REPORT TO THE LEGISLATURE PURSUANT TO ACT 184 OF 2022, SECTION 16

Report on Impacts of Zero-Fare Transit Service in State Fiscal Year 2024

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submitted to

The Vermont House and Senate Committees on Transportation

Vermont Agency of Transportation
Policy, Planning, and Intermodal Development Division

VERMONT
AGENCY OF TRANSPORTATION

1. INTRODUCTION

Zero-fare transit service is not a new concept in Vermont. All transit agencies in the state have offered some fare-free services, and three agencies have operated without any fares for years: Rural Community Transportation in the Northeast Kingdom, Advance Transit in the Upper Valley, and SEVT's MOOver division in the Deerfield Valley.

With the onset of the pandemic in March 2020, fares were eliminated for all transit services in Vermont, partly to reduce the risk of COVID exposure by increasing social distancing between drivers and passengers, but also to recognize the trying economic times and to help reduce the financial burden on riders who had no other travel options. The zero-fare policy was extended through FY2021 and FY2022, and the 2022 session of the legislature extended the zero-fare policy through FY2023. VTrans and the legislature increased the amount of funding available to transit providers to cover the foregone fare revenue. Because of the ridership declines associated with the pandemic, the foregone annual fare revenue was well below the $522,000 for rural areas that was collected in FY2019 and the $2.2 million collected by GMT for its urban service.

Going forward, the Vermont Legislature wants to quantify the impacts of extending the zero-fare policy into FY2024 and beyond, both in terms of ridership and revenue, as well as understanding the impacts on other programs such as Medicaid transportation. This study addresses these questions by examining recent trends in ridership, forecasting ridership for FY2024, calculating how much revenue would be foregone by an extension of the zero-fare policy and discussing the impacts on ADA paratransit and the finances of the Medicaid transportation program.

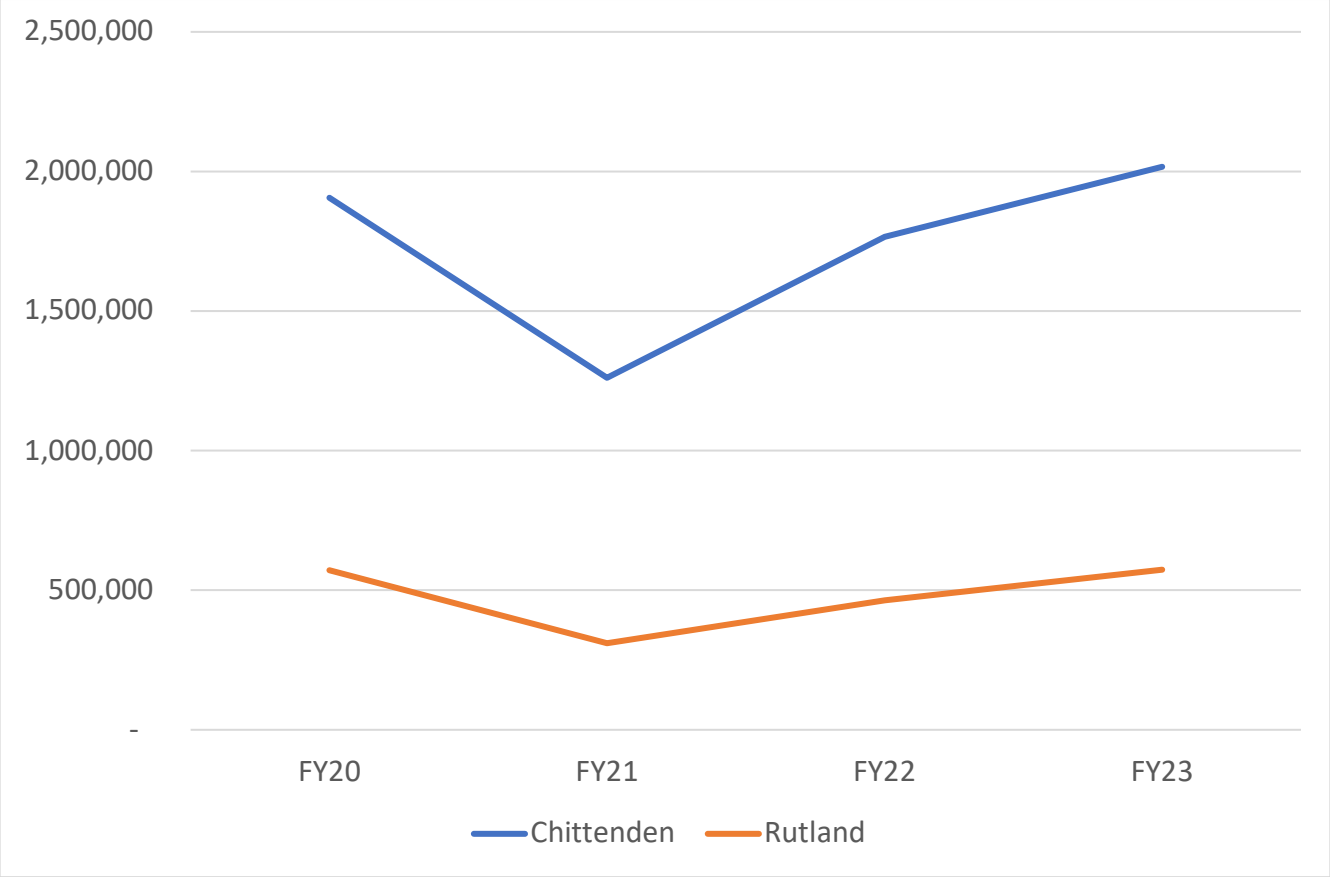
2. RECENT RIDERSHIP TRENDS

In its transportation funding bill for 2022, the Vermont Legislature specified that this study should show "changes in public transit ridership, by county and type of service, in fiscal years 2020, 2021, and 2022 and in fiscal year 2023 through the end of the second quarter." This section presents this information in a series of tables and charts below. At this writing, the second quarter is only partly completed, thus this report includes information for only the first quarter of FY2023.

Ridership by County

Ridership by county is presented in two charts below. Figure 1 shows total system ridership in the two most urbanized counties: Chittenden and Rutland. These counties have significantly higher ridership than the other 12 counties in the state and so need to be shown separately for the sake of clarity. An annualized figure is shown for FY2023 based on the results of the first quarter and the ratio of first quarter to annual totals by provider. (For example, for GMT Urban, the first quarter normally represents 23% of the annual total, and so the first quarter total was divided by 0.23 to yield an estimate for the annual total.)

