CHITTENDEN COUNTY RPC
Communities Planning Together

Transit Financing Study

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1. INTRODUCTION

Background

Funding for public transit has been studied multiple times in Chittenden County and at the state level over the past 25 years. These studies have identified many potential revenue sources and assessed the potential revenue yield for each, as well as implementation hurdles and political feasibility. To date, none of the options discussed in these studies has been implemented and funding has continued to come from local property taxes and local option sales taxes (in a few cases), to supplement state funding mostly from the Transportation Fund (T-fund, based on motor fuel taxes, vehicle purchase and use taxes, and license and registration fees). The literature review in the appendix to this report summarizes previous studies in Chittenden County as well as national reports and research on local funding.

Nothing has happened mainly because GMT and the rural transit providers in Vermont have found ways to obtain sufficient funding without facing a serious crisis. The last time the legislature acted on transportation funding, it raised the motor fuels tax because the State of Vermont was facing a shortage of money to match federal funds for highway and transit and the State did not want to leave federal money "on the table." Since that time, the value of the motor fuels tax has eroded with inflation, the increasing fuel efficiency of cars, the small but increasing share of electric cars in the fleet, and the fact that the price of gasoline and diesel has remained well below the level where the 2013 tax change would start to generate additional revenue.

The COVID-19 pandemic has, of course, been a crisis across all sectors of the economy. Public transit was shielded from the worst of the impacts thanks to an infusion of federal dollars mainly from the CARES Act of 2020. These dollars did not require any local match and more than made up for the loss of fare revenue and other resources.

With the passage of the federal Infrastructure Investment and Jobs Act, there is expected to be a 35% increase in transit funding above the FAST Act investment levels; additional resources at the local level to serve as matching funds will likely be needed. Rather than just continuing to lean on existing sources of revenue, this renewed need for local funding offers the opportunity to overhaul how transit is funded both in the Chittenden County metropolitan area and in the rural parts of Vermont. The reliance on municipal funding from the property tax is a drag both on the cities and towns which might rather use those dollars for other local services, and for the transit agencies who need to expend significant staff resources to obtain signatures to appear on Town Meeting ballots and otherwise negotiate with local selectboards on how much funding is available to support current service, let alone adjusting funding in response to changes in service.

Guiding Principles

Part of the reason that there has been no movement toward a new funding source for transit is that local and elected officials are very wary of raising taxes or fees, especially if it happens in a way that is readily visible to their constituents. Many voters (and therefore their representatives) favor taxes that follow the SEP principle (somebody else pays). Taxes and fees that hit tourists or "people from elsewhere" are preferred, though most analyses show that such taxes do not generate a sufficient amount of revenue.

In contrast, this study recommends a different guiding principle, which can be called WAPAL, or "we all pay a little." Just as a point of reference, if one were to add up all of the local funds used to support transit in Vermont (coming mostly from property taxes) and spread it out among all Vermont residents, it comes out to less than $10 per person per year. If we all paid a little for transit, many municipalities would gain more flexibility with their property tax revenue and transit agencies would be freed from the significant burden of seeking out local funds year after year.

A corollary of the WAPAL principle is that "regional transit systems generate benefits regionally." While it is true that many people in rural areas do not currently have access to transit service, society as a whole benefits from the existence of our regional transit systems. (See chapter 3 for a discussion of expansion of transit access in rural areas.) The economy in an urban area is dependent on transit to be able to get people to jobs without overwhelming the roadway system. Jobs generate income for the region, including for people living in surrounding towns who commute into the regional core. This income supports local town services, and the benefits of this income apply even if the specific commuters do not use transit themselves. In rural areas, where congestion is less of an issue, transit still helps people get to jobs, helps them accomplish shopping and medical trips, and helps them engage in social interactions which are essential to healthy and productive lives. While most people using transit in Vermont (especially during the pandemic) do not have the option of driving, those who choose to use the bus instead of driving help the environment locally, regionally and globally.

Although local funding has been mostly based on contributions from cities and towns which are directly served by bus routes, the connection between route alignments, service levels and local funding breaks down upon closer examination. Suppose one town in a region is served by a commuter bus route and an adjoining town is not. It is likely that the number of people using the route in the "served" town is a tiny percentage of the population, probably no more than 2%. If the route stops at a park & ride lot, it is likely that at least some of the residents of the "unserved" town are also using the route. If 98% of the people in the "served" town are not using the route and 99.5% of the people in the "unserved" town are not using the route, why should the taxpayers in the served town pay 100% of the local share and the taxpayers in the unserved town pay zero?

In addition to the lack of a sound rationale that only "served" towns should pay the local share, it is also the case that tying the amount of service provided to the amount of local funding creates incentives that are harmful to efficient service design and delivery. If a served town begins to feel financial pressure for whatever reason, it has an incentive to try to minimize the service to reduce its payment. A regional transit system, though, should design and operate the service so that it best serves regional travel patterns, not so that it abides by fiscal mandates from the member towns.[1]

Historically, funding for public transit at the state level has been tied to transportation-related revenue sources such as motor fuel taxes and license and registration fees. Prior analyses of local funding have considered increasing fuel taxes at the state or regional level to expand the funding pot. However, there is no compelling reason why transit needs to be funded with money that is related to automobile travel. Increasing the cost of auto travel can help encourage people to use transit instead, but the current level of taxes and fees is not nearly high enough to have an appreciable effect on mode choice.

There are a number of other types of taxes that could be applied which follow the WAPAL principle, as discussed in following sections of this report. None of them is a "perfect" solution in that everyone would agree immediately that the new source is sensible and fair and acceptable. A case will have to be made for any new source of funding for transit. But now, when Vermont faces a crossroads of decreasing revenue from the T-fund, increased pressure on local budgets, and a potential need for more matching funds to take advantage of increased federal transit dollars, it is the time to make that case and lay a solid and sustainable foundation for future local transit funding.

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[1] There may be cases where an individual city or town requests service that is 100% within its borders, like the College Street Shuttle and the Montpelier Circulator (both of which no longer exist in their original form). In cases like those, a direct linkage between service and local funding makes more sense, even if some benefits continue to extend beyond the municipal borders.

Fare Revenue

The discussion thus far has focused on local municipal funding, which is mostly derived from property tax revenue. Over the past few years, a parallel discussion has taken place regarding the future of passenger fares for transit service in Vermont. The Section 20 report on Methods to Increase the Use of Public Transit examined the potential costs and benefits of a fare-free policy. That report was published just prior to the COVID-19 pandemic, to which VTrans and all Vermont transit providers responded by eliminating fares. This fare-free policy is still in effect and is projected to last at least until June 2022.

The question of the benefits of a fare-free policy must be considered separately for the GMT urban system and the rest of the state. The great majority of fare revenue in Vermont is attributable to GMT's urban routes: $2.2 million out of a statewide total of $2.7 million in FY2019 (the last time fares were in place for a full year). Several of Vermont's rural transit providers already offered fare-free service before the pandemic and other rural providers charged very low fares (such as 50 cents per trip). The Section 20 report pointed out that the increased ridership that is normally associated with fare elimination would likely not occur in the rural areas. However, fare elimination in rural areas would be a benefit to existing riders, many of whom have limited income, and it would not be impossible for the state to replace the $500,000 in foregone annual fare revenue with other funds.

For GMT's urban system, fare revenue has traditionally accounted for 20-25% of the operating budget. The prior experience of other agencies that have eliminated fares, cited in the Section 20 report, indicates that a fare-free policy could result in a 30-40% increase in ridership (translating to about 700,000 new annual riders based on pre-pandemic ridership totals), though only a small portion of that would consist of people who formerly drove. Most of that new ridership would result from current riders making more trips (when they might otherwise have stayed home) and from people who formerly walked or rode a bike. However, because of the pandemic and the fact that GMT has already been operating fare free for 20 months, the idea that a fare-free policy could boost ridership is essentially moot for the foreseeable future.

If the GMT Board decides to reimpose fares at the start of FY2023 (July 2022) or at another future date, it would need to be presented as a "return to normal operations" after the pandemic had subsided. Most forecasts in the transit industry predict that ridership levels will not return to pre-pandemic levels for another two to three years, if then, because of two primary factors: the reduction in commuting trips as many white-collar employees choose to continue to work from home on a part-time or full-time basis; and the continued reluctance of people to be in crowded, enclosed spaces as fears associated with the pandemic linger. The growth in electric car ownership will also detract from transit ridership as the owners of these cars feel that they have eliminated their negative environmental impact and thus do not need to ride the bus to be "green." EV drivers are also insulated from fuel price increases and benefit from lower day-to-day operating costs compared to fossil fuel powered vehicles, and so would see less savings from riding the bus. The bottom line is that GMT's annual fare revenue is not likely to break the $2 million mark anytime soon.

GMT's operating expenses have not dropped by anything near the percentage decline in ridership, and so the portion of the budget that used to be covered by fare revenue needs to be covered by something else. In the immediate term, the lost fare revenue has been covered by increased pandemic-related aid from the federal government. For the near term, assuming that fares are reimposed in FY23 but only generate between $1 million and $1.5 million in FY23 and FY24, the gap between those figures and $2.2 million will need to be covered by other sources. If those sources include more money from the federal government, GMT will likely need additional local funds to match the federal funds. GMT, in consultation with VTrans and its member municipalities, will need to decide whether its future financial stability and ridership potential are best served by once again relying on fare revenue for a portion of its budget, or if it should expand the scope of a new regional funding source to cover *both* municipal contributions and fare revenue.

2. POTENTIAL ALTERNATIVES

The sections below present a range of alternative revenue sources for public transit, both at the local and state level. Each section describes advantages and disadvantages as well as hurdles to implementation.

Transportation Sector Fees

Even though there is not a compelling case that funding for public transit must come from automobile-based fees, the historical dependence on the T-fund at the state level means it should not be dismissed out of hand. New or increased fees that apply to automobile travel can be imposed at the state or regional level and could thereby serve as a substitute or a supplement to local property tax revenue.

Motor Fuel Taxes

Vermont currently collects a tax of about 30 cents per gallon of gasoline and about 32 cents per gallon of diesel fuel. If the retail price rises above $3.90 per gallon, the fuel tax will also increase, as the 2013 change to the tax instituted a percentage tax on top of the cents-per-gallon fee that had been in place prior to that. The motor fuel tax is one of the primary components of the T-fund, along with the motor vehicle purchase & use tax and motor vehicle fees, each of which contribute $90 to $100 million annually to the T-fund.[2]

The Vermont legislature has the power to increase the motor fuel tax whenever it wants, though it has rarely done so, because it is a highly visible tax and it is generally regressive, affecting low-income Vermonters more than upper income individuals. Nationally, the motor fuel tax is a diminishing source of revenue as the fuel efficiency of the automotive fleet increases and a growing share of the fleet becomes all-electric.

By increasing the cost of driving, the motor fuel tax helps to encourage people to use alternative forms of transportation, though given the volatility of gasoline prices, it is unlikely that small changes in the fuel tax (a few cents per gallon) would result in a significant reduction in driving. Major increases in fuel taxes, to levels similar to what is seen in Europe, remain politically infeasible in the US, in spite of the climate crisis.

