

GERTIE Year End Evaluation Report

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Executive Summary

GERTIE has had a successful first year thanks to dedicated volunteers and tremendous support from the community and bus riders. There are many factors involved in ensuring GERTIE's ongoing sustainability – passengers, vehicle costs, volunteers, and finances. Passengers and community members have provided us with helpful feedback throughout the year as well as kudos for GERTIE's service.

We project increased ridership over the next year, thus providing sufficient income from fares to operate the vehicles. In turn this will reduce greenhouse gas emissions and provide an alternative transportation option for Gabriola residents and visitors. We project that GERTIE's vehicle costs will continue to decrease over the next year, primarily due to the increased use of waste vegetable oil for fuel. GERTIE had a financial loss in its first year of operation. However, projections indicate that first year losses will be paid back by the end of the three-year pilot period.

The GERTIE team, both volunteers and paid Service Coordinator, have worked well together to manage the system, drive the bus, filter the WVO, and carry out a myriad of other tasks. However, the sustainability of managing and operating GERTIE with (primarily) volunteers on a long-term basis needs to be considered when looking at GERTIE's future.

GERTIE has had positive environmental, social and economic impacts on the community. After one year in operation, GERTIE has reduced the emission of greenhouse gas on Gabriola Island by 16 tonnes CO₂ equivalent. Growing ridership and the expanded use of waste vegetable oil promises to increase these savings next year to an estimated 24 tonnes and greatly reduce the degree of particulate matter generated by petroleum diesel. Families save time and money as their transportation costs are defrayed by no longer having to use a car all the time, impose on others for rides, or use taxis to commute to work, shopping, or recreation—on island or off. Business owners are very positive about the increase in breadth of folks who can access their goods and services, and are encouraging about future expansion of the bus system. On another level there is an increased awareness in the community (shown in surveys and spontaneous comments) of the possibility of taking action against climate change, and a pride in the flourishing of the GERTIE bus system.

There are several options for GERTIE's future, including full integration with the RDN system, continued operation as a community bus, or shutting down. The next step in GERTIE's life is community involvement in discussing and deciding the future for our community bus.

GERTIE Budget

	Actual June '13-'14	Projected June '14/'15	
		Conservative	Optimistic
Fares	\$25,084	\$27,630	\$30,260
Non-capital Grants	7,047	9,500	9,500
Charters (net)	1,400	1,280	1,700
Donations	11,402	5,000	\$12,000
Total Income	\$45,213	\$43,410	\$53,460
Fuel	(15,529)	(5,619)	(4,268)
Coordinator	(20,000)	(20,000)	(20,000)
Driving	(11,627)	(2,880)	(600)
Driver Training	(1,945)	(325)	(1,625)
Insurance	(9,301)	(6,240)	(6,240)
Repairs and Maintenance	(2,720)	(4,500)	(3,000)
Administration	(2,052)	(1,552)	(1,552)
Total Expenses	(\$63,454)	(\$42,116)	(\$36,785)
Net	(\$18,241)	\$2,294	\$16,175

Ridership

Ridership and Fares

Both the ridership per service hour and the total ridership per week influence the sustainability of GERTIE. The fares provide the largest contribution to the bus operations. The average income from fares over the past year was **\$1867/mth**; the average over the April through June 2014 was **\$2200/mth**.

The ridership varies during the year due to people taking vacations, summer visitors, whether school is in or out, rainy or sunny weather (Graphs of GERTIE's ridership during the first year of operation can be found in Appendix A):

- The peak use for GERTIE in 2013/2014 was October/November/early December. We reached 7 riders per hour and 290 passengers per week. The commuter runs were heavily used during this time.
- The lowest ridership occurred during the later winter months. Many Gabriola residents take vacations in warmer climates this time of year and there are very few visitors. During this time we dropped down to a low of 2.4 riders per hour and 82 riders per week during the Christmas week and an average of 194 passengers per week during the months of January and February.

The age and demographics of those riding GERTIE change with the seasons. There is an increase in youth during the winter months and an increase in summer visitors, including boaters, from May through to September. We are just starting to see an increase in visitors from Nanaimo.

There is a continual balance between increasing the number of service hours, which then increases the fare revenue; with ensuring we have the operational capacity to do those extra hours (volunteer drivers, coordinator hours, fuel costs). There were 57 service hours per week during the first 16 weeks of operation. We created some efficiencies and dropped that to 42.4 for weeks 17 through 47. We then increased the midday run schedule, which increased the service hours to 47 hours per week. These differences influence the number of riders per hour for a given week.

The average ridership per week from July 1, 2013 to July 1, 2014 was 213 passengers. We assume that this average will continue to go up as more people start to take the bus. For the purposes of this evaluation the conservative projection is an increase of 5% or an average of **224** passengers per week. The optimistic projection is 15% or an average of **245** passengers per week from July 1, 2014 to July 1, 2015. The fare income for next year's income will reflect the increased adult cash fare from \$2.25 to \$2.50. The conservative projected fare income is \$27,630 or \$2303 per month. The optimistic projection is \$30,261 per year or \$2522 per month.

Rider Satisfaction

We have received input from passengers through surveys (September 2013 and June 2014), the website, email, and anecdotal comments. The rider satisfaction results of the June 2014 survey are found in Appendix B. Passengers expressed appreciation for the drivers in addition to high rates of satisfaction with affordability, reliability, and pick up/drop off system. Responses to 'access to tickets/passes' and 'time to get to destination' were rated between highly satisfied and satisfied. Routes and schedules were rated 'satisfied'. Difficulty reading the schedule was the main concern expressed, together with the challenge of making the schedule fit with planned activities.

Vehicle Costs

Fuel

The cost of fuel for the vehicles has dropped substantially over the course of the year, thus increasing the potential sustainability of the bus service. The aim is to use a mixture of waste vegetable oil and diesel, thus decreasing the greenhouse gas emissions as well as the fuel costs. In addition the more fuel efficient Sprinters are used, rather than the Thomas International, whenever possible.

The discount provided by Mid Island Coop has also reduced the cost of fuel and will continue to do so during the upcoming year. For every \$500 of fuel purchased by GERTIE, Mid Island Coop provides \$525 worth of fuel.

The average fuel cost for the first three months of operation was **\$1760/mth**. The cost of fuel for the month June 2014 was **\$705**. This drop in fuel cost is due to the increased use of filtered waste vegetable oil used with the diesel as well as reduced use of the Thomas International.