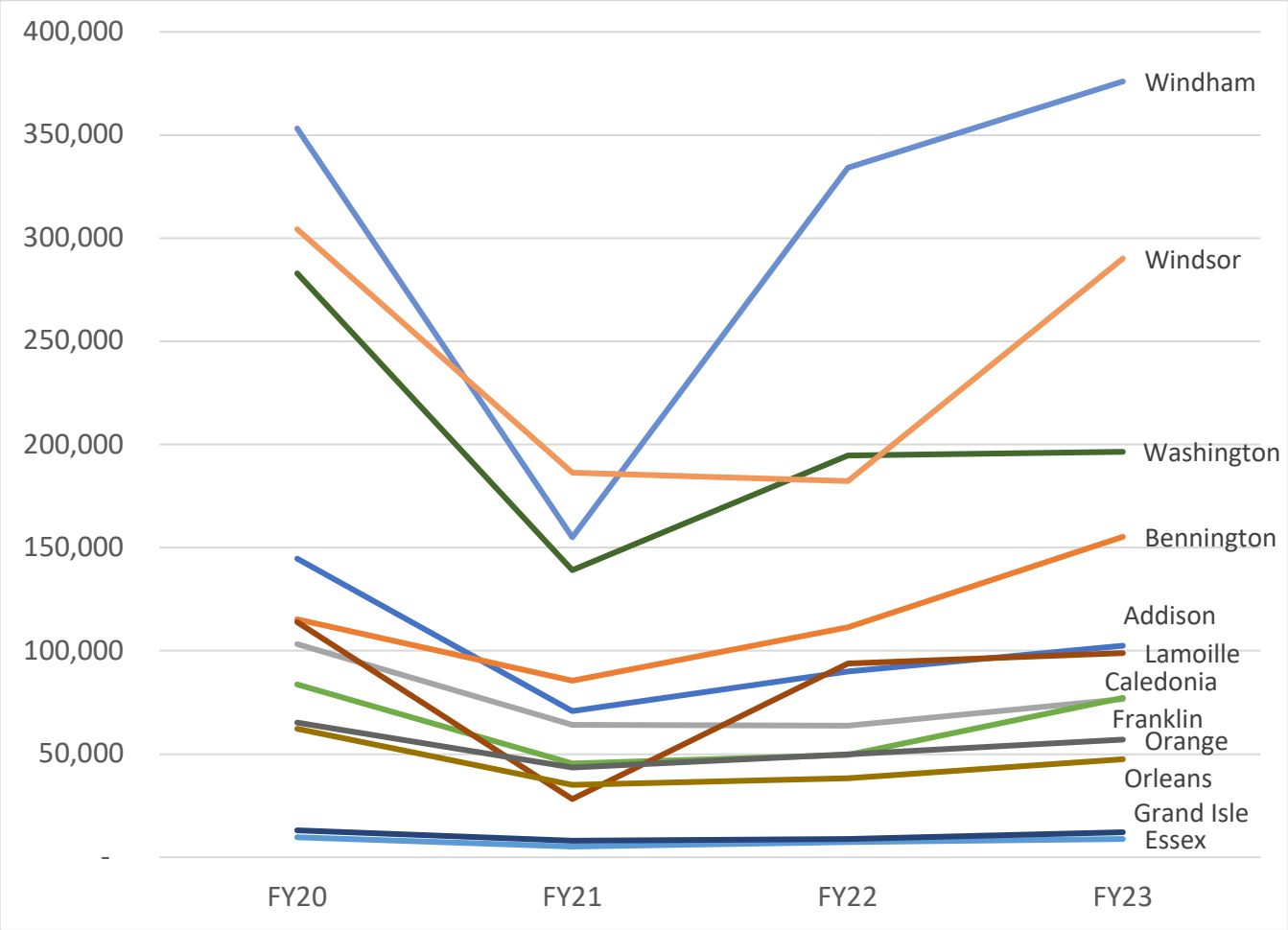
Figure 1 – Annual Ridership for Chittenden and Rutland Counties FY20-FY23



For both of these counties, while FY22 ridership remains below that carried in FY20, it is forecast that FY23 ridership will exceed the FY20 figure. It should be noted that the FY20 figures represent only about 80% of what would have been expected for that year had the pandemic not happened. For Chittenden County, the forecast figure for FY23 is about 86% of the FY19 total, which was unaffected by the pandemic, and for Rutland County, the forecast figure is 82% of the FY19 total.

Figure 2 below shows the results for the other 12 counties in Vermont. Many counties are projected to exceed their FY20 totals in FY23, and Bennington County is forecast to exceed even the FY19 total. On average, the other 11 counties will carry about 70% of the ridership that they did in FY19.