VMT Fees

Nationally, most of the discussions about replacing/supplementing motor fuel taxes focus on fees on vehicle miles travelled (VMT). Such fees would apply to all vehicles, and thus capture all-electric cars that currently are not covered by the motor fuel tax. There are several issues associated with VMT fees that are being contemplated in the Agency of Transportation's *Electric and Highly Fuel Efficient Vehicle Road Usage Charge Study*, including such factors as:

- VMT fees apply only to vehicles registered in Vermont; while out-of-state drivers contribute to the T-fund if they purchase fuel in Vermont, they would not contribute through VMT fees.
- A method for tracking VMT and assessing the fee would need to be developed. The simplest method would be to calculate and assess it during an annual vehicle inspection, but that raises issus with cars that are only owned for part of the year or are sold just before the inspection; for those cars, the fee would need to be applied at time of sale, but this makes the process more complicated.
- VMT could also be tracked using GPS-based devices, but this raises privacy concerns.
- Vermont residents who drive long distances out of state may complain about paying VMT fees for miles not accrued within Vermont.

[2] T-fund revenues are not used exclusively for transportation. About one third of the purchase & use tax is used for the education fund, and T-fund monies are also allocated to the Department of Public Safety.

None of these issues are insurmountable, but they make implementation of a VMT fee much more complicated than simply raising the motor fuel tax. For instance, capturing out-of-state drivers could be accomplished through raising the Room and Meals tax, which mostly falls on non-Vermonters. The degree to which that tax is raised could be calculated based on what portion of motor fuel taxes are currently paid by out-of-state residents.

As described in the literature review (Appendix), two states, Oregon and Utah, are currently experimenting with VMT fees, mainly because of the issue of high fuel efficiency and all-electric cars. These pilot programs are very small and voluntary.

Taxes on Vehicles

The purchase & use tax and fees for licenses and registrations generate a significant amount of revenue for the T-fund. These could be increased, or an additional personal property tax on vehicles could be instituted. If someone owns a car for a long time, they can go for many years without paying the purchase & use tax, but a personal property tax would be payable every year. The challenge with a personal property tax is determining the value of the vehicle in a fair and efficient way. A tax as a percentage of value would be much more progressive than a flat fee on each vehicle, which would essentially be an expansion of the registration fee.

Use of T-Fund Revenue for Transit

As mentioned earlier, there is not a compelling case that funding for transit operations needs to be derived from automobile-based fees. Vermont has been more generous than most states in devoting these funds to support public transit (many times more generous than other rural states). As VTrans considers the use of available federal and state funds, there are always issues of trying to address needs among all modes of transportation with limited resources. Finding a new source for transit operations would free up existing state funds to make further progress on the backlog of road and bridge projects on state and local highway systems, as well as help to forestall any future problems with having enough non-federal match for highway projects.

Future changes to T-fund revenue sources—such as moving from a fuel tax to a VMT fee—would probably be made easier by removing transit from the equation. This should not be taken as a recommendation to stop using T-fund money for transit, but if the result of this study is to build a case for a new statewide or regional funding source for transit, that case could be bolstered by having transit stand on its own with a dedicated funding source.

Statewide vs. Regional Considerations

The above discussion concerned only existing and potential statewide taxes and fees and their use. Any of those taxes and fees could also be applied at the regional level. Regions could be defined by transit provider service areas or counties, and the legislature could allow each region to choose a particular taxation level that would be dedicated to transit funding. For instance, Chittenden County could choose to impose a 3 cent per gallon regional gasoline tax, which would be collected by the state and then returned to the region (Green Mountain Transit). This raises questions about exactly who constitutes "Chittenden County" and whether transit agencies, most of which are private non-profit corporations, could have such authority to decide taxation levels. Such a scheme of regional taxes may entail that each transit provider become a regional authority or district in order to have such power. As noted above, VMT fees already have "border issues" associated with them, and having the fees be determined by jurisdictions smaller than the state only increase the border issues. For instance, if a Jericho resident works in Montpelier and rarely drives in Chittenden County, she might object if the Chittenden County VMT fee is higher than that in Washington County.

Municipal Funding

Before proceeding to new alternative funding sources, it is also worth discussing municipal funding, as it is the other major existing source of non-federal support for transit. Other than the member cities and towns of GMT, all current municipal contributions are voluntary, in that they are included in local budgets or added by petition and voted on at Town Meeting. Cities and towns would need to join regional transit authorities to expand the list of municipalities that could be assessed, but this seems like a very unlikely scenario.

Most municipalities that provide local funding to transit agencies use property tax revenue, but some have local option sales tax revenue available for that purpose. Similar to states where a county or city adds a local option surcharge to a statewide tax, Vermont has such a mechanism available through local option taxes on sales, meals, alcoholic beverages or rooms. Currently 17 communities statewide have local option sales taxes, and 21 communities (many of which are the same ones with sales taxes) have local option taxes on the three other items. Most of these municipalities are among the more populous in the state or are noted tourist destinations. There are no small rural towns among them that are not the home of a tourist destination or immediately adjacent to one (Winhall). Of course, most small rural towns have very limited retail sales and few lodging/restaurant establishments, so that a local option tax would not generate much revenue.

One other potential source of municipal funding is to designate a portion of the money a city or town gets from the State Aid for Town Highways Program as the non-federal share of public transit assistance. The use of the program in this way is explicitly permitted in 19 V.S.A. Section 306(a)(3)(E). Presently, Vermont municipalities use all of the money in this program for roadway maintenance and improvements, so the size of the program would need to be increased to allow for a portion to be used for transit, which would require the generation of additional T-fund dollars. The 2016 report on transit local funding described the outlines of an incentive program to encourage municipalities to support transit with these funds.

Statewide and Regional Solutions

Developing funding sources at the statewide or regional level is preferable to working with individual towns for several reasons. The larger the area, the more people are included in the pool and thus the smaller the impact on any person or household (the WAPAL principle). Furthermore, working with multiple cities and towns greatly increases the burden on transit agency staff, raises the volatility of the potential funding, and creates numerous equity issues if voters in different towns support different levels of funding. As discussed earlier, the historical model of having individual towns pay for a given amount of bus service in those towns is based on a largely mythical notion that the benefits of that service accrue only to residents of that town.

This line of argument suggests that all residents of a region should help pay for transit services within the region. If Vermont had a statewide transit system (like Rhode Island), it would be clear that the State should pay for the full non-federal share. However, since Vermont has regional transit providers, it makes more sense for the funding source to be statewide and the revenues be distributed to regional providers by an equitable formula. Regional stakeholders, including the transit provider, could have input on the level of taxation within their region.

The sections below discuss a range of taxes and fees that could be implemented and used to fund public transit as a replacement for existing local funding, existing state funding from the T-Fund, and/or fare revenue, or any combination of the three. Replacing all of these sources would require about $16 million:

- $6 million from local sources (mainly property taxes)
- $7 million from the T-Fund
- $2.7 million in fare revenue (based on FY19 data, the last full year for which fares were collected). This figure includes contributions from partners in unlimited access programs (such as UVM).

The target used for each of the potential revenue sources discussed below is $21 million. The additional $5 million above the $16 million to replace existing sources would allow for service expansion and would solve much, if not all, of the pending problem of insufficient local match for increased federal dollars. The service expansion could increase access for rural residents who have no current service (see Chapter 3), thereby helping to justify the imposition of the tax increase on a statewide basis.

Sales Tax

Nationally, the sales tax is a very common means of funding public transit, both for capital projects and ongoing operations. Administratively, it would be relatively simple to raise the statewide sales tax from 6% to say, 6.25% and dedicate that new quarter of a percent to transit operations. In cities and towns that have already employed a local option tax, the rate would rise from 7% to 7.25%.

The Vermont Joint Fiscal Office projects that Vermont will collect about $508 million from the sales and use tax in Fiscal Year 2022. Raising the rate from 6% to 6.25% should generate an additional $21 million. As of 2019, all sales and use tax revenue was dedicated to the Education Fund. The Vermont legislature would need to vote to dedicate this new quarter percent to public transit so that it was not mixed with Education Fund revenue.

In theory, the sales tax could be raised in some regions but not others, but that would decrease revenue and increase complexity, both of which are undesirable. The WAPAL principle suggests that a uniform statewide increase is preferable.

The most important negative aspect of raising the sales and use tax is that it is generally regressive. Lower-income households will end up paying a larger share of their income on this tax than upper income households. It could be argued that increases in transit service will help lower-income households to a greater extent, but this would also be true if another revenue source that was not regressive was employed. Another problem with the sales tax is that revenues decline during economic downturns. To prevent a significant funding shortfall for transit in a recession, the legislature would have to establish a floor in transit funding and backfill any deficit using other funds. This would be challenging, as all state revenues tend to fall during recessions.

Arguments in favor of the sales tax are that it is commonly used in other states, it is administratively simple to implement, and it does not require new legislation, other than an amendment to the recent law that dedicated all sales and use tax revenue to the Education Fund.

Payroll Tax on Employers

Using a payroll tax to support public transit is not common in the US, but it is a primary means of funding transit in France. The linkage of transit to employment is at least as strong, if not stronger, than the linkage to retail sales or to automobile usage. Everyone recognizes that transit is essential to help people get to jobs, particularly in an urban area, but also in small towns and rural areas. Employers often call for increased transit service when they have trouble filling positions. There have been numerous cases of employers, especially institutional ones such as hospitals and universities, working with transit agencies to support service, but these often fund specific services rather than helping to underwrite overall operations.

Data from the US Census show that in 2019, total payroll for Vermont establishments was nearly $12 billion. Exempting those with 5 or fewer employees leaves a total payroll of just under $11 billion. Imposing a tax of two tenths of one percent (0.002) would result in the target annual revenue of about $22 million.

Existing payroll tax revenue goes directly to the federal government, and so the State does not have a readily available means of collecting revenue through that channel. However, all employers in Vermont, other than

non-profits, need to file quarterly state unemployment reports and pay unemployment insurance taxes which are tied directly to payroll expenditures. It should be feasible to collect a new transit payroll tax through this channel.

The tax could be a flat 0.2% applied to all earnings, or it could be designed to be more progressive so that a lower rate applied to the first $50,000 in earnings per employee and a higher rate applied above that. A more detailed analysis would need to be undertaken to determine what the rates would be and where the appropriate break points are. A progressive structure would reduce the negative impacts on employers with low-wage employees.

The payroll tax would be less regressive than the sales tax—much less regressive if higher rates are applied only to high wage employees—and would not be felt individually by any residents. It would also be less volatile than the sales tax, though if unemployment rose dramatically in a downturn, payroll tax revenue would also drop. It is more complicated administratively than the sales tax, but not unacceptably more complicated. The legislature would need to enact this as a new dedicated tax for transit.

Business Revenue Assessments

In lieu of a payroll tax, another way to have employers pay for transit service is to impose a fee on business revenue. This could be done through a single statewide fee or regional fees associated with new assessment districts. The fee would be a percentage of all revenue, paid on a quarterly basis. As with the payroll tax, small employers (fewer than 5 employees) could be exempted, and a progressive structure could be designed, so that large companies pay more as a percent of revenue than small companies. This sort of fee is currently used in parts of Utah to support public transit. There are no readily available data on the total revenue of businesses in Vermont, but it likely exceeds the payroll figure cited above, so the tax rate could be commensurately lower.

