

Clean Transportation Equity: Community Feedback & Findings

Network Action Team Report on Summer 2022 Focus Groups



Contents

<u>Executive Summary</u>	2
<u>Introduction</u>	4
<u>Network Action Team Goals</u>	6
<u>Guiding Principles of the Network Action Team</u>	7
<u>Methodology</u>	8
<u>Demographic Survey</u>	11
<u>Focus Group Responses</u>	15
<u>Policy Considerations</u>	22

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Executive Summary

The EAN Clean Transportation Equity - Network Action Team had a goal of **advancing a collaborative process to identify Vermonters' challenges in the transportation and transit equity spaces and their experiences navigating existing clean transportation programs.** In order to do this, they partnered with organizations who could host focus group conversations throughout the summer of 2022 with the communities they serve who experience unmet transportation needs, and/or who may be less represented in statewide conversations around clean transportation. The aim was to hear from Vermonters who experience high transportation cost burden and/or low transportation access, disproportionate transportation pollution, Vermonters with low income, youth, rural residents, those experiencing linguistic isolation, or those experiencing oppression or racism.

Partner organizations that ran focus groups with members of their community



In total, these community organizations recruited a total 78 focus group participants. Participants varied from teens through seniors. About 71% identified as female, 28% identified as male, and 1.3% identified as non-binary. The majority of respondents (72%) identified as white, and (26%) as BIPOC. Approximately 14% of participants identified a language other than English as their primary language. Roughly 47% of focus group participants indicated that they had a disability—the majority of whom were impacted by cognitive disabilities, ambulatory disabilities, and/or independent living disabilities. Most participants had low to moderate incomes, and most did not own a home, but were renters or currently homeless.

Facilitators from selected organizations held focus groups throughout the summer of 2022, some in-person, some virtually and some through one-on-one phone conversations. Facilitators of these focus groups were given ten prompt questions, with four starred as priority questions. Below are key themes, or particular points that we felt were worth flagging from across the focus groups.

Focus group Themes

Transportation Challenges

- Car ownership can be prohibitive.
- There are safety concerns with cars - such as driving at night, or in adverse weather, particularly for elders.
- Carpooling, public transit, and shared rides became more complicated due to health concerns during COVID.
- Public transportation is often seen as not reliable, not accessible, with limited availability outside core hours, lack of facilities at bus stops, and communication challenges (particularly for non-

English speakers and those who do not have or use technology.) Some routes were also lost or curtailed due to COVID.

- For those using dial-a-ride services, there were several complaints about reliability, especially due to a shortage of volunteer drivers, and accessibility, due to the need to book 48 hours in advance.
- Many participants felt that they were too far from services to walk or bike, and some experienced mobility issues that prevented them from doing either. Concerns were expressed about the condition and safety of sidewalks, roads, and the lack of bike lanes.
- Gas prices are impacting people's ability to take the trips they want or need to take.
- Income can limit what vehicles are available to a household, including not having the features or size they need, and not being able to afford an EV or PHEV if they find one that suits their needs.

Trips not being taken

- Many participants are missing out on trips that would add to their quality of life, including medical appointments, social events, and grocery shopping.
- Lack of transportation places limits on where some participants can work.

Ideal transportation System

- More electric vehicles, but to make this feasible we need more reliable charging, subsidies to make the purchase price affordable, and more information about charging.
- More public transportation, including greater availability of buses (and possibly trains) with comfy seats, good drivers, handicap accessibility, and on demand and regular trips including evening & weekend service. There would be more electric buses, better communication, and safer and more comfortable places to wait for the bus.
- There would be better infrastructure connecting communities together for biking and walking, and more access to e-bikes. Sidewalks would be safely kept free of snow.
- There would be more on-demand services for rideshares and "rural uber" with extended hours and a system for "safe hitchhiking".

Community reduction of transportation pollution, to meet state requirements

- More education and advocacy about clean transportation options is needed, including destigmatizing buses.
- Systematic change and funding for transportation options are needed, including incentives for electric cars and e-bikes, employer involvement in telecommuting or facilitating transportation, centralized services, and car-sharing.

Interest in electric vehicles, and concerns

- Affordability is a key barrier to accessing EVs.
- Charging is another barrier, with concerns about range, speed of charging, reliability of chargers, and the number and location of charging stations
- Vehicle features such as room for families and equipment, as well as life span and reliability of the vehicles.
- There was some concern about the effectiveness of EVs as a "green initiative," questioning the sources of electricity and pollution caused by the disposal of batteries and gas cars.

Funding priorities

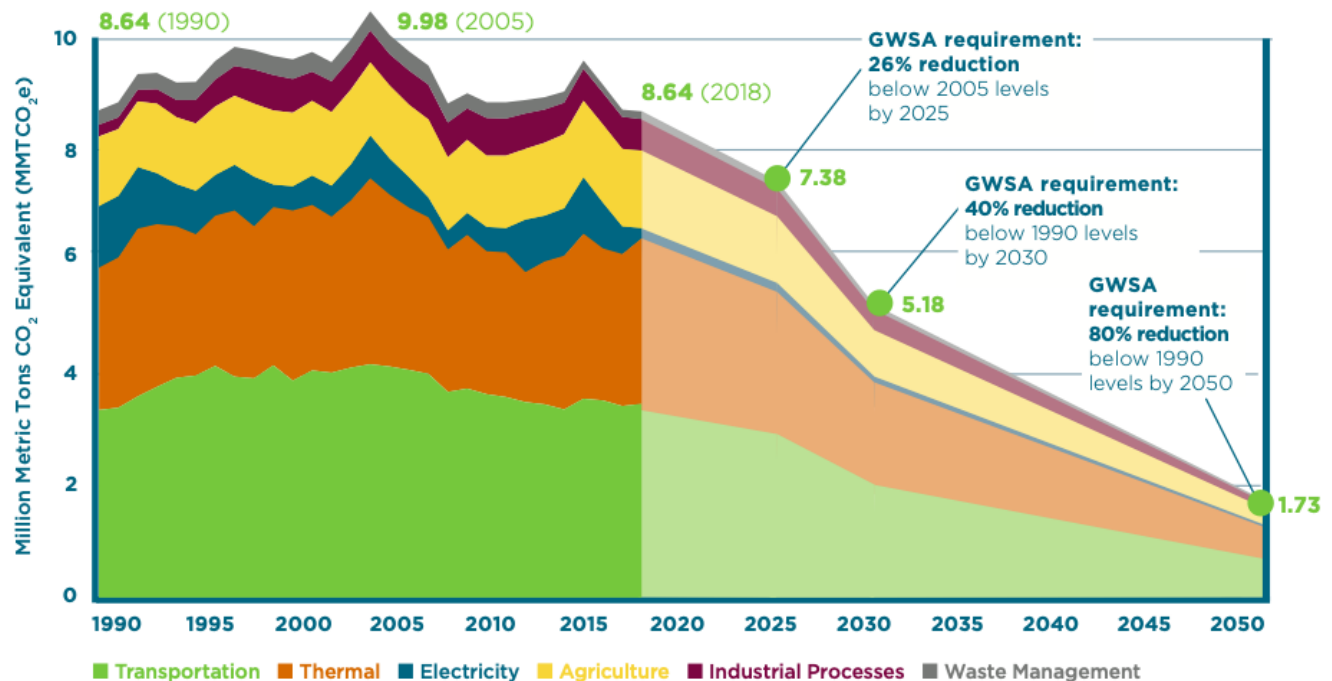
Focus group participants were asked to choose their top 3 recommendations for funding, participants' highest priorities were for improvements in the public transit system including more routes and more frequent service, better public transit infrastructure, and new forms of transit. Other priorities included investment in electric vehicle charging and incentives, and biking and walking infrastructure (See page 21 for full response.)

Introduction

Transportation is a key piece of our overall way of life, and without access to reliable transportation, quality of life in Vermont is significantly diminished. Vermonter's main mode of transportation is by single occupancy vehicle, which has led this segment to be Vermont's largest source of climate pollution, accounting for roughly 40% of our state's total emissions. This can be attributed to a handful of factors.