Figure 2 – Annual Ridership for Smaller Counties FY20-FY23



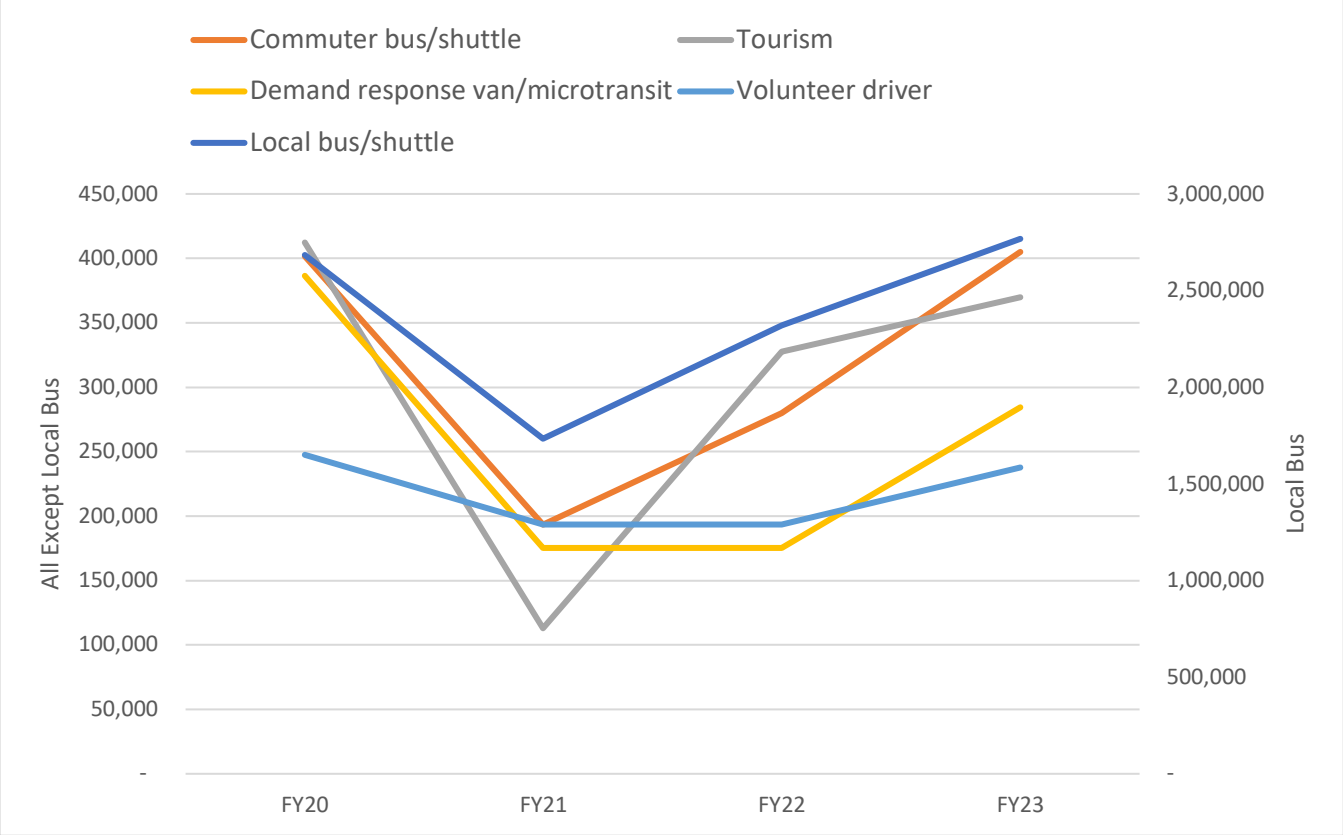
Of the counties shown in Figure 2, Windham exhibits the greatest impact of the pandemic, with a steep loss in FY21 and a steep rise in FY22. A significant portion of the ridership in Windham County occurs on tourism services associated with Mount Snow, and these services were suspended in FY21 (with the exception of the Parking Lots route). Lamoille County (the brown line) exhibits a similar pattern, as GMT's Mountain Road Shuttle is by far the highest ridership route in the county. While service operated in FY21, the route carried only about 9,000 riders, compared to 80,000 riders in FY20 (when it was largely unaffected by the pandemic because ski season was close to finished when the pandemic hit in mid March). Washington County was also affected more dramatically than some other counties because of the many riders on Sugarbush seasonal routes in normal years. Windsor County lost many riders in FY21 and did not recover any in FY22, but shows a strong rebound in FY23. Many routes in this county—operated by Advance Transit, Tri-Valley Transit, and Southeast Vermont Transit—are oriented to commuters heading to jobs in the Upper Valley. In general, commuter routes suffered greater ridership losses than other routes because so many people worked at home during the pandemic, and many people continued to do so through FY22. In contrast, Caledonia, Orange, Orleans, Grand Isle and Essex counties show less impact from the pandemic, partly because they have lower ridership overall and the people who use the service in these counties have no other travel options.

Ridership by Type of Service

As is clear from the above discussion, the pandemic had different effects on different types of services. Tourism routes and commuter routes were decimated by the pandemic, with many services losing 80% or more of their riders in FY21. Regular local bus routes and shopping shuttles were affected less, with ridership losses of 50% or less. Routes oriented toward shopping have recovered more quickly than those oriented toward commuting. Tourism routes made a healthy comeback in FY22 and are projected to do well in FY23.

Figure 3 shows the ridership trend by type of service from FY20 through FY23. As above, the FY23 figure is estimated based on the performance by type of service in the first quarter. As shown in the figure, Tourism services suffered the steepest losses in FY21, but recovered most of that loss in FY22. Compared to other types of service, Volunteer Driver trips were relatively flat through this period, with the FY23 total forecast to nearly match the FY20 total and only a moderate drop in trips in FY21 and FY22. Local bus routes, measured by the vertical axis on the right, lost the largest absolute number of riders in FY21 (nearly a million) but this represents a smaller percentage loss than other types of service. The local bus forecast for FY23 exceeds the total from FY20 by a small amount. Commuter and demand response service operated in vans both suffered relatively steep drops in FY21 and demand response service remained low in FY22, while commuter services began to recover. Like local bus service, demand on commuter routes is forecast to carry about the same number of riders in FY23 as in FY20, recalling that FY20 figures are about 20-25% lower than they would have been without the pandemic. A large portion of demand response trips are for medical purposes, and a surge in telemedicine and other workarounds during the pandemic greatly reduced the demand for these trips.

Figure 3 – Annual Ridership by Type of Service FY20 – FY23



Quarterly Ridership for Bus Routes

Drilling deeper into the data, Figure 4 below compares the performance of local bus routes to commuter bus routes on a quarterly basis. The values for each quarter are an index based on the ridership in the first quarter of FY20 (July-September 2019). It can be seen that local and commuter routes track each other perfectly through the first three quarters, but in the fourth quarter of FY20, commuter routes suffer a larger loss than local routes. The index value for commuter routes is 0.24, indicating a 76% loss of ridership compared to Q1, while local routes have an index value of 0.35, indicating a loss of "only" 65%. The gap between local routes and commuter routes persists through the next nine quarters, with a slight narrowing of the gap starting in the fourth quarter of FY22.