The main disadvantage of this approach is that it would require not just legislative approval, but a whole new administrative structure. Corporations only report revenue once per year, and while payments could be spread out quarterly, that would entail forecasts of revenue to be made, and then end-of-year reconciliations. Alternatively, corporations could be required to report actual revenue on a quarterly basis, but there would be resistance to a new reporting burden. There would be costs associated with this administrative structure that would not exist with the prior two options.

Another disadvantage is that corporations that operate in Vermont and other states may be able to shift revenue to other locations to avoid the tax. This is not possible with the payroll tax, as Vermont employees have to be reported in the state unemployment filings.

Given these disadvantages, the business assessment fee ranks low among the options studied in this report.

County Property Tax

Vermont has little in the way of county government outside of the judicial system, but there are mechanisms within Vermont statute for counties to impose taxes and assessments to fund the courts and potentially other functions. More research would need to be done if this option were to be pursued, but experts in the Joint Fiscal Office have indicated that property taxes can be levied at the county level and collected along with municipal taxes through existing homeowner property tax bills.

A county property tax may be the best means for new *regional* funding for public transit. Housing values reflect transportation access to a significant extent, in that housing close to important trip generators and with easy access to jobs, recreation and other activities tends to be more expensive than more remote housing, all else being equal. Even a flat percentage tax will tend to be progressive, because wealthier people

have more valuable property, and renters, who tend to have lower incomes, don't pay property tax at all. A county-wide tax is preferable to town-wide taxes as it adheres to the WAPAL principle, avoids the inequities between "served" towns and "unserved" towns, and recognizes the regional benefits that a transit system generates.

Many of Vermont's transit providers have service areas based on county boundaries, but not all do. Advance Transit, Tri-Valley Transit, and Southeast Vermont Transit all serve portions of Windsor County, and a portion of Orange County is served by Green Mountain Transit. Nevertheless, a county-based system of taxation would allow regional transit providers, working with local officials, to set an appropriate rate of taxation to support current and future services.

The total municipal property value in Vermont in 2020 was about $90 billion (including residential and non-residential properties). To generate the target $21 million in statewide revenue, the county property tax rate would need to be about 23 cents per thousand dollars of value. If the average property in Vermont has a valuation of $250,000, that would amount to an average annual tax bill of just under $60. Chittenden County alone has a property valuation of about $24.5 billion. Applying the 23-cent rate to that value would yield over $5.5 million in revenue.

There are a number of advantages to the county property tax concept, provided that a mechanism actually exists to levy and collect the taxes. It spreads the burden widely, it is progressive, it ties value to transportation access, it separates transit funding from local municipal property taxes, and provides some flexibility at the regional level so that each county/region could choose an appropriate level of taxation. Residents of cities and towns that already pay property tax revenue to transit providers (most notably the member cities and towns of GMT) would very likely see their total property taxes drop as the county tax replaces the local tax. Spreading the burden over all of the residents of a county means that each resident pays only a little.

Income Tax

The income tax is one of the main sources of revenue for the state, generating about $800 million in 2019. Increasing the income tax rate to generate revenue for transit would be administratively simple, but politically very challenging. Vermont is perceived as having a high tax rate, and there are numerous constituencies advocating for increased funding. Each constituency argues that a small increase in the income tax can generate much revenue, and do it in a progressive way, and thereby fund their worthy program. None of them is incorrect, but the legislature is very wary of continuing to ratchet up the income tax for fear of driving affluent Vermonters out of state, thereby undermining this critical source of revenue.

In order to generate $21 million in dedicated transit revenue, the income tax rate would have to increase by about 0.05%. The current effective tax rate among all taxpayers is just under 4%, so that the tax rate would increase just over 1% compared to the current tax rate (0.05 points is about 1% of 4 percentage points).

Another complexity (and political problem) is that the income tax affects out of state residents who work in Vermont and Vermonters who work in other states. There is a more tenuous connection between this income and transportation than there is between payroll paid by Vermont employers and transportation.

Utility Fee

In some ways, transit can be thought of as a public utility, which benefits both users and non-users. GMT's peer agency in Corvallis, Oregon chose to eliminate fares in 2011 and replace that revenue with an increase in fees on utility bills. This transition was facilitated by the fact that both the transit agency and the utility were part of city government. The utility fees ranged from as little as $2.75 per household per month to more than $1,000 per month for large businesses and industrial customers.

Other than a small number of buildings that are off the electrical grid and remote camps in the woods, every household in Vermont pays a utility bill. According to the Department of Public Service, Vermont has three types of electric utilities: investor-owned utilities (1), municipal electric departments (14), and member-owned rural electric cooperatives (2). These 17 electric distribution companies range in size from small municipal electric departments with several hundred customers to one large investor-owned utility, Green Mountain Power, with more than 260,000 customers.

Instituting a new utility fee would entail working with these 17 different entities to ensure that all Vermonters were covered. According to the US Energy Information Administration, there are about 317,000 residential electric customers in Vermont, plus 59,500 commercial customers and 250 industrial customers. To generate the target $21 million, a flat fee of $3 per month could be applied to residential customers and a flat fee of $14 per month could be applied to commercial and industrial customers.

Utility bills already include a number of charges and fees such as the following:

- Energy Efficiency Charge
- Electric Assistance Program Fee
- Past Storm & Power Fixed Charge
- Emerald Ash Borer Charge

These fees and charges tend to be small (under $10 per month for residential customers). It may be feasible to add a "Green Fee" for public transit to this list using the figures mentioned above. Alternatively, the Energy Efficiency Charge could be raised by just over a half penny per kWh for residential and commercial customers and a much smaller amount for industrial customers (3 thousandths of a penny per kWh) since they use much more electricity per account. These rates are roughly equivalent to the flat fees cited above. Using a rate would make the fee somewhat more progressive, as wealthier households tend to have larger homes that use more electricity. Very low-income households, which are already likely receiving some assistance for their utility expenses, could be exempted from this fee. Obviously, the legislature would need to authorize this fee, and an agreement would need to be worked out with the utilities on how to handle and transfer the money to either a statewide fund that gets allocated via a formula, or to regional funds associated with the transit providers.

By Vermont law (Act 56 of 2015), utility companies are required to support renewable energy initiatives and promote the reduction of fossil fuel usage across the economy. Tier III of the Renewable Energy Standard (RES) established by Act 56 requires utilities to support "energy transformation projects," defined as projects that reduce fossil fuel usage by customers of the utility. Utilities must spend an increasing amount on energy transformation projects, beginning with 2% of their annual retail electric sales in 2017, growing each year by two thirds of a percent until reaching 12% in 2032. Public transit projects are eligible for funding under these definitions, but to date none have been funded.

If there is resistance by utility companies to impose and handle the transit fee as described above, it may be possible to conjoin this with the RES program and allow utilities to earn some credits toward their required goals in return for administration of the transit fee. Further, as Vermont pursues an electrification of the transit fleet over the coming decade, close collaboration with utilities will be necessary to ensure adequate charging facilities and grid capacity. Charging facilities funded by the utilities would certainly help them reach the required energy transformation goals.

One other topic related to energy is the Transportation Climate Initiative (TCI). The TCI is a collaboration of 13 northeastern states and the District of Columbia which "seeks to improve transportation, develop the clean energy economy and reduce carbon emissions from the transportation sector." There have been

discussions among TCI partners on new taxes and fees to support transportation alternatives and reduce fossil fuel usage. While the program set an ambitious goal of implementing these fees and projects by 2022, it is likely that the timeframe for action will be significantly longer. It is possible that new revenue sources associated with the TCI could help to fund public transit, but at this time, it is too speculative to rely on the TCI within the next few years. As of late November 2021, two of the four states which were planning to advance to implementation have pulled their support and changed plans. At this time, only Rhode Island and Washington D.C. have the political support to participate in the program. With the exit of Massachusetts and Connecticut, there is not a viable pathway for advancement of the program at this time.

Property Transfer Tax

The final two options discussed here concern real estate transfers. Applying a tax or fee to a real estate transfer would affect all Vermont property owners, but only when they purchase a new property. The first proposal is to increase the property transfer tax. The existing property transfer tax is 0.5% of the first $100,000 of a property's value and 1.45% of the remaining portion of the value. For homeowners using mortgages financed by the Vermont Housing Finance Agency (VHFA), the first $110,000 of the property's value is exempt from the tax and the next $90,000 is taxed at 1.25%. Value above $200,000 is taxed at 1.45%

In 2019, the property transfer tax generated $47 million in revenue on just under $4 billion in total real estate transfers (residential and commercial). In order to generate the target $21 million, the tax would need to be increased by 0.55% overall. If differential rates were to be applied (as is true of the current tax), the rate for the first $100,000 could be 0.25% (to raise the rate to 0.75%) and the rate applied to value over $100,000 would need to be roughly 0.65% (to raise the rate to 2.1%).

This increase in the tax is not insignificant but is still relatively small compared to the overall cost of purchasing real estate, and its perceived impact may be diminished by the large amount of other closing costs that appear on a real estate settlement statement. Compared to the mortgage recording fee discussed below, an increase in the property transfer tax would be administratively simple, since it only involves changing the rate on an existing tax.

The tax is generally progressive in that it is tied to the value of the real estate, and the current structure applies a lower rate to the first $100,000 of value. It also does not apply to most low-income Vermonters who are less likely to purchase real estate in general. Over the span of many years, it mostly follows the WAPAL principle, but in any given period of time, it falls squarely on those purchasing property, while those renting or staying in their current homes pay nothing.

Mortgage Recording Fee

Most of the discussion above has focused on options that involve increasing existing taxes and fees or using tax and fee collection mechanisms already in place. This last option would entail creating an entirely new fee for Vermont, but it is worth considering as it has proven successful as a funding source for public transit in New York State.

The mortgage recording tax was established in New York in 1906 "on the privilege of recording a mortgage on real property located within the state." It generates more than $1 billion annually in New York and funds many activities beyond public transportation. It is structured as a set of cumulative fees, with a base level and then options that can be added by cities or counties. The base level is 75 cents per $100 in mortgage debt. Localities can then add 25 or 50 cents to that for local purposes, and then they can add another 25 cents to that for transit support. Most counties end up at a tax level of 1% or 1.25% of the mortgage value. The tax does not apply to refinances of mortgages, but it does apply to home equity lines of credit (for the maximum value of the credit line, not just the initial amount borrowed).

This tax is progressive, in that people who own larger and more valuable homes tend to have larger mortgages. However, for the wealthiest people, who are able to purchase real estate in cash without borrowing any money, the fee would not apply, thus reducing its progressivity. While it would apply to all people taking out a mortgage, this option falls between the SEP and WAPAL principles, in that renters and people who do not move or buy a new home in Vermont would not pay this tax. It is also possible that the fee would apply differently to VHFA mortgages, similar to the property transfer tax. In New York, this fee is regarded as something that is not very visible, as it is surrounded by numerous other fees on a real estate closing statement. The fee also seems small in relation to the amount being borrowed and other costs such as legal fees, sales taxes and prepaid interest.

Because of this lack of visibility and the example of its success in our neighbor state, the mortgage recording tax may be more politically palatable than other options. Based on publicly available data, it appears that a fee similar to the base level in NY (75 cents per $100 of mortgage value) would generate the $21 million target amount. However, it is likely that if the legislature decided to create this entirely new funding mechanism, it would want to use it for other purposes as well. In that case, it would need to designate a portion of the fee to public transit. That portion could be a regional option fee, as exists in New York, or the transit portion could be built into the base fee and then be distributed to regions by formula.

