilitate all-door boarding and improve the rider experience, or broad improvements to bus shelters or ADA accessibility.
- The program is discretionary, relying on annual appropriations, and is not guaranteed.

The program is also drastically oversubscribed. In recent years, about $2 billion annually has been appropriated to the New Starts program. However, over $23 billion worth of projects are currently in the New Starts "pipeline."

For this reason, we believe it makes sense to address transit expansion needs in a new way. We recommend replacing the CIG program with two programs: **A $6 billion/year formula expansion program, and a $6 billion/year discretionary grant program for capital projects that improve access to frequent transit for low-income people**, both requiring a 20 percent local share.

Transit in the U.S. is much sparser than in Canada

Networks of rail and bus service that runs at least every 30 minutes, until midnight, seven days a week. Canadian cities spend much more on transit operations per capita than American cities, which puts convenient service within reach of many more people.



Route and schedule data compiled by Jonathan English

Together, these would provide predictable funding for transit expansion, put transit programs on level footing with other surface transportation programs, maintain the ability of agencies to apply for discretionary grants for major projects, and bring an accessibility and equity focus to federal transit capital investment decisions.

Cut red tape for transit priority projects

If policymakers want to keep the CIG program framework, at the very least the program needs a fundamental reassessment (i.e. a "zero-based review") that streamlines and simplifies the program, emphasizing clear, outcomes-based criteria that direct federal transit funding to projects. Rather than the hodge-podge of criteria that exist today, transit expansion projects should be prioritized based on how effectively they would increase access to jobs and other opportunities.

The federal government should reduce barriers to building transit projects and improve transparency:

- The CIG program includes a "pilot program for expedited project delivery," with lighter FTA review for up to eight projects—but only if they include a public-private partnership, and only if their federal cost share is 25 percent or less.[21] This program should be revamped to eliminate both of these requirements.
- Federal law also requires the FTA to create rating criteria for a "program of interrelated projects," so that transit agencies can submit multiple projects into the CIG program at one time and reduce construction costs. FTA has not implemented this law, and should.
- Finally, FTA should create a CIG project dashboard that allows the public to track progress of each project in the program pipeline, and provide quarterly updates.

Promote equitable transit oriented development

Because car trips are the primary driver of emissions from the transportation sector, where and how homes and commercial properties are built matters for combating climate change and creating a viable transit system.[22] For more than 70 years, national affordable housing policy has been centered around a simple concept of "drive until you qualify" for an affordable mortgage or rental. The traditional measure of affordability recommends that housing cost no more than 30 percent of household income. Under this view, about half of U.S. neighborhoods are considered affordable for the typical household. However, that benchmark fails to take into account transportation costs, which are typically a household's second-largest expenditure. When transportation costs are factored into the equation, the number of affordable neighborhoods drops to 26 percent.[23] Increasingly, Americans are one paycheck away from falling into poverty, in part due to their dependence on expensive and unreliable transportation options.

Providing quality housing in location-efficient and dense neighborhoods for people of all income levels is an integral component of reducing transportation emissions and costs.

Land near transit stations is especially valuable. Hundreds or thousands of people travel to and through these places each day, and decisions about what to do with this land have implications for local economies, transit ridership, residents' access to opportunity, and overall quality of life for everyone in a community. People that live within walking distance of transit are also the most likely to use it.

Equitable Transit-Development supports communities, especially disadvantaged or low-income communities, where residents of all incomes, ages, races and ethnicities participate in and benefit from living in connected, healthy, vibrant places connected by public transportation. These transit-oriented communities of opportunity include a mixture of housing including a significant level of affordable housing, office, retail and other amenities as part of a walkable neighborhood generally located within a half-mile of quality transit service.

Federal policy should require states, metropolitan planning organizations, or transit agencies to develop a State Equitable TOD and Mobility Plan to identify areas in the state with a need for a comprehensive investment strategy to keep and revitalize existing neighborhoods and corridors while maintaining and enhancing housing and transportation affordability and creating equal opportunity for existing residents and businesses. This would support implementation of community transportation and land use plans consistent with sustainable state, regional, and local growth plans, and with policies and strategies to achieve quality of life, economic vitality, greenhouse gas reduction goals. It would also create convenient, safe multi-modal access to transit, with an emphasis on neighborhood-scale, non-motorized access.

Further, federal policy should create a competitive grant program to provide technical assistance for states and other entities to create equitable economic development strategies for areas near transit hubs. This could help communities identify regulatory or procedural barriers to private investment in areas near transit or in areas with high walkability, infrastructure needs such as sidewalks and street improvements, and engage the local community.