- Thirty litres per week of the waste vegetable oil (WVO) was used for fuel for September through to April. The average fuel cost during that time was \$1000 per month. In May and June 60 litres per week of waste vegetable oil were used for fuel. The fueling cost went down to approximately \$700 per month. Some of that was for the Thomas, which is currently being used for charters.
- The replacement of 60 litres of diesel per week with filtered WVO reduces GHG emissions (the actual reduction is captured in the environmental impact section). The Sprinters are currently running on 50% waste vegetable oil, which means 50 to 60 miles per one gallon of diesel.
- In November 2013 the second Sprinter vehicle was put into use. The Sprinter’s fuel efficiency (25-30 mpg), compared to the Thomas International’s fuel efficiency (7-8 mpg), means reduced fuel use when the Sprinter is used for the runs previously done by the Thomas.
- The Thomas is now only used for the summer months, primarily for charters, so the cost of fuel for the Thomas will be covered under the Charter section.

The projected fuel cost is based on the following:

Factors impacting fuel cost	Monthly cost	Annual cost
Diesel \$1.44/litre, 50/50 WVO-diesel, status quo km	\$356	\$4268
Diesel \$1.48/litre, 50/50 WVO-diesel, status quo km	\$364	\$4366
Diesel \$1.48/litre, 40/60 WVO-diesel, status quo km	\$426	\$5108
Diesel \$1.44/litre, 50/50 WVO-diesel, 10% km increase	\$391	\$4695
Diesel \$1.48/litre, 40/60 WVO-diesel, 10% km increase	\$468	\$5619

Insurance

The cost of insurance is based on the size of the vehicle, the discount and surcharge available from ICBC, and the designation (or not) of a principle driver. The insurance

for the Thomas (no designated principle driver) is \$462/ month without a discount and with a designated driver it is \$230/mth. The insurance for a Sprinter (no designated principle driver and no discount) is \$260/month.

The cost of insurance ranged from 520/mth (2 Sprinters) to \$982 (2 Sprinters and Thomas). The proposal for the upcoming year is to insure 2 Sprinters during the entire year and add the Thomas (with designated principle driver) for the four summer months. The cost for Thomas insurance will be included under the Charter's expense as that is the primary use of the Thomas during those 4 summer months. Therefore the annual insurance cost is projected to be \$6240 (\$520/month).

Repairs and Maintenance

In the first year of operation \$3,191 was spent on repairs and maintenance items. Items included:

- Regular inspections, lubrications, oil and filter changes, etc
- New tires, shocks, brake pads, battery, lamps, turn signal and light switch control, power steering seal, and a windshield wiper motor
- Repairs such as replacing burnt out bulbs, fixing a fuel leak, adjusting emergency brakes, etc, and
- Towing on two occasions to extricate Thomas in snowy/wet weather.

It should be pointed out there was sometimes a fine line between expenditures that were for upgrades to make the used equipment operable (as capital expenditures, these were reimbursed out of the Community Works Fund) and repairs and maintenance items. Decisions as to which were which were made in consultation with RDN accounting staff.

As for the coming year, it is difficult to anticipate what will be required in the way of repairs and maintenance because with used equipment breakdowns and cost of repairing same are difficult to predict. In our best judgment, based on experience to date, reasonable and conservative estimates of next year's R&M costs are \$3,000 and \$4,500 respectively.

The GERTIE team

The GERTIE Team operates as a non-hierarchical group of volunteers with one part-time paid position (coordinator). Each person has tasks that they carry out in order to ensure the smooth running of the bus service. The issue of sustainability rests on the size of the workload and the long-term commitment of all of the volunteers.

Organizational Process

The volunteer management group and the coordinator meet every two weeks to update each other on the status of various areas and to make decisions that require the full team. To date this team has worked effectively together to implement a bus service that meets the needs of the community. The part time coordinator organizes the drivers while the waste vegetable oil volunteers will be coordinated by one of the volunteers on the GERTIE management team.

This team operates under the auspice of Island Futures Society, a non-profit society registered with the provincial government. The society is responsible for securing financing, liability, and grant negotiations and agreements.

Volunteer Management

Just as the bus can't run without the volunteer drivers it can't operate without volunteer management. Volunteers developed the GERTIE bus system – creating the routes, schedule, safety plan, website, rider's guide, ticket/pass system, accounting system, the weekly statistics collection and analysis, waste vegetable oil filtering system, signage, driver training, and bus shelters. The work in developing the various systems and responding to the administrative requirements of the regulatory bodies is estimated at approximately 60 hours per week for the first 5 months of the project. We project that the workload for the development/set-up component will be reduced to approximately 10 hours per week in the second year as systems are finalized.

There are two types of ongoing management work required. The first is carrying out the tasks of the various systems created. See Appendix B for the list of tasks. These tasks total an average of 20 hours per week. The sustainability of the bus service is reliant on volunteers continuing to carry out these tasks. Given the current commitment it is feasible that these volunteers will continue until the end of the pilot project time period if some additional volunteers can be recruited to carry out some of the ongoing tasks.

The second area is the ongoing decision-making required to effectively manage a bus service, together with the long range strategic planning. These tasks include:

- Long range planning and analysis
- Evaluation
- Financial management – grants, alternative funding options
- Community engagement
- Operational policies (e.g. dogs, stat holidays)
- Human resource management

The second area of tasks is comparable to many boards and it should not be difficult filling those roles.

Service Coordinator

The Coordinator plays the crucial role of the on-the ground response to challenges that arise, while at the same time carrying out the daily operational requirements such as driver scheduling, vehicle maintenance, and organizing fare collection. This person operates as part of the non-hierarchical team. The Coordinator carries out the preceding responsibilities and operates as a team player with the other members of the GERTIE team. The position is 20 hours per week, flexible work hours based on responding to GERTIE service needs and pays \$20,000 per year. The current Coordinator is satisfied with the position and plans to continue.

Volunteer Drivers

Fundamental to this service are the volunteers that drive the buses. Over 47 hours of volunteer time has been contributed to driving GERTIE every week over the past year.

While there was initial interest in being a driver from over 20 people the requirements for training and the changed job circumstances for many dropped the actual number of drivers down to 8 for the June, 2013 start. There were four people trained through Cowichan School of Motoring during the summer of 2013, which increased the total to 12. During the course of the year there were 3 more that became volunteers and 2 that left. Some left temporarily due to health problems, travel, or jobs. Throughout the year there were challenges scheduling drivers due to the fluctuations in availability.

Drivers who drive over two shifts a week are paid (if they want to be). About half the drivers decide not to be paid for those extra shifts. The coordinator usually does at least three shifts as part of his/her responsibilities. The initial cost of extra driving was high due to the low number of volunteers relative to the number of shifts (over \$1000/month). However, January through to the end of June the extra driving costs decreased down to an average of \$250/month.

The GERTIE management team decided that the Cowichan School cost was high (\$320/person for the training alone) for the training received so there was a decision to carry out in-house training. One person has completed the in-house training and there are about 5 in the process. The cost of the in-house training includes both the volunteer time spent training potential drivers as well as the cost of a practice run in Nanaimo (\$125). GERTIE also paid for medicals, the written test, the driving test and the trip to Nanaimo or Duncan to do the final test. The cost for these extra expenses is \$250. When adding the training cost plus extra expenses together the total cost

per person for those trained through Cowichan was \$570 whereas GERTIE pays approximately \$325 for those trained in-house. At this point it isn't possible to determine the success of the in-house training.

