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Getting Millennials From A to B

Vermont Transportation Board 2014 Report to the Legislature's House and Senate Transportation Committees

Submitted Pursuant to 19 V.S.A. § 5 (D) (8)

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INTRODUCTION

The Vermont Transportation Board is established according to Title 19 V.S.A. § 3, and is attached to the Agency of Transportation. The Board consists of seven members who are appointed by the Governor with the advice and consent of the Senate. The Governor appoints Board members, so far as possible, whose interests and expertise lie in various areas of the transportation field. The Governor appoints the Board's chair, and members are appointed to three-year terms. Board members may be reappointed for two additional three-year terms, but are not eligible for further appointment. No more than four Board members can belong to the same political party.

The Board's authority affects all modes of transportation, including air, rail and roadway travel. The Board primarily performs regulatory and quasi-judicial functions. Its cases are varied and involve appeals of both Agency decisions and select-board rulings, as well as initial adjudication of contract disputes, small claims, land-compensation challenges, scenic-roadway and byway designation, and requests for a host of things including railroad bridge variances, public and private aviation landing areas, and utility instillation. The Board also adjudicates disputes between towns regarding roadway discontinuance, as well as disputes between local auto dealerships and their national auto manufacturers.

Challenges to quasi-judicial Board decisions are filed in Superior Court.

Oversight and administrative responsibility for the New Motor Vehicle Arbitration Board was transferred from the Department of Motor Vehicles to the Transportation Board on December 31, 2012. The transfer represented a homecoming of sorts for the Arbitration Board, whose oversight during the early part of the century was transferred from the Transportation Board to DMV. The Arbitration Board adjudicates the state's "Lemon Law," and employs one, full-time employee.

The Board experienced little change in 2014 as the Governor appointed just one new member. William Tracy Carris of Poultney was appointed to replace Board Chairman Maurice Germain of Colchester, who chose to retire upon the expiration of his term. To succeed Mr. Germain as chairman, Governor Shumlin appointed veteran Board member Nick Marro of Montpelier. Other members of the Board

include James Fitzgerald of St. Albans, Thomas Dailley of Shaftsbury, Vanessa Kittell of Fairfield, Wesley Hrydziusko of Windsor, and ranking member Robin Stern of Brattleboro. The Board is administered by its Executive Secretary, John Zicconi of Shelburne.

While most of the Board's duties involve regulatory and quasi-judicial functions, Title 19 V.S.A. § 5(d)(8) charges the Board to work together with the Agency of Transportation to annually hold public hearings "for the purpose of obtaining public comment on the development of state transportation policy, the mission of the Agency, and state transportation planning, capital programming and program implementation."

Prior to 2012, the Board scheduled public hearings with little agenda other than seeking public comment on whatever transportation-related topics or projects attendees wished to broach. In 2012, the Board altered this approach and began structuring its public hearings to seek comment regarding specific topics, while still providing time for public comment on whatever topic or projects attendees wished. The Board in 2012 also began accepting written comment via its website from Vermonters unable to attend the public hearings.

For 2014, the Board chose to focus its public hearings primarily on the thoughts and concerns of young adults (ages 18-34), and scheduled eight forums at various college campuses around the state. Invitations also were sent to organizations that cater to, or that possessed a critical mass of, young adults within the targeted demographic.

To identify specific topics for discussion, the Board reviewed national research and consulted with

both VTrans staff as well as representatives of the state's 11 Regional Planning Commissions. The Board also held a focus group assembled by the University of Vermont's Transportation Research Center to seek advice on topics. As a result of these discussions, the Board chose to seek public comment on the following topics:

- What transportation options influence the decisions of young adults.
- Car ownership and car sharing.
- Bicycle and pedestrian issues.
- Public transportation.
- Technology advances, such as apps and services like Uber and Lyft.
- Roadway safety.

These topics were chosen in large part because national research indicates that issues surrounding these topics are important to young adults who are just beginning their careers. The Board wanted to discuss these issues with young adults to gain some insight into how future transportation policy can be shaped to best position Vermont in the economic marketplace as it courts so-called millennials to live, work and raise a family among the Green Mountains.

By focusing the public's attention on these specific topics, public comment included in this report can be considered before transportation policy decisions are finalized, thus providing decision makers with a tool to help them better understand public opinion.

To help the Board choose public-hearing locations, the Board worked with college administrators to select eight locations that were geographically spread across Vermont. This consultation resulted in public hearings being held at Bennington College, Castleton State College, the Community College of Vermont in Brattleboro, Johnson State College, Lyndon State College, Norwich University, the University of Vermont in Burlington, and Vermont Technical College in Randolph.

Attendance at these public hearings, which were held in October and November, was strong. The

The Board wanted to discuss these issues with young adults to gain some insight into how future transportation policy can be shaped to best position Vermont in the economic marketplace as it courts so-called millennials to live, work and raise a family among the Green Mountains.

Board worked with each college's administration as well as local chambers of commerce, local young professional organizations, economic development corporations, municipal governments, Front Porch Forum, regional planning commissions and the news media to spread the word. The effort resulted in an average attendance of about 30 participants with a high of 59 at Norwich University and a low of 9 at Lyndon State College.

Hearing participants included a mix of students, faculty, young professionals, members of the general public, and, in several locations, members of the Vermont General Assembly. The Board also accepted comment via its website, and received more than a dozen written submittals.

At the hearings, discussion on each subject was preceded by a short PowerPoint presentation to both provide background and help set the stage for comment. This report is broken down into similar sections so that the reader can easily understand not only the issues at hand, but also what the public had to say.

EXECUTIVE SUMMARY

Vermont for years now has seen a steady decline in its population of young adults. The number of Vermonters between the ages of 20-39 shrunk by 20 percent – a fall from 187,576 to 149,831 – over the 20-year period between 1990 and 2010, according to U.S. Census data.

Adding to the significance of this trend is the fact that this 20-percent decline took place at the same time that Vermont's overall population grew by 11 percent, from 562,758 to 625,741.

While there are many factors that contribute to Vermont's declining young-adult population, somewhere within the overall dynamic likely lies a transportation nexus.

Young adults – especially bright, young professionals – are more mobile than ever. To make Vermont an attractive place for these people to live, work and raise a family, the state must understand their needs – including their transportation needs – and provide the kinds of services they desire or young adults will continue to leave Vermont.

In 2012, the Frontier Group, a national research and policy organization, teamed together with the U.S. PIRG Education Fund, a 501(c)(3) national public policy corporation, to publish a groundbreaking study on the transportation habits of today's young adults. The work, for the first time, exposed just how different the so-called Millennial Generation uses transportation when compared to every generation that came before it.

The study, entitled *Transportation and the New Generation – Why Young People are Driving Less and What it Means for Transportation Policy*, is largely believed to be an accurate portrayal of the changing habits of young adults (ages 18-34) on a national basis, but it did nothing to specifically document the habits, needs and wants of young adults here in Vermont.

To better understand what young people think about the state of transportation in Vermont, the Transportation Board in 2014 held eight public forums specifically designed to attract young adults. The forums were held at various college campuses around the state so that the Board could look for

trends that transcend specific local communities or state regions.

To attract young adults to the forums, the Board worked with both college administrators and professors to encourage participation. Invitations also were sent through organizations that cater to, or that possessed a critical mass of, young adults within the targeted demographic.

Forum participants included a mix of college students, faculty, young professionals, members of the general public, and, in several locations, members of the Vermont General Assembly. In all, 235 people attended. While not all fell within the Board's target demographic, the vast majority did.

At each hearing, the Board provided a PowerPoint presentation as a way to provide participants with background information on each topic, as well as prompt them to provide feedback.

After engaging young adults on eight different occasions for more than 90 minutes at a time, the Board was able to identify common concerns, reoccurring themes and nearly universal suggestions, all of which are identified in this executive summary and detailed in the various chapters of this report.

While the information presented in this executive summary is meant to synthesize participant's most common thoughts, it by no means is meant to represent a complete offering of what was on the minds of those who answered the Board's call to provide insight into how young adults view the state of transportation in Vermont, and how these views affect whether millennials find Vermont an attractive place to live, work and raise a family.

To understand the full depth of what was on participant's minds, the Board recommends that the reader digest in full each of the report's chapters, which are written to provide an in-depth perspective of each topic.

■ Transportation Options that Influence Young Adults

From the end of World War II until 2004, miles driven in the United States annually increased. But following 2004, this trend flipped. By 2011, Americans drove 6 percent fewer annual miles than they did in 2004.

This downward trend was led by young people.

From 2001-2009, the Frontier Group study documented that the annual vehicle miles traveled by a 16-34 year old decreased 23 percent from 10,300 to 7,900. Over the same time period, these same young adults took 24 percent more bicycle trips, walked to destinations 16 percent more often, and traveled 40 percent more miles by public transportation.

The Frontier Group concluded that young people are driving less for a host of reasons, including economics, changing overall social values, and the fact that technology improvements have made it easier to use alternative means of transportation like buses, bicycles and shared vehicles. These, and other factors, were similarly cited by Vermont's youth who expressed a clear desire to live a life far less dependent on automobiles than the generations that came before them.

While the majority of young adults who attended the Board's forums acknowledged owning a motor vehicle, many said such ownership was more a necessity than a choice. A majority of participants said they would prefer to live and work in an environment that was not so vehicle dependent. They then encouraged the state to work towards that goal.

Not doing so, they said, likely will prevent many young adults from choosing Vermont as a place to live and work.

At every stop the Board made, young adults mentioned transportation "options" as a key factor when determining how attractive they find a place to settle. But when it comes to options, Vermont is often lacking, they said.

Cars, they said, always will be vital to living in some Vermont regions because of how rural they are. But if there were other transportation options, like greater frequency of bus service or bikeways that connect population centers, these options would help reduce their dependence on automobiles and make Vermont a more attractive place to young adults.

Millennials acknowledged that many of their peers are leaving Vermont. However, those who choose to live here said they are looking for the state to provide more creative ways to use the transportation system because the system that exists now does not offer effective and timely ways to travel around Vermont unless you drive a motor vehicle.

Expanding Vermont's transportation options, they said, is extremely important if the state hopes to attract young professionals who did not grow up here, especially if they come from either urban areas or from abroad.

Young people also said that their call for broader transportation options transcends actual need. As a lifestyle choice, many young adults want to live, work and raise a family in a place with a variety of transportation options. Even those who can afford a car want more options because they do not always want to travel by automobile.

■ Young Adults and Cars

According to a recent National Household Travel Study conducted by the Federal Highway Administration (FHWA), the annual vehicle miles traveled by a 16-34 year old in the United States decreased from 10,300 to 7,900 between 2001 and 2009, which is a 23-percent drop.

Aside from taking fewer automobile trips and driving shorter distances, fewer young people today also have driver's licenses. According to the FHWA study, the percentage of young people in the United States ages 20-34 without a license increased from 10.4 percent to 15.7 percent during the decade between 2000 and 2010.

To compensate for driving less, the Frontier Group concluded that a large number of young adults (an estimated 77 percent according the Brookings Institution) plan to move to compact urban areas where they either do not need a vehicle to reach many of their destinations, or when they do drive they can make shorter trips to reach destinations.