Figure 4 – Quarterly Ridership Index of Local and Commuter Routes FY20 – FY23

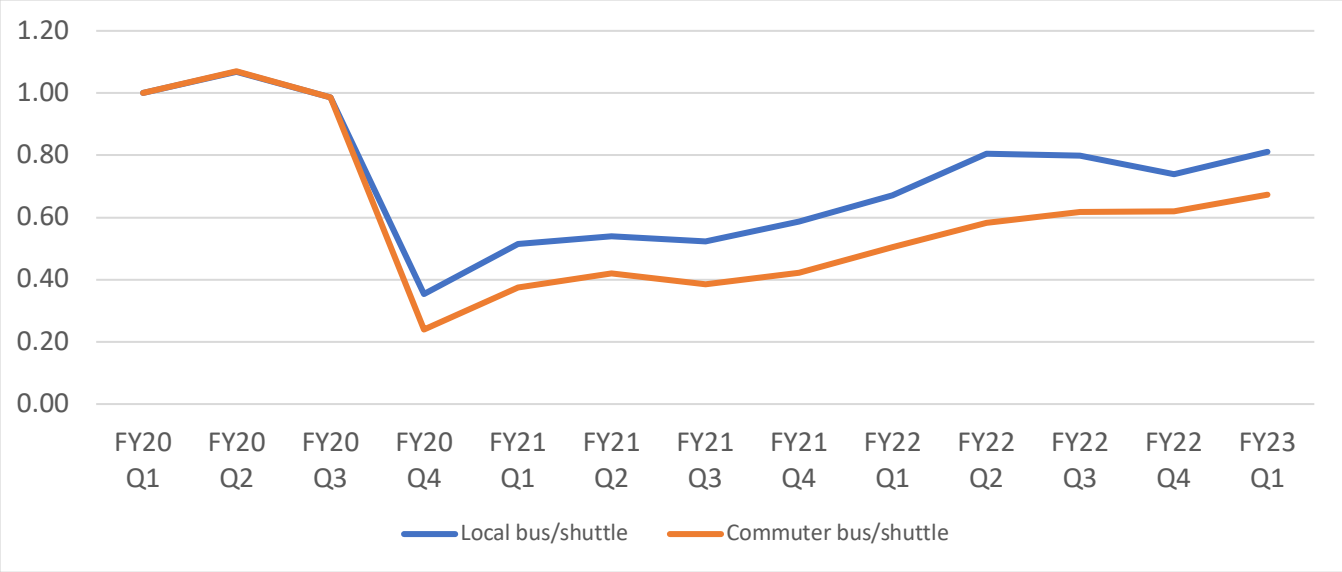


Figure 5 presents a further breakdown of the figures, separating bus routes into the five main types analyzed in the annual Route Performance Report (RPR). Tourism routes are not included in this chart (nor are they included in Figure 4) since they have extremely wide variations by quarter, often with negligible or zero ridership in the fourth and first quarters and very high ridership in the second quarter, during the peak of ski season. Also this chart does not show the first quarter of FY23 because the providers were not asked to break down the data into these route classes, but just the broader categories shown in Figure 3.

As a reminder, the relevant route classes from the RPR are defined as follows:

- **Urban**: Routes operating primarily in an urbanized area with all-day, year-round service. The city served by the route has a population of at least 17,500 people and high-density development.
- **Small Town**: Routes operating in towns with 7,500 to 17,500 people with all-day, year-round service. The route typically stays within one town or two adjoining towns and does not run through long stretches of rural areas.
- **Rural**: Routes operating in towns with fewer than 7,500 people or connecting two small towns running through undeveloped areas. These routes operate year-round with daily service, but the frequency may be low (more than one hour between trips).
- **Rural Commuter:** Routes that are similar to the Rural category above but operate primarily during peak commute periods. These routes usually connect several small towns or villages with intermediate

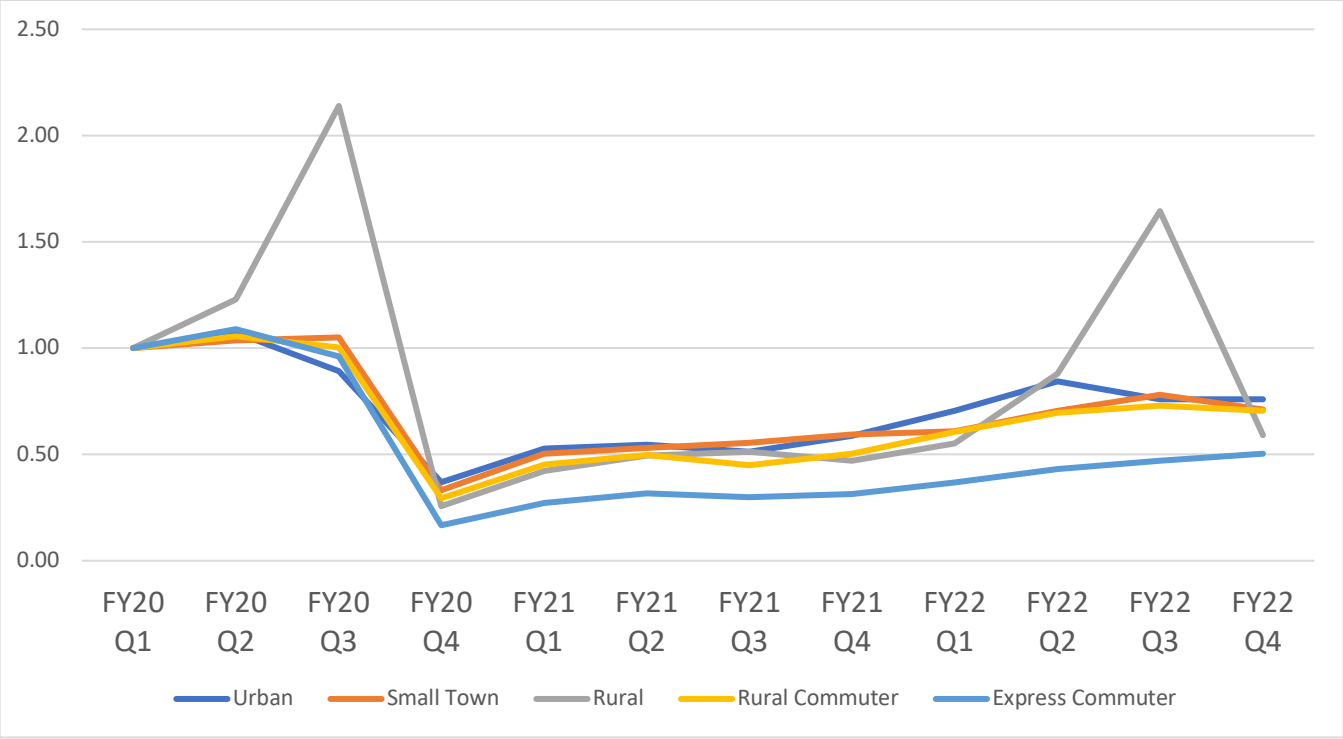
stops and operate primarily on state routes in rural areas. Some routes connect outlying areas to the nearby city, with a significant portion of the mileage in rural areas.