- First, we drive more. The rural character of our state combined with dispersed development patterns puts Vermont's per capita annual vehicle miles traveled (VMT) at 11,773 miles as of 2019 — that's the highest of any Northeastern state and well above the national average¹.
- Secondly, 94% of our transportation is powered by fossil fuels — this is primarily made up of light duty gas powered vehicles (71%) and heavy-duty diesel vehicles (11%).²
- Thirdly, Vermonters are buying larger vehicles — making up roughly 85% of new vehicles sold in 2020³.

Vermont's historical GHG emissions and future requirements



Source: Vermont Agency of Natural Resources, Vermont GHG Emissions Inventory and Forecast (1990-2017), 2021.

Transforming Vermont's transportation system is essential to reaching our state's emissions reductions requirements codified by the Global Warming Solutions Act. While there are many ways to meet our commitments, a handful of high-impact opportunities have been identified, with the transition to EV's expected to make the highest impact. In order to meet Vermont's climate commitments, we need to:

- Electrify our transportation sector
- Improve the overall efficiency of our internal combustion engine (gasoline and diesel) vehicles.
- Decrease our per capita vehicle miles traveled.
- Ensure more Vermonters are sharing rides instead of riding alone.

¹ Energy Action Network, Annual Progress Report for Vermont, 2022

² Vermont Agency of Natural Resources, VT Greenhouse Gas Emissions Inventory and Forecast (1990-2017), 2021.

³ Energy Action Network, Annual Progress Report for Vermont, 2021

- Promote telecommuting to get more workers logging into work instead of driving into work.

We can take many approaches to tackling this problem, but they must center not only on emissions reductions but community growth, equity, and economic development.

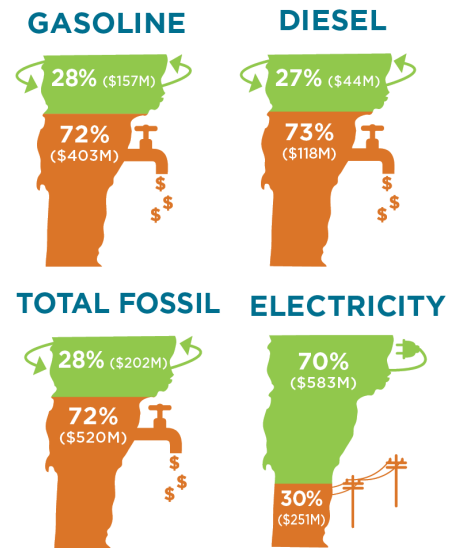
In 2020 alone, Vermonters spent more than \$700 million on fossil fuels for transportation. Of that total, 72% left the state's economy. Electricity, on the other hand, keeps 70 cents per dollar in Vermont's economy⁴. Clean transportation can also support a more equitable economy. Lower income Vermonters spend a much higher share of their income on transportation fuels — especially in rural areas. And research has shown that vehicle ownership is a significant indicator of upward economic mobility, as reported in a 2019 report to the Legislature by Reach Up. Additionally, people of color and low-income communities are disproportionately exposed to more pollution from cars, buses, and trucks⁵.

Driving electric vehicles instead of gasoline vehicles on the other hand can save rural Vermont drivers, on average, up to \$1,500 per year on operational and maintenance costs⁶. Electricity is both lower cost and less price volatile than gasoline and diesel fuel. It is estimated that, by 2050, a cleaner transportation system could net Vermont over \$73 million in value from avoided premature deaths, asthma attacks and workdays lost⁷.

Providing more transportation options can also protect jobs and bolster economic mobility.

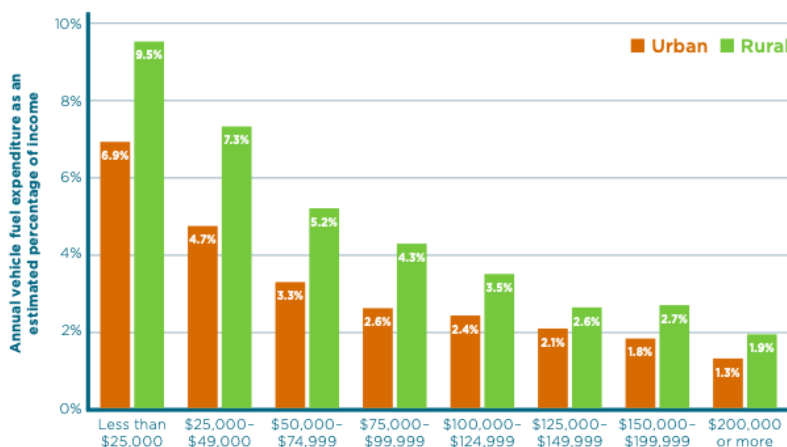
Transportation spending in VT, 2020

- recirculates in the VT economy
- leaves the VT economy



Source: Vermont Agency of Commerce and Community Development, 2022

2017 annual vehicle fuel burden by income and location-type, northeast U.S.



Source: U.S. Department of Transportation, National Household Travel Survey, 2017.

Roughly 7% of Vermont households do not have access to a car, and only 75% of Vermonters have a driver's license⁸. Lack of access to transportation options can reduce employment and education opportunities and make it harder to get to grocery stores, social events, and medical appointments — especially for older, disabled, and/or low-income Vermonters.

By investing in clean transportation solutions, we can save Vermonters hundreds of millions of dollars and create thousands of family-sustaining jobs along the way.

⁴ Vermont Agency of Commerce and Community Development, 2022

⁵ <https://www.ucsusa.org/sites/default/files/attach/2019/06/Inequitable-Exposure-to-Vehicle-Pollution-Northeast-Mid-Atlantic-Region.pdf>

⁶ Union of Concerned Scientists, "Clean Transportation Strategies for Rural Communities in the Northeast and Mid- Atlantic States." November 2020.

⁷ American Lung Association, "The Road to Clean Air, Benefits of a Nationwide Transition to Electric Vehicles." September 2020

⁸ Vermont Agency of Transportation, "Vermont Public Transit Policy Plan." February 2020

Network Action Team Goal(s)

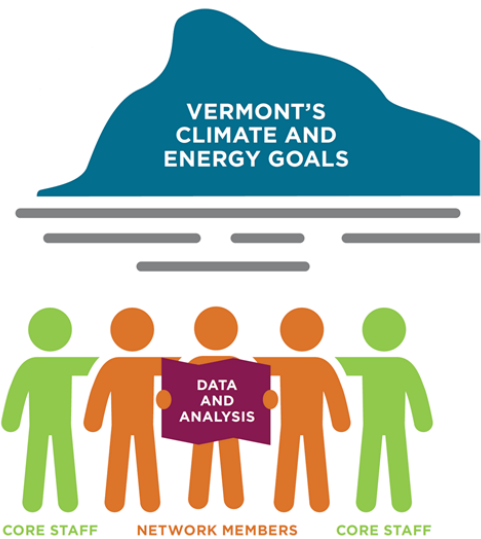
While originally charged with creating a blueprint for the equitable investment of Transportation & Climate Initiative Program (TCI-P) revenues, the withdrawal of Connecticut, Massachusetts, and Rhode Island from TCI-P left the future of the Program in question and forced the Vermont Climate Council to explore other options for achieving the required emissions reductions. The goal of this group then shifted to advancing a collaborative process to identify Vermonters' challenges in the transportation and transit equity spaces and their experiences navigating existing clean transportation programs.

By collecting feedback from diverse stakeholder groups on their challenges accessing clean transportation and public transit, we hope to:

- Ensure the voices and perspectives of marginalized groups are heard as it relates to clean transportation investments.
- Outline impactful opportunities to invest state and federal dollars for maximum benefit in terms of cost-effective and efficient GHG reduction strategies.
- Analyze the potential benefits of the proposed investment approach, in terms of jobs, consumer savings, health benefits, etc.