Summary of Evaluation

The text above described the various alternatives for generating about $21 million statewide in support of public transit. Each subsection described some of the advantages and disadvantages of the proposed tax or fee. The table below summarizes the impacts of the alternatives along four evaluation criteria: stability of revenue, ease of implementation, political feasibility and equity. Tables similar to this one shown in the literature review (Appendix) often include other criteria such as revenue yield and travel impacts; these are not relevant for the present analysis since all of the alternatives have been specified to have the same revenue yield, and the primary alternatives are not transportation-focused and thus have no travel impacts.

In the table shown below, +2 indicates a strong advantage or positive impact, +1 a moderate advantage or positive impact, 0 indicates a neutral impact, –1 indicates a moderate disadvantage or negative impact and –2 a strong disadvantage or negative impact. The Total column indicates that the utility fee is the most favorable option, followed by the county property tax, but different weighting of the criteria or judgments about scoring would produce different results.

Potential Funding Source	Rate/ Rate Increase	Stability of Revenue	Ease of Implementation	Political Feasibility	Equity	Total Score
Sales Tax	0.25%	–1	+2	–1	–2	–2
Payroll Tax on Employers	0.20%	+1	–1	0	+1	+1
Business Revenue Assessment	TBD <0.20%	0	–2	–1	+1	–2
County Property Tax	$0.23 per $1,000	+2	+1	–1	+1	+3
Income Tax	0.05%	0	+2	–2	+2	+2
Utility Fee	$0.0053 per kWh	+2	+1	0	+1	+4
Property Transfer Tax	0.55%	0	+2	–1	+1	+2
Mortgage Recording Fee	$0.75 per $100	0	–1	–1	0	–2

3. RURAL SERVICE EXPANSION

Most of the new revenue options that involve broadly applicable taxes or fees, following the WAPAL principle, raise the issue that many Vermonters do not currently have easy access to transit services. Fixed route buses serve the urban core of Chittenden County and most of the more populous cities and towns across the state, but about two thirds of Vermont's 251 cities and towns do not have any daily bus service. Park and ride lots increase access more widely, but these only help people with destinations served directly by the bus routes. A great majority of trips made on a daily basis in Vermont cannot be made by bus, and so most Vermonters consider themselves not served by transit. Demand response service covers the entire state, but it is mostly restricted to people over the age of 60, people with disabilities, and low-income individuals who are eligible for Medicaid.

In recent years, Vermont has run pilot programs to expand transit access to people who are not eligible under the two main programs (E&D and Medicaid). The Rides to Wellness program, initiated in five pilot regions, is open to anyone who needs a ride to a participating hospital or health center. The Recovery and Jobs Access program is likewise open to anyone in recovery treatment or who needs access to a job or job-related activities such as interviews or training. The program will not provide commuting trips on an open-ended basis, usually limiting that benefit to two weeks for any individual client.

VTrans, within the context of the Public Transit Policy Plan (PTPP) and elsewhere, has been exploring the idea of a statewide "community rides" program that encompasses and goes beyond Rides to Wellness and Recovery and Jobs Access. The concept is to expand mobility, especially in rural areas, so that anyone can get a ride for any purpose. Social isolation is a real problem in Vermont, especially among older adults, and with Vermont having one of the oldest populations in the US, the problem is only going to get worse.

With unlimited funds, VTrans and the transit providers could purchase more vehicles and hire more drivers to be able to operate a much higher volume of demand response trips. Since it will never be true that funds are unlimited, though, a sustainable rural transit program will need to rely heavily on volunteer drivers. As discussed in the PTPP, the "next generation" of demand response service that would be available to all Vermonters would be built on two pillars: (1) a greatly expanded pool of volunteer drivers and (2) enhanced technology to make requesting and scheduling rides much simpler and quicker.

Transportation network companies, like Uber and Lyft, as well as microtransit operators, have demonstrated the appeal of requesting a ride via a smartphone app and having a vehicle appear a few minutes later to take you where you want to go. A level of service similar to that available in large cities will never be feasible in the rural parts of Vermont, but transitioning from an antiquated system where one has to call a reservation center at least 24 hours in advance to one where a ride can be arranged 30 minutes or even an hour in advance via a few taps on a device would be a major step forward in convenience. Of course, people without access to smartphones or other computers will still be able to reserve trips by telephone, but like those with technology, they can reserve same-day trips with much less planning than is required today.

This next generation in demand response service benefits both people with mobility challenges who are now constrained by the need to plan their trips well in advance, and those who may choose to reduce their reliance on cars. It also sets the stage for a future with automated vehicles, when driverless cars will be able to go pick up passengers and deliver them to their destinations. Given the challenges of navigating on dirt roads, that future may still be decades off for the most rural areas, but within cities and towns, automated transit may be feasible in the next ten years.

There are many details to be worked out and hurdles to be overcome before a statewide community rides system is operational, but the $5 million in non-federal funding above and beyond the $16 million in existing funds that together make up the $21 million target would go a long way to making this program a reality. Once in place, all Vermonters would have access to the transit system and see the value of the dollars they contribute either through a utility fee, county property tax or whichever means is selected.

4. PUBLIC-PRIVATE PARTNERSHIPS

Public-private partnerships, or P3, have been examined and promoted for at least forty years as a way to involve the private sector in supporting public transportation and to ease the pressure on taxpayer-funded sources of revenue. The partnerships can take many forms depending on the context; many have taken the form of private businesses or institutions contributing to or building portions of capital projects. Some projects that have traditionally been managed or built by public entities have been outsourced to private entities under the P3 flag. In other cases, public transit providers have established relationships with institutions or other private companies to jointly support transit operations. Examples in Vermont include most of the bus routes serving ski resorts as well as unlimited access programs serving universities and hospitals.

In most cases, private entities come to the table when they face an unavoidable need for transit service, usually because they are unable to supply enough parking for their employees, customers, or students. They may lack enough land for parking, or the cost of constructing garages may be too great for their budget. In some cases, local ordinances or stipulations of their building permit or Act 250 permit may require them to provide transit access or limit the amount of parking supply. Most transit agencies in Vermont conduct outreach to employers and institutions to seek their participation in improving transit access and increasing the amount of funding available. With few exceptions, employers agree to ongoing participation only if they perceive a tangible benefit, and typically the level of participation (funding) is not large.

Three of the options considered in Chapter 2 aimed to increase private sector participation in transit funding through direct fees or taxes. The payroll tax, business revenue assessment fee and utility fee would all directly impose financial burdens on employers. The county property tax would affect employers that owned land and the property transfer tax would affect those that purchased real estate, but many employers rent their spaces and thus would not necessarily face those taxes. While these taxes and fees may not be considered "partnerships" *per se,* they would entail private sector support of public transit and remove the need for transit agencies to spend staff resources trying to engage private sector partners one at a time.

A grander concept for a public-private partnership involves participation in the establishment of the statewide "community rides" program discussed in the previous chapter. In order for the community rides program to be sustainable in rural areas, it will necessitate the use of volunteer drivers. Without a doubt, a statewide community rides program would help Vermonters who have mobility limitations, either because of disabilities or because of limited income. For the program to have a significant impact on greenhouse gas (GHG) emissions, it would need to be robust enough to encourage some Vermonters to give up their cars (or, at least, their second or third cars) and it would need to be operated with low or zero emission vehicles. Indeed, if regular, fuel-burning automobiles were to be used for the community rides program, it might result in an *increase* in overall GHG emissions because a simple "there-and-back" trip in a private car would often be replaced by two pick-up/drop-off trips, potentially doubling the emissions. Efforts would always be made to coordinate trips so that it was not a single passenger in the vehicle, but in rural areas, there would be relatively few chances to group trips well enough to counteract the doubling of mileage for many trips.

To guarantee that the community rides program would be beneficial for environment, Vermont would need to obtain a fleet of fully electric or plug-in hybrid vehicles to operate most or all of the community rides trips. In addition, there would need to be a network of charging stations, ideally connected to renewable energy arrays (solar panels and wind turbines), to ensure the cleanest possible energy sources for this program. Purchasing this fleet and installing the charging stations would be expensive, but it offers a tremendous opportunity for a public-private partnership.

Volkswagen has paid over $10 billion in restitution for the diesel emissions scandal of the early 2010s including $2 billion for clean-emissions infrastructure. Electrify America LLC, a subsidiary of Volkswagen, has installed hundreds of electric vehicle chargers across the US. In early 2022, Volkswagen will introduce an all-wheel-drive version of its all-electric SUV, the ID.4. This vehicle, with a list price of about $45,000 (prior to the current federal tax credit of $7,500) would be very appropriate for carrying rural passengers to their destinations, able to function on dirt roads in all weather conditions. It is conceivable that VW might agree to supply Vermont with a fleet of ID.4s at a low cost in order to raise the visibility of their product and continue to rehabilitate the company's environmental image. Electrify America currently has installed no chargers in Vermont; the nearest one is in West Lebanon, NH. Installing chargers throughout the state, and having them tied to a public transit program that is causing a significant reduction in emissions would be a major environmental credit for VW.

Other electric car manufacturers are seeking to establish a stronger market position. Chinese manufacturers such as NIO and Xpeng have not yet entered the US market in a meaningful way. Participation in a high-profile statewide transit project may be an effective means of raising their visibility in the US. Subaru will be introducing an electric SUV sometime in 2022. As the unofficial state car of Vermont, Subaru may be interested in a partnership to show their success in transitioning to more environmentally friendly technology.

Assuming that an EV manufacturer may be interested in a public-private partnership such as this one, there would be many important questions to answer. Who would own the electric cars? The State, the transit providers, another entity? If the cars are not owned by the volunteer drivers, then presumably they could not receive mileage reimbursement for driving them. Would that decrease, increase, or just change the composition of the volunteer driver pool? Could the vehicles be leased (at low cost) to the volunteer drivers so that they could still get mileage reimbursement? How would insurance issues be handled? Volunteer drivers in their own cars are currently covered for liability by an umbrella policy through the Vermont Public Transportation Association; would a policy like that apply to this case? While the answers to these questions may not be obvious at the present time, it would be well worth resolving them if a manufacturer indicates interest in such a partnership.

5. CONCLUSION AND NEXT STEPS

This report, along with the literature review contained in the appendix, presents information on a range of potential means of establishing a dedicated and stable funding source for public transit in Chittenden County and Vermont as a whole. While all previous initiatives to change the way transit is funded in Vermont have foundered on the inability to find a politically palatable option that generates sufficient revenue, this moment in time, Fall 2021, offers an opportunity to build a compelling case for action.

- Hoping to emerge soon from the pandemic, transit needs to reassert its role in the community and establishing a dedicated funding source helps to clarify that role.
- New federal funding from the recently passed infrastructure bill and the future BBB act will require increased local match.
- Continuing erosion of gasoline tax revenue could put roadway and transit funding in greater conflict if they both rely on the T-fund.
- A statewide commitment to reduce greenhouse gas emissions through enhanced transit access using electric vehicles could fortify the case for new broadly based transit funding.