Due to the number of potential drivers and the current average cost per month we project that the cost of extra driving will average \$50 to \$240 per month over the July 2014 to July 2015 period. We project the training to cost \$1,625 (5 people x \$325). The driver costs will likely drop to almost nothing (\$50 per week is in the optimistic budget) if all 5 trainees complete the process. If the pilot continues beyond the 3-year period the long-term commitment of volunteer drivers for the project would need to be addressed due to the number of volunteer hours required and the impact on the service if volunteers aren't there to drive.

Waste Vegetable Oil Volunteers

There are four volunteer tasks involved in the waste vegetable oil (WVO) processing – development of the system, pick up from restaurants, filtering the WVO, and fueling the buses. The development of the system has taken the full year and will be finalized by the end of July.

During the summer of 2013 three people did the fuel pick up at Silva Bay Restaurant. As of February two of the restaurants (Woodfire Restaurant and Old Crow) bring their waste vegetable oil to a designated spot at GIRO (Gabriola Island Recycling Organization). Two people have volunteered to pick-up the WVO at Silva Bay and bring it to GIRO.

From September to March one person carried out the filtering of waste vegetable oil, mixing it with diesel and fueling the vehicles with the mixture. A second person joined the volunteer ranks in April and the production increased from 30 litres per week to 60 litres per week. The system that will be set up at GIRO will allow a team of volunteers to filter the WVO, mix it with the diesel and fuel the vehicle. There are 6 people who have volunteered to carry out this task. Due to the number of volunteers spreading the work load out this area is projected to be sustainable.

The total number of volunteer hours required to implement the WVO process is 3-4 hours per week.

Financial

Grants and Donations

The grants and donations, together with loans, allowed GERTIE to operate in year one. The total donations for year one were \$7,047. The \$10,000 award received from

BC Hydro provided \$5,000 (the second half of the award is allocated to year two). CCCU provided a grant of \$200 to cover the cost of subsidized senior's tickets from September to December 2013. The Gabriola Recreation Society provided a grant of \$530 to cover the driver's costs for the community shuttles. The Lion's club provided a grant of \$3000 to subsidize youth fares (February 2014 to January 2015) and the CCCU provided a second grant of \$1000 as part of their corporate sponsorship program. These latter two donations are incorporated into the monthly budget for a period of 12 months so some is designated to the first year of operation and some to the second.

Due to flow through from year one there is already \$7580 in grant income for year two. We hope to access an additional \$2,000 in grants in the second year of operation.

The total donations received in the first year were \$11,402. The \$5000 in Climate Change Dividend funds provided by community members in 2008 for a bus pilot project is included in the donations calculation. Bob Bossin put on a benefit show that brought in over \$500 and several people provided anonymous donations ranging from \$50 to \$5,000. It is expected that a similar pattern will occur in year two of GERTIE's operation. We have estimated a range of \$5,000 to \$12,000 for donations for this next year. Island Futures Society is applying for charitable status and if they receive it within the next 7 to 8 months it is expected to increase the donations for year two.

Administrative costs

Printing and communication are the two key administrative expenses. The rent is free of charge. The Gabriola Commons has provided GERTIE with parking spots for the buses and a space that doubles as Coordinator office and meeting room.

Driver Communication: Cell phones and website fall under this heading. Website costs are approximately \$100 per year and are donated. The cost of the cell phone billings amounted to \$1873 during the first year of operation – an average of \$156 per month. The use of the cell phones has been reduced resulting in an average monthly billing over the last three months of \$121. The projected cell phone cost for the 2014/15 year is based on that average for an annual total of \$1452. The website costs are minimal - volunteers provide the content and the server cost is donated.

Printing costs include tickets, rider's guides, schedules and administrative record keeping sheets. The annual costs for the tickets to be printed, cut, and perforated (volunteers do the stapling) is approximately \$600. Advertisers (Village Foods, Gabriola Automotive and Mad Rona's) each provide \$200 per year to cover the cost of the ticket and pass production. Advertisers have also paid for the Rider's Guides. The documents required for administrative record keeping are printed with GERTIE's

printer (ink cartridge costs). The annual net printing cost was approximately \$100. The annual printing cost is projected to be the same for the upcoming year.

Public Communication: The Gabriola Sounder newspaper publishes a GERTIE article every second week to keep the community informed about GERTIE in return for volunteer reporting by one of the GERTIE team. The newspaper also prints the schedule every week for free.

Financing

The GERTIE bus project has been able to operate due to an interest free loan of \$15,000 from the Heat Pump Project operated by Island Futures and personal loans of approximately \$4,000. It is expected that the GERTIE project will pay back both the heat pump project and the personal loans as it starts to move into the black.

Under the current projections it will take GERTIE one to four years to pay back the loans (assuming that in the conservative projection net income improves for year's 3 and 4). However, if there were additional unexpected costs that would change the pay back period. At the end of the pilot project (3 years) GERTIE will either continue in this or another form, or it will shut down. If it shuts down then the vehicles can be sold as assets to pay back the loans.

Capital Costs

The capital costs were covered by grants from the Regional District of Nanaimo (RDN) totalling \$65,500. These grants enabled GERTIE to purchase and upgrade the two Sprinters and the International Thomas school bus. They also provided funds to build bus shelters, buy the communications equipment, ensure appropriate signage, provide the materials to set up a waste vegetable oil processing system, and install additional seats in the two Sprinters in order to bring them up to the seating required by the ridership. Due to the delay in time between purchasing the various vehicles and the receipt of the grant money several community members stepped up and provided interest free loans of \$5000 each. These were paid back once the grant monies came through from the RDN.

Volunteers are still working on full Implementation of the bus shelters; waste vegetable oil processing equipment, and bus signage.

- The first bus shelter was built at the village stop, the second is being built at Twin Beaches mall (a former roadside stand is being used as the base), and a third is planned for South Road near Silva Bay (approval from the Ministry of Transportation and Infrastructure as been received). A bench and overhang that were already in place are being used as a bus shelter near the ferry terminal.

- The waste vegetable oil processing station is in place and organizers will be determining if there are additional capital items required when the colder weather arrives or if the current structure is sufficient.
- Additional signs have been placed on the buses as well as bus shelters and will continue to be created as additional shelters are put in place.

The GERTIE team does not expect to make any more capital purchases unless some change in ridership or regulations requires a capital expense to be incurred.

Charters

During the first year of operation we had numerous requests for charters – both from community organizations as well as for private events, such as weddings. We decided to charge \$55 per hour for the Sprinters and \$65 per hour for the Thomas. The drivers are paid \$20 per hour for the charters. As the Thomas was used for our regular runs during the first 7 months of operation the cost of insurance was already included in operational expenses. However, with the addition of the second Sprinter the Thomas is now insured just for the summer months and primarily used for charters.