Too many of America's downtowns and Main Streets are struggling to attract investment despite the market demand toward walkable urban centers of all sizes. To further support transportation investments in transit and walkable communities, federal policy should create a new incentive to convert old buildings near public transportation into mixed-use and mixed-income housing development while upgrading the local infrastructure and expanding affordable housing supply where it is needed most. This would correct a market failure and bridge the gap between existing tax credits for affordable housing, historic preservation, and economic development.

Last, it is important to build on existing programs which are under utilized. Under current law, both the Transportation Infrastructure Finance and Innovation Act (TIFIA) and Railroad Rehabilitation Improvement Financing (RRIF) eligibilities include TOD projects. However, since 2015, USDOT has failed to approve any TOD applications or provide policy guidance on what it would take for future applications to gain approval. HUD should be required to work with USDOT to leverage billions of dollars in loan authority that could support mixed-income, mixed-use development and provide new revenue streams for transit, affordable housing, and local governments. The Department of Transportation should also establish a TOD policy that provides clear eligibility guidelines and reduces regulatory barriers for TOD projects that support the creation of mixed-income, mixed-use development, affordable housing, and increased transit ridership.

Make it easier for communities to design transit-friendly streets and safe roadways for all users

Build Complete Streets

Between 2008 and 2017, drivers struck and killed 49,340 people who were walking on streets all across the United States.[24] Pedestrian fatalities have increased by 35 percent in the past decade, and 2018 was the deadliest year for pedestrians and cyclists since 1990.[25] While traffic deaths affect every community in the United States, older adults, people of color, and people walking in low-income communities bear a higher share of this harm.

For decades, streets have been designed for the speed of vehicles—to the detriment of public safety, health, and sustainability. Going forward, the safety of everyone who uses the street must be a priority reflected in the funding, design, operations, maintenance, and assessment of our surface transportation system. Complete Streets are essential to make it possible for Americans to drive less and use our streets to get around more easily on foot, bike, and public transit.

To create safer streets and to make transit, biking, and walking improvements easier to implement, the federal government should:

- Set aside federal funds to support Complete Streets projects (five percent of annual federal highway funds).
- Require states to create a program to provide technical assistance and award funding for communities to build Complete Streets projects.
- Direct localities to adopt a Complete Streets policy that meets a minimum set of standards to access that dedicated funding.

Fund the ADA transportation mandate and fix sidewalk gaps

Sidewalks—the fundamental element of pedestrian infrastructure—are typically left to municipal governments and private property owners, and not required on many streets. The result is an inequitable patchwork. Seattle estimates that it would cost $675 million to add sidewalks to the 28% of city streets that lack them.[26] Los Angeles is spending $1.5 billion over 30 years to repair sidewalks as a result of an ADA lawsuit.[27] Philadelphia needs to replace 72,000 curb ramps, which will take 170 years at current rates of spending.[28] Cedar Rapids, Iowa,

raised taxes as a result of an ADA settlement[29]—one of more than 200 municipalities that the Department of Justice has sued and settled with since 1999.[30]

The collective "sidewalk gap" in U.S. cities easily adds up to tens of billions of dollars. Instead of relying on local governments to fill this gap, federal policy should invest in the unfunded ADA mandate, by creating a Pedestrian Priority set-aside within the Surface Transportation Block Grant Program explicitly for sidewalks, curb ramps, crosswalks, ADA transition plans, and road diets. State departments of transportation and metropolitan planning organizations should be required to document sidewalk and curb ramp deficiencies in urbanized areas with over 200,000 people and program Pedestrian Priority funding to fix those deficiencies. If these agencies don't have adequate funding or staff capacity to complete this documentation, they can apply for funding.

Help states abandon automobile "level of service" and adopt broader measures of success

When conducting environmental reviews of transportation projects, most state transportation departments seek to prevent impacts to automobile "level of service" (a measure of free-flowing traffic). Perversely, this measure has been used to block transit, pedestrian, and multimodal projects because they may slow automobile traffic, even when they have safety, economic, and environmental benefits.

Some states and municipalities have eliminated or deemphasized the use of automobile LOS as an impact measure. California, for example, now measures the environmental impact of transportation and land use projects based on whether or not they will increase vehicle miles traveled.

Instead of measuring LOS, or speed and traffic flow on roads, we should measure how the transportation system, and any new investment, connects people to jobs and services by all modes of travel. This measure captures and values shorter car trips as well as biking, walking, transit, and passenger rail trips, leading to infrastructure investments which support these trips. Instead of measuring success of the transportation system by looking primarily at the limited and blunt metric of congestion (which fails to measure people opting out of congestion via transit or walking/biking), we should measure access to jobs and services by all modes including transit. This will allow an apples-to-apples comparison of the benefits of all projects and will place transit, passenger rail, biking, and walking investments on equal footing with road investments.