The evaluation of the alternatives suggested that a utility fee or a county-wide property tax may be the best options available. This study is just the first step in the process, however, as the Vermont Legislature and regional partners such as the Chittenden County Regional Planning Commission, Green Mountain Transit and the rural transit providers consider the available options and begin the public engagement necessary to achieve consensus.

A change in funding structure is never easy, especially if it involves new fees or taxes. Given new federal funding, the pandemic crisis, and the impending climate crisis, the time is ripe for bold action in support of public transit so that it can provide benefits for the current and future generations.

APPENDIX: LITERATURE REVIEW

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MEMORANDUM

To: **Marshall Distel**

From: **Stephen Falbel**

Re: **Literature Search for Transit Funding Study**

Date: **September 10, 2021**

Steadman Hill Consulting performed two recent studies of local transit funding: a legislative study for VTrans in 2015, and a study for GMT in 2020 focused on rural local funding. These studies involved literature searches and peer analysis. For the present study, SHC reviewed the prior work and updated it using further Internet-based searches.

Much of the literature is concerned with funding for major infrastructure improvements rather than ongoing operations. The findings of these studies is that it is easier to get voters to approve a special tax for a specific, tangible project, but there are plenty of cases of regions and states using a variety of revenue streams to support transit operations.

The Transit Cooperative Research Program published Report 129: *Local and Regional Funding Mechanisms for Public Transportation* in 2009. This report provides a comprehensive summary of studies conducted before that time, and so this literature search focused on studies published after that date. A second comprehensive report was published by the Victoria Transport Policy Institute, titled *Local Funding Options for Public Transportation*. This report is updated periodically, with the most recent update in April 2021. The literature review presents the results of these two summary reports in some detail, and then provides capsule summaries of other recent articles and studies, which tend to be focused on one state or region.

Literature Review

Local and Regional Funding Mechanisms for Public Transportation – Report 129

Transit Cooperative Research Program, Transportation Research Board, 2009

This report groups local funding mechanisms for public transportation into five broad categories:

- Traditional tax- and fee-based transit funding sources
- Common business, activity, and related funding sources
- Revenue streams from projects
- New user or market-based funding sources
- Financing mechanisms

The report examines a total of 39 individual funding sources. It offers examples of cities and regions that use each of these sources, grouped into major metro areas, large metro areas, small urban areas, and rural areas (Table 3.2 in the report). It provides a recent history of ballot initiatives for public transportation, mostly related to funding major capital projects.

Using survey data from another TCRP project, the report lists the types of revenues used by small urban and rural transit systems:

- 53% use contract revenue from public or nonprofit agencies,
- 18% use contract revenues from private agencies or organizations,
- 10% use property tax revenues,
- 9% use local sales tax revenues,
- Only five systems use parking or other vehicle fees and only one system uses employer taxes, and
- 32% use "other" forms of revenue.

Of the transit systems indicating they have "other" sources, examples cited included the following:

- 31 systems indicated that they receive grants from local, county, and state programs;
- 15 cited donations/fund-raisers, including 12 that cited United Way contributions;
- 16 cited cash fares;
- 8 cited advertising revenues;
- 7 cited Medicaid funding;
- 5 cited university fees;
- 4 cited programs on aging;
- 1 cited car rental fees; and
- 1 cited resort/business taxes and local property tax millage.

The report goes on to evaluate the various sources according to six criteria and then offer guidance as to the advantages or disadvantages of each. The criteria are the following:

- Revenue yield
- Cost efficiency
- Equity
- Economic efficiency
- Political and popular acceptability
- Technical feasibility

Table 4.3 in the report rates each of the funding mechanisms as high, medium, or low according to these six criteria. This table is reproduced in Figure 1. The report concludes by offering guidance on how to enact new funding mechanisms. It offers the following steps:

- Develop a consensus on the scope of current and future transit needs and on the importance of actions to address them
- Develop a specific plan and program of investments for which additional funding is needed and demonstrate the benefits that are expected from the proposed investments.
- Identify clearly established roles, responsibilities, and procedures for executing the funding and investment strategy and implementing the proposed improvements.
- Describe the funding sources in detail and provide the rationales for their use.
- Design and carry out a public education and advocacy plan and campaign.
- Develop sustained leadership and demonstrable, sustained support.
- Lay out a clear and reasonable timetable.

Figure 1: Funding Evaluation using Six Criteria (Source: TCRP Report 129)

Source	Revenue Yield	Cost-Efficiency	Equity	Economic Efficiency	Political, Popular Acceptance	Technical Feasibility
	Adequacy, Stability	*Administrative, Compliance Cost Evasion*				
Traditional Revenue Sources						
General Revenues	**H**	**H**	L	M	M	**H**
Sales Taxes	**H**	**H**	L	M	M	**H**
Property Taxes	**H**	**H**	L	M	M	**H**
Contract/ Purchase-of-Service Revenue	L	L	L	L	**H**	**H**
Lease Revenue	L	L	L	L	**H**	**H**
Vehicle Fees	**H**	**H**	M	M	L	**H**
Advertising Revenues	L	L	L	L	**H**	**H**
Concession Revenues	L	L	L	L	**H**	**H**
Common Business, Activity, and Related Sources						
Employer/ Payroll Taxes	**H**	**H**	M	**H**	L	**H**
Car Rental Fees	M	**H**	L	M	M	**H**
Vehicle Lease Fees	M	**H**	L	M	M	**H**
Parking Fees	M	**H**	L	M	L	**H**
Realty Transfer Taxes/Mortgage Recording Fees	M	**H**	L	L	M	**H**
Corporate Franchise Taxes						
Oil	**H**	**H**	M	M	M	**H**
Long lines taxes	M	**H**	L	M	M	**H**
Room/ Occupancy Taxes	L	M	L	L	**H**	**H**
Business License Fees	L	M	M	M	L	M
Utility Taxes/Fees	M	**H**	L	L	L	**H**
Income Taxes	**H**	**H**	**H**	L	L	**H**
Donations	L	L	L	L	**H**	**H**
Revenue Streams from Projects						
Joint Development	L	L	L	L	**H**	**H**
Value Capture	L	L	L	L	M	**H**
Beneficiary Charges	L	L	M	L	M	**H**
Special Assessment Districts	L	L	M	L	M	**H**

Source	Revenue Yield	Cost-Efficiency	Equity	Economic Efficiency	Political, Popular Acceptance	Technical Feasibility
	Adequacy, Stability	*Administrative, Compliance Cost Evasion*				
Community Facility Districts/TDDs	L	L	L	L	M	**H**
Impact Fees	M	M	M	M	M	**H**
Tax Increment Financing	M	L	L	L	M	**H**
ROW Leases	L	**H**	L	L	**H**	**H**
Airport Passenger Facility Charges	M	**H**	L	L	M	**H**
"User" or "Market- Based" Sources						
Tolling	*V*	**H**	L	M	L	**H**
Congestion Pricing	*V*	M	L	**H**	L	**H**
Emission Fees	*V*	*V*	L	**H**	L	L
VMT fees	*V*	*V*	L	**H**	L	M
Financing Mechanisms						
GO Bonds	**H**[a]	**H**	L	L	**H**	**H**
PABs	**H**[a]	**H**	L	L	L	**H**
Tax Credit Bonds	M[a]	**H**	L	L	L	**H**
GANs	**H**[a]	**H**	L	L	M	**H**
GARVEEs	**H**[a]	**H**	L	L	M	**H**
RANs	**H**[a]	**H**	L	L	M	**H**
COPs	M[a]	**H**	L	L	M	**H**
SIB Loans	**H**[a]	**H**	L	L	M	**H**
Other, Less-Frequently Used Taxes and Fees						
Motor Fuel Taxes	**H**	**H**	M	M	L	**H**
"Sin Taxes" (Cigarettes, alcohol, and gambling)	M	**H**	L	L	M	**H**
Battery Taxes	L	L	L	L	L	M
Road Utility Fees (Access charges)	M	M	L	L	L	M
Airport Passenger Facility Charges	M	M	L	L	M	**H**

Local Funding Options for Public Transportation

Victoria Transport Policy Institute, April 2021

This report uses eight evaluation criteria to rate a wide range of funding options:

- Potential revenue
- Predictability and Stability
- Equity analysis (horizontal and vertical equity, latter being progressive or regressive)
- Travel impacts
- Strategic development objectives
- Public acceptability
- Ease of implementation
- Legal status

A total of 18 transit funding options were evaluated in this framework. The evaluation of the options is shown in **Figure *2*** (see note below the table for the explanation of the ratings). More detailed descriptions of the options, including a summary of the key advantages and disadvantages of each, are shown in **Figure *3***.

Figure 2: Transit Funding Options Evaluation (Source: VTPI Study)

Table 7 **Potential Local Public Transit Funding Options Summary Matrix**

Name	Potential Revenue	Stability	Horizontal Equity	Vertical Equity	Travel Impacts	Development Impacts	Public Acceptance	Ease to Implement
Fare increases	2	2	2	-3	-3	-2	-3	3
Discounted bulk passes	1	2	2	2	3	2	2	3
Property taxes	3	3	2	-1	0	-1	-2	3
Sales taxes	3	2	1	-2	0	0	-2	3
Fuel taxes	2	2	2	-1	3	2	-2	3
Vehicle levy	2	3	2	-2	0	0	-2	-1
Utility levy	1	3	2	-3	0	0	-3	2
Employee levy	2	3	3	2	0	-1	-2	-2
Road tolls	1	2	3	-2	3	1	-2	-3
Vehicle-Km tax	2	2	3	-2	3	1	-3	-3
Parking taxes	1	2	2	0	2	-2	-1	-1
Parking levy	3	2	2	1	2	2	-2	-3
Expanded parking pricing	2	2	3	1	3	-1	-1	-1
Development cost charges	1	1	2	0	0	-1	3	-1
Land value capture	3	3	2	0	0	-2	2	-2
Station rents	1	2	3	0	0	0	3	-1
Station air rights	1	2	3	0	0	0	3	-2
Advertising	1	1	3	0	0	0	3	3

This table summarizes the degree that the funding options support various planning objectives. Rating range from 3 (strongly supports objective) to -3 (strongly contradicts objective). 0 = no or mixed impacts. Although these results are somewhat subjective and may vary depending on community values and conditions, this illustrates a method for quantifying the advantages and disadvantages of various options that can be applied in other situations.