The majority of those who attended the Vermont Transportation Board's forums owned a motor vehicle, but many stated that they do so out of necessity and not because they want to own a car. Given the choice, many said they would prefer not to own a car.

The most common reason for not wanting to own a vehicle was cost. Not only did spending thousands of dollars to purchase a vehicle stretch their budget, but young adults, many who are saddled with significant school loans, said the annual combination of insurance premiums, DMV fees, and the cost of both maintenance and gas made vehicle ownership unattractive and consumed too large a portion of their income.

Post college, young adults said they factor in the high cost of owning a car when they decide where to live and work, and make choices accordingly.

Personal values also played a factor in millennials wishing not to own cars. One of the values young adults cited was the environment.

In Vermont, about 45 percent of the state's greenhouse gas emissions are attributable to the transportation sector. To help combat this, the state has joined several compacts designed to accelerate the proliferation of electric vehicles. Vermont's Energy Plan, for example, sets a goal of having 25 percent of the state's vehicle fleet – about 143,000 cars and trucks – to be powered by electricity by 2030.

At its forums, the Transportation Board asked young adults if the greater availability of so-called cleaner automobiles would in any way alter their perception or plans regarding vehicle ownership. The answer, overwhelmingly, was no.

Young adults said they had serious questions about both the disposal and environmental friendliness of the batteries needed to fuel electric vehicles, as well as questions about how “clean” the electricity would be to charge them.

Young adults also said the electric-car movement does nothing to take away the overall expense of owning a car, and does nothing to remove the dead time one experiences when driving.

While many young adults had little positive things to say about car ownership, many had good things to say about car sharing. They called for the state to find ways to proliferate such services as Carshare Vermont and Zipcar outside of just the greater Burlington area.

The proliferation of car sharing would not only make it easier and more attractive to live in Vermont without a car, it also would allow many families that currently own two cars to divest to just one, young adults said.

To many young adults, car sharing is just another form of public transportation. Vermont for decades has subsidized both bus and passenger rail service. VTrans and the Legislature should expand their thinking and help fund the proliferation of car sharing as part of its public-transit program, they said.

■ Walking and Biking

Nationwide, young adults have significantly increased the amount they walk and ride a bicycle over previous generations. According to data supplied by the Federal Highway Administration's National Household Travel Survey that was published in November of 2011, young people ages 16 to 34 took 24 percent more bicycle trips in 2009 than they took in 2001.

As for walking, FHWA data shows that young people in 2009 walked to destinations 16 percent more often than they did in 2001.

While exact Vermont statistics are not known, young adults overwhelmingly told the Vermont Transportation Board that the ability to both walk and bike to destinations is extremely important to them, and stressed that they often do not walk or bike as much as they would like because Vermont's bike and pedestrian infrastructure is sorely lacking.

While it is impossible to know how much additional walking and biking would take place with better infrastructure, young people told the Board that good infrastructure would lead them to increase their walking and biking significantly. They also said that the lack of safe infrastructure is likely causing some of their peers to move away from the Green Mountain State.

This sentiment is supported by a 2011 survey conducted by the National Association of Realtors, which found that 62 percent of people under 30 years old said they prefer to live in a “smart growth” area, defined as a place with a mix of housing – condos, apartments and single-family homes – that has a combination of stores, restaurants, libraries, schools and access to public transportation nearby.

Young adults told the Transportation Board that the number-one thing the state could do to increasing cycling in Vermont is to build bike-friendly infrastructure and establish more bike lanes, especially in urban and village settings. A lack of designated

bicycle infrastructure not only acts to suppress cycling, it actually makes biking dangerous, they said.

Better roadway lighting also would improve safety, and when combined with better cycling infrastructure would help promote cycling, young adults said.

A lack of lighting also was one of the many safety concerns expressed by pedestrians. Other concerns include poorly maintained sidewalks that are full of cracks and are uneven to walk on, as well as sidewalks that often go unplowed during the winter, making them either dangerous or impossible to use.

And in many locations, even within village centers, Vermont towns offer no sidewalks at all, which forces pedestrians to walk along the shoulders of busy roadways, which is dangerous.

This lack of focus on pedestrian safety likely prevents young people from choosing Vermont as a place to live and work, forum participants said.

■ Public Transportation

According to FHWA data, Americans increased their annual number of passenger miles travelled on public transportation by 10 billion between 2001 and 2009. More than 60 percent of this growth is attributable to millennials between the ages of 16 and 34. In fact, young people between the ages of 16 and 34 increased their per-capita miles traveled on public transportation by a whopping 40 percent during this timeframe, the Frontier Group concluded.

Vermont does not have reliable public-transit data for similar years, and does not track bus and train ridership by age. But we do know that local bus and train ridership has steadily increased since 2008.

According to the Vermont Agency of Transportation, local public transit providers report a 22 percent increase in ridership between 2008 and 2013 as so-called “boardings” increased by more than 900,000 – from 4.02 million to 4.93 million annually.

Local train travel is also on the upswing. From 2008 to 2013, the same years Vermont has trustworthy public-transit data, train travel on Amtrak’s Vermonter and Ethan Allen Express grew 15 percent, from 119,536 passengers to 137,380 passengers.

Despite more people in recent years riding both the train and the bus, participants at all eight of the Transportation Board’s forums criticized Vermont

for not offering enough public-transit options.

Young adults, as well as some older people, want to use public transportation, and many prefer to take the bus or train instead of driving a car. But Vermont, they said, offers them very little in the way of service that they find useful, even in Chittenden County.

The vast majority of people who attended the Board’s forums said buses and trains in Vermont do not run often enough to be convenient, they don’t run late enough into the evening to be useful, and they don’t reach many of the places to which they would like or need to travel.

And even if they can use public transit to reach their ultimate destination, participants said doing so often requires multiple connections that make the trip take so long that using public transportation is not worth the effort.

Unless the lack of convenient public-transit service is addressed, Vermont will continue to struggle attracting young professionals to live and work within its communities, young people said.

■ Technology Advancements

Nationwide, technology has made transportation alternatives more appealing, in part, because car-sharing apps like Uber and Lyft make finding a shared ride cheaper, easier and faster than in the past.

GPS-based technology that tracks bus and train location also significantly reduces lost time waiting for public transportation to arrive.

Many states, including Vermont, have either outlawed or severely limited the use of hand-held mobile technology while driving. Millennials, who represent the most plugged in generation in history, have reacted to these limitations by preferring to use public transportation which allows them to stay “connected” during their commute rather than pocket their phones, the Frontier Group report said.

Young Vermonters told the Transportation Board that technology advancements such as placing WiFi on buses and tracking them with GPS technology so that their location can be viewed via a smart phone is long overdue. But they broke from their national counterparts when it comes to the value of ridesharing apps such as Uber and Lyft, saying that their value outside of the state’s most urban core of Burlington is limited.

Concerns cited by Vermont young people ranged from the state's lack of reliable cell service – Uber and Lyft operate exclusively through mobile technology – to the distance one has to travel to reach Vermont destinations. Peer-to-peer ridesharing, young Vermonters said, is designed for quick rides across town, not for time-consuming cross-county travel.

But the biggest concern Vermonters had is with safety. Peer-to-peer ridesharing companies hire local drivers who use their own vehicle. These companies provide questionable background checks, young Vermonters said. Getting into a car with such a stranger to travel along sparsely inhabited country roads is not something that makes them feel safe.

■ Highway Safety

Vermont highway fatalities and roadway crashes transcend geography and whether a community is urban or rural. According to statistics kept by the Vermont Agency of Transportation, the Green Mountain State annually experiences about 12,000 crashes, of which some 2,000 result in injury, including more than 300 incapacitating injuries.

On average, Vermont roadway crashes result in 70 annual highway deaths. Data shows that during a recent five-year period, nearly 75 percent of Vermont's 251 towns had at least one fatal crash occur within its borders. Quite literally, highway crashes and deaths happen everywhere.

The Transportation Board at its forums asked participants four basic questions:

- What can the state do to curb mobile-phone use while driving?
- How can the state get drivers to slow down and pay better attention?
- How can the state reduce driving under the influence?
- Will legalizing marijuana make Vermont roads more dangerous?

Almost to a person, young adults said legalizing the use of recreational marijuana would not deteriorate highway safety. Some even speculated that it could improve safety.

Legalizing marijuana will not cause more people to drive under the influence because legalization is unlikely to usher in a significant wave of new users,

young adults said. The biggest effect legalization will have is simply eliminating the legal hassle that currently faces those who already use marijuana. Legalization unlikely will result in additional motorists driving under the influence, they said.

As for curbing alcohol-related crashes, young adults said both increased education at the high-school level, as well as increased advertising on TV and other media consumed by young adults, such as music services like Spotify, could pay dividends.

Young adults also said Vermont's poor public transportation options play a significant role in increasing the likelihood that a young person will get behind the wheel drunk. If Vermont offered better public-transit options, intoxicated young people would use them instead of getting behind the wheel of a car, they said.

At every stop the Board made, 100 percent of participants were aware that the Vermont Legislature recently passed a law banning the use of hand-held technology while driving. While the new law allows mobile phone use with hands-free technology, not everyone will invest in such technology, young people said.

To ensure the new law is a success, young adults suggested that the state begin to add cell phone pull-offs to the highway network so that people can stop their car to use their phone when they need to. Many millennials also favored tough punishment for drivers who continue to use their phones without hands-free technology.

Young people also supported enforcement for speeding and aggressive driving. Some went as far as saying that Vermont police are too lenient and issue too many warnings instead of expensive tickets when pulling them over.

To help reduce speeding, young adults encouraged increased investment in flashing electronic radar devices that display speed and encourage drivers to slow down.

Forum participants said that narrowing travel lanes will slow traffic – as well as make the road safer for cyclists and pedestrians because the state could then either increase the width of the roadway's shoulder, add a bike lane or build a sidewalk.

TRANSPORTATION OPTIONS THAT INFLUENCE YOUNG ADULTS

In 2012, the Frontier Group, a national research and policy organization, teamed together with the U.S. PIRG Education Fund, a 501(c)(3) national public policy corporation, to publish a groundbreaking study on the transportation habits of today's young adults. The work, for the first time, shed a bright light on just how different the so-called Millennial Generation uses transportation when compared to every generation that came before it.

The study, entitled *Transportation and the New Generation – Why Young People are Driving Less and What it Means for Transportation Policy*, was hailed by transportation professionals from coast to coast. The study's information, even two years later, is largely believed to be an accurate portrayal of the changing habits of young adults (ages 18-34), and has since spawned additional research that hopes to document even greater information about how millennials are influencing transportation policy across the nation.

While the Frontier Group study provides detailed information about the transportation habits of young adults on an overall national basis, it did nothing to specifically document the habits, needs and wants of young adults here in Vermont. To learn more about local youth, the Vermont Transportation Board in October and November held eight public forums with young Vermonters to learn about their habits, needs and concerns regarding transportation within the confines of the Green Mountain State.

The Transportation Board chose the needs and concerns of young adults as its focus in 2014 because members believe it is important that local policy makers understand the changing transportation dynamic at work within not only our country but within our state.