We aimed to hear from disadvantaged and historically marginalized communities in these focus groups. These communities include but are not limited to those who experience:

- | | |
|---|--|
| - High climate risks, such as health impacts, flooding, and extreme temperatures | - Low income, high and/or persistent poverty |
| - Oppression and racism, exclusion from opportunities, or less resources to adapt to climate and economic changes | - High unemployment and underemployment |
| - Disproportionate transportation pollution and negative effects from fossil fuels and extractive economies | - Linguistic isolation |
| - Job transitions as a result of climate mitigation and adaptation measures | - High transportation cost burden and/or low transportation access |
| | - Limited healthcare access and quality |
| | - Difficulties in obtaining funding, service frequency, wider travel zones and a lack of access to services compared to urban public transport |



Guiding Principles of the Network Action Team

Advise a significant minimum investment in frontline, historically disadvantaged communities.

Identify communities and their needs to allocate a significant portion of clean transportation funds to directly advance environmental justice and spur economic opportunity for rural and disadvantaged communities.

Ensure significant greenhouse gas emissions reductions across Vermont's transportation sector.

Transportation accounts for 40% of Vermont's greenhouse gas emissions. State and federal dollars must be utilized to efficiently and effectively reduce Vermont's transportation emissions in line with our state's current climate commitments.

Utilize clean transportation as a means to improve public health.

Social determinants of health (SDOH) have major impacts on the health, well-being, and quality of life of Vermonters and also contribute to a wide variety of social, racial, and economic inequities. To the greatest extent practicable, transportation solutions identified for investment should promote active transit and work to address SDOH factors such as safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; and polluted air and water.

Promote access to clean transportation options for all Vermonters.

Transportation funding should be utilized to help low-to-moderate income Vermonters and employers switch to clean transportation options affordably. Reducing up front costs through incentives, tax credits, preferential financing, and grants are key avenues to address Vermonters' transportation challenges while maximizing economic benefits and reducing greenhouse gas emissions.

Prioritize Vermont's youth in transportation investments.

We must consider Vermont's future generations when investing state and federal funds. Namely, this should focus not only on accessibility and public transit but also fostering a cultural shift when it comes to how children get around and training youth on the value of alternative transportation methods.

Provide attractive transportation options for short trips that can be done without a car.

Clean transportation investments should incorporate smart growth principles with the ultimate goal of increasing the total number of Vermonters who can access jobs, healthcare, education, etc. without the use of a car. In Vermont, this means building on and supporting the state's historic settlement pattern of higher-density downtown and village centers surrounded by farm, forest, and natural areas.

Methodology

In an effort to ensure procedural equity the Network Action Team chose to utilize an organizational regranting process to work with groups already engaging with communities on the ground. We put together a request for proposals, seeking organizations whose constituents or communities may experience unmet transportation needs, and/or those whose participants may be less represented in statewide conversations around clean transportation.

Listed below are the organizations selected to carry out focus groups in their respective communities as well as their primary motivations for participating in this study.



“Capstone Community Action’s mission is to empower individuals with the tools and resources to move beyond poverty, and to create resilient households and communities. Capstone is committed to addressing poverty with a holistic view and recognizes access to transportation as a significant and constant barrier for low-income families and individuals in our rural state. Because of this, Capstone has stepped forward to develop innovative solutions that increase access to transportation while reducing cost and environmental impact.”



“The Central Vermont Council on Aging (CVCOA) is the leading expert and advocate for healthy aging in Central Vermont. Our mission is to support Central Vermonter to age with dignity and choice. We offer transportation resources as part of our individualized care team support and long-term care planning. This includes partnerships with the three transportation providers in our area through the E&D transportation program.”



“As the largest community action agency in Vermont, CVOEO serves the northwestern region, which is home to the state’s most populous and diverse communities. Most of the people served at CVOEO are very low income and often underemployed, while others are precariously housed or experiencing homelessness and receive services out in the community through our Community Outreach and Resource Advocacy team. Since 1965, we have seen the perspectives of the poor, the homeless, and New Americans often left out of public conversations about resources and policies that directly and indirectly impact the quality of their lives.”



“Lamoille Community House (LCH) serves our most vulnerable community members: those who are currently experiencing homelessness. Our guests struggle with transportation challenges, which impact their ability to find support, housing, and employment, in addition to accessing food. These community members have strong proxy power for other vulnerable groups within our community. LCH is dedicated to empowering the voices of the people we serve, and we believe that this initiative by EAN needs to hear from our unhoused community in order to create equity for a population that struggles to escape poverty in a system that perpetuates it.”



“Old Spokes Home’s community relationships and research experience, specifically in the transportation sector, are just what’s needed to gather essential voices of Vermont’s transit challenges. Through our core programs Everybody Bikes and Youth Shop we offer what no other bike shop in the county does: free and affordable bikes and repairs. This makes us a hub of transportation opportunity for low-income community members. In delivering our programs we partner with countless social service organizations in the county like USCRI, AALV, Spectrum Multicultural Youth, King Street Center, Winooski Library, Burlington Parks & Rec Summer Free Lunch Program, and Howard Center. Our partner relationships broaden our web of racially, ethnically, and culturally diverse connections. As does our location in the Old North End, “Burlington’s most economically, ethnically, and socially diverse community...”



“Rights & Democracy Institute (RDI) is engaged in community engagement efforts related to transportation and environmental justice during the summer of 2022 in four communities statewide, which represent a diverse range of populations and geographies. RDI proposes to hold a focus group in Rutland, which is one of the communities in which we will be working this summer. We are already engaged in a process of identifying key community stakeholders and leaders in that region, and EAN would be leveraging our existing work in that area.”



“The St. Johnsbury Community Hub represents a community with unmet transportation needs and acts as a space for the community to share their experiences regarding public transportation in Caledonia and Southern Essex counties. There have been many people who come into the Hub that have made comments about the local transportation option, of which there is

one. The Hub would be a great place for community members to hold a focus group about transportation issues. The Hub is like a train station in which people get on and off. There is a constant exchange between community members in the Hub - whether that be the Dept. of Labor or between two strangers.”



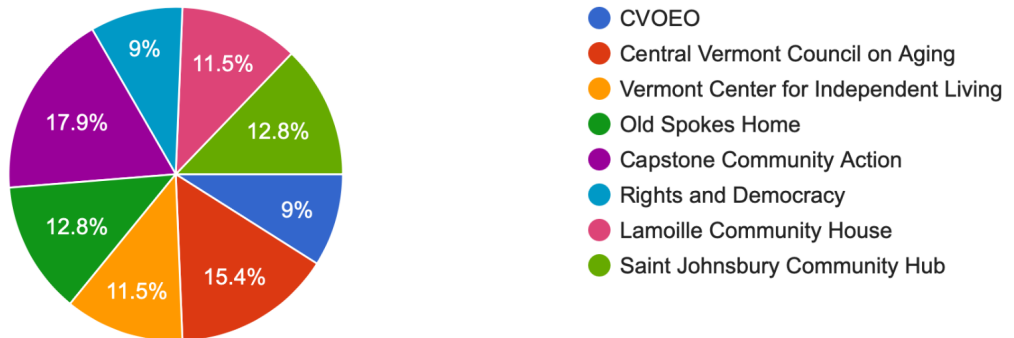
“Founded in 1979, VCIL was the first cross-disability organization in the state with a Board and Staff composed of people with different types of disabilities. VCIL operates using the Independent Living philosophy, that people with disabilities and the Deaf are experts in and should be in control of their own lives. The work of VCIL connects individuals with disabilities to services and supports that help enable them to live to their full human potential. Since its founding VCIL has conducted numerous focus groups on a variety of topics that impact the lives of people with disabilities.”

Demographic Survey

The selected community organizations recruited a total of 78 focus group participants. Leading up to the discussion, participants were asked to answer a series of demographic questions relating to their race, gender, geography, income, education level, and perceptions about climate change mitigation and adaptation. Summarized below are the key results.

Which organization is hosting your focus group?