The first step toward adoption of this approach is to establish a national baseline so that we can set goals for improvement. USDOT should be required to collect data necessary to develop a national assessment of access to jobs and services by all modes of travel, and set national goals for improvement.

Complete streets

Complete Streets are designed and operated to enable safe access for people of all ages and abilities, be they pedestrians, bicyclists, transit riders, or motorists. Complete Streets make it easy to cross the street, walk to stores, or bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit stops.

Even in communities served by transit, incomplete streets may discourage residents from fully using the service. Nearly every transit trip begins as a walking trip – but the disconnect between transit and road planning means dangerous street design prevents many people from accessing transit stops in a safe and convenient manner.

Prioritize roadway maintenance and ensure road programs meet environmental goals

Curb emissions and cut the maintenance backlog in half by dedicating formula highway funds to maintenance

Expanding highways is a form of building new fossil fuel infrastructure—it locks in additional driving mileage and carbon pollution. To keep GHG emissions in check, focusing on road maintenance instead of expansion is essential.

Yet between 2009 and 2014, states spent $21.3 billion annually to build new roadways and add lanes, while spending $21.4 billion annually repairing the existing road system. Meanwhile the percentage of roads in poor condition nationwide increased from 14 percent in 2009 to 20 percent in 2018.[31]

For decades, presidents, governors, and members of Congress from both parties have decried our crumbling infrastructure and sounded increasingly dire warnings. Yet no one has done anything to require states to actually repair that infrastructure before creating new financial liabilities in the form of new roads and bridges. And while there may not be enough money to address all our priorities, states have found a sizable amount of funding available for expansion while claiming they cannot keep up with maintenance needs.

This is at odds with what the public wants. In polling we conducted in partnership with YouGov, fully 79 percent of voters agreed that the government should fix existing roads before building new ones. About 73 percent require a new set of obligations on state governments to justify *any* new roads, and 61 percent support an outright moratorium on new roads for ten years as a means of reorienting local governments toward repairing infrastructure. These figures hold along partisan and geographical lines. Put another way, there is broad agreement amongst Democrats, Republicans, and Independents—as

well as urban, suburban, and rural voters—on proposals to prioritize maintenance over expansion.

Prioritizing maintenance will reduce emissions by slowing the growth in driving. Research has shown that expanding the road network increases driving. By prioritizing maintenance in the formula program we can not only repair our system, but also slow the growth of emissions. With the Highway Trust Fund approaching insolvency, and our maintenance needs growing, it is time to direct federal investment to care for the system we have before adding expensive new liabilities to it.

Cutting the maintenance backlog in half—without increasing funding—is achievable in six years if we change the structure of the transportation program. We can do this by prioritizing existing highway formula dollars for maintenance; creating a competitive program for new roadway capacity, and improving highway performance measures by making them public and rewarding states that hit their targets for asset management.

We should prioritize highway formula dollars for maintenance and cut the maintenance backlog in half.

While maintenance is an eligible use of federal dollars, federal highway funding formulas do not in any way prioritize roadway maintenance over expansion. Federal policy should give power to the existing asset management requirements by requiring that maintenance be prioritized within the National Highway Performance Program (NHPP) and the Surface Transportation Block Grant Program (STBG).

Repair and maintenance projects spend money faster and create jobs more quickly than building new capacity. Maintenance jobs are open to more kinds of workers, spend less money on equipment and more on wages, and spend less time on plans and permits. New capacity projects also require more funding for buying property, which has little or no stimulative or reinvestment value. Roadway maintenance creates 16 percent more jobs per dollar compared to roadway expansion.[32] Repairing and maintaining our existing roadways and infrastructure would create thousands of good paying jobs across the country.

Measure GHG emissions and VMT per capita on our roadways

To reduce emissions we must make it possible for people to take fewer and shorter car trips, as well as make it safe and convenient for people to bike, walk, and ride transit. But we can't do this if we only measure and value high speed car trips. We must change what we measure and value in transportation to include reducing GHG and vehicle miles traveled (VMT).

The federal government should set GHG emissions and VMT performance measures including per capita reduction goals and require all states to implement policies to achieve these goals. States failing to achieve their goals should be required to dedicate federal highway funding to come into compliance. States that exceed goals should be rewarded.