Vermont for years now has seen a steady decline in its population of young adults. The number of Vermonters between the ages of 20-39 shrunk by 20 percent – a fall from 187,576 to 149,831 – over the 20-year period between 1990 and 2010, according to U.S. Census data. Adding to the significance of this trend is the fact that this 20-percent decline took place at the same time that Vermont's overall population grew by 11 percent, from 562,758 to 625,741.

While there are many factors that contribute to Vermont's declining young-adult population, somewhere within the overall dynamic likely lies a trans-

portation nexus. Young adults – especially bright, young professionals – are more mobile than ever. To make Vermont an attractive place for these people to live, work and raise a family, the state must understand their needs – including their transportation needs – and provide the services they desire. If the state does not, young adults very likely will continue to bypass Vermont in favor of other locations.

■ What We Know Nationally

The Frontier Group study documented many things, but its primary finding is that the Millennial Generation drives automobiles far less than the generations that came before it, and use alternative means of transportation such as bike riding, walking and public transportation far more.

From the end of World War II until 2004, miles driven in the United States annually increased. But beginning in 2004, this trend flipped. Just seven years later (by 2011) Americans drove 6 percent fewer annual miles than they did in 2004. This downward trend was led by young people.

The Frontier Group study documented that from 2001-2009 the annual vehicle miles traveled by a 16-34 year old decreased 23 percent from 10,300 to 7,900. Over the same time period, these same young people took 24 percent more bicycle trips, walked to destinations 16 percent more often, and traveled 40 percent more miles by public transportation.

The Frontier Group concluded that young people are driving less for a host of reasons including higher gas prices, new licensing laws and improvements in technology that support alternative transportation, as well as due to changes in their overall social values. These are all factors, the Frontier Group concluded, that are likely to have an impact for years to come even as today's young adults transition into middle age.

Clearly there are economic factors that encourage many young adults to drive less. The amount of gas needed to operate a car in 2001 totaled \$1,100 when converted into today's dollars. But with a rise in the average annual cost of gas to about \$3.50 per gallon during much of the past few years, fueling an automobile costs somewhere near \$2,300 annually.

The economic recession that began in 2007 also took its toll, rendering lots of youth either unemployed or under-employed. As a result, they find it difficult to afford the \$9,000 average annual operating cost – including maintenance, insurance, DMV fees and depreciation – that it takes to operate an automobile.

Add in costly student debt, which has to be paid monthly along with car payments – and vehicle ownership is often out of the financial reach of a struggling young person.

But negative economic factors alone do not support the reason many young adults are abandoning the automobile, the Frontier Group found. In young-adult households that make more than \$70,000 annually, driving has decreased. According to the Frontier Group study, even these financially well-to-do millennials have increased their public-transit use by 100 percent, increased their biking by 120 percent and increased their walking by 37 percent over previous generations.

In many cases, a change in values also appears to be motivating young adults to drive less, according to the Frontier Group study, which found that 45 percent of young adults report conscious efforts to drive less, compared to just 32 percent of everyone else. Also, young adults value living within walking distance of public transit 25 percent more than older populations, the Frontier Group concluded. And not surprisingly given this information, an estimated 77 percent of young adults plan to live in an urban center where households are 2.5 times more likely not to own a car than rural households.

The Vermont Transportation Board in October and November presented these statistics to eight focus groups comprised mainly of young adults between the ages of 18-34. The group sessions lasted between 90 minutes and two hours, and were held at various colleges and universities around the state. Participation totaled 235, or an average of 30 people per group. Participants were asked what transporta-

tion options influence their decision when choosing a place to live and work. The following is a synopsis of their answers.

■ Vermont Responses

The majority of Vermont young adults who attended the Board's forums acknowledged owning a motor vehicle. While the Board did not calculate a percentage, it would not be surprised if the percentage was higher than what might be expected nationally. But despite this large population of vehicle owners, many said vehicle ownership was a result of necessity not preference. When asked what they prefer, the vast majority of participants said they would prefer to live and work in an environment that was not as vehicle dependent as Vermont, and encouraged the state to work towards that goal.

Reasons for not wanting to own a vehicle – or for families wanting to own just one vehicle instead of two – were consistent with what the Frontier Group noted on a national level: economics as well as a lifestyle preference and value system that supports both public transportation and other vehicle-free alternatives.

"I want to establish roots here and stay," said a UVM participant who spent six years living in Chicago before moving to Vermont about four years ago. "But after being in a big city for some time, I have concern that Vermont is lacking in some ways and will scare us away because we have to drive to do things... Vermont's public transit offerings are not great. I miss the trains and light rail."

A Johnson participant who spent time living in San Francisco and who does not own a vehicle said Vermont's lack of a robust alternative transportation network makes living in the state confining and somewhat unattractive to young people.

"I'm really reliant on a friend's car," the Johnson participant said. "I did not go back to San Francisco because I want to be in a rural setting. But I find myself getting around less than I expected... We are a little confined" living in Vermont.

A Bennington participant echoed this sentiment. "It would be nice not to have a car because I definitely can't afford it," the Bennington participant said. "But I definitely feel my dependence on a car here."

Some young people like living in rural seclusion, a Johnson participant said. "But the city offers you

more. If you're going to live in a rural area, you need lots of options when it comes to transportation."

■ Options

All across the state, many young adults mentioned transportation "options" as a key factor when it comes to determining how attractive they find a place to both live and work. But when it comes to options, Vermont is often lacking, they said.

"Cars will always be vital to living in some Vermont regions because of how rural they are," a Bennington participant said. "But if we had other options, like frequency of bus service or bikeways that connect (population) centers, it would help reduce the dependence we have on automobiles."

Millennials may be leaving Vermont, "but those of us who are here are looking for more creative ways to use the transportation system," a UVM participant said. "The system that exists now does not take into account effective ways to get from Point A to Point B."

Another UVM participant added: "One of the reasons we have so many cars in Vermont is because you cannot walk, bike or take public transportation to where you need to go."

Others agreed.

"The state's transportation picture needs to be dramatically changed," a UVM participant said. "We need to make it more desirable to use public transportation. That is the one thing that is going to make a difference in how people live in Vermont."

Young people said expanding Vermont's transportation options is extremely important if the state hopes to attract young professionals who did not grow up here, especially if they come from either urban areas or from abroad. Several international students said the local college system does a good job of recruiting them to Vermont, but once they get here, the state offers them nothing transportation-wise.

"Castleton State is making a big effort to recruit international students to Vermont," a Castleton participant said. "But one of the chief problems international students have when they come to Vermont is transportation. They don't have, or cannot afford, a car. So they are stuck."

Vermont is very inconvenient for international students, said a Chinese national who attends Lyndon

"Getting in a car to do everything will never work for me," a UVM participant said.

State College. Few if any international students have cars or legally can drive in Vermont, so "students are really stuck," the student said. "There is no easy way to get places. If Vermont wants to welcome more people from around the world, the transportation thing is a really big problem. I can't go anywhere unless people with a car come and pick me up."

This combination of confinement and being dependent on others "is a really big issue for us," the student said.

Economics also plays a big roll for many young people when deciding where to live. Saddled with both student debt and entry-level wages, the high cost of owning a car – estimated by the Frontier Group to be about \$9,000 per year – can make Vermont an unattractive place.

"Money is a really huge factor," said a Castleton participant.

"I don't feel crazed to have to live in a city, but I certainly cannot afford a car," a Bennington participant said.

"I would rather pay for public transportation than pay for (automobile) breakdowns and the other issues that go with a car," a Johnson participant said.

While economics, confinement and automobile dependence were expressed as issues that can make Vermont unattractive to young people, at every stop the Board made – including at UVM in Burlington – young people said their call for broader transportation options transcends actual need. As a lifestyle choice, many young adults want to live, work and raise a family in a place with a variety of transportation options. Even those who can afford a car don't always want to travel by automobile, they said.

"Getting in a car to do everything will never work for me," a UVM participant said. "We do not want to have to get in a vehicle to get to places."

Many other young people agreed.

"I really, really value being able to walk and bike to work as well as to the things I do for entertainment," a Brattleboro participant said. "That is very important to me. I would not want to give that up."

YOUNG ADULTS AND CARS

The Frontier Group study did not attempt to chart vehicle ownership and its trends regarding young adults, but it did chart vehicle miles traveled. Citing a recent National Household Travel Study conducted by the Federal Highway Administration (FHWA), the Frontier Group concluded that the annual vehicle miles traveled by a 16-34 year old decreased from 10,300 to 7,900 between 2001 and 2009, which is a 23 percent drop.

Aside from taking fewer automobile trips and driving shorter distances, fewer young people today also have driver's licenses. According to the FHWA study, the percentage of young people ages 20-34 without a license increased from 10.4 percent to 15.7 percent during the decade between 2000 and 2010.

To compensate for driving less, the Frontier Group concluded that a large number of young adults (an estimated 77 percent according the Brookings Institution) plan to move to compact urban areas where they either do not need a vehicle to reach many of their destinations, or when they do drive they can make shorter trips to reach destinations.

Over this same basic time period (2000 to 2009), the Federal Highway Administration also reports that young adults took 24 percent more trips by bicycle, walked to destinations 16 percent more often, and traveled 40 percent more miles by public transportation.

All told, the FHWA study said that young people in 2009 reported taking 25 more trips and traveling 117 more miles by alternative means (biking, walking and public transit) than the average young person did in 2001.

A 2010 study commissioned by Zipcar also supports the conclusion that young adults are driving less than they used to, and added that 45 percent of people between the ages of 18-34 reported that they made conscious efforts in recent years to reduce their driving compared to only 32 percent of the rest of the population.

In Vermont, young adults appear to have a love-hate relationship with cars. The majority of those who attended the Transportation Board's forums owned vehicles, but many also stated that they do so out of necessity and not because they want to own a vehicle. Given the choice, many said they would rather not own a car.

"In Vermont, having a car is a lifeline," said a Castleton participant. "You have to have one if you are going to survive or have a social life. If I did not have a car, I would never see my friends."

Not owning a vehicle would also make it difficult for many young adults to get to work or attend classes, even if their job or college is fairly close to where they live.

"In order to get a job or get to school, having a car is essential," a Johnson participant said. "But if I had another option, I would use it." A second Johnson participant agreed: "I would rather not have a car, but living in Johnson I work in Stowe, and I can't get there unless I have a car."

Young adults across the state said they would happily abandon or even sell their vehicles if Vermont offered them reliable alternative-transportation options.

"With millennials, life is a lot like Netflix," a UVM participant said. "People don't want the product. What they want is the service that the product provides. It's all about having access when you need it. And it has to be convenient access."

The most common reason for not wanting to own a vehicle was cost. Not only did spending thousands of dollars to purchase a vehicle stretch their budget, but young adults, many who are saddled with tens of thousands of dollars in school loans, said the annual combination of paying for insurance, DMV fees, maintenance and gas made vehicle ownership unattractive and consumed too large a portion of their income.

"If I could avoid owning a car I would because of the financial issue," said a Lyndon participant.