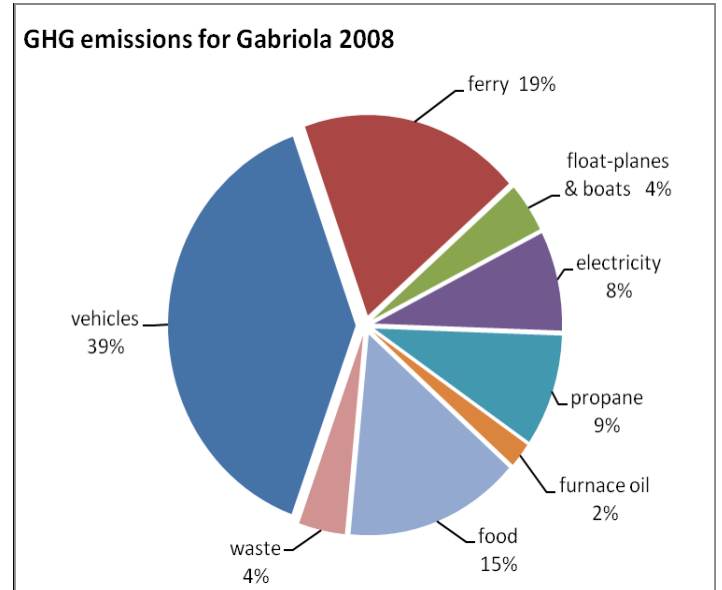
Now that the use of Thomas is about 90% charter, it is possible to determine more accurate expenses. The projected conservative income is slightly lower than the previous year's charter income due to the additional insurance cost; while the optimistic estimate is higher, reflecting the additional charters expected in the second year of operation. It is recommended that the hourly rate for the charters be increased to a rate comparable with other bus charters in the Vancouver Island area. GERTIE will be referring all wedding charters to Gabriola's taxi company to support the important role the taxi plays in Gabriola's transportation options.

Environmental, Social and Local Economy Impacts

Environmental impacts

In 2008 the major catalyst bringing the community together to consider the feasibility of public transit on Gabriola was a growing concern about climate change, with the focus specifically on the impact of greenhouse gas (GHG) emissions on the planet's environment. At the provincial and federal government levels, funding was made available to stimulate action specifically intended to reduce GHG emissions. The use of petroleum-based fuels was recognized as an important source of the emissions and public transit considered a potential means of reducing dependence on the automobile as a dominant mode of transport.

In order to determine the impact that public transit might have on a community like Gabriola, a significant source of data was offered in the GHG Emission Gabriola 2008 Report (Weller, McKechnie and Doe). This energy audit, facilitated by Island Futures, produced a detailed analysis of the island's greenhouse gas emissions, showing that 39% of Gabriola's GHG emissions (5912 tonnes of CO₂ equivalent) can be traced to the automobile.



With GERTIE offering an alternative to this dominant mode of transport, the statistics gathered over the past year on ridership can be translated into reductions in GHG emissions, based on the rate of fuel consumed and emission factors shown below @ 2.41 kg/litre (recognizing the predominance of gasoline powered vehicles on Gabriola¹).

Table 14: Assumptions and calculations for each source of GHG emissions vehicles

	litres	emission factor kg/litre	tonnes CO ₂ equivalent
diesel	383,592	2.76	1059
gasoline	2,013,859	2.41	4538
total			5912

Some Figures: In order to assess the environmental impact of GERTIE we have conservatively estimated that an average of 9 kilometers of travel by car have been saved per passenger. Knowing that 11,370 passengers rode GERTIE during the first year of operation, we can translate this into a saving of 102,330 kilometers that would have been travelled by car. Assuming average fuel efficiency for cars, SUVs, and light trucks² of 8.3 km per litre, this means that 12,329 litres of fuel were saved over the past year. Subtracting the 5,600 litres of diesel fuel used by GERTIE, we have a net total of 6,729 litres saved. **Using the emission factor of 2.41 kilograms per litre, we have thus achieved a saving of 16 tonnes of CO₂ equivalent through the use of GERTIE over the past year.**

An important reduction in GHG emissions (as well as operating costs) has come from the introduction halfway through the year of filtered waste vegetable oil (WVO),

¹ These figures are derived from the 2010 Community Energy and Emissions Inventory for Gabriola Island (see footnote 1), indicating the ratio of vehicles using gas to diesel as well as the proportion of

which has none of the CO₂ emissions and particulate matter emitted by petroleum diesel. The choice of buses, i.e. running on diesel engines and produced before 2006³, was made on the basis of their potential to operate well with WVO. Summer fuelling can use a 50/50 blend of WVO to petroleum diesel; cooler temperatures in winter reduce this to 40/60. The Mercedes engines in the Sprinters helped us make the choice of these specific vehicles, with their excellent fuel efficiency. A conservative projection for next year estimates a ridership of 12,220 passengers. On this basis, at 9 km/passenger, we will have saved 109,980 kilometres, which at 8.3 km/litre translates into 13,251 litres of fuel saved. With the increased use of WVO we can calculate GERTIE's use of diesel at 3,120 litres, which gives net fuel consumption saved of 10,131 litres. **Using the emission factor of 2.41 kg/litre this permits us to estimate a savings of 24 tonnes of Co₂ equivalent for the coming year.**

An additional environmental benefit derived from the use of WVO can be seen in its transition from waste to fuel. Trucks came regularly by ferry to pick up the “waste” product and dispose of it in Nanaimo; now it is taken from the island's restaurants/pubs to Gabriola's recycling depot where a filtering system has been set in place. None of the particulates associated with burning diesel fuel are emitted by the WVO, another benefit for those with allergies or health concerns.

Surveys and neighbourhood discussions have revealed an attitudinal shift on Gabriola, which reflects a growing awareness not only of the impact of climate change on the environment but of the fact that our choices can make a difference. More and more passengers are taking advantage of the bike racks on the buses, with the intention of continuing their journey or daily commute sustainably. There is a sense of pride in the success of GERTIE, which has become a symbol for a community taking action against a major cause of climate change.

Social Impacts

In addition to providing a low-cost, environmentally sustainable form of transportation, GERTIE has also created social benefits for individual riders and the community at large. Those benefits fall into three broad areas: the social environment; community building; and, public safety.

GERTIE as a Social Environment: In the most recent user survey, 50% of respondents answering the question “how has GERTIE impacted or influenced you?” indicated that it had provided an opportunity to connect with other people.

GERTIE serves as a convivial mobile living room: daily commuters exchange news and ideas, visitors are engaged and locals offer advice and information. The most critical part of this social environment is the drivers who are greatly appreciated by the

³ In 2006 new fuel injection systems were introduced requiring smaller molecules than those in WVO.

riders for their helpfulness and willingness to accommodate riders' needs. Riders deeply appreciate that the drivers are volunteers and see this as a reflection of the values of the Gabriola community.