- **Express Commuter**: Routes that operate primarily during peak commute periods and often include express segments. These routes are characterized by one-directional ridership (in most cases), longer route lengths, and serve either of the two largest employment centers in the region: the core of Chittenden County or the Upper Valley area spanning Vermont and New Hampshire. These routes primarily travel on interstate highways and make limited stops, often serving park and ride lots and major employers (rather than other local destinations).

As with Figure 4, the values in Figure 5 are an index based on the ridership in the first quarter of FY20. The most obvious feature of Figure 5 is the dramatic changes in ridership in the Rural class of routes. These spikes are almost exclusively due to the Wilmington – West Dover route operated by SEVT. This route, the original MOOver, carries huge numbers of riders in the third quarter (January through March), similar to Tourism routes, but it is not classified as a Tourism route since it operates year-round. It can be seen that there was no spike in Rural ridership in FY21, as the loss of tourists affected the MOOver in the same way as other Tourism services.

The other most noteworthy feature of Figure 5 is how the Express Commuter class stands out from the rest. Urban, Small Town, Rural Commuter and Rural (except in the third quarter) all track each other closely through each quarter shown in the chart. However, Express Commuter suffered the steepest initial drop (index value of 0.17, indicating an 83% loss in ridership) and lags behind all of the other classes through the end of FY22. As of the fourth quarter of FY22, the index value was still only 0.5, indicating that 50% of the former riders have not yet returned. In contrast, most of the other route classes have index values between 0.67 and 0.78 in the fourth quarter of FY22, indicating persistent ridership losses of between 22% and 33%.

Figure 5 – Quarterly Ridership Index by Route Class FY20 – FY22



3. REVENUE AND COST IMPACTS

In order to evaluate the impacts of a potential zero-fare policy for FY 2024, it is necessary to estimate how much fare revenue would otherwise be collected, as well as the costs of collecting that revenue. Before estimating the revenue, it is necessary to forecast how many riders there are likely to be. This section of the report presents all of these forecasts and estimates.

Ridership Forecast

Forecasting ridership is an inexact science, especially when external factors that can have large impacts on ridership are in flux and unpredictable. The COVID-19 pandemic is still affecting travel choices, in that many people continue to work remotely and others have ongoing concerns about potential health risks from using public transit. A surge in cases can happen at any time if a new variant emerges that manages to break through established vaccines and immunity. Likewise, gasoline prices have been highly variable in 2022 due to the war in Ukraine and production challenges at refineries. High fuel prices can be a reason why public transit ridership rises.

The farther in the future one tries to forecast ridership, the more speculative it becomes. For the purpose of this study, the first step in estimating FY24 ridership was a forecast for full-year FY23 ridership based on the experience of the first quarter of FY23 (July–September). Of all the potential forecasts to be made, we can have the highest confidence in FY23 figures, both because the immediate-term future is more likely to be similar to the present than the longer-term future, and because 25% of the forecast consists of actual results.

It is important to note that the forecasts made in this section only concern public transit services that have in the past, or could in the future, charge a fare. This excludes almost all of the demand response service operated in Vermont, which mainly comprise the Elders and Persons with Disabilities Transportation Program (E&D) and Non Emergency Medical Transportation (NEMT) otherwise known as Medicaid transportation. These services have never charged fares and are paid for with a combination of federal, state and local funds. ADA complementary paratransit service has in the past generated fare revenue, and it is discussed in the next section. Tourism services in Vermont are all fare free, as are shopping shuttles and thus these are also excluded from the analysis.

Because Green Mountain Transit (GMT) bus routes comprise such a large share of the statewide total bus ridership (about 65%), the forecasts for these routes were handled differently from the rest of the state. GMT was asked to provide ridership at the route level for Quarter 1 of FY23, rather than ridership by broad service type (as was requested of all of the other providers). For each route, the ridership in Q1 of FY23 was compared to Q1 of FY22 to develop a year-over-year growth factor. It was then assumed that this growth factor would apply to the other quarters as well. For GMT's urban local routes, the growth factor averaged 21% and ranged from 0% to 56%. For GMT's urban commuter routes, the growth factor averaged 42% and ranged from 18% to 62%. Because the commuter routes had suffered steeper ridership losses, it would be expected for them to have faster growth in recovery. GMT's rural bus routes (local and commuter combined) averaged 24% growth.

When GMT's route-level growth factors were applied to FY22 ridership, it resulted in an FY23 forecast for the agency as a whole that was 17% higher than the FY22 total. This percentage is lower than the averages cited above because it represents a weighted average of growth rather than a straight average of the growth factors. In general, GMT's higher ridership routes had slower growth than the low ridership routes, and thus the overall system average represents the popular routes more heavily.

For the rural agencies, ridership at the route level tends to be more variable because the overall ridership base is smaller. This leads to larger percentage swings than what is seen with urban routes. Thus, year-over-year growth factors were calculated either for the agency as a whole or for the agency's local and commuter routes separately, if there was a clear delineation in function. The overall average growth factor was about 24%, with commuter routes having somewhat higher growth factors than local routes.

The growth factors by agency, or by agency-route-function, or by route (for GMT) were then multiplied by the annual ridership by route for FY22 to produce forecasts by route for full-year FY23 ridership. These FY23 estimates then became the basis for the FY24 forecasts.

Prior to calculating FY24 ridership forecasts, the bus routes at all agencies were divided into two groups: those that had charged fares up to the onset of the pandemic, and those that did not. The base assumption in this analysis is that routes that were already fare free in March 2020 would continue to be fare free indefinitely. Thus, the question of whether to reestablish fares revolves around those routes that had previously charged fares.

Among fare-free routes, those whose FY23 forecast ridership was still at least 25% below that of FY19 (the last full year unaffected by the pandemic) were assumed to grow at the same rate they were assumed to grow in FY23. Those routes whose FY23 forecast ridership was between 10% and 25% below the FY19 ridership were assumed to grow at half the rate for FY23. Finally, those routes that were within 10% of the FY19 level were assumed to grow at a 5% rate. Thus, some growth was assumed for all routes, but fast recovery that is associated with regaining lost passengers was reserved for those routes that still had substantial losses compared to pre-pandemic conditions.