"Having a car is beneficial, but it costs a lot of money," a Norwich participant said. "I pay a lot to go to school, and I have a lot of debt. How are we supposed to afford a car with money we don't have?"

Post college, young adults said they factor in the high cost of owning a car when they decide where to live and work, and make choices accordingly.

“I was offered a \$10,000 pay raise and a new job in Albany and I turned it down because I’d have to own a car,” a UVM participant said. Another UVM participant echoed that sentiment: “With all the debt I have from school, I am trying not to have that expense,” the participant said.

“A car is not an asset – it depreciates and it just sucks money out of my bank account,” said a Brattleboro participant. “Why would I want that?”

A Lyndon participant said “I am not thinking of staying in Vermont (after graduation) because of the transportation thing. It costs about \$20,000 to buy a car. That’s a lot of money... If I can use that money for my education or to pay off my loans, that is better.”

■ Electric Vehicles

The Frontier Group report indicated that changes in young-adult values played a factor in the Millennial Generation wishing not to own cars. One of the values the report highlighted is the environment.

In Vermont, about 45 percent of the state’s greenhouse gas emissions are attributable to the transportation sector. To help combat this, the state has joined several compacts designed to accelerate the proliferation of electric vehicles, and it is actively working to drastically expand the state’s inventory of electric-vehicle charging stations. Vermont’s Energy Plan sets a goal of having 25 percent of the state’s vehicle fleet – about 143,000 cars and trucks – to be powered by electricity by 2030.

At its forums, the Transportation Board asked young adults if the greater availability of so-called cleaner automobiles would in any way alter their perception or plans regarding vehicle ownership. The answer, overwhelmingly, was no.

Young adults said they had serious questions about both the disposal and environmental friendliness of the batteries needed to fuel electric vehicles, as well as how “clean” the electricity would be to charge them.

“Where is the energy going to come from, and how are we going to support all these electric cars?” asked a Johnson participant. “Are the savings going to be worth it?”

Whether a car runs on gas or is fueled by electricity “does not make a significant difference to me,” a Brattleboro participant said. “There are so many more environmental impacts to owning a car than just fuel.”

Not only is replacing car batteries expensive, but electric vehicles generally do not possess the kind of power that is necessary to be useful in many parts of Vermont, some young people said.

“After three years, an electric vehicle needs a new battery,” a Norwich participant said. “And there is no torque with electric vehicles. In the winter, living up on top of a mountain, that is not going to help.”

Young adults said the electric-car movement does nothing to take away the expense of owning a car – they still cost thousands of dollars and require annual insurance and maintenance expenses – and does nothing to remove the dead time one experiences when driving.

“One of the things an electric car does not remove is the fact that I still have to drive it,” a Bennington participant said. “I’d rather be reading the newspaper or doing something else.”

■ Car Sharing

While many young adults had little positive things to say about car ownership other than it makes life in Vermont possible, many had good things to say about car sharing, and called for the state to find a way to proliferate such services as Carshare Vermont and Zipcar outside of just the greater Burlington area.

Established in December of 2008, Carshare Vermont offers a variety of vehicles for short-term rental (usually by the hour) at 14 locations around Burlington and Winooski. The company hopes to expand its Burlington-area offerings by two-to-three vehicles in the near future, and is working with the Agency of Transportation to place two vehicles in Montpelier, possibly by as early as the spring of 2015.

Carshare Vermont users must be members. The cost of membership plans range from as little as \$5 per month for those who infrequently need a vehicle, to \$15 per month for those who need a vehicle more than an average of five hours per month. Vehicle reservations can be made via phone or on the Internet. Cost is typically \$5.50 per hour plus \$30 cents per

mile, which includes insurance. Day rates are also available.

Carshare vehicles range in size. Most are economy cars with hatchbacks. However, the company does offer one truck – a Toyota Tacoma – and one mini van – a Dodge Caravan – for those who either need to haul bulky items (think transporting yard waste to the dump or moving furniture) or transport several people. Some cars come equipped with bike racks during warm-weather months and ski racks during the winter.

Young adults called for the expansion of such car-sharing services – presently only the Burlington area has such a service – and said proliferation would not only make it easier to live in many Vermont locations without a car, but also would allow many families that currently own two cars to divest to just one.

“Car sharing is exactly what I need,” said a Bennington participant. “I could use it to get groceries and could use public transit to get everywhere else.”

A UVM participant who is a member of Carshare Vermont said being a member “has made my life possible... I will be the owner of a truck this weekend for two hours to get some lawn work done.”

If car sharing was available in Brattleboro “I would definitely use it and get rid of my car,” said a Brattleboro participant.

Deans at both Castleton State College and Johnson State College said The Vermont State College Student Association, which represents more than 10,000 students throughout the state college system, investigated car sharing and had discussions with

“Car sharing is exactly what I need,” said a Bennington participant. “I could use it to get groceries and could use public transit to get everywhere else.”

Zipcar. The VSCSA concluded that having car-sharing services located on campus would greatly aid student life.

The logistics needed to bring Zipcar to campus, including its cost, prevented such a service from being implemented, the Deans said. But this does not mean that interest is dead.

“There is very strong interest on all of the state college campuses to get in on this,” said David Bergh, Dean of Students at Johnson State College. “There is full support.”

To many young adults, car sharing is just another form of public transportation. Vermont for decades has subsidized both bus and rail service. VTrans and the Legislature should expand their thinking and also fund the expansion of car sharing as part of its public-transit program, they said.

“I hope you sit down with Carshare Vermont or Zipcar and hear what they have to say,” a UVM participant said. “It is something that if you put a little money into it can improve life in Vermont.”

WALKING AND BIKING

Nationwide, today's young adults have increased the amount they walk and ride a bicycle over previous generations. Using data supplied by the Federal Highway Administration's National Household Travel Survey that was published in November of 2011, the Frontier Group calculated that the increase is significant.

According to the Frontier Group's calculations, young adults ages 16 to 34 took 24 percent more bicycle trips in 2009 than they took in 2001. This increase took place even though this age group actually shrunk in overall population by 2 percent during the same time period. As for walking, FHWA data shows that young people in 2009 walked to destinations 16 percent more often than they did in 2001, the Frontier Group concluded.

While exact Vermont statistics are not known, young adults overwhelmingly told the Vermont Transportation Board that the ability to both walk and bike to destinations is extremely important to them, and stressed that they often do not walk or bike as much as they would like because Vermont's bike and pedestrian infrastructure is sorely lacking.

This lack of infrastructure often makes walking and biking dangerous, they said.

While the Transportation Board did not try to measure how much additional walking and biking would take place with better infrastructure, young people during the Board's forums said the increase likely would be significant.

They also said the current lack of safe bike-and-pedestrian infrastructure is likely causing some of their peers to move away from the Green Mountain State.

"We are losing a lot of youth to the big cities where you can walk and bike a lot," said a UVM participant.

Many young adults told the Board that the ability to safely walk and bike to destinations like retail stores and restaurants was one of the most important things they consider when choosing a place to live.

"There is nothing better than being able to walk to the store," a Norwich participant said, echoing the comments of many. "For me, there is nothing more important than walking to stores and restaurants."

This overwhelming sentiment appears to place Vermont young people in synch with their national

peers. According to a 2011 survey conducted by the National Association of Realtors, 62 percent of people under 30 said they prefer to live in a "smart growth" area, defined as a place with a mix of housing – condos, apartments and single-family homes – with a combination of stores, restaurants, libraries, schools and access to public transportation nearby.

The survey concluded that the proportion of young people who preferred this kind of living was between 4 percent and 11 percent higher than all other age groups.

During the Vermont Transportation Board's forums, young adults spelled out a number of factors that they believe the state needs to improve if it is going to successfully encourage walking and biking, not only among young people but among all other age groups as well.

Suggested improvements ranged from building more sidewalks and bike paths, to plowing better the ones we have in the winter. People also called for better lighting in areas designed for bike and pedestrian use, and establishing designated bike lanes in many more locations than have them now.

■ Designated Bike Lanes

Bicycle riders said the number-one thing the state could do to increasing cycling is to build more bike-friendly infrastructure and establish more bike lanes, especially in urban and village settings.

"A bike lane makes a statement that biking is a legitimate mode of transportation," said a Bennington participant. "Biking as a means of transportation is most effective in places that accommodate them physically. In cities that really make space for bikes is where bikes are used."

Many Vermont streets are not very wide, young people said. So a lack of designated bicycle infrastructure not only acts to suppress biking, it actually makes biking dangerous, they said.

“Biking has become a combative experience,” a UVM participant said. “I get very frustrated with the disrespect I am given infrastructurally. There is no easy way to get from Point A to Point B on a bike.”

The lack of bicycle infrastructure, combined with the fact that many Vermont roads have poor pavement that is full of cracks and potholes, forces cyclists into the middle of travel lanes where they often have nasty encounters with motor-vehicle drivers. This less than ideal situation often prevents people from even attempting to use a bicycle for transportation, forum participants said.

“There is not a lot of infrastructure for those who are new to cycling,” a Brattleboro participant said. “If you use the streets, you not only have to share it with cars, but you have to share it with trucks, which is really scary.”

A Lyndon participant was a little more blunt: “I almost got killed on Route 122 because there is no shoulder,” the participant said. “It’s really scary to bike in this neck of the woods. If I had a more pleasant experience, I would bike more. I think a lot of people would. It’s a shame because I think the culture for biking is here.”

Motor-vehicle drivers and bicyclists have a very tense, uneasy relationship. A proliferation of bike lanes would help ease those tensions by making road usage not only safer, but also more predictable and pleasant for both users, young adults said.

“Bike lanes help cyclists stay in their lane,” A Johnson participant said. “Having bike lanes would make it easier on drivers because it would make the driver know what to expect from a bicyclist.”

Bike lanes, however, will only improve safety and ease tensions if the roadway’s pavement is kept in good condition, the participant said.

“The roads need to be fixed,” the Johnson participant said. “When you are traveling at 50 mph and a cyclist is in front of you, one of the big problems is you don’t know when that cyclist is going to come across some pavement that is not there and have to compensate.”

This fix-the-pavement sentiment is consistent with what cyclists have told the Board for years: the single biggest thing the state can do for bike safety is to maintain good pavement, not only within a roadway’s travel lanes, but also along its shoulders so that both cyclists and motor-vehicle drivers know what

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to expect when they use the state’s roadway system.

Better roadway lighting would also improve safety, and when combined with better cycling infrastructure also would help promote cycling, participants said.

“Better lighting would help drive the use of bikes,” a Norwich participant said. “Often, you can get where you are going in the daylight, but it is hard (and frightening) to get back after dark.”

■ Sidewalk Concerns

Lighting also was a major concern for walkers. But poor lighting was only one of many safety concerns that young adults said prevent them from walking more and likely adds to the list of why their peers find other places more attractive than Vermont.

“I avoid walking in places because it is not a comfortable experience,” a Bennington participant said. “In a city, that is not a problem.”

In Vermont, “you have to be fairly adventurous to walk around,” a Brattleboro participant said.

Two basic things make walking in Vermont uncomfortable, young adults said. Sidewalks are often poorly maintained or nonexistent, and pedestrian corridors often are poorly lit, assuming they have lights at all.