GERTIE as a Community Building Enterprise: In a 2010 wellness survey Gabriolans were asked what they liked about living on Gabriola and 27% of those responding (n=420) spoke about the sense of community. GERTIE plays an important role in the community: it is both a microcosm of community in action and it creates a sense of community accomplishment. While those surveyed expressed gratitude for the organizing team and volunteer drivers, they also observed that GERTIE builds community. This happens in several ways: through the social environment on the bus that riders and volunteer drivers create; by exposing those with limited transportation options to parts of the island they would not normally get to see; and, by engendering a sense of community accomplishment. People are grateful for the volunteer efforts of the organizing team and drivers, and see GERTIE as evidence of a strong community.

The most recent GERTIE survey asked people how GERTIE had impacted or influenced them. A significant number (over 63%) indicated that GERTIE had increased their awareness that collective action can make things happen.

GERTIE as a Means of Improving Public Safety: Having a public transportation system means that people have options other than driving when they engage in activities that involve drinking. Local RCMP report that they have issued seven drivers with 90-day driving prohibitions and 30 day vehicle impoundments since June 2014 (Sounder, August 19th, 2014). While many people conclude that drinking and driving is something that happens at night (a time when there are no scheduled GERTIE runs) that is not the situation on Gabriola. As Cpl. Markus Müntener notes "The majority of these impaired drivers were travelling the streets of Gabriola during daylight hours". In addition to GERTIE's scheduled runs the bus service is also providing charters and community shuttles for community and private events. Although no data were collected regarding using the bus as an alternative to drinking and driving, it is clear that GERTIE has the potential to make a significant positive impact on public safety.

Local Economic impacts

The economic impact of a regular bus service on Gabriola Island applies at several levels and in various ways: directly for individuals and families, for businesses, and for the community at large.

Impact for Individuals and Families:

In a 2010 survey about wellbeing, Gabriolans were asked what they liked and disliked about Gabriola. Almost 11% of respondents commented on the lack of an effective

transportation system on the island and transportation related problems. Of those raising transportation issues, 16% specifically cited the lack of public transit. An affordable bus service reduces overall lifestyle costs for those who use it. For example, people who can no longer drive or afford to own a car note that, without GERTIE, they would be dependent on getting rides with friends, hitchhiking or taking taxis. During neighbourhood consultations in March 2014, people noted that GERTIE had resulted in them being able to reduce their car insurance costs (by changing from “to and from work” to “pleasure”) and to save money on car depreciation and upkeep. As well, there have been several reports of families that have been able to reduce to one car from two:

From a family of four with two teens: GERTIE makes it possible to go from two cars to one. [Neighbourhood Focus Group Session #1, August 11, 2013]

From a Gabriola Business Leader: For us personally, it [GERTIE] has meant going to one car; we don’t need our “beater” any more to get my wife to the ferry [and her paid work in Nanaimo]. So an economic benefit for our family—it’s made a real difference. [Personal communication, August 21, 2014]

An additional saving here is that if one does not take a car to the Gabriola ferry terminal, one saves the cost of parking; 12 hours parking costs about the same as bus fares to the terminal and back.

Gabriolans of all socioeconomic means use the bus, occasionally or regularly. One evaluative component that the GERTIE team has been monitoring carefully is the cost for users. Generally, feedback about the \$2.25 fare, tickets and passes has been positive. At every community focus group meeting held in August 2013, two months after bus service commenced, participants cited the fares as “fair”. In the August 2014 survey, 90% of respondents stated that the fares were “just right”; only 3% said they were too high, and 7% thought they are too low. One person added “Higher would result in reduced use, like ferries.”

A woman who stopped a driver and evaluator in the Silva Bay parking lot noted that the price of tickets was very reasonable, maybe even too low. [F. Weller notes, June 7, 2013]

It should be noted that under current special grants and donations, Gabriolans without means have subsidized bus tickets available through People for a Healthy Community (PHC), and the local Parent Advisory Committee (PAC) subsidizes youth tickets.

Effects for Businesses:

GERTIE brings increased economic opportunities to island businesses through: attracting people to visit who would be inhibited by ferry costs from traveling from

Nanaimo to explore Gabriola; and transporting visitors who would otherwise be unable to access goods and services, such as boaters using Silva Bay marinas who can now use GERTIE to patronize the Village grocery store, liquor store, market, golf club or attend social and cultural events such as studio/art tours and TheatreFest. Additionally, we have observed day-trip visitors from Nanaimo, e.g., 11 senior women one day. Cyclists also ferry to Gabriola to do the “circle route”, but the buses with their bike racks are a safety feature, a known “out” in case of injury or fatigue. All these visitors access local businesses.

And so do local bus riders. *Overheard:* “I can take the bus to the Village and get my groceries while it goes to the ferry, then be ready to return home on the next run.” There has been strong support for building the charter aspect of the GERTIE service, both for providing riders with access to special events and attracting visitors to the island, such as to attend weddings, the Concert on the Green, etc.

Also from website: I am very excited about using a bus to get to around the island but most especially I ... like to connect with the ferry. Even my husband, a confirmed driver, is ... using it.

Suggestion from website comments: The idea of a “pub” bus is a good one. I would like to go out to the Surf on a nice evening but don’t want to chance driving back. If I could get a bus back to at least as far as the village I could go.

In summarizing the effects for local business, the current chair of the Chamber of Commerce said: “It’s a case of demand outstripping supply. ... We’d like the buses to be more frequent and run in the evenings and Sundays.” Gabriola businesses look forward to increased service to assist sales and use of services, such as the Gym at Twin Beaches; more people could go to work out and classes after working or school hours if the bus service were extended. “It’s just a matter of when... We need more drivers.” Business leaders see other advantages as well: “We would like to advertise on the buses with magnetic signs.”

Prior to the launch of GERTIE the taxi owner was concerned that the bus would negatively impact his business. However, after GERTIE’s first year in service he reports that there has been no adverse impacts. Instead there are often passengers that use the combination of taxi and GERTIE to get around without owning a vehicle.

Summary and Long Term Outlook

Long-term sustainability for GERTIE requires addressing the financial, human resources and community support aspects of the service as well as the long-term options for the service. There are several options open to GERTIE's service and these will influence GERTIE's sustainability. These options include:

- A. Funded by BC Transit and taxes through RDN – a referendum is being proposed for Fall 2015.
- B. Continue to operate with a model similar to that in place during the pilot, with volunteers, and through community finances and grants. A key difference from the pilot period would be the establishment of an organization separate from Island Futures.
- C. Shut down.

Financial: The GERTIE project has reached a break-even point in its' monthly income and expenses and we can expect to see small positive monthly balances over the next year. Due to the need to pay off the loans incurred that positive balance will be allocated to loan payments. However, given the current financial situation it is safe to say that GERTIE will be financially viable, whatever the long-term option.