The literature on fare-free transit suggests that removing fares from a route would boost ridership by 30-40%. That is not to say that imposing fares on a service that is now fare free would reduce ridership by an arithmetically equivalent amount (moving from 1,000 riders to 1,300 riders is a 30% gain, but moving from 1,300 riders to 1,000 riders is a 23% loss, just because 300 is 30% of 1,000, but 300 is 23% of 1,300). There are other factors at play, including the availability and cost of other transportation options. Nonetheless, it does seem very likely that routes that reimpose fares will grow more slowly than those that remain fare-free.

Routes that formerly charged fares were divided into four categories. The forecast ridership change for each of these categories is as follows:

- FY23 ridership more than 25% below FY19 ridership: 5% ridership gain
- FY23 ridership between 10 and 25% below FY19 ridership: no change from FY23
- FY23 ridership less than 10% below or above FY19: ridership loss in proportion to fare
- FY23 ridership more than 25% above FY19: 30% ridership loss

For the third category, different levels of loss are assumed for different agencies, depending on the amount of the fare prior to the pandemic. MVRTD and GMCN charged very low fares (50 cents or less on most routes) and had an average fare per passenger in the range of 20 cents on non-commuter routes. For these routes, the ridership loss is assumed to be 5%. For routes with an average fare per passenger between $0.50 and $0.90, which includes most GMT rural routes and GMCN commuter routes, the ridership loss is assumed to be 10%. For routes with an average fare around $1, which includes most GMT urban local routes and commuter routes for many agencies, the ridership loss is assumed to be 15%. For routes with higher fares, the ridership loss is assumed to be 20%. Again, these losses would only apply if the route's forecast FY23 ridership is close to or above its ridership from FY19.

The fourth category applies only to the routes in Brattleboro operated by SEVT, which have seen explosive ridership growth over the past year. These routes were redesigned in FY18 and saw some ridership growth before the pandemic, but since the pandemic subsided, the lack of fares on these routes seems to have been a tremendous boost to ridership, with expected FY23 totals of nearly double the levels of FY19. Thus, the ridership loss associated with reimposing a fare on these routes is assumed to be greater than for other services.

The ridership totals for FY22 and the forecasts for FY23 and FY24 by agency, assuming fares are reimposed on the routes which formerly (as of FY20) had fares, are shown in Table 1. For reference, an estimate of FY24 ridership under a continuation of the zero-fare policy is also shown. Note that these figures include only regular local and commuter bus routes. All demand response service, other than MyRide by GMT, the microtransit service in Montpelier, is excluded, as are Tourism routes and shopping shuttles. It is assumed that there would be no service changes between FY23 and FY24. While this is unlikely to be the case, the aggregate ridership figures would probably not be greatly affected even if there were some service changes.

Table 1 – Ridership Forecasts

Agency	FY22 Actual	FY23 Forecast	FY24 with fares	FY24 without fares	Ridership loss from fares
AT (always fare free)	136,177	153,000	172,000	172,000	-
GMCN	73,013	108,000	103,000	115,000	(13,000)
GMT-Rural	140,775	164,000	159,000	183,000	(25,000)
GMT-Urban	1,725,475	2,018,000	1,826,000	2,167,000	(340,000)
MVRTD	299,465	368,000	366,000	405,000	(39,000)
RCT (always fare free)	50,289	59,000	67,000	67,000	-
SEVT	194,405	301,000	267,000	320,000	(53,000)
TVT	99,637	119,000	127,000	142,000	(15,000)
Statewide	2,719,236	3,288,000	3,086,000	3,571,000	(485,000)
Statewide Non-Urban	993,761	1,271,000	1,260,000	1,405,000	(145,000)

It should be noted that all of the estimated numbers in the table have been rounded to the nearest thousand so as not to imply a false precision to the forecasts.

It can be seen that the reimposition of fares is estimated to result in the loss of about 485,000 trips statewide, but only 145,000 of those rides lost would occur outside of GMT's urban area. The sizable loss of trips in the urban area must be weighed against the foregone fare revenue and how that affects the ability of GMT to provide attractive and reliable service in the core of Chittenden County.

Foregone Fare Revenue Estimate

With the ridership estimates in hand the calculation of foregone fare revenue is just a matter of multiplying the average fare per passenger by the forecast ridership. The average fares were applied on a route-level basis and were derived from the fare revenue reported by each agency for the eight months in FY 2020 that were unaffected by the pandemic. In some cases, agencies supplied fare revenue at the route level, and in other cases, system average fares (separated between commuter and local routes) were applied to all routes operated by a given provider.

The only service for which this method did not apply was the MyRide by GMT microtransit service. Having been implemented during the pandemic, it has never had a fare. Nonetheless, the experience of microtransit

in other areas and an evaluation undertaken for GMT by Steadman Hill Consulting suggests that imposing a fare would have beneficial effects on microtransit operations beyond being a revenue source. A significant number of microtransit trip requests are cancelled very late or end up as "no-shows." Without a fare, there is no penalty to the passenger to request a trip and then cancel or no-show, but these requests waste time for the vehicle and the other passengers and result in a decrease in overall capacity. A fare would deter these no-show trips because the requester would need to pay up front and not recover the payment if they cancelled within say, 15 minutes of the scheduled pick-up time, or no-showed. For the sake of this analysis, an average fare of $1.25 was used, assuming that the adult base fare would be $2, and a discount fare of $1 would be available to students and older adults, and that these groups would be the majority of passengers.

The estimated FY24 fare revenue by agency is shown below in Table 2.

Table 2 – Potential FY24 Fare Revenue

Agency	FY24 Fare Revenue
AT	$0
GMCN	$34,000
GMT-Rural	$117,000
GMT-Urban	$1,920,000
MVRTD	$131,000
RCT	$0
SEVT	$108,000
TVT	$63,000
Statewide	$2,371,000
Statewide Non-Urban	$453,000

The reimposition of fares statewide would result in about $2.37 million in revenue at the cost of about 485,000 trips. Outside of Chittenden County, there would be $453,000 in revenue, with about 145,000 lost trips. One way to think about that is that the State can "spend" $3.12 for each new trip gained. There are relatively few service improvements that can be made with that level of cost effectiveness. Indeed, the overall statewide cost per transit trip over the past four years has averaged $13.30, and the cost per trip even before the pandemic was about $9.50. These statewide figures include demand response transportation, which is more expensive per passenger than bus routes, but nonetheless, a cost per trip of $3.12 compares favorably to most measures of cost effectiveness within the realm of public transit in Vermont.