“Lights are very important,” a Lyndon participant said. “You need to make sure you can see where you are going, as well as allow people to see you.”

In general, “there is not a lot of respect for biking and walking infrastructure in Vermont,” a UVM participant said. “If you want to enhance biking and walking, the best way to do that is to just get things done: build the infrastructure.”

And when the state or local communities do

build infrastructure, they have to maintain it, young adults said. Currently, many existing Vermont sidewalks are either in poor condition or they go unplowed and unsalted in the winter. These conditions force pedestrians into the roadway, which is dangerous, they said.

“Roads are plowed immediately, but sidewalks are plowed three-to-five days later, if at all, and they are poorly lit,” a Castleton participant said. “This forces people to walk in the street.”

Even when they are plowed, sidewalks often are not salted and as a result can be icy.

“Sometimes it’s safer to walk in the street than to take your chances and fall on your face on the sidewalk,” a Norwich participant said. “Maintenance is important.”

Many sidewalks also are in poor condition, participants said.

During the winter, water from melting snow seeps into their cracks and the constant freeze-thaw that takes place during Vermont winters often leaves sidewalks slippery, full of frost heaves and easy to trip upon, participants said. This unevenness then becomes permanent so the sidewalks are dangerous all year round, they said.

“The biggest thing is the condition of the sidewalks,” a UVM participant said. When using them, “I think I will hurt myself as there are so many dips and cracks and ice in places.”

Vermont sidewalks often are limited to just the main parts of a village setting, but not everyone lives downtown so people trying to walk to the village

“People always seem surprised to see a walker,” a Brattleboro participant said.

“There are a lot of cars, but very few bikers and pedestrians, which sets up a situation where walkers and bikers think they are in enemy territory when they use the streets.”

from other locations have to do so in the street, participants said.

Even more maddening is that some communities have a patchwork of sidewalks that don’t connect, they said.

“A lot of places do not have contiguous sidewalks, which is a problem,” a Brattleboro participant said. “And they are not plowed in the winter, so I have to walk in the street, which is dangerous.”

Vermont “sidewalks are very inconsistent,” another Brattleboro participant said. “Sometimes they just end, or they stop on one side of the street and pick up on the other side.”

■ Education & Bike Paths

Forum participants said that Vermont has such a driving culture that motorists often seem surprised when they see a pedestrian or a cyclist. This needs to change in order to make Vermont safer, they said.

“I actually am fearful of getting hit in the crosswalk by the Price Chopper,” a Brattleboro participant said. “People always seem surprised to see a walker... There are a lot of cars, but very few bikers and pedestrians, which sets up a situation where walkers and bikers think they are in enemy territory when they use the streets.”

Many pedestrians and cyclists feel this way, young adults said, because even densely populated areas in Vermont are not always designed with walking and cycling in mind.

“It’s not just an unreasonable fear factor,” a Bennington participant said. “It’s that these spaces are not really designed for us.”

The best way to keep pedestrians and cyclists safe is to invest more money in off-street paths that connect significant locations to one another as well as conduct educational campaigns designed to inform both motor-vehicle drivers as well as cyclists and pedestrians on the true dangers of their behavior.

“A lot of education needs to go on, not only for drivers but for bikers and walkers too,” a Brattleboro participant said. “Pedestrians have the right of way, but they can’t just step off the curb without looking.”

Several participants called for the Department of Motor Vehicles to alter both its educational material and driver’s exam to place a greater emphasis on bike and pedestrian safety.

“There needs to be a segment in the driver’s test on bicycles,” a Brattleboro participant said. “This would give the (new driver) no choice but to learn about it.”

Others called for investing in more bike paths so that both cyclists and walkers can be separated from vehicular traffic.

“We need to separate vehicles from people,” a Brattleboro participant said. “People are looking for paths in areas where they make sense,” a Lyndon participant said.

“We’ve got to get bikes off the road,” a Vermont Tech participant said. “Whether it is having a bike path or a small strip adjacent to the highway, we need to have separation so that bikers don’t have to be on their toes so much.”

At the very least, Vermont should change its laws to allow bicycles to use sidewalks, some said.

“Why no bikes on sidewalks?” asked a Norwich participant. “There will be less injury if a bike hits a pedestrian on the sidewalk than if a car hits a cyclist on the road.”

Streets lined with bike lanes “are nice, but they are also dangerous,” a Brattleboro participant said. “It’s a problem that you are not allowed to ride your bike on a sidewalk.”

“There needs to be a segment in the driver’s test on bicycles,” a Brattleboro participant said. “This would give the (new driver) no choice but to learn about it.”

Many young people were aware that Vermont a few years ago passed a “complete streets” law that mandates that both state and municipal governments take all modes of transportation, including walking and cycling, into consideration whenever a highway project is being designed. Some, however, questioned just how serious Vermont communities are taking their new responsibility.

“I would like to see the complete-streets policy taken seriously all across the state,” a UVM participant said. Added another UVM participant: “Our public spaces are not designed for multi-modal use... You have to create streets that work regardless of the mode you are using.”

PUBLIC TRANSPORTATION

Using information published by the Federal Highway Administration in its National Household Travel Survey published in November 2011, the Frontier Group determined that nationwide young people since 2001 have significantly increased the amount of miles they travel using public transportation.

According to the Frontier Group, young people between the ages of 16 and 34 increased their per-capita miles traveled on public transportation by a whopping 40 percent between 2001 and 2009, and as a result have played a significant role in driving up the total number of annual passenger miles traveled using public transit nationwide.

While other age groups also increased their use of public transportation during this same time period, the Frontier Group concluded that the lion's share of the overall growth is attributable to young people.

According to FHWA data, Americans increased their annual number of passenger miles travelled on public transit by 10 billion between 2001 and 2009. More than 60 percent of this growth is attributable to young people between the ages of 16 and 34, the Frontier Group concluded.

A different survey released at about the same time (March 2011) as the FHWA survey by the National Association of Realtors also concluded that easy access to public transportation is increasingly important to young adults. According to the realtor's survey, young adults between the ages of 18 and 29 are at least 25 percent more likely than older populations to highly value living within walking distance of bus routes and rail lines.

In Vermont, similar statistics or parallel survey results are not available. What we do know is that Vermont ridership on both buses and trains has increased in recent years, but we do not know what percentage of these increases are attributable to young people because the state does not track ridership by age.

According to the Vermont Agency of Transportation, local public transit providers report a 22 percent increase in ridership between 2008 and 2013 as so-called "boardings" increased by more than 900,000 – from 4.02 million to 4.93 million annually.

These numbers, however, include rides provided

in private cars by volunteers as part of Vermont's Elderly and Disabled Program, which hooks volunteer drivers up with qualifying citizens who do not have access to conventional transit service.

State officials said they had no easy way to back these private-car rides out of their numbers. Still, the ridership increases reported by Vermont public transit providers, which average more than 4 percent annually, are significant.

Local train travel is also on the upswing.

Vermont offers two intercity passenger train routes via Amtrak. Each route offers one round-trip service per day.

The Vermonter – which stops in the Vermont town of St. Albans, Essex Junction, Waterbury, Randolph, White River Junction, Windsor, Bellows Falls and Brattleboro – makes numerous connections in New Hampshire, Massachusetts, Connecticut, New York, Pennsylvania, Delaware, Maryland and the District of Columbia, while the Ethan Allen Express offers train service from the Vermont towns of Rutland and Castleton to several New York destinations, including transit hubs in Albany and New York City.

While ridership on these two passenger trains grew by a total of just 4.5 percent between 2001 and 2009, ticket sales have dramatically increased since then. From 2008 to 2013, the same years Vermont has trustworthy public-transit figures, annual train travel on the Vermonter and Ethan Allen Express grew 15 percent, from 119,536 passengers to 137,380 passengers.

Despite more people in recent years riding both the train and the bus, participants at all eight of the Transportation Board's forums criticized Vermont for not offering enough transit options.

Young adults, as well as older people, want to use public transit, and many prefer to use public transit instead of driving a car. But Vermont, they said, offers them very little in the way of service that they find useful, even in Chittenden County.

The vast majority of people who attended the Board’s forums said buses and trains in Vermont do not run often enough to be convenient, they don’t run late enough into the evening to return them home, and they don’t reach many of the places to which they would like or need to travel.

And even if they can use public transit to reach their ultimate destination, participants said doing so often requires multiple connections that make the trip take so long that using public transportation is not worth the effort.

While the Board expected to hear these kinds of comments in rural areas like Lyndon and Johnson, Board members were surprised that residents of Chittenden County, which has the state’s largest bus network, were also dissatisfied with their options.

“I have lived in Vermont a long time and the bus has never made sense for me – never,” said a UVM participant.

“The system that exists is just an old-school system,” another UVM participant said. “People who run these systems need to start thinking outside the box.”

The public transit “picture in Vermont needs to be drastically changed,” added another UVM participant. “We need to make it more desirable to use public transportation. That is the one thing that is going to make a difference in the way people live in Vermont.”

Unless the lack of convenient public-transit service is addressed, Vermont will continue to struggle attracting young professionals to live and work in its communities, young people said.

“We need more link-type buses with fewer stops – more buses that are direct to certain towns,” a Castleton participant said. “We need to connect towns like Vergennes to places like Burlington in a way that takes less than an hour. This would help attract young people.”

■ More Destinations

Everywhere the Board visited, young adults said economics force them to live in small towns outside of more urban locations because that is where they can find affordable housing. From these places, they would love to travel either by bus or by train to more urban centers that offer things like jobs, shopping and

entertainment. Vermont, however, offers them little or no public-transit service that connects these places.

“We need more and constant routes to urban areas from rural areas,” a Vermont Tech participant said, emphasizing that using public transit in a way that can balance employment with a social or family life is virtually impossible in Vermont. “Buses that go out to the smaller towns would help people in rural areas so that they can work out a schedule,” the participant said.

The public transit “picture in Vermont needs to be drastically changed,” said a UVM participant. “We need to make it more desirable to use public transportation. That is the one thing that is going to make a difference in the way people live in Vermont.”

Having “public transit that went further out (from urban centers) would be very attractive,” a Castleton participant said. “Buses need to go further into rural places.”

In Lyndon, participants said they lack public-transit options to take them to nearby economic hubs like Newport, St. Johnsbury and Montpelier.

“We have a lot of people from this neck of the woods that go to Montpelier,” a Lyndon participant said. “We need (transit service) that is closer by than St. Johnsbury,” said another Lyndon participant.

No place the Board visited emphasized its inability to access public transit more than Johnson.

Currently, bus service provided by CCTA travels from Burlington to the nearby Jeffersonville, which is west of Johnson. Meanwhile, GMTA offers service from Montpelier to nearby Morrisville, which is east of Johnson. But neither service extends into Johnson, leaving residents no way to access either economic hub.

“Complete that loop,” said a Johnson participant. “We have a town with a college campus smack in the middle with no service. This is something we should be able to figure out.”

■ Greater Headways & Evening Service

A lack of transit service to towns where young people can afford to live is one issue that deters millennials from living in Vermont. Another is how often buses run to those communities that actually offer service.