Under Option a) the costs will be covered by BC Transit and taxes.

Under Option b) the loans can be repaid each year until it is possible to provide more funds to support the human resources.

Under Option c) the buses can be sold to pay back the loans.

Human Resources:

The policy/decision-making team and the coordinator are both operating effectively and there are no concerns about long term sustainability for these roles. The two current stresses on human resources are the volunteer drivers and the volunteer management/administrative tasks. In the three long-term options identified above a) would presumably result in paid positions for both the drivers and the management tasks. Option b) would require continual recruitment of volunteers and is potentially sustainable depending upon the uptake and the extent to which GERTIE's net income can support payment for additional driving plus management tasks. Option c) would eliminate the need for volunteers.

Community Support:

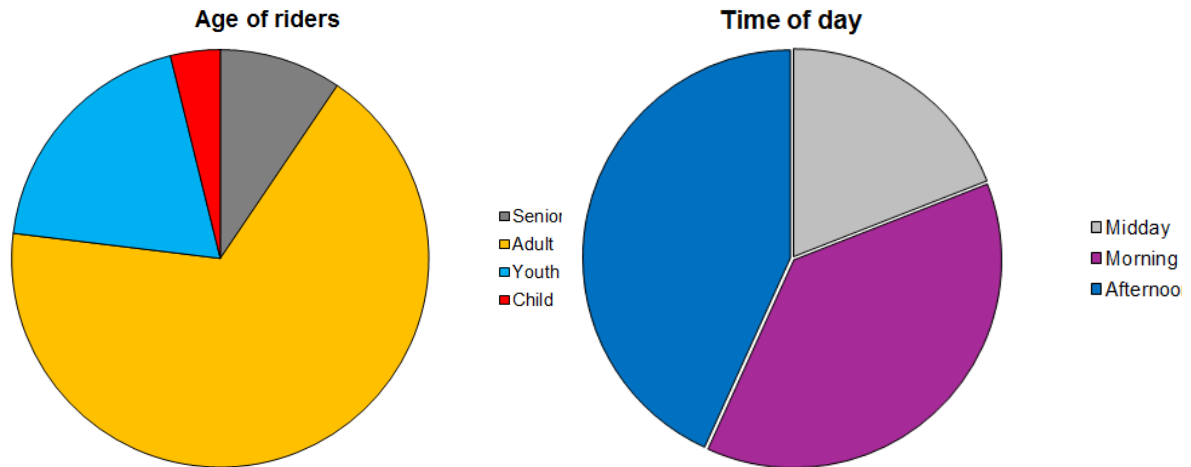
There has been tremendous community support for GERTIE. People wave and/or smile when GERTIE goes by – “I don't know why, but every time I see GERTIE I start grinning” (overheard). GERTIE is now part of island culture – “are you taking GERTIE

to the Salmon Barbeque?” “Rental accommodation on GERTIE route” appeared in a local newspaper advertisement and one of the passengers informed us that they had sold their car because of GERTIE”. GERTIE had a financial loss in its first year of operation. However, projections indicate that first year losses will be paid back by the end of the three-year pilot period. Community members have provided financial assistance and volunteers have been willing to put in many hours to provide a great service. Whether this will translate into a ridership increase of 15% for the second year is yet to be determined. Whether this translates into a yes on a referendum question about paying taxes for the bus service is also yet to be determined. What is evident is that the decisions about long-term viability of GERTIE need to involve the community. It is recommended that during the fall/winter of 2014 a community meeting be held with the various options outlined, together with the financial and human resource implications so that community members can fully participate in the next phase of GERTIE.

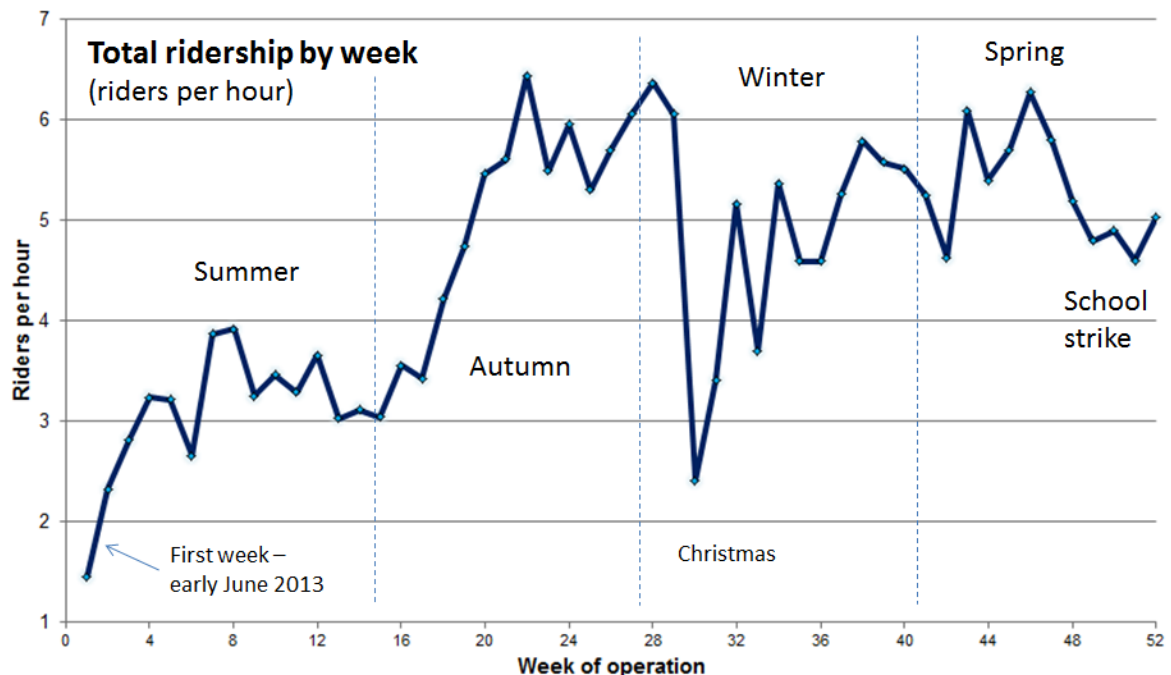
Appendix A: GERTIE ridership graphs

GERTIE ridership statistics for June 2013 to June 2014

Total ridership on GERTIE scheduled runs over the 52 week period from early June 2013 to early June 2014 was 11,182.