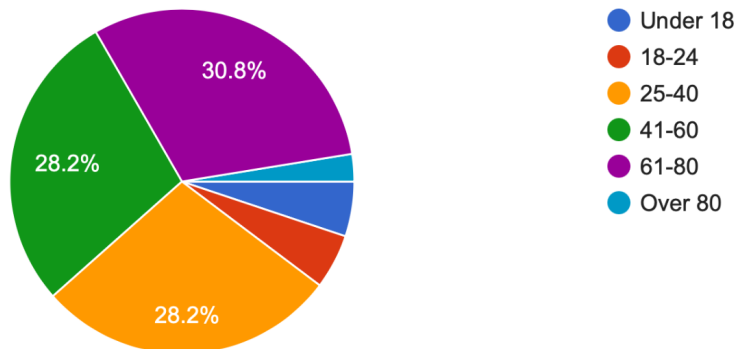
78 responses



Age, Gender, & Race and Ethnicity

What age are you?

78 responses



Gender

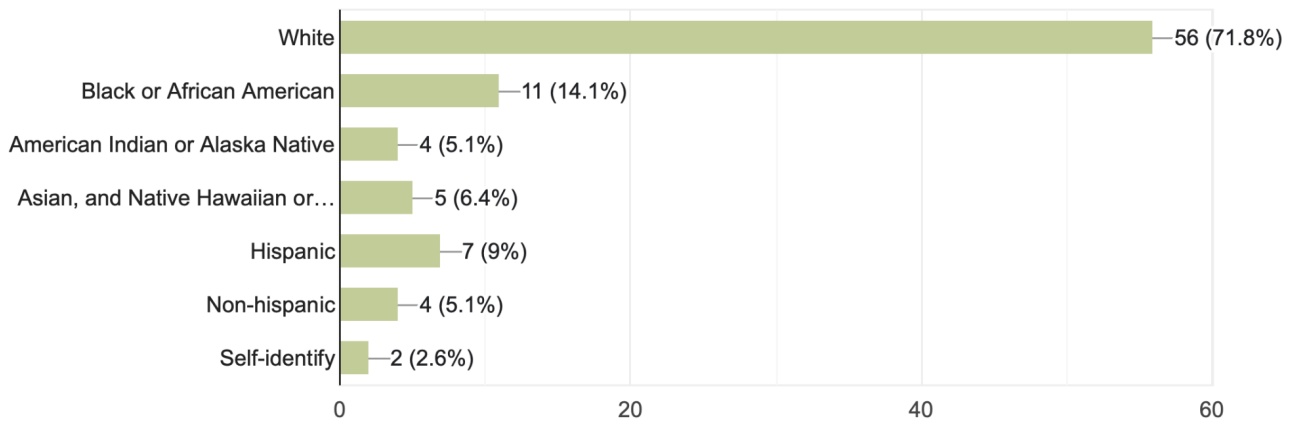
In looking gender distribution, approximately 71% identified as female, 28% identified as male, and 1.3% identified as non-binary.

Race and Ethnicity

When it came to race and ethnicity, the vast majority of respondents (72%) identified as white followed by Black or African American (14%), and Hispanic (9%). For context, according to the [most recent census data](#) available, roughly 94% of Vermonters identify as white, 1.5% identify as Black or African American, and 2.2% identify as Hispanic or Latino.

What is your Race and Ethnicity? (Choose all that Apply)

78 responses

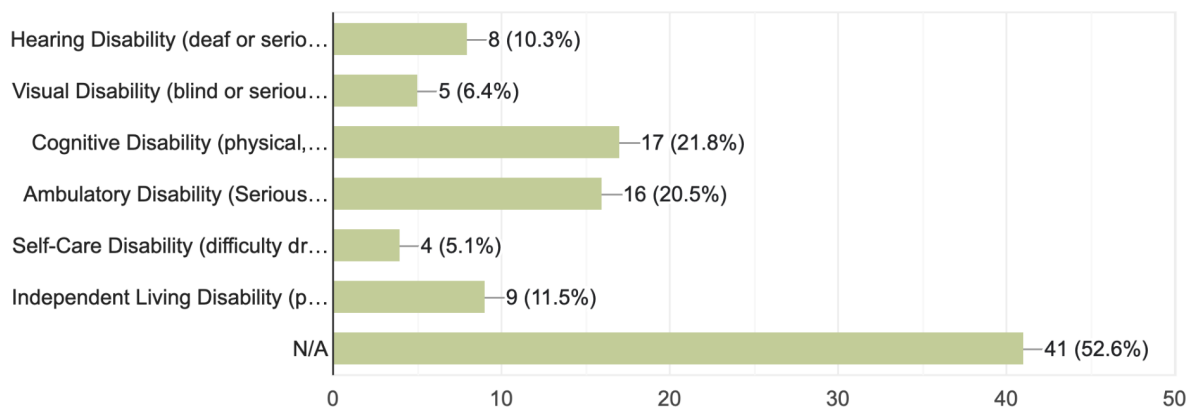


Considering the challenges language barriers can present in accessing public goods and services, we also asked groups what language they typically spoke at home. The significant majority (86%) identified English as their primary language followed by Mai-Mai (4%) and Nepali (4%). The remaining 6% spoke a variety of different languages at home including Swahili, French/Mandingua, Spanish, and American Sign Language (ASL).

Disability Statistics

Do you have a disability? If so, please check all that apply.

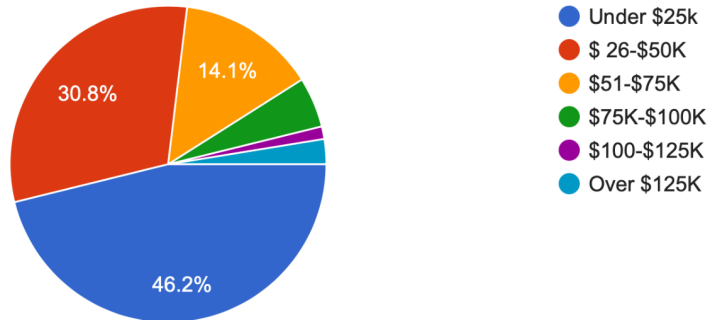
78 responses



Socioeconomic Status (Income, Housing, Education)

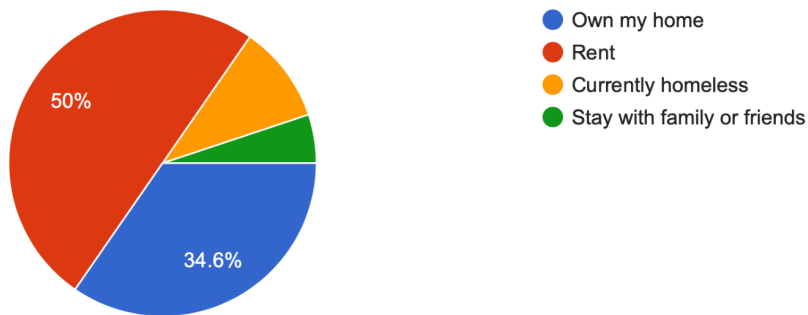
What is your household income

78 responses



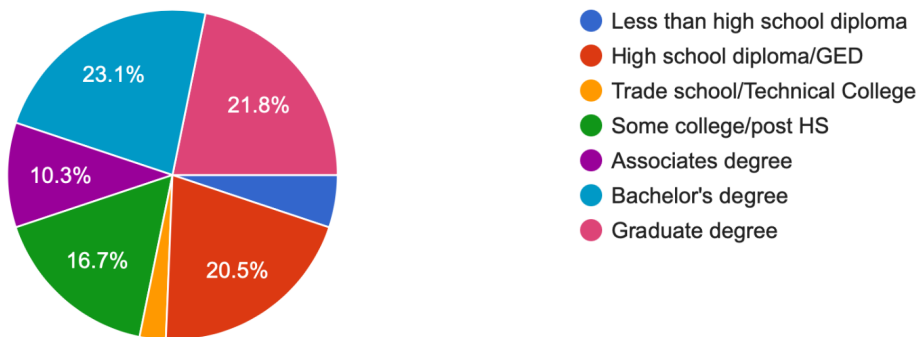
What's your living situation?

78 responses



What level of education do you have?