Providing bus service that only runs a couple of times per day – usually during traditional commute times like 8 a.m. and 6 p.m. – or providing service that offers its last run in either the late afternoon or early evening is not practical to a young person’s lifestyle, participants said.

In fact, providing transit service that does not run well into the evening is practically like providing no service at all, they said.

“The biggest thing is the timing,” said a Brattleboro participant. “I don’t ride the bus. I’ve tried to use the bus, but the scheduling is just impossible. It does not run enough.”

Said a Lyndon participant: “I would like to go to shows at arts organizations in the area (which often take place in the evening). Using the bus, I might be able to get there, but I will not be able to get back.”

Bus service to rural areas, even ones just outside Chittenden County, is so inconvenient that it is practically useless, young people said.

“Being able to get to downtown Burlington from other areas would be very helpful,” a UVM participant said. “I live in Georgia and don’t really have any other option but driving. There are two buses into Burlington per day from Georgia, but neither is convenient. It would be nice to have more options.”

While participants all around the state were unified in their call for greater, later and more frequent bus service connecting rural towns to urban centers, they were just as unified in their call for consistent service to one specific destination: the airport.

Mobility is extremely important to young adults, and many lamented that the only way to access nearby airports was by spending a small fortune on cabs.

In Bennington, participants called for transit service to Albany International Airport in New York.

“The biggest thing is the timing,” said a Brattleboro participant. “I don’t ride the bus. I’ve tried to use the bus, but the scheduling is just impossible. It does not run enough.”

From Brattleboro, they called for service to Bradley International Airport outside Hartford, CT. Those who live in the northeast kingdom and central Vermont called for transit runs to Burlington International Airport.

“If you want to attract young people to Vermont, you need to find a way to get them to the airport,” said a Brattleboro participant.

“This is a problem that has to be recognized,” said a Bennington participant.

Even those who live in both the Burlington and Rutland areas – Vermont’s only two cities that offer commuter aviation services – said accessing the local airport via public transportation is either inconvenient or virtually impossible.

“I can get to Boston by plane, but getting to the Rutland airport is a challenge,” said a Castleton participant. “You only can get there four times a day, which means you have to wait in the airport three-to-five hours once you get there to get on your plane.”

We “need more connections,” a UVM participant said. “I live near the airport and I can’t get across town on a bus.”

Lack of access to airports and small towns is not the only problem Vermonters have when it comes to public transportation. Intercity connections also are severely lacking, young people said.

“Within the state, public transportation actually works better than I would have thought in a rural area,” said a Brattleboro participant. “But where it really falls short is when you try to cross state lines... I’m shocked that I cannot get to Keene, NH or Greenfield, Mass.”

Young adults said their peers would find Vermont more attractive if it had better public-transportation connections to big cities like Boston and New York.

“People have told me they would move back to Bennington if they could get to Boston easier or to

New York easier,” a Bennington participant said. “That bothers me. People are not staying or returning due to a lack of mobility... Just think what creating these connections would do for the economy.”

■ Trains

One public-transit option that would help solve this problem is expansion of the local rail network, forum participants said. To attract young adults, Vermont would be well served to not only expand its intercity train service, but also consider establishing commuter rail in areas that could support such services.

“What we are told is that doing this is an issue of financials – the excuse is there is not enough people to make it economically viable,” a Bennington participant said. “But from what I have also heard, it is economically feasible. Expanding train service would draw people to the state... It would attract more young people. The long-term investment would be well worth it.”

Vermont’s rail lines are not clogged with freight trains that would make scheduling passenger service difficult, a Lyndon participant said. The rail line from White River to Newport, for example, only has one train per day. So there is lots of capacity in the network to expand passenger rail service, the participant said.

The state should connect “all the major towns in the area” such as Newport, Orleans, Barton, Lyndon and St. Johnsbury by commuter train, the participant said. “The people who would use this are there.”

Norwich participants called for a commuter train that connects Northfield to Burlington, with a stop in Montpelier.

“Having trains that help you commute is very helpful to finding a job,” a Norwich participant said. “But the only train that runs on this line is Amtrak.”

Forum participants both young and old said that they support the state’s continued investment in Amtrak service. But they also said that Amtrak’s current

“People have told me they would move back to Bennington if they could get to Boston easier or to New York easier,” a Bennington participant said. “That bothers me. People are not staying or returning due to a lack of mobility... Just think what creating these connections would do for the economy.”

schedule of one round-trip train per day is not enough. Additional runs would make the service much more attractive, and help lure not only young people, but older folks as well, they said.

“One train a day in either direction is not useful,” a Brattleboro participant said, echoing the sentiments of many.

Additional Amtrak runs “would foster tons of economic development,” especially within the tourism industry, a Bennington participant said. “It would allow others to access Vermont much more easily.”

Forum participants said they understood that expanding both train and bus service, whether it was for commuters or intercity travelers, would be expensive. They also said they understood that building ridership would take time, and that initially running half-empty trains and buses likely would cause some to question the value of such an investment.

But if the state created a public-transportation network that offers convenient service with convenient headways, people – especially young people – eventually will flock to the system, they said.

“In the long term, the cost-benefit would turn around,” a Johnson participant said. “That is what we have to look at.”

TECHNOLOGY ADVANCEMENTS

Technology advances happen quickly, and the use of new technology can spread rapidly, especially among young people who often are quick to adapt and accept changing and sometimes complex technology. The Frontier Group’s report cited the rapid advancement of mobile-communication technology as one of many reasons why young people are driving less.

According to the report, technology has made transportation alternatives more appealing, in part, because car-sharing apps like Uber and Lyft make finding a shared ride cheaper, easier and faster than in the past. GPS-based technology that tracks bus and train location also significantly reduces lost time waiting for public transportation to arrive.

Many states, including Vermont, have either outlawed or restricted the use of hand-held mobile technology while driving. Young people, who represent the most plugged in generation in history, have reacted to these limitations by preferring to use public transportation which allows them to stay connected during their commute rather than pocket their phones, the Frontier Group report said.

Young Vermonters told the Transportation Board that technology advancements such as placing WiFi on buses and tracking them with GPS technology so that their location can be viewed via a smart-phone is long overdue. But they broke from their national counterparts when it comes to the value of ridesharing apps such as Uber and Lyft, saying they question their value outside of the state’s most urban core of Burlington.

■ Controversial Technology

It is not surprising that ride-sharing apps like Uber and Lyft, which offer private rides using peer-to-peer technology at a cheaper rate than traditional taxi cabs, were quick to catch on with America’s youth in big cities such as New York, Boston and the San Francisco Bay area. It is also not surprising that the fast-growing popularity of such mobile technologies has just as quickly caused controversy.

Uber, in particular, has come under fire for a host of reasons that range from the company allegedly skimming tips from drivers to failing to properly vet

these employees. The City of New Delhi in December banned the use of Uber following the rape of a young woman, while cities such as Boston and Portland, OR struggle with how to regulate the emerging new mobile service – which is valued at more than \$40 billion and operates in 45 countries – in a way that treats it fairly with more traditional cab companies.

This past fall, the Vermont City of Burlington declared Uber illegal until the company receives a license to operate in the city.

Those who attended the Vermont Transportation Board’s forums said they understood why ride-sharing apps like Uber and Lyft are popular in big cities where people are looking for quick, cheap rides that span short distances. But they were quick to question how much of a future such mobile technology has in Vermont outside of possibly Burlington.

Problems cited by Vermont young people ranged from the state’s lack of reliable cell service – Uber and Lyft operate exclusively through mobile technology – to the distance one has to travel to reach Vermont destinations. Peer-to-peer ridesharing, young Vermonters said, is designed for quick rides across town, not for time-consuming cross-county travel.

But the biggest concern Vermonters had is with safety. Peer-to-peer ridesharing companies hire local drivers who use their own vehicle. These companies provide questionable background checks, young Vermonters said. Getting into a car with such a stranger to travel along sparsely inhabited country roads is not something that makes them feel safe.

“That is all sorts of sketchy and creepy,” a Castleton participant said.

“A big, fat no thank you,” said a Lyndon participant. “Knowing this population, it would scare the bejesus out of me.”

Even those who have used Uber in a big city such as New York questioned its viability in Vermont.

In big cities like Manhattan, young people travel in groups and often use Uber so that they can share the cost of getting across town. In Vermont, people usually travel solo over longer distances, so the cost would likely be prohibitive, they said.

“How is something like that going to work in a rural area?” asked a Vermont Tech participant.

“Around here, I would be using it alone,” a Bennington participant said. “And I would not be comfortable with that.”

Ride-sharing services like Uber and Lyft “might work in Burlington, but I don’t see it working in many other places around the state,” a Lyndon participant said. “There is just not enough critical mass.”

While most people questioned peer-to-peer ride-sharing’s future in Vermont, some others, especially those who attended the Board’s forum at UVM, said they would use such a service if it were available.

“Uber can be more reliable than a taxi for one-way trips,” a UVM participant said. Added another: “It’s here... and it is a great alternative to taxis.”

But even in Burlington, participants said they likely only would use such a service if they knew whoever came to pick them up had been fully vetted with a background check before they were allowed to offer rides.

Ride-sharing services like Uber and Lyft “might work in Burlington, but I don’t see it working in many other places around the state,” a Lyndon participant said. “There is just not enough critical mass.”

■ Tracking the Bus

As to public transportation, Vermont young people said the attractiveness of taking the bus would be greatly enhanced if local transit providers offered a smart-phone app that allowed users to track the location of a bus so they did not waste time waiting at a stop for a bus that is running late.

“Having the perception of knowing when your bus is coming is a game changer,” said a UVM participant.

Offering a bus-tracking app “is an immediate investment that needs to be made,” said another UVM participant.

HIGHWAY SAFETY

The Frontier Group study did not attempt to gather information regarding youth and highway safety. The Vermont Transportation Board, however, choose to include the subject in its 2014 forums because highway safety is perennially one of the most important issues that policy makers face.

While motor-vehicle manufacturers have improved efforts to make their products safer, drivers at the same time are increasingly distracted by the growing amount of technology that they either carry with them or have installed within their vehicles.

To combat this, the Vermont Legislature in 2014 banned the use of all hand-held mobile devices while driving unless the device is accessed via hands-free technology. The new law took effect on October 1, 2014, so it is much too soon to have data capable of assessing the new law's success.

Vermont highway fatalities and roadway crashes transcend geography and whether a community is urban or rural. According to statistics kept by the Vermont Agency of Transportation, the Green Mountain State annually experiences about 12,000 crashes, of which some 2,000 result in injury, including more than 300 incapacitating injuries.

On average, Vermont roadway crashes result in 70 highway deaths. Data shows that during a recent five-year period, nearly 75 percent of Vermont's 251 towns had at least one fatal crash occur within its borders. Quite literally, highway crashes and deaths happen everywhere.

Not all of Vermont's 2014 data is in, however, preliminary totals show the year is on track to be a good one in terms of safety.

While highway fatalities in Vermont dipped to 55 in 2011 from its long-term average of about 70, they returned to more customary levels in both 2012 and 2013, which saw 77 and 70 fatalities respectively. Fortunately, 2014 experienced a significant drop as just 43 people died on Vermont's roadways, one of the state's lowest totals in recent memory.