Figure 3: Transit Funding Options (Source: VTPI Study)

Table 6 **Potential Public Transport Funding Options**

Name	Description	Advantages	Disadvantages
Fare increases	Increase fares or change fare structure to increase revenues	Widely applied. Is a user fee (considered equitable).	Discourage transit use. Is regressive.
Discounted bulk passes	Discounted passes sold to groups based on their ridership	Increases revenue and transit ridership	Increases transit service costs and so may provide little net revenue
Property taxes	Increase local property taxes	Widely applied. Distributes burden widely.	Supports no other objectives. Is considered regressive.
Sales taxes	A special local sales tax	Distributes burden widely.	Supports no other objectives. Regressive.
Fuel taxes	An additional fuel tax in the region	Widely applied. Reduces vehicle traffic and fuel use	Is considered regressive.
Vehicle fees	An additional fee for vehicles registered in the region	Applied in some jurisdictions. Charges motorists for costs.	Does not affect vehicle use.
Utility levy	A levy to all utility accounts in the region	Easy to apply. Distributes burden widely.	Is small, regressive and support no other objectives.
Employee levy	A levy on each employee within a designated area or jurisdiction	Charges for commuters.	Requires collection system. May encourage sprawl if only in city centers.
Road tolls	Tolls on some roads or bridges	Reduces traffic congestion.	Costly to implement. Can encourage sprawl if only applied in city centers.
Vehicle-Km tax	A distance-based fee on vehicles registered in the region	Reduces vehicle traffic.	Costly to implement.
Parking taxes	Special tax on commercial parking transactions	Is applied in other cities.	Discourages parking pricing and downtown development.
Parking levy	A special property tax on parking spaces throughout the region	Large potential. Distributes burden widely. Encourages compact development.	Costly to implement. Opposed by suburban property owners.
Expanded parking pricing	Increase when and where public parking facilities (such as on-street parking spaces) are priced	Moderate to large potential. Distributes burden widely. Reduces driving.	
Development or transport impact fees	A fee on new development to help finance infrastructure, including transit improvements	Charges beneficiaries.	Limited potential.
Land value capture	Special taxes on property that benefit from the transit service	Large potential. Charges beneficiaries.	May be costly to implement. May discourage transit-oriented development.
Station rents	Collect revenues from public-private development at stations	Charges beneficiaries.	Limited potential.
Station air rights	Sell the rights to build over transit stations	Charges beneficiaries.	Limited potential.
Advertising	Additional advertising on vehicles and stations	Already used.	Limited potential. Sometimes unattractive.

The report concludes that fuel tax increases and parking pricing "are particularly appropriate because the also encourage fuel conservation and more efficient transport, in addition to raising revenues," but warns that they should be implemented gradually to avoid excessive, regressive burdens on society. Options that rate highest in acceptability (impact fees, station rents, and advertising) tend to generate only modest revenue. Three new options are recommended for consideration: parking levies, employee levies, and vehicle levies. Impact fees can be part of the solution, as long as they are implemented in such a way as not to discourage transit oriented development.

Why and How to Fund Public Transportation

Arizona PIRG, March 2009

A report prepared by the Arizona Public Interest Research Group highlights a range of potential sources:

- Sales taxes
- Gas taxes
- Rental car tax
- License, registration or title fee
- Tire tax
- Weight-based vehicle sales taxes
- Vehicle battery tax
- Weight mile truck fee
- Toll roads
- Development impact fees
- Storm water fees
- Real estate transfer tax
- Parking tax

Oregon Non-Roadway Transportation Funding Options

Economic & Planning Systems, Inc., May 2012

The report identifies a universe of 60 potential funding options and narrows them to 16 recommended measures, though none of the "top priority" options provides substantial funding for transit operations. The ones that could potentially be used for transit are the following:

- Expanded Lottery revenue
- Expanded cigarette tax
- Reallocation of senior medical tax deductions
- Hotel/motel tax
- Redirect transportation-related revenues from general fund to transit
- Expanded utility franchise fee
- Urban Growth Boundary expansion windfall tax – capture portion of increase in property values
- Other four options are financing or debt-related (general obligation bonds, Oregon growth account, SIB, TIFIA)

Note that Oregon has no state sales tax and cannot use the motor fuels tax for transit, and thus has to piece together revenue from a variety of sources.

Thinking Outside the Farebox

Transportation for America, 2013

Part III of Chapter 2 of this study discusses local revenue sources, highlighting six typical types:

- Property tax
- Income tax
- Sales tax
- License fees
- User fees
- Business activity

The evaluation framework considers revenue yield, reliability, equity, and political feasibility. The report goes on to discuss value capture, including tax-increment financing, special assessment districts, and development contributions. The various options discussed in the report are summarized in Figure 4 below.

Figure 4: Transit Funding Options (Source: Transportation for America Study)

Revenue Sources	Amount	Reliability	Equity	Political Feasibility
Tax Increment	Variable depending on the size of the tax increment district boundary around the transit facility	Land values tend to be stable over time providing predictable revenues	Tax increment revenues tie project benefits (increased land values) to funding the transit project	High—tax increment is not a new tax or a tax increase
Special Assessment District	Variable depending on the size of the district and the tax rate applied to properties	Land values tend to be stable over time providing predictable revenues	Ties project funding to taxes levied on surrounding landowners who are direct beneficiaries	Moderate—these are new taxes and land owners need to understand the connection between a new project and the benefits it will bring
Development Contributions	Specific amount negotiated between project sponsor and developer	Typically a one-time contribution	Ties project funding to real estate development that will benefit directly from the new transit facility	High—provided the contribution is viewed as reasonable in relation to the benefit to the developer
Sales Tax	Sales taxes are broad-based and generate robust revenue	Sales taxes are a little less stable than property taxes but still provide a great deal of predictability	Sales taxes are regressive—although this may be addressed by exempting certain items such as food	High—sales taxes are typically politically successful when the projects they fund brings regional benefits
Tolls	Robust	Toll revenues are steady—especially for established highways with predictable travel demand	Regressive like all other flat user fees—not a concern for transit dependent residents	Low—increasing or using toll revenues to support other projects is often contentious
Vehicle Registration Tax	Moderate	Vehicle ownership rates are stable	Regressive like all other flat taxes—not a concern for transit dependent residents	Moderate—vehicle owners are sensitive to registration fees
Parking Fees	Variable depending on total number of spaces and travel demand	Peak period travel demand is mostly stable, though riders are sensitive to price changes	Regressive—not a concern for transit dependent residents	High—parking fees are a common and accepted source of project revenues
Fuel Tax	Robust	Driving rates are historically steady (subject to increasing fuel efficiency standards and recent changes in driving patterns)	Regressive—not a concern for transit dependent residents	Moderate—high fuel prices make new taxes difficult and not all local governments have the authority to impose a fuel tax
Land Sales	Variable depending on the local market and the size of the parcels	Land sales provide one-time revenues	Few equity concerns	Moderate to high—depends if resulting development conforms to community desires or development affects community character and existing commerce

Matching Funds Resource Guide

Texas Department of Transportation, 2012-2013

The guide includes a typology of local transit revenue sources and then provides detailed examples of these types from local and rural operators in Texas and other states. The types covered include:

- Transit-generated revenues (fares and advertising)
- Non-DOT Federal funds
- General government revenue and taxes (sales, property, income, etc.)
- Motor fuel and vehicle-related taxes and fees
- User or market-based sources (congestion pricing, emissions fees)
- Business activities (payroll taxes, corporate income)
- Personal activities (sin taxes)
- Revenue streams from transit projects (impact fees)
- Financing mechanisms (GARVEE, SIB, TIFIA)

How to Fund Better Regional Mass Transit

Cincinnati Enquirer editorial, 3/16/14

This editorial discusses federal, state and local funds in the context of building a new light rail system in Cincinnati. In terms of local funds, the article notes the following:

- Support for Greater Cincinnati's Metro bus system comes from the city of Cincinnati's earnings tax, and those funds lag behind many comparable cities.
- Suggests county-wide or region-wide sales tax
- Suggests allowing municipalities to increase their earnings tax to support transit
- Suggests creating special improvement district or tax increment financing
- Ends up recommending menu of options

On Track: How States Fund and Support Public Transportation

National Conference of State Legislatures, June 2015

This organization performed a survey of 49 states and the District of Columbia. The report summarizes state funding mechanisms for public transit and provides a series of case studies for special initiatives. The report highlights the following mechanisms:

- Motor fuels tax
- Dedicated specific fees
- State transportation fund
- General fund
- Other (escheat funds from persons without heirs, mortgage recording taxes, toll revenues, parking meter revenues)
- Value capture
- Public-Private Partnerships
- Infrastructure banks

Capital Ideas: Winning State Funding for Transportation

Transportation for America, 2015

This document showcases successful efforts to increase transportation funding in six states (including Vermont). It highlights seven factors for success:

- Winning support by addressing local priorities
- Establishing transparency and accountability
- Bridging the rural-urban divide
- Leadership from the top
- Building a broad coalition
- Creating new revenue mechanisms
- Developing effective messaging and the right messengers

The Vermont case was the passage of the gasoline tax increase in 2013 which allowed the state to generate enough local match for federal highway funds and begin to close the gap between transportation investment needs and available funds.

Detailed Case Studies of Selected Revenue Tools

AECOM, 2012

This study, prepared for Metrolinx in Toronto metropolitan area, presents case studies of fifteen revenue tools from around the world, covering the United Kingdom, Sweden, Canada, Australia, France, Germany, Brazil, Singapore and the United States. The tools include congestion fees, employer payroll taxes, high occupancy toll lanes, sales taxes, motor fuel taxes, parking taxes and others. While about ten years out of date, the report contains potentially useful information on how each of these revenue tools were implemented. The use of employer payroll taxes in France is one of the few examples of that revenue tool.

Time to Get Serious: Reliable Funding for GTHA Transit/Transportation Infrastructure

IBI Group and Sustainable Prosperity, 2010

This paper, which focuses on the Greater Toronto and Hamilton Area, states that the City of Toronto and the surrounding metropolitan area is at a crossroads, facing a choice between a more efficient transportation that will promote prosperity and sustainability, and "business as usual" which will result in more congestion and a lower standard of living. While the paper deals more with infrastructure investments than operations, and is concerned with a major metropolitan area, it nonetheless provides a good overview of the potential revenue, advantages and implementation issues associated with various funding sources. A summary of its findings are shown below in Figure 5 over the next two pages.

Figure 5: Potential Sources for GTHA Funding (Source: IBI Study)

Source	Net Additional Revenue to GTHA	Basis of Estimate	Policy Advantages	Implementation Issues
1. Road Tolls on GTHA Freeways (400 series high-ways and municipal controlled-access highways)*	$1 – 2 B/year	10 – 20 ¢/km	Relieves congestion hot spots Revenue grows with demand Encourages more use of transit Results in increased traffic speed and road capacity Moderates road expansion spending	Traffic diversion concerns "Double taxation" concerns Much better transit required first Social equity concerns
2. Regional Gas/ Diesel Fuel Tax	$1 – 2 B/year	10 – 20 ¢/litre	Potential to reduce auto use marginally, but not focussing on hot spots Encourages energy-efficient, low emission vehicles, more transit use Easy to administer	Sales "leakage" to surrounding areas Will decline per vehicle-km as fuel-efficiency improves Best introduced when gas prices are low
3. Commercial Parking Levy	$1 – 2 B/year	$1.00 – 2.00/day per space	Reduces auto use to commercial areas Encourages more use of transit and active transportation Administratively straightforward	Employment "leakage" to areas surrounding the GTHA A different version, the Commercial Concentration Tax, was rejected in GTA in early 1990's
4. Regional Sales Tax	$1 – 2 B/year	1 – 2% in addition to the HST	Administratively stable, reliable source	No direct incentive for more sustainable transportation behaviour Sales "leakage" to surrounding areas A hard sell on top of the HST
5. High Occupancy Toll (HOT) Lanes or Express Lanes on GTHA Freeways	$400 –800 M/year for Express Lanes $200 – 400 M/year for HOT Lanes	10 – 20 ¢/km for single-occupant vehicles (HOT Lanes) or for all vehicles (Express Lanes)	Encourages car-pooling Increases person-carrying capacity and average speed on major highways Provides a toll-free alternative in the freeway network	Relatively small revenue versus infrastructure and enforcement costs
6. HST Revenue from Gas/Diesel Sales Tax (Revenue dedicated partially or fully to GTHA transit)	$400 – 600 M/year	May 11/10 news report ** of $895 M additional gas tax revenue anticipated from 2010/11 HST	Same as above for Regional Gas/Diesel Fuel tax Would be timely if dedicated as of July 1, 2010 or shortly thereafter	As above except province-wide application of HST avoids fuel sales "leakage" to areas surrounding the GTHA
7. Central Area (C.A.) Congestion Levy on private vehicles entering Planning District 1*** 6:30 am–6:30 pm Monday – Friday	$250 – $500 M/yr	$5 – 10/vehicle entry-charge at cordon	Reduces Central Area congestion Encourages more use of transit and active transportation Improves mobility in Central Area	Potential employment loss from Central Area Congestion/parking pressure in areas surrounding the Central Area Better transit needed first Implementation cost and payment evasion issues