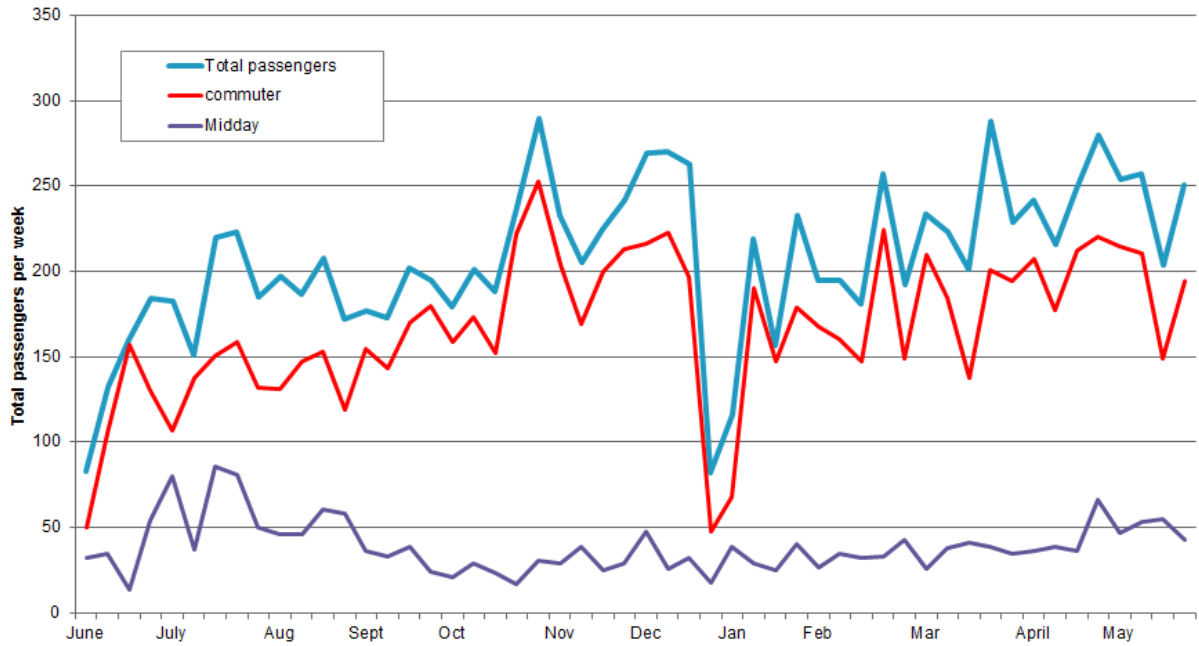


Most of the riders were adults (67%), followed by youth (aged 6 to 18 - 19%), seniors (9%) and children (4%). Most of the passengers (81%) travelled on the commuter runs, with 43% on the afternoon runs and 38% on the morning runs. The mid-day runs represented 19% of the total.

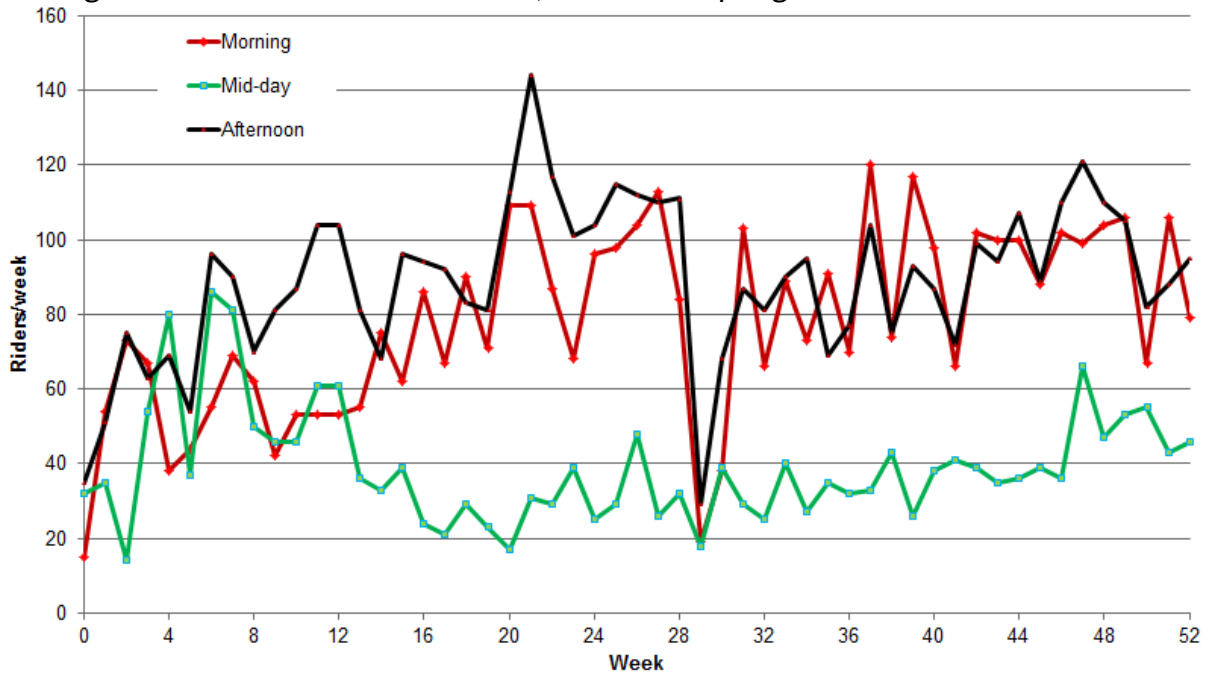


Total ridership grew gradually over the first summer of operation, from less than 2/hour to over 3/hour, and then grew dramatically in the autumn and early winter, peaking at just over 6/hour. There was a dramatic drop in ridership over the

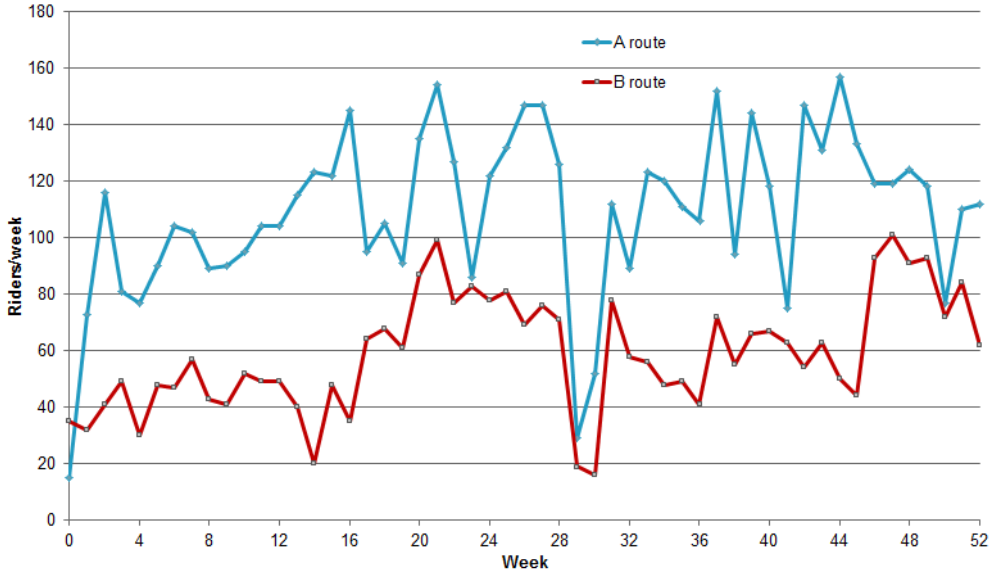
Christmas holiday, and it took more than 12 weeks to recover to pre-holiday levels. This may have been due to the high proportion of Gabriolans vacationing off-island in January, February and March. Late spring ridership was negatively affected by the school strike.