78 responses

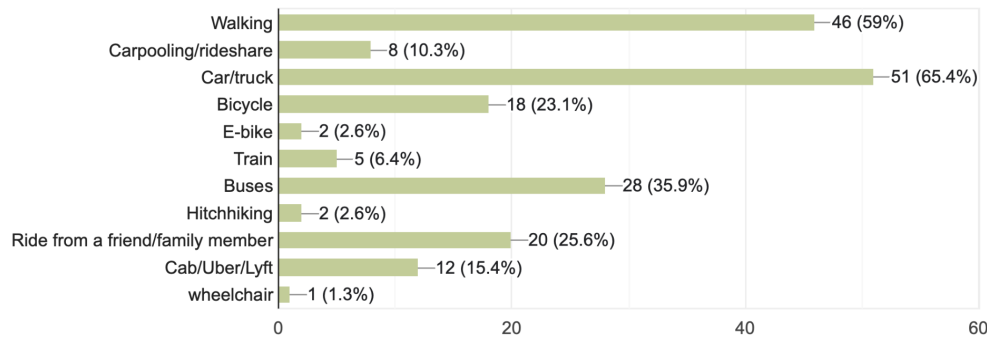


Transportation Access

For many households, access to a car unlocks economic opportunities such as jobs and education as well as time with family and friends. In total, 51(65.4%) of the participants had access to a car at home. This is well below the state average, as approximately 93% of all Vermont households have access to a car. We also asked participants to share what types of alternative transportation they use. The most popular options included walking, buses, biking, and receiving rides from friends and/or family.

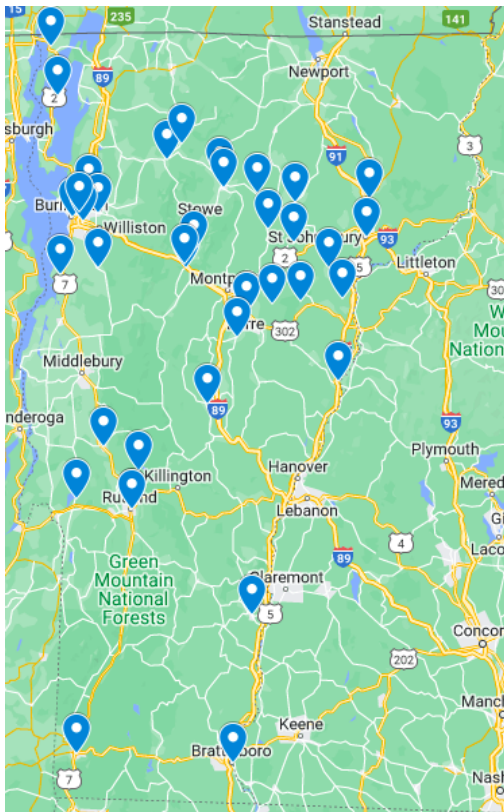
What type(s) of transportation do you use?

78 responses



Geographical Participation

While the majority of focus group participants hailed from Chittenden County, the Network Action Team had feedback from a wide variety of Vermont cities and towns including:



- | | |
|-------------|-------------------|
| Alburgh | Jeffersonville |
| Barre | Lyndonville |
| Bennington | Morrisville |
| Rutland | North Hero |
| Bomoseen | Peacham |
| Bradford | Perkinsville |
| Brandon | Randolph |
| Brattleboro | Ryegate |
| Burlington | Rutland |
| Cabot | South Burlington |
| Charlotte | Springfield |
| Chittenden | Saint Johnsbury |
| Colchester | Waterbury Center |
| Duxbury | Waterbury Village |
| East | Waterville |
| Hardwick | Williamstown |
| Essex | Winooski |
| Junction | Wolcott |
| Groton | Woodbury |
| Hinesburg | |

As you'll see in the focus group summaries that follow, challenges vary from town to town with common underlying issues relating to community connectivity, transit availability, adverse weather, affordability and more. However, it is important to recognize Vermont's urban-rural divide, as drivers living outside of Vermont's urban centers often must travel farther, repair their vehicles more often, produce more carbon emissions per capita, and spend more money on fuel. This is especially true for low-income Vermonters, who spend a significantly higher share of their income on transportation fuels. Throughout the Northeast, drivers with annual incomes of \$75,000 or more spend less than 5% of their income on transportation fuels. Meanwhile rural drivers earning less than \$25,000 per year spend nearly 10%.

For more information please visit:

https://www.google.com/maps/d/u/0/edit?mid=1hiTcw5y_usUzOW4w0ZMRlvFyNFBjK1A&usp=sharing

Focus Group Responses

Each of the selected organizations was asked to conduct a focus group, or similar conversations, with roughly 10 of their participants to learn about barriers to accessing clean transportation and public transit. With feedback from conveners, the Network Action Team developed prompts for focus group participants intended to drive at the heart of the issue of transportation equity. These were the main questions posed to participants (* indicates a priority question).

- 1. What are the biggest challenges you have in getting around? Have these changed due to the COVID pandemic? Are the rising gas prices affecting how you get around? ***
- 2. What kind of trips are you not taking, how does that impact you? Are there times you want to leave your home, but are not able to because of lack of accessible or any transportation?**
- 3. What would your ideal transportation look like? What would you like more or less of and why?***
- 4. The state of Vermont is required to reduce our pollution from transportation. That means burning less gasoline and diesel. How as a community can we reduce pollution caused by transportation, and what may your part look like? ***
- 5. Do you use buses, walking, biking, carpooling, or taxis for local travel? What do you like? What doesn't work? ***
- 6. Auto manufacturers are moving towards offering more electric vehicles, and by 2035 all new cars being sold might be electric instead of using gas or diesel. Is this something of interest to you? What would you need to be prepared to use an electric vehicle? What are the biggest obstacles to you being interested in or able to drive an electric vehicle?**
- 7. Do you have any other thoughts on transportation you would like to share?**

For the purposes of this report, we breakdown each question individually and provide some of the common and/or notable responses to each. For more detailed transcripts please see the "Resources" section of this report.

What are the biggest challenges you have in getting around? Have these changed due to the COVID pandemic? Are the rising gas prices affecting how you get around?

Single Occupancy Vehicles

For some focus group participants, lack of access to a car is a key issue, predominantly due to the costs associated with car ownership. Several commented that car maintenance and upkeep are too expensive. Even for those who own a car, registration and inspection can be a hindrance, and some have chosen to drive unregistered/uninspected cars as they have no other options available to them. The cost of gas was consistently identified as a major challenge.

Safety was another issue associated with driving. Some older participants do not feel comfortable driving at night, in traffic, or in adverse weather conditions, so have chosen to travel during off-peak hours. Poor road conditions and dangerous driving are also a concern, especially during weather events. Carpooling was always somewhat challenging because of different individual schedules, but became more complicated with COVID, when people became concerned about the health impacts of sharing a ride.

Public transportation

Free bus fare was cited multiple times as a positive thing that has encouraged more ridership.

However, there were also a number of complaints about public transportation. Many participants classified public transportation as not available, reliable, or accessible. For many this is because there are no buses where they live. For others the lack of public transportation on evenings or weekends was problematic. Participants commented on issues with bus stops, including a lack of benches, shelters to keep riders dry or warm in bad weather, and bathroom facilities. There are also accessibility issues which include buses not pulling up close enough to bridge the gap at curb cuts, and people ignoring the signs stating “please reserve for people with disabilities” on the front seats of the bus.

Participants had many comments about communication issues related to public transit. These included problems with unsigned or poorly signed bus stops, routes that are hard to understand, and limited support for languages other than English. Participants also pointed out that planning a day of riding the bus means having access to technology that not all of them have or are able to navigate. And those that do have technology still found that apps meant to communicate the bus's location do not always work. They did not feel there was an easy way to share input and get information regarding issues or concerns with roads, transportation infrastructure, and the bus. And there were several complaints about customer service issues from the bus companies and drivers.

Dial-A-Ride services (operated by transit providers)

For those using dial-a-ride services, there were also several complaints about reliability. Some said that trips get canceled at the last minute, due to a shortage of volunteer drivers. And some riders don't always feel safe with volunteer drivers. It can also be difficult to use the service because it is not always possible to schedule a trip 48 hours in advance. It can be hard to schedule a same-day appointment or go to a social engagement.