Source	Net Additional Revenue to GTHA	Basis of Estimate	Policy Advantages	Implementation Issues
8. Vehicle Registration Fee (Varies with vehicle GHG emission levels)	$200 – 400 M/year	$100 –200/year per vehicle	Stable, reliable source Encourages low-emission vehicles Easy to administer	Does not moderate amount of use of the vehicle
9. Value Capture Levy (provides revenue from higher property values/taxes in areas served by higher-order transit)	$50 – 100 M/year	N/A	Encourages compact development and increased transit use May reduce land speculation Easy to administer	Uncertainty in estimating increased value Upward pressure on rents May force out small business and low income residents
10. Utility Bill Levy	$50 – 100 M/year	$20 – 40/year per household	Stable, reliable source Easy to administer	No direct incentive for more sustainable driver behaviour
11. Employer Payroll Tax in Areas within walking distance of rapid transit.	$40 – $80 M/year	$100 – 200/year per full time employee	Stable, reliable source Partially borne by incoming workers who benefit from improved transit Administratively straightforward	Higher costs, potential loss of jobs in taxation zones Benefits to local employees may not compensate for lower wages.
12. National Federal-Provincial Transit Strategy (Similar to Ontario's former funding formula, but based on a national federal/ provincial agreement	$1 – 2 B/year	25 – 50% of transit capital costs 25 – 50% of net transit operating costs	Administratively straightforward Stable, relatively reliable source Provides GTHA residents with a long-term commitment for reliable funding plus a stable policy framework from the federal and provincial governments	Difficult in context of large federal/provincial deficits Could be turned off, as happened in 1998 in Ontario, although less easily because two senior government levels are committed No direct incentive for more sustainable transportation behaviour

***Area-Wide Road Pricing is a larger scale road pricing option for possible subsequent implementation, as discussed in Section 4.3**
**The Canadian Press. "Ontario NDP says HST will boost gas price". May 10, 2010. CBC News. http://www.cbc.ca/canada/toronto/story/2010/05/10/ontario-hst.html
***Planning district 1 is the Central part of downtown Toronto, Bounded on the west by Bathurst Street, on the North by Dupont Street and Rosedale Valley Road and on the east by the Don Valley Parkway; south of Queen Street and Eastern Avenue it includes the entire waterfront between the west end of the Canadian National Exhibition and Woodbine Avenue including the Toronto Islands.
Source: Estimates by TCSA Working Group, drawing also on other sources.

Articles on VMT Fees

With the transition of the vehicle fleet from fossil fuels to electric cars beginning to gain traction, policy-makers have been discussing replacements for motor fuel taxes with more urgency. As discussed in an article in the Washington *Post* from March 2021, Oregon and Utah are the first two states to implement VMT taxes, but they are currently pilot programs and voluntary in nature.

In Oregon, drivers of some 700 cars (out of 3.4 million registered statewide) have chosen to have mileage trackers installed and pay 1.8 cents per vehicle mile traveled. In return, they get a rebate on the motor fuel taxes they have paid at the pump. An article from April 2021 indicates that the state is considering expanding the program and making the VMT fee mandatory for owners of fuel-efficient cars and trucks (better than 30 MPG) or those that do not use gasoline, beginning in 2026. The program is administered by three private companies that manage the GPS-based mileage trackers.

In Utah, the state enacted an annual fee for alternative-fuel vehicles ($120 in 2021) since these vehicles pay little or nothing in regular fuel taxes. Drivers have the choice of paying a VMT fee of 1.5 cents per mile, assessed at the annual inspection, in lieu of paying the annual flat fee.

Prior Efforts in Chittenden County

The Chittenden County Metropolitan Planning Organization (CCMPO) and its partners have studied alternative funding sources for CCTA for many years. Six separate documents have been published since 1998 that have considered this subject, analyzed the options available, and made recommendations.

Funding Alternatives Report, 1998

This report was an outgrowth of the CCMPO's 1997 Long Range Transportation Plan, which called for the development of alternatives to the local property tax for funding public transportation. The report provides a survey of funding mechanisms from around the country, including transportation user fees and non-user fees as well as broad-based taxes and allocations from the general fund.

The report focuses on five options (listed below) and applies the following criteria to each of them: Produces sufficient and stable yields, Public acceptability, Political feasibility, Administrative simplicity, Equity, Flexibility.

- Increase the gas tax
- Regional sales tax
- Auto/truck rental fees
- Student transportation fees
- CCTA revenue enhancement initiatives (advertising revenue)

After applying the criteria, the report concludes that the final three options should be the starting point for further explanation, but that the gas tax and the sales tax should not be taken off the table.

Operational Analysis, System Plan, and Funding Alternatives for CCTA, 1999

This report, prepared for CCMPO by a consultant, addressed the local funding issue in the context of a broader system service and expansion plan. The primary recommendation made in this study is to increase the amount of state operating assistance that is provided to CCTA, as well as other transit agencies in Vermont. If necessary, the gas tax should be increased statewide to help fund public transportation.

Chittenden County Transit Funding Report, 2002

The Vermont legislature commissioned this report on financing transit services in Chittenden County; a consultant completed this report in December 2002. Using similar criteria to those in the 1998 Funding Alternatives Report, the study discussed five options, though not the same five that were in the 1998 report.

- Local dedicated sales tax
- Sales tax on gas/motor fuels tax (percentage rather than pennies per gallon)
- Regional short-term vehicle rental tax
- Annual vehicle registration fee

- Driver license fee

The report concludes that a sales tax on motor fuels is the best option since it "has the advantage of generating enough revenue, being linked to transportation, being easier to collect than the gas tax on a regional basis, and increasing when gas prices go up (gas tax revenues generally decline as gas prices increase due to a reduction in sales)." Two or three of the fee increases combined could also achieve the goal of replacing local property taxes as a source of funding, but none of these would be sufficient on its own.

Report of the Public Transportation Task Force to the CCMPO Board, 2004

Following the completion of the CCTA Short Range Transit Plan and the legislative study summarized above, the CCMPO convened a task force in April 2003 to move the recommendations in these documents to implementation.

Unfortunately, other than agreement that public transportation should not be financed by local property taxes, there was no consensus on an alternative funding source. Seven types of taxes were identified, but none were officially endorsed. These included the five discussed in the 2002 report plus a vehicle excise tax and a personal property tax on cars.

CCMPO Policy Statement on Public Transportation, 2005

In December 2005, the CCMPO Board issued a policy statement on the financing of public transportation. "Legislative action is needed to free CCTA from its funding constraints in order to meet the current and growing needs for public transportation service in Chittenden County. This can be achieved by either:

- Alternative methods to raise revenue locally/regionally and/or,
- By additional state funding of public transportation."

CCMPO Blue Ribbon Commission on Innovative Finance, 2008

In 2008, the CCMPO Board convened a five-member "Blue Ribbon Commission" (BRC) to "provide recommendations…regarding innovative finance strategies to advance the region's transportation needs, including all modes…" Public transportation was just one of several topics addressed by the BRC.

The Commission formed a working group on funding options, which ultimately issued one recommendation: A sustainable source of additional funding should be developed for regional transportation needs.

No specific type of tax or fee was identified, but the final report of the BRC did include a matrix that evaluated 17 types of funding sources. The sources were measured against six criteria including:

- Revenue adequacy/yield
- Stability/predictability
- Equity
- Ease of implementation
- Multimodal feasibility
- Relationship to economic efficiency

This matrix was updated in 2013 and expanded to include the GMTA (rural) portion of CCTA's service area. The matrix is shown below in Figure 6.

Figure 6: Potential Sources for GMT Regional Funding

Potential Funding Source	Current VT Status	Current Federal Status	2012 totals Statewide	Chittenden Totals	Franklin, Grand Isle, Lamoille & Washington	Assumed Tax/Increase	Estimated Revenue Chittenden (2013)	Estimated Revenue Franklin, Grand Isle, Lamoille & Washington (2013)
Gasoline Excise Tax (# of gallons sold)	$ 0.323	$ 0.184	319,774,852	65,242,396	66,136,502	$0.01	$652,424	$661,365
Diesel Excise Tax (# of gallons sold)	$ 0.310	$ 0.244	62,587,342	12,769,447	12,944,445	$0.01	$127,694	$129,444
Motor Fuel Sales Tax (total sales revenue)	--	--		$228,348,386	$231,477,759	1%	$2,283,484	$2,314,778
Registration Fee (# of registrations)		--	643,389	162,904	143,496	$5	$814,520	$717,479
Personal Property Tax on Vehicles (# of vehicles)		--	563,290	142,623	125,631	1%	$7,131,162	$6,281,563
Vehicle Sales Tax (# vehicles sold)	6%	--	170,882	43,267	38,112	1%	$4,326,678	$3,811,202
License Fee (# of licenses issued/renewed)		--	168,641	42,699	37,612	$5	$213,497	$188,061
VMT Fees (VMT)		--	7,500,000,000	1,471,800,000	1,479,000,000	$0.001	$1,471,800	$1,479,000
Purchase and Use Tax (12-mo. revenue)	--	--	$58,376,317	$14,780,698	13019741	1%	$147,807	$130,197
Motor Vehicle Fees (12-mo. revenue)		--	$78,052,365	$19,762,611	17408115	1%	$197,626	$174,081
Local Option Sales Tax (2011 revenue)	6%	--	$318,869,780	$87,160,226	$49,780,619	0.50%	$8,716,022.60	$4,978,061.90
Payroll Tax (Q2 2013 wages)	--	--		$1,209,108,702	$630,276,274	0.10%	$4,836,434.81	$4,836,434.81

Rural Peer Analysis

Over its 18 years of managing transit service in the rural counties that are now part of its service area, CCTA/GMT has used a mixed strategy for obtaining municipal contributions. In some cases, GMT has negotiated specific contributions with cities and towns for a given level of service. When new routes have been implemented, such as commuter routes or the Montpelier Circulator, GMT has developed a funding package with a defined local contribution. In other cases, GMT has tried to develop a "fair share" formula based on population and demographic characteristics to at least suggest appropriate levels of local support. Because GMT does not have the power to levy assessments beyond its urban members, for most rural towns, GMT is dependent on the vote of a selectboard or the fate of a petition at Town Meeting to garner contributions of a few hundred to a few thousand dollars. Without changes in service, the contributions from towns remain level year after year (at best) in spite of constantly rising costs.