Fare revenue in GMT's urban area dwarfs that of the rest of the state. The $1.92 million in estimated foregone fare revenue represents about 15% of the operating cost for urban bus services. The cost per lost trip in the urban area is higher than the rural average, at about $5.65. The gross cost per passenger in the urban area prior to the pandemic was in this same range, about $6 on average from July 2018 through February 2020 (excluding ADA paratransit). Thus, increasing ridership by eliminating fares in the urban area is not substantially less expensive than operations in general on a per passenger basis. However, the cost to the State to backfill the amount of revenue lost is more than four times greater for the urban area than for the rest of the state, for GMT would not be able to operate its current level of service if that 15% of its budget were not replaced by another revenue source.

Costs of Fare Collection

There are costs associated with collecting fares. On an ongoing basis there are cash counting costs, which could apply to agency staff or an outside contractor or both. There may be costs for fare media if an agency offers monthly passes or tickets. Agencies that sell passes or allow for electronic fare payment through an app or other means incur credit card processing fees. All of these ongoing costs subtract from the value of the revenue collected.

Agencies that collect fares also need to install and maintain fareboxes on their buses. These are expensive pieces of equipment, especially if they incorporate convenience features such as magnetic stripe readers, smartcard readers, or devices that communicate with smartphones. New fareboxes may cost $20,000 or more and are usually offered as an option during a procurement of new buses. Old fareboxes entail maintenance costs, and when they fail and parts are not available, may cost the agency several days worth of lost revenue on the routes it runs.

To obtain an estimate of the costs associated with fare collection, the agencies that formerly collected fares were asked about the annual costs incurred in FY19, the last full year when fares were collected. They were also asked about the condition of their farebox equipment and the likelihood that new equipment would be needed in the near term (within 5 years).

Green Mountain Transit reported that the operating cost associated with fare collection was about $36,000 per year for the urban system, which includes cash counting, fare media and credit card fees. It does not include the staff costs associated with handling and counting revenue, since that is performed by salaried employees who get paid the same amount whether or not they spend time counting fare revenue. GMT's buses are all equipped with fareboxes and all new buses acquired since the pandemic have included fareboxes as well. As buses get replaced, the fareboxes get replaced as well. GMT felt it was unlikely that they would pursue a separate procurement for new fareboxes, but it is the case that the new buses are more expensive than they would be otherwise if fareboxes were not included. Given the way GMT reports the cost of fare collection, it only represents 2% of the revenue collected.

Marble Valley Regional Transit District reported that the annual cost of collecting fares was $48,000 in FY19, but that this did include the staff time to count the revenue. They also reported that they have plenty of functional fareboxes and would not need to purchase any in the near term to be able to collect fares. The reported cost represents 39% of the estimated fare revenue for FY24, significantly diminishing the value of fare collection.

Green Mountain Community Network reports relatively low costs for collecting fares, estimated at about $10,300 per year. The agency indicated that there would be no capital costs associated with collecting fares, as they have a sufficient number of fareboxes. Even though this annual cost is relatively low, it represents 38% of the fare revenue collected in FY19.

Southeast Vermont Transit estimates that the annual operating cost associated with handling fare revenue is $31,000. Unlike the other providers, SEVT would need to invest in some capital purchases to start collecting fares again. This investment is estimated at $37,000, including two new fareboxes and cameras in the money counting area. The $31,000 in annual costs represents 24% of the revenue collected in FY19.

Tri-Valley Transit estimated the amount of staff time required to handle fare revenue and calculated that the annual cost comes out to $50,000. This figure would be about 48% of the total revenue collected in FY19. TVT reports that there are no near-term capital needs to be able to start collecting fares again.

Thus, among all of the rural providers, the total estimated annual cost of fare collection is about $140,000. Including an allowance for the rural portion of GMT, the statewide rural estimate is $150,000. This cost is about 29% of the total fare revenue collected. Subtracting this cost from the forecast total rural fare revenue results in a net revenue for reinstituting fares in the rural area of roughly $305,000, but about $265,000 the first year because of SEVT's capital needs.

In GMT's urban area, the net revenue from reinstituting fares would be approximately $1.88 million. As mentioned above, the cost of collecting fares in the urban area is only about 2% of the revenue, compared to 29% of the revenue in rural areas.

4. IMPACTS ON ADA AND NEMT

The report thus far has focused on bus routes operated in Vermont, but two forms of demand response transportaton are relevant to this discussion.

ADA Ridership and Revenue

Relatively few agencies in Vermont offer ADA Complementary Paratransit service, as most choose to operate deviated fixed route service instead. ADA regulations allow an agency to charge passengers twice the adult base bus fare for a paratransit trip. During the time when no fares have been charged, ADA trips have also been provided free to passengers. Though ADA ridership dropped during the pandemic, it is possible that an extension of a zero-fare policy could result in ADA ridership that is higher than it would otherwise be. As shown in Table 3, ADA ridership has nearly recovered its pre-pandemic levels in Chittenden County (operated by SSTA) and in Rutland County (operated by MVRTD). Paratransit ridership in Advance Transit's Vermont service area is still well below that of FY20, and SEVT's ridership has also stayed relatively low.

Table 3 – ADA Paratransit Ridership

Agency	FY20	FY21	FY22
AT	1,441	1,010	1,087
SSTA	41,133	34,155	40,062
MVRTD	1,963	1,339	1,805
SEVT	4,130	2,347	2,426

As ADA ridership in GMT's urban region makes up nearly 90% of the statewide total, it will be the focus of this discussion.[1] The FY22 ADA ridership carried by SSTA is 97% of the total carried in FY20. In contrast, as seen in Figure 5 earlier in this report, the Urban route class—which are the fixed routes that the ADA paratransit service is complementing—has only recovered about 80% of its pre-pandemic ridership. This disconnect could reflect at least two factors:

- The former fare on ADA trips ($3) discouraged some riders from using the service;
- The people using ADA paratransit do not have other travel options available, while a portion of GMT's bus riders were there by choice prior to the pandemic and have not yet chosen to return to the system.