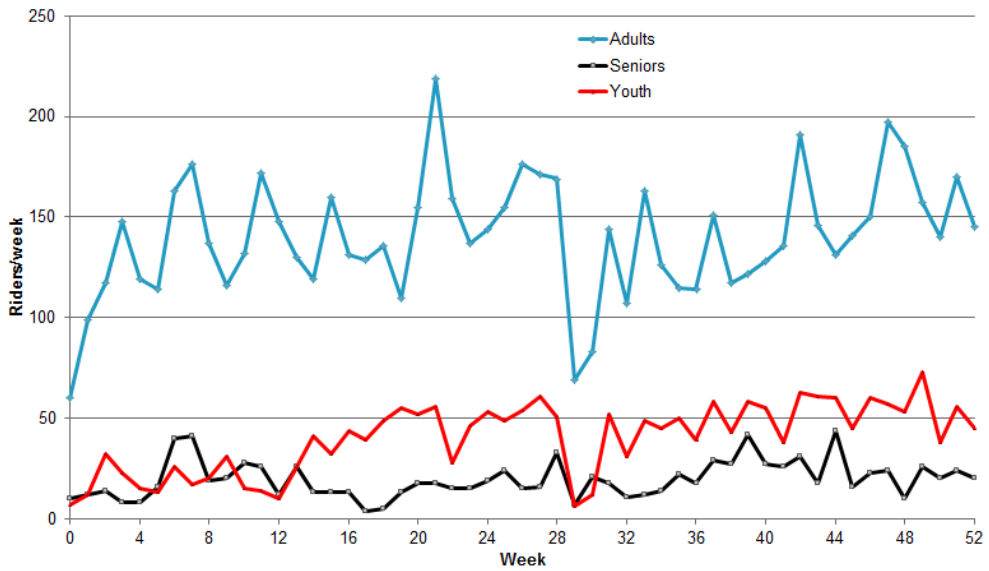
While the number of commuter passengers varied widely through the year, mid-day ridership was more consistent. There was a noticeable drop at the end of summer and a gradual increase over the autumn, winter and spring.



Although the mid-day service only operated 3 days a week (Tuesday, Thursday and Saturday) the mid-day ridership was comparable to the morning and afternoon ridership during the first summer. During the autumn, winter and spring the morning and afternoon ridership was much higher, and overall there were slightly more riders in the afternoons than in the mornings (43% versus 38%).



Considering commuter runs only, the A route (North Rd. – South Rd. via Silva Bay) outperformed the B route (Taylor Bay, Whalebone and Harrison) every week except for the first one. Of the commuter-route passengers, 65% rode on the A route, with 35% on the B route.

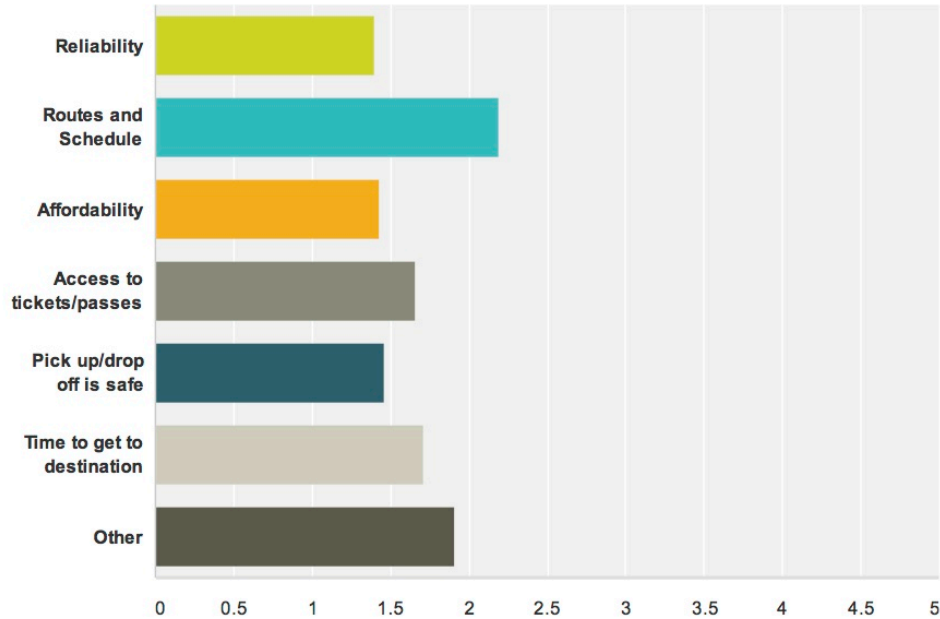


As noted above, a majority of the passengers are adults and the proportion of adults to the total did not vary much over the year. Seniors and youth numbers were generally similar during the summer, but youth outnumbered seniors during the school year, and the number of youth using the GERTIE bus grew steadily over the year.

Appendix B: Passenger Satisfaction

Q8 Could you rate your satisfaction with the following aspects of GERTIE:

Answered: 48 Skipped: 4



	Very Satisfied	Satisfied	Neutral	Not Satisfied	Total	Average Rating
Reliability	70.21% 33	23.40% 11	2.13% 1	4.26% 2	47	1.40
Routes and Schedule	26.19% 11	42.86% 18	16.67% 7	14.29% 6	42	2.19
Affordability	71.74% 33	17.39% 8	6.52% 3	4.35% 2	46	1.43
Access to tickets/passes	52.27% 23	34.09% 15	9.09% 4	4.55% 2	44	1.66
Pick up/drop off is safe	65.22% 30	28.26% 13	2.17% 1	4.35% 2	46	1.46
Time to get to destination	54.17% 13	33.33% 8	0.00% 0	12.50% 3	24	1.71
Other	63.64% 7	9.09% 1	0.00% 0	27.27% 3	11	1.91

Appendix C: Ongoing management/operational volunteer tasks

- Accounting
- Ticket and pass printing/stapling and delivery to vendors
- Biweekly collection of income from tickets and passes from vendors
- Weekly counting of cash fare then deposit
- Revising schedule & corresponding signs and rider's guide as needed
- Getting guides subsidized through advertisers then printed and delivered
- Communications – newspaper articles, website
- Weekly statistics
- Arranging charters
- Training volunteer drivers
- Grant applications and reporting
- Fundraising for donations
- Volunteer recruitment
- Communication with regulatory agencies
- Maintaining bus shelters