Walking & Biking

Many participants felt that they were too far from services to walk or bike, and some experienced mobility issues that prevented them from doing either. Concerns were expressed about the safety of sidewalks and the danger of crosswalks. Sidewalks in the city are often in disrepair and cause safety

hazards, and for those in wheelchairs these can serve as complete barriers at times. In rural areas, many roads aren't safe enough for biking, as they don't have a shoulder, or the speed limit poses too high of a risk. Bike lanes are often non-existent, and signage can be unclear.

COVID Impacts

COVID made it much harder to share rides. Some participants remain wary of taking public transportation for fear of getting sick, and some commented on the fact that bus drivers aren't required to wear masks and it makes them feel less safe. Not everyone shared these concerns, but COVID still impacted their options. Some bus routes have adjusted or changed, or even been canceled because of COVID. COVID has also made ridesharing and hitchhiking more challenging. During a pandemic, people are not as eager to let a stranger into their small, confined space for an unknown duration of time.

Gas Prices

Participants have no choice but to pay the increased gas prices. However, some people are intentionally driving less and consolidating trips. One example given was needing at least three errands to take the car out, another example was being more reluctant to pick up friends/family who do not have a car.

The prices are prohibiting some participants from purchasing vehicles entirely. Income can also limit the types of cars available (i.e., it can be hard to find an affordable all-wheel drive car, or one with a third row). In rural areas, participants much prefer having an AWD vehicle, which are typically more expensive, use more gas, and are less frequently available as an EV or PHEV.

What kind of trips are you not taking, how does that impact you? Are there times you want to leave your home, but are not able to because of lack of accessible or any transportation?

Many participants are missing out on trips that would add to their quality of life, including medical appointments, social events, participation in recreational activities, and even grocery shopping. Some elders who still drive are avoiding trips at night or during adverse weather conditions. Public transit users reported that having to plan around a limited bus route (sometimes one that only comes through town once per day) makes keeping appointments very difficult. Many of our participants expressed frustration that not having transportation meant missing a lot of crucial appointments. One person told us that they lost their primary care physician due to missing too many appointments. Some grocery trips are either consolidated or missed entirely, with some people replacing those trips with services like Instacart but finding that is also expensive and experiencing mistakes with orders.

Participants also mentioned forgoing family vacations, limiting the amount of driving not related to commuting to work, seeing family and friends less, and participating less in their community. For someone with a chronic illness, just leaving home can take a lot of energy, let alone also having to figure out transportation.

Work is also impacted. One participant explained that they worked at a location outside of the bus service area, and that they knew of several people that had to turn down jobs at this location because of this. They also mentioned that many workplaces have regular shifts outside of the buses operating hours, making it difficult for them to go to work.

What would your ideal transportation look like? What would you like more or less of and why?

**Topic areas were given different weights across different focus groups, in some groups, conversation weighed heavily around public transit, in others, discussion centered around single occupancy vehicles.*

Single Occupancy Vehicles

Focus group members recognized that if there are to be more electric vehicles, there need to be more charging stations available. They also suggested more State subsidies for electric vehicle purchases. For those with EVs or PHEVs, figuring out the charging system has been difficult as there isn't a standardized charging system. It would be ideal to have one universal charger available for home charging, public charging, and charging at work. There is a need for a statewide, standardized education and outreach program surrounding EVs for the public and for dealerships that address how, where, and when to charge, and what assistance is available - similar to AAA. We also will still need safer, well-lit roads.

Public Transit

Focus group members described wanting more public transportation. Some described a system like in Europe with trains everywhere, greater availability of buses with comfortable seats, good drivers, on demand, and regular trips including evening & weekend service. They also wanted to see centralized information about public transit routes and more interconnectivity between routes. In their ideal scenario, there would be more employer assistance with worker transportation, a bus service for folks who work 3rd or 4th shift/late nights or early mornings. Bus drivers would be better trained in stress management. There would be more electric buses to benefit the environment and to alleviate health issues related to diesel exhaust. They also wanted better communication and protection that would allow riders to track a vehicle while waiting and create transportation waiting spaces with seating and protection from the elements.

Another group described free, handicap accessible buses to take you to and from essential services like groceries, laundry, etc. And some wanted to see an expansion on what qualifies as a ride for any and all benefit programs, describing their current situation as: "I can only use the bus to go to a medical appointment. I can't use the bus with funds available on certain programs for anything else - like to just take a trip. It has to have a very specific purpose."

Some participants also suggested an electric trolley system for downtown areas and train services for both local and state-wide travel, with high-speed rail/light rail as ideal.

Walking & Biking

Participants expressed a desire for greater infrastructure connecting communities together for biking and walking. This might include living in a place where things like school and groceries are closer and therefore reachable by bicycle, and with more sidewalks and bike lanes. They also were interested in e-bike rentals (like the Burlington bike-share program) and purchase incentives. Safely plowed or heated sidewalks were also mentioned.

Rideshare

Some participants mentioned a desire for more on-demand services for rideshares and "rural uber" with extended hours. There was also a suggestion of a vetting process for "safe hitchhiking", and possibly an expansion of the [Hitching Post pilot](#).

The state of Vermont is required to reduce our pollution from transportation. That means burning less gasoline and diesel. How as a community can we reduce pollution caused by transportation, and what may your part look like?

Focus group participants could see purchasing EVs in the future, though some felt they might remain too expensive. They noted that they could prioritize walking, biking, public transit, ridesharing and/or carpooling.

They also pointed out that more education and advocacy about reducing pollution is needed including education around public transportation to destigmatize buses and trains.

It was also mentioned that climate change cannot be addressed on an individual level. Systematic change and funding for transportation options were mentioned often. This included the need for more incentives for electric cars and e-bikes as a key policy approach to facilitate transition. Incentives for businesses/employers to promote work from home or use of public transportation were suggested. Towns and cities need to be organized to facilitate easy transport to things we all need –groceries, schools, work, healthcare–so less travel is required. And systems for individuals to share/co-own cars should be possible given that so many cars sit unused for extended periods of time. Simple support, such as mapping of e-bike locations to help people get to surrounding communities are lower cost options that could be helpful.

Do you use buses, walking, biking, carpooling, or taxis for local travel? What do you like? What doesn't work?

The responses to this question largely mirrored those detailed in the first prompt relating to their ongoing transportation challenges. In terms of positive feedback, participants shared that they enjoyed biking as both an active and green means of transportation and felt that fare free transit was a tremendously beneficial initiative in their respective communities.

Auto manufacturers are moving towards offering more electric vehicles, and by 2035 all new cars being sold might be electric instead of using gas or diesel. Is this something of interest to you? What would you need to be prepared to use an electric vehicle? What are the biggest obstacles to you being interested in or able to drive an electric vehicle?

Affordability was consistently identified as a key barrier to accessing EVs. There was also concern about the range and speed of charging, and the number and location of charging stations, all of which contribute to range anxiety. There was concern about whether vehicles would have the features they need with room for families or equipment, and concern about the life span and reliability of these vehicles. People wondered if charging is as reliable as gasoline and wanted more information about charging station use and function. Some participants mentioned seeing non-functional charging stations or stations covered in snow and ice in the winter, and while not explicitly mentioned during the focus groups, accessibility of charging stations for the disabled community is a lingering concern. Finally, some of the participants were concerned about the effectiveness of EVs as a “green initiative,” questioning the sources of electricity and pollution caused by the disposal of batteries and gas cars.

Do you have any other thoughts on transportation you would like to share?

- Push on land use to focus on village and downtown centers makes sense but trying to make it difficult to live in rural areas is a mistake;
- Permit and driving tests are an opportunity to educate people about reducing trips, carpooling, clean transportation, etc. Ingrain it in people early on that single occupancy vehicles are not the only option;
- Have some type of real-time translation or audio-visual supports for those using public transportation;
- Promote community connectivity;
- For those with EVs, it would be great to have GPS information to share info about chargers, driving habits, and potentially car share/carpooling with their EVs. They suggested this could potentially be integrated with Front Porch Forum to bring neighbors together to carpool;
- All of these changes will need to keep in mind the disparities between downtown and rural areas, and will need to address the problems on statewide level - rather than individual solutions for each area, which create more disconnect between communities;
- "I think just listening to everyone's input, the one take-away I have is that the government can't wait for demand for these services to reach these goals. Don't wait for the demand. Put the education and services out there."
- Consider the use of railways for travel;
- Need better access to recreation areas—people come to the area to enjoy the outdoors and recreational opportunities but unless you have access to a car you can't get to them, especially via local public transit. Recreation and scenic places are becoming a privileged thing, dependent on having access to a vehicle.