It seems highly likely that if fares are not reimposed in Chittenden County that ADA paratransit ridership will soon surpass pre-pandemic levels and continue to grow more quickly than it would if there were a fare in place. As these trips are expensive to operate (about $40 per passenger trip), further expansion of ADA paratransit demand will have major implications for GMT's budget and the budgets of GMT's member municipalities that pay 50% of the operating cost. The ADA fare revenue foregone in FY24 would likely be in the range of $140,000, which is small relative to GMT's urban bus revenue but larger than all of GMT's rural fare revenue.

SSTA reports that costs associated with collecting fares on ADA paratransit were minimal, as drivers handled any cash fares and verified the amounts, and in-office staff spent small amounts of time dealing with 20-ride punch cards and reconciling accounts. Thus the $140,000 estimate is assumed to be close to the net amount.

[1] It is also the case that Advance Transit will remain fare free no matter the outcome of this discussion.

The combined foregone fare revenue for SEVT and MVRTD would be much smaller, roughly $7,000. Because the fares in these regions are lower than in Chittenden County, it is less likely that the fare had been depressing demand and so maintaining fare free service there will not result in inordinate growth in demand.

Implications for NEMT Revenue

Another important issue for Vermont's transit providers is how a zero-fare policy affects revenue from the non-emergency medical transportation (NEMT) program, otherwise known as Medicaid transportation. Revenue from Medicaid makes up a substantial portion of the budget for most of Vermont's rural providers. The Medicaid program rules state that Medicaid will not pay more for a trip than a regular (non-Medicaid) passenger would. Total NEMT revenue for Vermont depends on the number of Medicaid members that use transportation services, as reimbursement from the federal government comes through a per-member-per-week (PMPW) formula.

In areas with good fixed route bus service, patients seeking medical care can often ride a bus to their appointment. In the past, when there was a fare, the Medicaid program would pay that fare. In a zero-fare environment, there is no fare to pay, and if that patient does not incur any transportation expenses for a full year, they will drop off the member roll, thereby decreasing the total amount of Medicaid revenue in the program.

Over the past three years, the Vermont Public Transportation Association (VPTA), which manages the NEMT contract on behalf of the transit providers, has seen the average number of members drop from about 8,000 in FY20 to about 5,800 in FY22. This drop in membership is certainly not all attributable to fare-free bus service, but the lack of fares is one contributing factor. Other factors include the surge in telemedicine during the pandemic which reduced demand for medical transportation, a reduction in use by infrequent riders, and a loss of Medicaid members generally, due to death or relocation or a failure to meet the Medicaid criteria.

VPTA is in the process of working with the State to increase the rate of payment per member to counteract the decline in members and an increase in the average use of services per member. Based on an analysis of NEMT usage performed for VPTA, the percentage of members who are "super users," that is, riding at least 10 times per month on average, ticked up from 6.8% in FY21 to 8.6% in FY22. Even though VPTA is not receiving any additional revenue per member, the cost to provide service for each member is rising because of greater demand. And that cost increase does not even account for the major rise in the price of fuel and inflation in other costs.

Reimposing fares on bus routes in Vermont will help at least a little in slowing or reversing the erosion in the number of members in the NEMT program. It is not possible to quantify the effect with the available data, but it is unlikely to solve the funding problem faced by VPTA. Conversely, if the Vermont Legislature decides to extend the zero-fare policy to FY24 and beyond, the state's Medicaid program, administered by the Department of Vermont Health Access, will need to ensure that the PMPW rate is sufficient to counteract the loss of members due to the lack of fares on regular bus routes.

5. CONCLUSIONS

The analysis in this report suggests that a continuation of a zero-fare policy in FY 2024 will lead to a net loss of $303,000 in fare revenue (accounting for the costs of fare collection) in rural portions of Vermont but will result in about 145,000 more rides on rural bus routes. In GMT's urban area, a zero-fare policy will forego $1.88 million in net fare revenue bus result in 340,000 more riders. The net cost per rider in rural areas is about $2.09, but for urban riders, the effective net cost is about about $5.55.

Fare-free service in the urban area will result in increased demand for ADA paratransit, at a cost of about $40 per ride, and a loss of about $140,000 in paratransit fare revenue. The overall budget gap created by fare-free service will thus be over $2 million for GMT.

Table 4 below shows the amount of funding needed to provide zero-fare service broken out by county and type of service. These figures account for the costs of fare collection discussed in section 3.

Table 4 – Net Foregone Fare Revenue by County and Type of Service

Type / County	Local	Commuter	Microtransit	ADA Paratransit	Total
Addison	$2,000	$4,000	$0	$0	**$6,000**
Bennington	$24,000	$0	$0	$0	**$24,000**
Caledonia	$0	$0	$0	$0	**$0**
Chittenden	$1,590,000	$294,000	$0	$140,000	**$2,024,000**
Essex	$0	$0	$0	$0	**$0**
Franklin	$8,000	$4,000	$0	$0	**$12,000**
Grand Isle	$0	$4,000	$0	$0	**$4,000**
Lamoille	$0	$0	$0	$0	**$0**
Orange	$0	$7,000	$0	$0	**$7,000**
Orleans	$0	$0	$0	$0	**$0**
Rutland	$48,000	$35,000	$0	$2,000	**$85,000**
Washington	$27,000	$23,000	$42,000	$0	**$92,000**
Windham	$51,000	$7,000	$0	$5,000	**$63,000**
Windsor	$0	$19,000	$0	$0	**$19,000**
Total	**$1,750,000**	**$397,000**	**$42,000**	**$147,000**	**$2,336,000**
Outside Chittenden	**$160,000**	**$103,000**	**$42,000**	**$7,000**	**$312,000**

There is, thus, a strong case to be made for a continuation of fare-free service outside of Chittenden County, but a reimposition of fares for GMT's urban service. It should be noted that the one existing microtransit service in Montpelier, and any new microtransit pilot projects elsewhere in the state, should be exempted from the fare-free policy, not because of the need for revenue, but because of the operational implications of not charging a fare. Experience in Montpelier has shown that without the disincentive of losing a fare payment, many riders will book trips that they do not intend to complete, which results in diminshed capacity and efficiency and wasted time and resources for the microtransit operation and passengers.