Details involving Vermont's fatal crashes in 2014 break down as follows:

- 15 unbelted persons.
- 12 operators suspected of being under the influence of drugs or alcohol.
- 11 operators suspected of speeding.

- 10 operators age 65 or older.
- 10 crashes involving a commercial vehicle.
- 7 motorcycles.
- 5 pedestrians.
- 2 operators under a suspended license.

While 2014 statistically was a good year in terms of highway fatalities, the fact that four of the last six years saw fatalities of 70 or more helps to illustrate the need for Vermont to be ever vigilant in its efforts to reduce both motor-vehicle crashes in general and fatalities in specific.

To this end, VTrans and the Governor's Highway Safety Program in 2012 reenergized their efforts to enhance highway safety by creating a Vermont Safety Alliance. The Alliance in 2013 updated the state's Strategic Highway Safety Plan, which was initially developed in 2005, and launched renewed efforts to make Vermont's highways safer.

The plan prioritizes safety efforts into six critical emphasis areas – infrastructure improvement, age appropriate solutions for both young and older drivers, curbing speed and aggressive driving, increasing safety-belt use, reducing impaired driving, and curbing distracted driving – of which five are largely behavioral and only one (infrastructure improvement) focuses on efforts that involve engineering.

This new safety document is telling in that driver behavior and the acknowledgment that drivers need to take personal responsibility for their own safety, as well as the safety of others, is placed front and center.

The Transportation Board at its forums asked participants four basic questions:

- What can the state do to curb mobile-phone use while driving?
- How can the state get drivers to slow down and pay better attention?
- How can the state reduce driving under the influence?
- Will legalizing marijuana make Vermont roads more dangerous?

■ Legalizing Marijuana

Of these questions, the marijuana issue drew the most consistent response. The question was asked because the Vermont Legislature has hinted it may contemplate legalization in 2015.

Almost to a person, young adults who answered this question believe that legalizing the use of marijuana will not deteriorate highway safety. Some even speculated it could improve safety.

Legalizing marijuana will not cause more people to drive under the influence because legalization is unlikely to usher in a significant wave of new users, young adults said. The biggest effect legalization will have is simply eliminating the legal hassle that currently faces those who already use marijuana. Legalization unlikely will result in additional motorists driving under the influence, they said.

“Legalizing marijuana will make it easier for people who use it, but I don’t think it will make a difference in how often they use it,” a Vermont Tech participant said.

“People who are going to smoke marijuana are already doing so,” a Johnson participant said. “So if there are going to be crashes, they are already happening... Anyone who is going to drive under the influence of marijuana is already doing it.”

Many others agreed.

“Anyone who is going to drive on marijuana is already driving,” a Bennington participant said. “Legalizing it will not change that.”

Said a UVM participant: “Anyone who will drive high post-legalization is already driving high. It will not be a new population.”

Several young people went as far as suggesting that legalizing the use of marijuana might actually make Vermont roads safer.

“Legalizing marijuana would allow people to use it more comfortably and make things safer,” said a Castleton participant.

Young adults acknowledged that drunk drivers are a significant safety concern. But they cautioned lawmakers about believing that marijuana users would cause similar problems. In fact, if pot were legalized, some people might even drink less, they said.

“I’m way more worried about a driver who is drinking than a driver who is stoned,” said a Johnson participant.

“Have you ever met a mean or aggressive pothead?”

“People who are going to smoke marijuana are already doing so,” a Johnson participant said. “So if there are going to be crashes, they are already happening... Anyone who is going to drive under the influence of marijuana is already doing it.”

Certainly not,” said another Johnson participant.

“I don’t think legalizing something would make people drive while using it,” a Bennington participant said. “I don’t believe there is a correlation. You need to be careful if you think there is.”

“Is driving under the influence of marijuana a real problem?” asked a Johnson participant. “Is there a big problem with stoned drivers causing crashes? Do we actually know this?”

“People for a long time now have been smoking weed and driving,” said a Vermont Tech participant. “You drive less cautiously on alcohol. On marijuana, you probably just drive slower.”

The fact that “some people drink alcohol and drive is not a fair reason to not legalize marijuana,” a Bennington participant said.

Despite their strong belief that marijuana legalization would not lead to increased roadway crashes, young adults overwhelmingly said that should marijuana be legalized, they support driving laws that parallel those associated with drinking alcohol.

■ Drunk Driving

As for curbing alcohol-related crashes, young adults said both increased education at the high-school level, as well as increased advertising on TV and other media consumed by young adults such as music services like Spotify, could pay dividends.

But they also said Vermont’s poor public-transportation options play a significant role in increasing the likelihood that a young person will get behind the wheel drunk.

“It goes back to public transit,” said a Norwich

participant. “If we had ways to get where we are going and to get back without a car, it would help significantly.”

Vermonters of all ages “drive drunk because they have no other option,” a UVM participant said. “Lots of people get into accidents a quarter mile from their home... There has to be options to driving after hours to places that have downtowns.”

A Lyndon participant who lost a friend due to a drunk-driving crash made a plea for the state to provide alternatives to driving.

“It goes back to public transit,” said a Norwich participant. “If we had ways to get where we are going and to get back without a car, it would help significantly.”

“Give us safe alternatives,” the Lyndon participant said. “If there was a late-night alternative, (my friend) would still be alive. If there was a late-night bus, he would have taken it.”

A UVM participant said the proliferation of ride-sharing services like Uber would curb drunk driving among young people.

“Uber would be great for lowering drunk driving,” the participant said, “because unless you are downtown, you cannot get a cab.”

Others encouraged the state to run as much advertising as it can that speaks to the dangers of driving under the influence. The key to success is running these ads in places where they will get young people’s attention, they said.

“This would definitely have an impact,” a Norwich participant said.

“They run horrible-sounding commercials on Spotify,” a Bennington participant said. “They are really awful and I hated them. But they did reinforce the issue, and they made me think. As much as I hated hearing them, they really did help.”

Young adults also encouraged Vermont schools to sponsor programs aimed at preventing drinking and driving. Those who experienced demonstrations

in high school that involved the display of actual wrecked cars around the time of significant events like the prom and graduation said these demonstrations left a lasting impression.

“Stuff like that got our attention,” said a Lyndon participant. “Show students what it’s like to try to get out of a wrecked car. These are the kind of things that make the most impact.”

Working with schools is also a way to engage parents, who often carry significant influence over their children, young adults said.

“It starts with the parents of kids to set the proper example,” a Norwich participant said. “You learn from your parents.”

Parents also have to take responsibility, young adults said, and make it clear to their children that should they drink alcohol they can call their parents for a ride home and not face negative consequences.

“Young people know the dangers of drinking and driving,” a Brattleboro participant said. “But a lot of times kids get in the car when drunk because they don’t want to call their parents and get in trouble.”

■ Speed, Distraction & Aggressive Driving

The young adults who attended the Transportation Board’s forums were very aware of the dangers caused by drinking and driving, and encouraged the state to be vigilant. But many, especially those that ride bicycles, said they fear distracted drivers just as much, if not more, than drunk drivers.

“We always express fear of getting hit by a drunk driver,” said a Castleton participant. “But I don’t think that is as important an issue to roadway safety as distraction and the use of cell phones.”

At every stop the Board made, 100 percent of participants were aware that the Legislature recently passed a law banning the use of hand-held technology while driving. Given that the Board’s forums began in mid October, less than two weeks after the new law took affect on October 1, this reach-rate is commendable and indicates that the state’s marketing efforts were successful.

While the new law allows mobile phone use with hands-free technology, not everyone will invest in such technology, young people said. To ensure the new law is a success, young adults suggested that the state begin to add cell phone pull-offs to the highway

network so that people can stop their car and use their phone when they need to.

“Make sure there are safe places to pull over when you do need to use the phone,” a Lyndon participant said.

“New York has text stops all over the place,” a Norwich participant said. “If you see a sign that says text area in five miles, you can wait five minutes. It encourages safety.”

Others suggested tough punishment for drivers who continue to use their phones without hands-free technology.

“Suspending their license for a little while after a texting second offense would help” people obey the law, a Castleton participant said.

Enforcement was a passionate topic for some young people.

Several young men acknowledged that they are sometimes guilty of speeding and driving recklessly. The way to stop them, they said, is for the police to stop being so nice whenever they are caught.

“Vermont state troopers need to be a little bit more of an ***hole – they really do,” said a Norwich participant who said he likes to speed. “The police need to be more strict on things and not let you off with a warning.”

A UVM participant who said he has “been known to drive fast” also encouraged greater enforcement. “It’s ridiculous that you can drive 10 mph over the speed limit and (police) will do nothing, but if you just barely roll through a stop sign you get a ticket.”

Police not only need to ticket more often, the state needs to increase the amount of the fines, young people said.

“In an ideal world, you would appeal to (speeders and aggressive drivers) where it hurts the most: in

“I can drive by speed-limit signs all day and I will ignore them, but when there is something flashing at me I slow down,” a Norwich participant said. “I don’t know why, but I do.”

their wallets,” a Castleton participant said. “And use the money to subsidize what makes us safe.”

Said a Bennington participant: “every other country in the world has more driving regulations than we do. What is our problem? In Germany, (driving recklessly) would cost you \$1,000.”

To help reduce speeding, young adults encouraged an investment in flashing electronic radar devices that display your speed and encourage drivers to slow down.

“Every time I come to one of those things I slow down,” a UVM participant said.

“I can drive by speed-limit signs all day and I will ignore them, but when there is something flashing at me I slow down,” a Norwich participant said. “I don’t know why, but I do.”

Participants also said that narrowing travel lanes will slow traffic – as well as make the road safer for cyclists and pedestrians because the state could then either increase the width of the roadway’s shoulder, add a bike lane or build a sidewalk.

“It has been shown that narrowing roads will reduce speed,” a UVM participant said. “And it provides room for other modes of transportation.”

INDIVIDUAL LOCATION & SPECIFIC CONCERNS

Throughout the Board’s public hearings, participants sometimes raised concerns about a specific highway location or an issue that had nothing to do with young adults and their transportation habits. This chapter captures these concerns as a way to bring them to the attention of VTrans, local government officials and the Legislature.

Participants across the state encouraged the Legislature to create a combined focus on affordable housing and public transportation because the two are linked in many ways.

Norwich participants said Vermont employers could help promote cycling by providing locker rooms with showers, and the government could help by offering incentives to those employers who offer such facilities. Local governments also could help promote cycling by providing bike racks on street corners.

A Shelburne citizen participating via email said the Legislature should pass a law that requires towns that erect “school bus stop ahead” signs to use the word “shall” instead of “should” when it comes to following state and federal guidelines.

The Shelburne participant also said the City of Burlington should establish “pullover slots” along Pine Street for busses so cars can pass as the bus passengers board. Such pullovers are common in many major cities, the participant said.

A Lyndon participant said the condition of Route 15 through Walden is extremely poor, as is the stretch of Route 122 from Sheffield to its intersection with Route 16 in Glover. Both these roadways should be resurfaced, the participant said.

A Vermont Tech participant said the condition of Route 66 through Randolph is poor and called for the state to repave the roadway.