Individual Reports

For more detailed responses, please see below for the individual reports provided by focus group conveners.

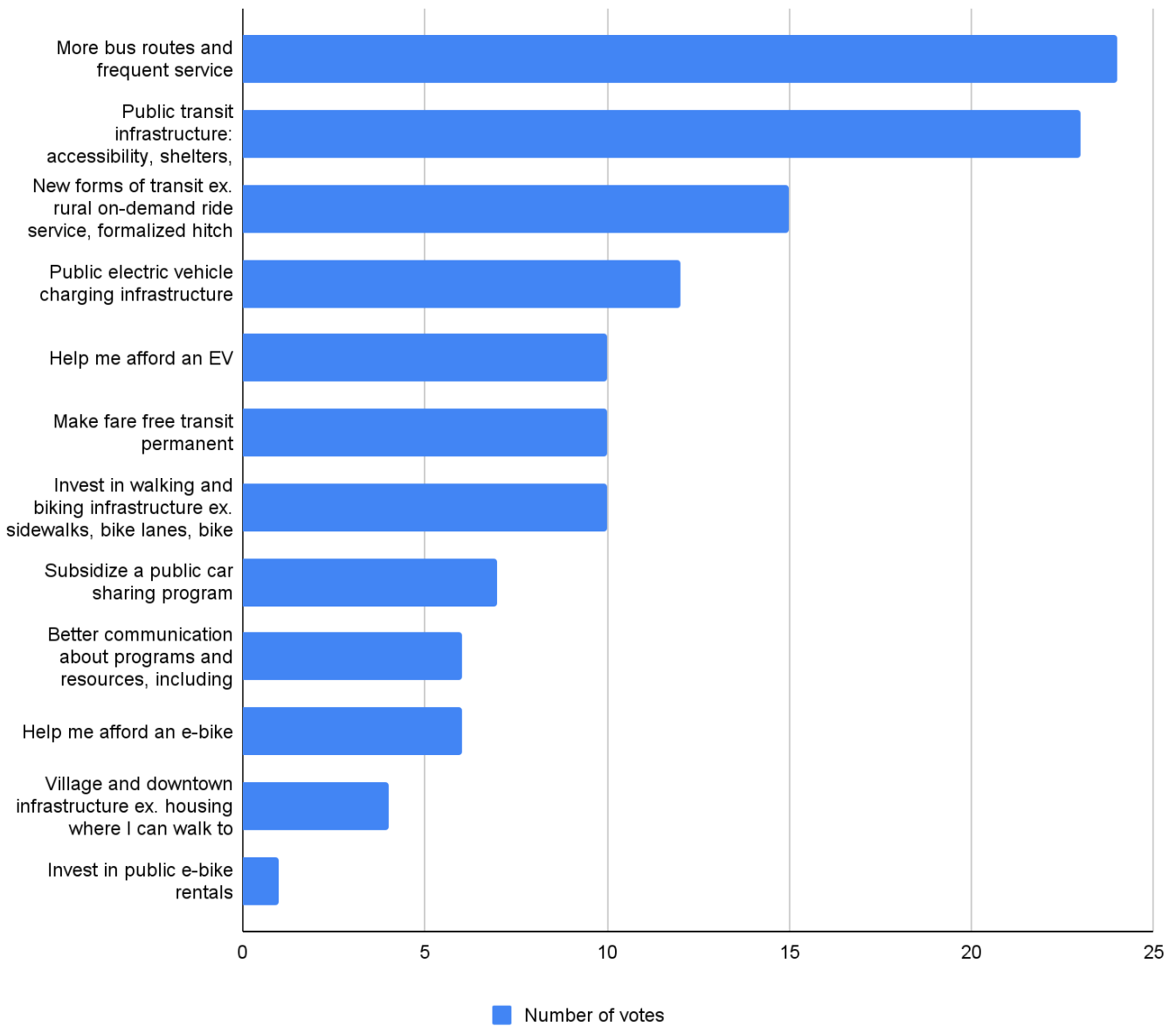
- [Capstone Community Action](#)
- [Central Vermont Council on Aging](#)
- [Champlain Valley Office of Economic Opportunity](#)
- [Lamoille Community House](#)
- [Old Spokes Home](#)
- [Rights & Democracy](#)
- [St. Johnsbury Community Hub](#)
- [Vermont Center for Independent Living](#)

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What would your funding priorities be?

Participants were given a survey after the focus group discussions. This survey incorporated the main suggestions offered by participants and asked them to choose their top 3 recommendations for funding priorities, to help both the Network Action Team and policymakers better understand where the state should concentrate its investments. In total, 42 people completed the survey. The highest priorities identified were improvements in the public transit system—including more routes and more frequent service; better infrastructure; and new forms of transit. Other priorities included investment in electric vehicle charging and incentives, and biking and walking infrastructure.

Participant priorities for funding



Policy Considerations

Single Occupancy Vehicles

While many focus group respondents utilized public transit, it's clear that single occupancy vehicles are still the preferred mode of travel for most Vermonters. With electric vehicle affordability, reliability, and accessibility being consistent concerns expressed across income strata, demographic groups, and geographies, policymakers should consider the following when exploring ways to encourage EV deployment across the state:

- **EV Purchase Subsidies.** While Vermont's EV tax credits are considered a helpful resource and should be strengthened, they do not help Vermonters overcome the initial cost barriers when it comes to purchasing an EV. Policymakers should consider amending the program or strengthening complementary programs that provide direct subsidies on the front end at the time of purchase, rather than a later tax credit. A great example is the MileageSmart used high efficiency vehicle program, which provides low- and moderate-income car buyers with an incentive covering 25% of the upfront cost of a used high efficiency vehicle, with awards up to \$5,000.
- **EV Charging Infrastructure.** Range anxiety was a persistent issue for many focus group participants, as they feel that there are not enough public or private charging stations available in the state and have lingering questions about their reliability and accessibility. Leveraging the successes of initiatives like the EVSE Charging Grant Program, the state should continue to directly invest in the deployment of EV charging stations in both private spaces such as homes and multi-unit dwellings as well as public spaces like commuter lots, workplaces, and parking lots. Based on demand estimates made by the DOE's National Plug-In Electric Vehicle Infrastructure Analysis, we'll need roughly 3,600 workplace plugs to support our 2025 targets and roughly 7,700 workplace plugs to support our 2030 targets⁹. It's vital that we start to lay the foundations for future demand expectations now as to avoid consumer hesitation later. As our state looks to reduce transportation demand and electrify the sector, these chargers will become essential facilities.
- **Carshare Programs.** Carsharing is an easy and affordable alternative to owning a car for many Vermonters, but there are only a handful of programs available. Policymakers should consider investing additional dollars to expand services such as CarShare Vermont beyond our town and village centers and into more rural areas. Consideration should also be given to alternative shared-ownership models for those who are too remote or lack the technological acumen to take advantage of such programs.
- **Education and Training.** Public outreach to constituencies across the state is absolutely necessary when it comes to not only challenging misconceptions around the efficacy of electric vehicles, but also making Vermonters aware of the suite of resources available to help make them more affordable.