Steadman Hill Consulting conducted research to determine if there were better ways to obtain local funding. The research took place in two phases: an examination of local funding in New England, and a review of local funding for a set of national peers for GMT's rural service.

New England

New England is different from most of the rest of the US because most local government takes place at the level of the city or town rather than at the county level. All New England states are divided into minor civil divisions (cities and towns), and county government is either non-existent or restricted to judicial matters. While other parts of the country have cities and towns, much of the land is "unincorporated" and thus governed at the county level. Outside of cities, counties handle most of the public services and retain much of the taxing authority.

Therefore, when considering alternative models for local transit funding, other New England states provide the most relevant examples. That having been said, Rhode Island and Connecticut are not particularly relevant, because in Rhode Island, virtually all public transit service is operated by the

Rhode Island Public Transit Authority, a state agency, and in Connecticut, almost all of the non-federal funding for public transit comes from Connecticut DOT. That leaves Massachusetts and the northern tier as the most relevant cases.

Fiscal Year 2019 Funding from federal, state and local sources for the four northern New England states is summarized in Figure 7 below. Note that the figures for Massachusetts exclude the MBTA and thus only represent the 15 regional transit authorities (RTAs) outside of Greater Boston. All of these figures exclude fare revenue.

Figure 7: New England Transit Funding

Funding Source	New Hampshire	Vermont	Maine	Massachusetts
Federal	$13,962,129	$22,104,085	$6,450,000	$44,260,429
State	$200,000	$7,092,903	$900,000	$82,835,023
Local	$5,850,000	$6,080,720	$10,700,000	$39,941,797
TOTAL	$20,012,129	$35,277,708	$23,350,000	$167,037,249

Local funding in this table includes municipal dollars as well as a range of other sources, including contract services, institutional funding, and donations. Overall, Vermont has a lower level of local funding (17%) than its New England peers (24-45%) due both to a higher level of state funding (than NH and ME) and expanded federal funding through the flexing of federal highway dollars into the transit program.

In New Hampshire and Maine, transit agencies work with cities and towns as well as institutional partners in a similar fashion to Vermont. Some of the larger cities in those states are responsible for a sizable portion of the local funding shown above: in Maine, the City of Portland accounts for about $2.9 million of the $10.7 million total with other Greater Portland member municipalities contributing an additional $1 million; in New Hampshire, the Manchester Transit Authority and the Nashua Transit System are both part of city government and those cities allocated $1.17 million and $424,000 in FY19, respectively. Virtually all of this local funding comes from local property taxes.

In Massachusetts, the RTAs have the authority to assess their member communities for funding, similar to GMT's relationship with its urban members. Massachusetts law states that "between 25 and 50 percent of the total net cost of service of each regional transit authority is assessed to its member municipalities in proportion to the estimated cost of operating routes through those municipalities. A net operating deficit for each regional transit authority is calculated as the difference between the revenue sources (fares, advertisements and federal assistance) and the operating costs." As a practical matter, the amount assessed to the member communities depends on the level of the commonwealth's appropriation for that year. As implied by the above language, the Commonwealth will fund between 50 and 75% of the net deficit, with the remainder to be made up by the cities and towns. The net deficit for each RTA is then apportioned to its members depending on the amount of service operated in each community, often calculated based on the miles or hours of service. This figure is then entered onto the "cherry sheet" for each municipality, which the city or town pays out of its local property taxes.

Conclusion

The conclusion of this research is that New Hampshire and Maine are very similar to Vermont and do not offer substantively different methods of obtaining local funding. In Massachusetts, the local assessment method that GMT employs for its urban members applies statewide in a generally similar fashion. In order for GMT to levy assessments on its rural towns, it would either need to convince each of them to become official members of GMT, or it would need to convince the towns to form a regional transit authority under 24 VSA Chapter 127, which would grant the authority the power to assess fees on its members. In either case, each individual town would need to vote in favor of joining GMT or a new regional authority.

Other National Peers

Using the most recent available data from the National Transit Database (NTD), a set of 22 peer agencies was selected to provide comparisons to the local bus operations in the rural portion of GMT. The peers were chosen based on the level of service provided, in terms of peak vehicles, revenue miles and hours of service, and total ridership. In general, the peers had figures between 66% and 200% of the GMT-Rural figures for those measures. The second part of the list includes another five peers for commuter bus operations, chosen in a similar fashion. Taken together, the peers represent 16 states covering all parts of the country other than the deep South.

Figure 8: National Peer Agencies

Agency Name	Location	State
LOCAL BUS		
Morongo Basin Transit Authority	Joshua Tree	CA
Nevada County Transit Services	Nevada City	CA
Mendocino Transit Authority	Ukiah	CA
City of Durango	Durango	CO
Town of Snowmass Village	Snowmass Village	CO
City of Winter Park	Winter Park	CO
Mountain Rides Transportation Authority	Ketchum	ID
OCCK, Inc.	Salina	KS
Marquette County Transit Authority	Marquette	MI
Three Rivers Community Action, Inc.	Plainview	MN
Big Sky Transportation District	Big Sky	MT
Incorporated County of Los Alamos	Los Alamos	NM
RTS Livingston	Mt. Morris	NY
OSU-Stillwater Community Transit	Stillwater	OK
Indiana County Transit Authority	Indiana	PA
Area Transportation Authority of North Central PA	Johnsonburg	PA
Crawford Area Transportation Authority	Meadville	PA
New Castle Area Transit Authority	New Castle	PA
Virginia Regional Transit	Purcellville	VA
Mason County Transportation Authority	Shelton	WA

Bluefield Area Transit	Bluefield	WV
Central West Virginia Transit Authority	Clarksburg	WV
COMMUTER BUS		
Downeast Transportation, Inc.	Ellsworth	ME
County of Sacramento Municipal Services Agency	Sacramento	CA
Madera County	Madera	CA
Senior Citizens of Sweet Home, Inc.	Sweet Home	OR
Douglas County	Roseburg	OR

For each of the local bus and commuter bus peers, NTD provided the amount of local funding that was used for operations. These figures, compared to the total operating expense for that mode, yielded the percentage of operations that were funded by local dollars. As shown in Figure 9 below, that percentage varied from 0% in Plainview, MN to 93% in Winter Park, CO. Many of the peers were in the range of 40-70% local funding.

Figure 9: Local Funding for Peer Agencies

Agency Name LOCAL BUS	State	Local operating funds	Percent Local
Morongo Basin Transit Authority	CA	$1,976,891	64%
Nevada County Transit Services	CA	$2,447,759	68%
Mendocino Transit Authority	CA	$2,239,360	56%
City of Durango	CO	$856,094	40%
Town of Snowmass Village	CO	$1,640,220	48%
City of Winter Park	CO	$2,056,646	93%
Mountain Rides Transportation Authority	ID	1,077,566	40%
OCCK, Inc.	KS	$678,901	25%
Marquette County Transit Authority	MI	$1,037,874	33%
Three Rivers Community Action, Inc.	MN	$0	0%
Big Sky Transportation District	MT	$839,616	45%
Incorporated County of Los Alamos	NM	$326,680	10%
RTS Livingston	NY	$815,902	45%
OSU-Stillwater Community Transit	OK	$1,245,923	40%
Indiana County Transit Authority	PA	$112,159	3%
Area Transportation Authority of North Central PA	PA	$342,706	4%
Crawford Area Transportation Authority	PA	$48,240	1%
New Castle Area Transit Authority	PA	$219,340	4%
Virginia Regional Transit	VA	$973,628	33%
Mason County Transportation Authority	WA	$3,012,406	42%
Bluefield Area Transit	WV	$53,980	4%
Central West Virginia Transit Authority	WV	$1,976,912	72%

COMMUTER BUS			
Madera County	CA	$0	0%
County of Sacramento Municipal Services Agency	CA	$0	0%
Downeast Transportation, Inc.	ME	$1,898,706	70%
Douglas County	OR	$196,342	12%
Senior Citizens of Sweet Home, Inc.	OR	$71,820	10%

In general, the sources for local funding for various agencies within a given state were similar to each other. Overall, funding from the county government was the most common source, whether it represented income, property or sales taxes, or a mix thereof. For the California agencies, the primary source is referred to as the LTF, which stands for Local Transportation Fund. The LTF was set up in 1971 to support public transportation and derives its money from a state one quarter of one percent sales tax. A second fund, called the State Transit Assistance (STA) fund consists of money appropriated by the state legislature. These programs are more fully described here: https://dot.ca.gov/programs/rail-and-mass-transportation/transportation-development-act. As can be seen, however, the LTF does not provide any local funding for the two commuter bus peers in Madera and Sacramento. Some local funding in California also comes from the state gasoline tax.

In Colorado, the primary funding source is a sales tax, but property taxes also play a role. In Winter Park, which is primarily a tourist destination, almost the entire bus operating cost is paid for by a "transit and trails tax" which is a 2% tax on retail goods/materials and lodging. In Idaho, the local funding comes from the city of Ketchum and other served municipalities, likely relying on property taxes. In Kansas, the source for Salina is a combination of city sales and property tax revenue.

In Michigan, Montana, Pennsylvania and West Virginia, the local funding comes out of the county budget, reflecting a mix of property and sales taxes in most places. It is treated similar to other county expenditures, as part of the "general fund." Note that Pennsylvania and West Virginia provide by far the lowest level of local funding among the peers. In Virginia, the county revenue includes fuel taxes as well as property and sales tax. The peer system in Oklahoma is part of a university transit system, and thus the funding comes from the university.

New Mexico has a statewide tax on gross receipts, which is similar to a sales tax but much broader in scope, covering all commercial revenue sources. Localities can add 0.125% to the state tax to generate revenue for public transit services, and this is done in Los Alamos. In New York, the mortgage recording tax is a major source of local funding for transit.

In Shelton, Washington, transit is funded as part of a local sales tax. Mason County adds a 2% sales tax to the statewide 6.5% rate. Part of that local tax (0.6%) is dedicated to fund Mason County Transit in Shelton. This funding also allows the system to operate fare free.

Among the commuter bus peers, the two California agencies have no local funding, but Downeast Transportation in Maine has a substantial amount. The great majority of it (84%), though, comes from the National Park Service, as Downeast serves Acadia National Park. Other funding comes from LL Bean (11%) and from municipalities (5%), which provide funding through petitions and requests, similar to the process in Vermont. In Oregon, the local funding for the two systems comes from a 0.1% supplement to the state payroll tax. This program, called the Statewide Transportation Improvement Fund, is explained in more detail here.

Conclusion

Local funding for these peer agencies depends largely on the taxing authority provided by the states. California, New Mexico and Oregon have statewide taxes or transportation funding programs that are either dedicated to funding local transit, or offer a straightforward way of appending a local option tax to support transit. The overall tax sources are familiar: primarily property, sales, and fuel taxes. The gross receipts tax in New Mexico and the mortgage recording tax in New York are two of the exceptions to the typical sources.

These examples from outside of New England face a different landscape for local funding from what GMT faces, as there is no issue of dealing with dozens of cities and towns to cobble together sustainable and equitable local funding. County governments, with their regional scope and taxing authority, are a much simpler and more powerful source for local funding.