To reduce VMT and GHG, states would likely have to employ a variety of strategies, including better transportation options and smarter land use. These strategies also provide a host of benefits besides reducing GHG: reduced congestion, lower household transportation costs, safer streets, more attractive communities and better health outcomes.

Create a competitive program for new roadway capacity

The changes proposed here mean an end to "blank checks" for highway expansion from the federal government. Instead, federal policy should provide a special pot of funds for new projects or major replacement projects that have regional or national significance. Creating a competitive program for new roadway capacity ensures that new roads advance national and local goals while requiring responsible asset management. This program should cover up to 50 percent of the capital cost for the project with federal funds.

Project sponsors should demonstrate that they can operate and maintain the asset throughout its useful life, and projects should be evaluated for funding based on clear performance criteria to ensure that funded projects produce substantial benefits for the cost. Any new capacity must reduce vehicle miles traveled. Program criteria could also include demonstrating improvement in access to jobs and services, reducing greenhouse gas emissions, improving pedestrian safety, reducing the cost of managing the transportation system, providing better outcomes for disadvantaged populations, or accomplishing other policy goals.

For example, road projects that replace cul-de-sacs or barrier-like highways with connected grids could enable shorter trips and reduce driving mileage. A new road could be designed with sidewalks or a bike lane, and promote safety by designing for slower vehicle speeds, thereby enabling people to safely walk or bike to their destination. This could be particularly relevant for new roads proposed near suburban commuter rail, allowing people to access those facilities without having to drive.

Expand funding available for highway teardowns

Too often, highway infrastructure tears apart communities, particularly disadvantaged communities, separating people from jobs, services, and connections to other neighborhoods. This not only exacerbates existing inequalities, it worsens air pollution and public health outcomes, turning neighborhoods from places where people want to be into places people want to get away from—via the highway.

The federal government should create a grant program for the planning and construction of projects to restore connections between communities as a result of highway development. This would provide funding to study the feasibility of removing existing highway segments and technical assistance to implement the tear-down and replace the street grid. Priority must be given to economically disadvantaged communities.

Ensure a just transition

Provide funding for well-paying transit operator jobs

Transit agencies across the country are facing operator shortages, which is affecting their ability to deliver scheduled service. **In order to meet and increase transit service levels, agencies will need to hire thousands of new operators.** The new federal program of transit operating assistance will help agencies cover payroll expenses for hiring operators.

It should also fix aspects of the federal transit program structure that disincentivize agencies from paying a reasonable wage in areas with a high cost of living. For example, the Urbanized Area Formula Program includes an "incentive tier" that distributes more funding to agencies with below-average operating costs (labor is the largest component of operating costs). This should be changed to reward agencies that provide frequent service.

Provide funding for training and apprenticeship programs

Hundreds of thousands of Americans will need to be transitioned out of employment in the automobile industry. The FTA will create a grant program for transit agencies to establish training and apprenticeship programs for transit operator, mechanic, and construction positions.

Develop challenge grant for innovative public engagement initiatives

In order to meet climate targets, we need to get transportation projects in the ground as quickly as possible. But projects won't be successful without the input of people who have a stake in them. Traditional outreach formats, such as public meetings, have historically failed to gather feedback from a large cross section of people - they are poorly attended and typically skew whiter, older, and richer than the average transit rider. To incentivize agencies to develop public engagement methods that reach a greater cross section of transit riders in a shorter amount of time, the FTA will establish a challenge grant program.

Establish an equitable EV incentive program

An EV incentive program structured as a simple rebate for each vehicle would likely generate several outcomes at odds with the goals of the Green New Deal. A flat structure could result in: the inequitable distribution of benefits, with most gains captured by high-income households; a failure to account for the greater dependence on car travel in suburban and rural areas; subsidies for large vehicles that consume more energy, place greater strain on the electrical grid, and create more risks to public safety than smaller vehicles.

To ensure that an EV incentive program avoids these pitfalls, we recommend the following key principles:

- **An EV incentive program should be most generous for people with low incomes.** Incentives should be structured on a sliding scale that benefits low-income households and refrains from subsidizing wealthy households.
- **An EV program should be more generous to rural and suburban communities that are less well-served by transit.** The key objective here is to maximize EV adoption in communities where driving is hardest to replace with other modes of travel.
- **An EV program should not subsidize larger and more energy-intensive vehicles.** A Tesla Model 3 consumes half as much energy per mile as a Porsche Taycan Turbo. An electric Hummer is still too large to safely operate in places where children cross the street. EV incentives should be structured accordingly, rewarding the purchase of smaller, more efficient cars.