Public Transit

Far and away the most consistent piece of feedback received in focus groups was the need for public transit that is more reliable, affordable, and abundant. Key recommendations to help address this outstanding need include the following:

⁹ https://www.eanvt.org/wp-content/uploads/2021/06/EAN-APR2020-21_finalJune2.pdf

- **Fare free transit.** Implemented toward the beginning of the COVID-19 pandemic, fare free transit has been very well received by participants and widely held as an impactful way to promote economic mobility and encourage Vermonters to utilize public transit instead of SOVs. Federal and state stimulus funding will continue to subsidize the fare free program through this fiscal year, however legislators should explore a more permanent, lasting funding source for this program and others like it. This is not the first-time communities have employed fare-free transit as a means of transportation demand management. Organized in 1981, the Advance Transit service in Vermont's Upper Valley began with traditional onboard fare collection, but fares were later phased out entirely in 2002. In fiscal 2003, the first full year of fare-free, ridership increased by 76.3% over fiscal 2001, the last full year when fares were charged. By fiscal year 2019 ridership had grown by 293% over fiscal 2001, making clear that fare-free is an effective way to increase ridership and respond to community needs¹⁰.
- **Extended services on weekends and late-early hours.** The need for extended hours and weekend services for our public transit system was far and away the most consistent piece of feedback received from focus group participants. While creating total parity with the convenience of SOVs is unlikely, for Vermont to meet its emissions reduction requirements by 2025, our public transit systems will need to attract people who can otherwise drive, while continuing to support riders who use it as their primary mode of transportation. Late-night and weekend transportation options are critical to serving the needs of late-night/early-morning commuters and those without an automobile. We heard from a number of riders that they often have access to public transit services at the start of their shift or social event, but service is unavailable later. Extended transportation services can act as a mobility lifeline for employment, economic mobility, and social opportunities. Yet, in many Vermont communities, access to public transit during late-night or early-morning hours and/or weekends is gravely limited. Most of Vermont's public transit agencies stop running at or before midnight, as late night and weekend services have markedly higher operating costs due to lower ridership and route productivity.
- **Translation services.** For much of Vermont's New American community, language barriers present a significant challenge when accessing public transit opportunities. Nearly all public transit agencies receive federal funding and are thus required to comply with federal laws prohibiting "discrimination based on race, color, and national origin." Policymakers should consider creative avenues to prevent current and prospective riders from becoming lost in translation.
- **Handicap accessibility.** For Vermonters living with disabilities, accessing public transit can be challenging in large part due to a lack of equipment and facilities such as lifts, ramps, securement devices, signage, and communication devices. Continued investment in the acquisition and maintenance of said facilities; stricter enforcement of priority seating; and strengthening operator training programs to better ensure drivers operate their vehicles safely and properly assist riders with disabilities in a respectful, consistent, and courteous way.
- **Facility improvements.** Waiting shelters for bus riders were another key need identified by respondents, who noted that there are too few waiting shelters and many of those that are available have fallen into disrepair. Shelters are of particular importance to the elderly and disabled community who rely on the structures for safety and comfort during adverse weather. Policymakers should prioritize capital investment in public transit facility improvements to ensure shelters are convenient, comfortable, and safe; visible and easily identifiable; and provide information on available services. This is a low-cost, high reward opportunity to bolster ridership

10

and incorporating these amenities and others such as bike racks, bikeshares, and carshares can turn shelters into mobility hubs for riders.

- **Centralized transit information and customer service hub.** Vermont has over a dozen transit authorities, each with their own unique websites and resources, however many participants felt that there was no easy way to levy complaints, ask questions, or offer constructive feedback to transit providers. While resources such as Go! Vermont and the Vermont Public Transportation Association offer centralized information and travel planning assistance, many Vermonters are either unaware of or unable to access these resources and have also reported technical difficulties with the Transit App. Capital investment to better market and troubleshoot these resources is key to ensuring Vermonters feel heard and can access the services they need in real time.

On Demand Services

Due to the rural nature of the state, there is not a one size fits all approach to our transportation challenges, however on-demand services allow us to take a more adaptive approach to addressing Vermonters' variable needs.

- **Dial-a-Ride Services.** Organizations such as the Vermont Public Transportation Association, Rural Community Transportation, Inc, Green Mountain Transit, and Tri-Valley Transit all offer dial-a-ride services, but riders report serious issues with reliability due largely to staffing shortages and spontaneity as most rides need to be scheduled 48 hours in advance. State leaders should explore offering stronger incentives and reimbursement rates to recruit additional volunteer drivers and adopting new technologies to provide real time, on-demand service instead of the traditional method of calling a day or two in advance to schedule a trip.
- **Community supported transportation.** Programs like the Hitching Post generated a lot of positive feedback from focus group participants, namely because of its on-demand, community driven aspects. Launched in 2019, this program is best described as a mixture of car-pooling, ridesharing, and hitchhiking between neighbors. All destinations have their own Hitching Post and riders can indicate where they'd like to go using colored flags. This was lauded by some participants, especially older Vermonters, as an approachable way to get into ridesharing. Policymakers should consider how state and federal funds could be used to expand this program as well as incorporate additional safety and vetting measures to promote both driver and rider accountability.
- **Third Party rural/late shift ride assistance.** As previously reported, limited operating hours is one of the top barriers to entry for Vermonters looking to use public transit to get to and from work. Many transportation authorities are forging partnerships with third party service providers to address these issues. For example, in Florida, the Pinellas Suncoast Transit Authority (PSTA) has implemented the Pinellas County Transportation Disadvantaged (TD) Program. This program not only provides reduced cost bus passes and door-to-door service to low-income Floridians, it also includes a special TD Late Shift initiative. TD Late Shift provides free rides between 10 pm and 6 am as part of a public-private partnership with Uber, United Taxi, or Care Ride. The Detroit Department of Transportation (DDOT) also launched a similar program, [Woodward 2 Work \(W2W\)](#), using Lyft to supplement late-night transit services between 12 and 5 am.

Walking, Biking, Etc.

The feedback received on community walkability and bikeability varied from group to group and depended largely on whether or not participants lived in a rural or urban setting. There was however, a strong interest in E-bikes as a helpful alternative and a felt community need for more robust walking—

and biking infrastructure. Detailed below are some key policy considerations to help leverage the burgeoning interest in E-bikes and address the lingering needs of Vermont cities and towns eager to make their communities more walkable and bikeable for the long term.

- **Stronger E-Bike Incentives.** For low to moderate income Vermonters, the price of an E-bike was considered overly burdensome when considering the price of other, less dangerous, and often more time-efficient alternatives. The State’s current E-Bike Incentive Program, which offers subsidies to consumers for the purchase of eligible electric bicycles, was lauded as a step in the right direction but respondents said that the maximum grant amount of \$400 was simply not enough to bridge the affordability gap felt by many.
- **E-bike rentals.** Renting E-bikes was identified as an easy and cost-effective way to get Vermonters interested in biking and other alternative forms of transportation. Participants cited the e-bike rental facilities in places like Burlington, as helpful resources that should be replicated in their respective communities—ex. The Lamoille County Rail Trail. Capital investment in these rental programs can be used to bolster ridership and give Vermonters a more affordable way to explore E-bikes and their potential uses. However, policymakers and community organizations should also consider amending these services to incorporate income sensitivity to promote more equitable access.
- **More education and training opportunities for older adults interested in e-bikes.** Similar to EVs, there was a significant interest expressed across groups, but some hesitancy, especially from older and/or disabled Vermonters, as e-bikes have more power than a regular bicycle and maintenance can be more complex.
- **Walking and biking infrastructure.** Most groups reported that biking and walking in their communities often felt unsafe due to a lack of infrastructure such as bike lanes, sidewalks, and crosswalks or aging roadways. Communities that have already made efforts to promote walkability and bikeability expressed strong interest in expanding existing walking and biking infrastructure, with attention to rail trails and bike paths, and repairing damaged and aging assets. Vermont should leverage both state and federal funds to support programs such as VTrans’ Bicycle and Pedestrian Program, Mobility & Transportation Innovations (MTI) Grant Program, and others to support transportation demand management.
- **Utilize smart growth principles.** For those outside of our town and village centers, program participants expressed a strong interest in creating more housing options in their town centers and the use of compact settlement patterns as means to increase walking/biking access to basic goods and services as well as community and social events.

About the Authors



**ENERGY ACTION
NETWORK**

Energy Action Network (EAN) works to achieve Vermont's climate and energy commitments in ways that create a more just, thriving, and sustainable future for Vermonters.

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