A Johnson participant said Route 242 in and around Jay is in poor condition and called for it to be resurfaced.

A Norwich participant said the state could reduce its vehicle-miles traveled by creating new exits along both Interstate 89 and Interstate 91.

■ Strengthen Complete Streets

A Shelburne resident participating by email said that Act 34’s major weakness is that it allows for a lot of

“outs” when it comes to compliance, many of which have to do with claiming that establishing bike and pedestrian facilities are unaffordable.

Instead of making it so easy to opt out, the participant said the Legislature should expand the scope of Act 34 to include the use of public-utility upgrades such as ground leveling and clearing vegetation that are done on the side of a road. In well-populated areas, the state should mandate that opportunities to expand the pedestrian and cycling network be pursued when such utility work is undertaken.

“Site prep for a utility upgrade is often exactly the same as what’s needed to prepare for building a bike path,” the participant wrote. “Knowing in advance that utility work is scheduled in or near a path or sidewalk alignment would allow municipal officials to construct paths relatively cheaply, or if funding is not currently available, to ensure that grading and the location of new poles at least supports a future path.”

A Brattleboro participant called for crosswalks to be established in the middle of roads so pedestrians only need to look two ways, rather than at intersections where they need to be aware of traffic approaching from four directions.

A Lyndon participant said that roadway striping has faded in many locations around the state, making these roadways dangerous because you cannot see the roadway’s edge or find the centerline.

A Bennington participant said the local area is working to create the so-called Ninja Path, which would make biking and walking from downtown to Bennington College easier. The project involves changes to Route 67A. The participant called for VTrans to “play ball” with local officials and make the project a reality.

A Johnson participant said some local roads have extremely different pavement conditions once you cross a town line. The participant called for communities to “pool resources” so paving can be done more consistently.

■ More Roundabouts

A South Burlington resident participating by email encouraged the construction of roundabouts as part of state highway projects in as many locations as possible.

A Chittenden County resident participating by email said that Burlington now averages a walk/bike fatality every four years as well as one walk/bike/car occupant fatality every three years, and that all these deaths since 1998 occurred at signalized intersections. The participant said that intersection signalization is inherently unsafe, and said the state should no longer install signals at intersections and instead should install roundabouts. In addition, Vermont should begin to convert its upwards of 400 signalized intersections to roundabouts so that these intersections are safer.

The Chittenden County resident went on to encourage the state to work with the City of Burlington to not only install more roundabouts, but also build separate bike and pedestrian facilities as part of the planned Champlain Parkway project as well as throughout the city's North Avenue corridor. The participant also encouraged the state to take similar measures statewide as a way to both better protect cyclists and pedestrians as well as help encourage more people to walk and bike.

"Walking and bicycling crash rates are unacceptable," the participant wrote. "Safe infrastructure – cycle track and roundabouts – must be the *sine qua non* of walk-able and bike-able streets. It is absolutely critical for safe, street-section cycle track to be paired with bike-accommodating separate pathing at roundabouts to assure safety to all-age and all-skill bicyclists who surely will avail themselves the use of cycle track in their neighborhoods... Cycle track must be installed in order to enable those of all ages and skills the opportunity to bike on their neighborhood's busy streets for their routine transportation each day to shop, go to school, and socialize."

A UVM participant called for a sidewalk or bike path along Route 2 connecting downtown Richmond to the Park and Ride. "I've seen mothers with baby carriages walking along Route 15 because they can't get from downtown to the bus stop any other way," the participant said.

As for Park & Rides in general, another UVM

participant called on the state to build facilities that include lights, bus shelters and bicycle infrastructure, rather than first build the lot and then try to add the rest of the amenities later.

A different UVM participant said the Chittenden County region needs more park-and-ride spaces, especially east of the City of Burlington.

A Colchester resident participating by email said he does not feel safe riding a bike along a state highway, even if the roadway has wide shoulders. He called for the state to spend more money to construct "family friendly, all-age accessible walk/bike spaces."

The Colchester participant also encouraged the Legislature to set a "bold goal" of building separated recreational paths within one mile of 75 percent of each planning district's households, and to pass laws that "leverages local development" for money to build new bike-path connections and additional bike-ped infrastructure.

■ Expand Rail Service

A Bennington participant called for the state to develop public-private partnerships to bring greater passenger train service throughout all of Vermont. Another Bennington participant said the state's goal should be to have nearly every Vermonter live within about half-an-hour's travel of a working train station.

A Chittenden County resident participating via email encouraged the state and the City of Burlington to study the feasibility of establishing light rail throughout the greater Burlington region. Developing light rail – which would connect hubs like colleges to the waterfront and local neighborhoods to downtown – will take longer than developing commuter rail that connects one city to another. Therefore, planning needs to start immediately, the participant said.

A Brattleboro participant encouraged public-transit providers to save money by investing in and running smaller buses because the larger buses usually have too much capacity.

Another Brattleboro participant said the Legislature this year only went "half way" to protecting people by banning the use of hand-held mobile devices unless they are used with hands-free technology.

The participant said a total ban of mobile technology while driving would be much safer.

“Finish the job,” the participant said.

■ Regulate Connections

A Shelburne resident participating by email said that in Chittenden County, local officials and citizens are dealing with years of development patterns that have resulted in unconnected sprawl and a built landscape that is car-oriented. These development patterns, when combined with ever-increasing traffic congestion, makes it “completely normal to drive your Prius somewhere so you can walk.”

The Shelburne resident said roads designed primarily for automobiles and low-density development discourages both cycling and walking because they require someone to travel an “illogical path and an unnecessarily long distance” to get from point A to point B.

To reverse this trend, state and local governments need to discourage unconnected cul-de-sac development in, and adjacent to, villages and downtowns, as well as adjacent to designated growth areas, the participant said. Instead, governments need to mandate that new development achieve a high level of connectivity, if not for vehicles, at least for pedestrians and cyclists.

Governments also need to encourage transit-oriented development, allow greater density around public-transportation hubs, and relax storm-water and environmental standards if necessary in these locations to achieve better mobility, the Shelburne resident said.

A Norwich participant encouraged the state to establish a network of electric-vehicle charging stations throughout the state.

A Johnson participant said the state should do more to discourage drinking and driving, and proposed lowering the legal blood-alcohol level to a point below 0.08.

A UVM participant said speeding could be reduced by installing “speed cameras” that electronically track a motor vehicle’s speed, take a photo of all license plates from speeding vehicles and then ticket them.

A Norwich participant said communities that run so-called “ski buses” should continue these services year round.

■ Separate Cars & Bikes

Another Norwich participant called for the state to establish a roadway standard that calls for new and refurbished highways to be built with three-to-five foot shoulders.

A Lyndon participant called for increased shoulder width along Route 16, Route 114 and Route 122.

Another Lyndon participant said the National Association of City Transportation Planners has a guideline that call for four-to-five foot bike lanes along roadways rather than just three-foot shoulders. He encouraged Vermont to adopt similar measures.

A Vermonter from an unknown location participating by email said roadways are currently “owned and controlled by the use of the individuals driving their own vehicle whenever, wherever, and however they please.” He encouraged the state to consider changing that focus to one that supports multiple modes of transportation by constructing two-foot high concrete partitions that separate cars from bicyclists for safety.

CONCLUSION

The Transportation Board thanks all who participated in making this report possible, including the many employees of VTrans who provided background information, college and university officials who helped promote the forums that took place on their campuses, all of Vermont's regional planning commissions who were instrumental in helping the Board reach numerous community groups that cater to young professionals, and, of course, the nearly 250 Vermonters who participated by either attending a public hearing or providing the Board with written comments.

The Board's public-hearing process is not meant to provide VTrans and the Legislature with a "scientific" cross section of opinions. Participation is both self-selected and 100 percent voluntary. The Board nonetheless considers the information it gathered to be a valuable resource to policy makers.

Young adults are not typically a demographic that lobbies state and local officials for needed changes to the transportation sector, yet their views represent an extremely important perspective.

It is vital to Vermont's economic wellbeing that policy makers make decisions that help reverse the troubling trend of young people fleeing the state. Listening to the transportation views of young people is but one step in the vital process of understanding how to begin this difficult, but very important task.

The Transportation Board is well aware that the Agency of Transportation has already begun to implement and/or study some of the issues that young people raised during the Board's forums.

As examples, VTrans is currently working with Carshare Vermont to locate as many as two vehicles in the Montpelier area during 2015, and the Agency this past fall began working with Smart Growth America as well as other partners to develop a plan for revising Vermont's roadway design standards in such a way as to make walking, cycling and taking the bus safer and more convenient.

The Board applauds these efforts, and encourages VTrans to continue these and other forward-thinking programs.

■ Future Investment

The Frontier Group report rightfully recognizes that "transportation infrastructure decisions have long-

lasting implications. Highways, transit lines and sidewalks have useful lives measured in decades – and sometimes centuries. To make the best of limited resources, transportation planners must anticipate trends, 10, 20 or 40 years into the future."

All across the nation, the growth rate of vehicle-miles traveled has slowed. In 2000, the U.S. Information Administration projected that by 2010 the total number of vehicle-miles traveled on American roads would reach 3.4 trillion. The Frontier Group report, however, noted that the nation's drivers undershot this projection by 11 percent, which is both significant and telling.

While it is unknown whether this trend towards driving less will continue, young people who attended the Board's forums overwhelmingly appeared willing to do their part if the state would only aid their ability. The big question is will this attitude continue as today's youth age?

If the answer is yes, Vermont, as well as the rest of the nation, needs to prepare for what can only be described as a seismic shift in how we must approach transportation policy.

For more than a decade now, the Vermont Legislature and VTrans has rightfully placed a financial focus on improving the state's long neglected roads and bridges. These efforts, which in recent years produced several record-breaking bridge and paving budgets, have paid off handsomely.

Vermont, which in 2008 ranked near the bottom of all states (45th in the nation) in percentage of structurally deficient bridges, now sits squarely in the middle of the pack at 28th in the nation, declining from 19.7 percent of all its bridges being structurally deficient in 2008 to just over 8 percent in 2013.

Similar inroads have been made with pavement condition. In 2008, some 36 percent of Vermont state highways were rated very poor, while in 2013 the percentage had fallen to only 21 percent.

While there is still work to be done in both these areas, the state eventually will reach the point where continued record-breaking or near record-breaking financial investment in these areas will achieve minimal returns. When this time comes, and should overall transportation funding remain strong, Vermont will be well served to shift some of its financial focus into other transportation areas.

To prepare, it would behoove the state to have a firm handle on what its citizens – particularly its younger citizens – want their transportation future to look like.

The Transportation Board highly encourages VTrans to continue what the Board began in 2014, and spend the necessary time to study the wants, needs and wishes of both today's, as well as tomorrow's, young people, and to understand how their transportation values change, or possibly remain the same, as they age.

Proper assessment and planning in this area will be critical to ensuring Vermont spends its limited transportation dollars wisely, and is not left with an archaic transportation system that is outdated rather than useful, and which plays a significant role in repelling, rather than attracting, the coming generations that will be necessary to ensure the state's economic prosperity.