We don't intend these principles to serve as detailed policy, but as an opening to think more strategically about EV incentive programs as a lever to accelerate the decarbonization of the transportation sector. Any serious EV program must consider class, geography, and vehicle characteristics to generate outcomes consistent with a just transition.

Provide funding for research

In addition to the workforce efforts described above, an expanded research and planning program would give local leaders more tools to target transportation inequities.

Establish a research center to bring down the high cost of construction

The U.S. has some of the highest transit construction costs in the world, curtailing our ability to deliver projects expeditiously and to meet climate goals. In 2019, the Government Accountability Office released the results of its research into the problem, which proved inconclusive. FTA should create a research center specifically dedicated to studying this problem - staffed with construction managers, engineers, accountants, and translators who will conduct audits of transit projects with lower costs from around the world.

Help local leaders get basic data for analyzing transportation access

Many Metropolitan Planning Organizations, city governments, and transit agencies lack some of the most fundamental data needed to assess the overall accessibility of the transportation network. Local governments often lack data on where sidewalks exist, and what condition they are in. Transit agencies often lack real-time transit information that would allow them to conduct accurate equity analyses of their service. Under a Green New Deal, the federal government should provide the planning support needed so that in any region, local leaders can conduct robust analysis of how well the transportation system allows people to access jobs and other opportunities.

> ***Providing quality housing in location-efficient and dense neighborhoods for people of all income levels is an integral component of reducing transportation emissions and costs.***

Promote new, efficient mobility to support national priorities

New mobility services like shared bikes, e-bikes, scooters, e-scooters are playing an increasing role in our transportation system, transforming how people move about cities and addressing long-standing first mile/last mile challenges. In the future, we can expect autonomous technology and other yet-to-be developed services to further impact the mobility landscape. As these services proliferate and innovate, cities and public transit agencies are struggling to keep pace and to develop policies to safely and effectively integrate these services into their networks so that they can contribute to local goals on equity, congestion reduction, the environment, and more. Federal policy should consider:

- **Pilot programs to help cities, transit agencies, states, and MPOs.** New pilot programs should help cities, transit agencies, states, and metropolitan planning organizations (MPOs) harness the potential of these technologies. The pilot programs should encourage local communities to set clear goals, and to provide a public report on the impact of the pilot on those goals and national transportation priorities. Any projects funded through this program should adhere to guidelines set forth in the Shared Mobility Principles for Living Cities. For example, any autonomous technology piloted through this program should comprise a shared fleet, rather than designed for individual use.
- **Creating a Center of Excellence:** To further assist local communities and the public, the federal government should create a Center of Excellence (COE) or clearinghouse to fund, house, and share research, data, best practices, and frank discussions on lessons learned on new mobility technology, impacts, and policy. This information would be available to local communities, researchers, and the public to improve policy making, public understanding, and confidence in new mobility.
- **Innovation Zones:** Provide grants to communities who, in partnership with industry and the USDOT, use a transparent process to engage the public and develop "innovation zones" for the safe testing of automated vehicles on public roadways. Grants would be for infrastructure and public engagement.
- **Reporting:** USDOT should prepare a biennial report on safety, congestion, emissions, land use, labor, and transit, impacts of new mobility, including autonomous vehicles, with additional research directed as necessary as determined by the Secretary.

> ***Fully 79 percent of voters agreed that the government should fix existing roads before building new ones.***

Toward a Green New Deal for City and Suburban Transportation

Responding to the climate crisis is often framed by opponents of climate action as a collective sacrifice. With a Green New Deal for Transportation (as with other policy spheres), nothing could be further from the truth.

A Green New Deal for Transportation will set the United States on a path toward broadly shared well-being. The mid-20th-century legacy of racial discrimination and disparities in transportation access, traffic injuries and deaths, and exposure to harmful motor vehicle pollutants will be vanquished. Americans will have more time to spend as we see fit, instead of sitting in traffic. We will have more financial freedom and less stress induced by car payments and other driving-related costs. Well-paying jobs running transit service and maintaining transportation infrastructure will be more abundant.

Polling shows that the policy framework to achieve these outcomes enjoys broad public support. Most Americans want to spend less time in our cars. We value increased investment in transit. We see the waste and futility of expanding highways while our existing transportation infrastructure falls apart. The policies outlined in this brief are a significant departure from the status quo, yet they are consistent with the attitudes most Americans express when asked.

The need for decisive action to avert climate catastrophe is the foundation underlying these policies, but there are a multitude of reasons to support them. After the Green New Deal for Transportation, our cities and suburbs will be greener, safer, healthier, more just, and more prosperous.

ENDNOTES

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