

GETTING AROUND: A Survey of Public Transportation Within Small Islands

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Background

The Beach Boys have never played a concert on Prince Edward Island. If they did, would they sing their first Number 1 hit, "I Get Around"? Not, I suspect, if they were relying on public transportation here. As any Islander knows, there is virtually no public transportation system for getting around within this province.

That is not to say that there never was. Some of you may remember the passenger service afforded by Canadian National Railways. I doubt any of you will remember its pre-1919 ancestor, the Prince Edward Island Railway or *its* ancestor, the 19th-century mail coaches, which carried passengers as well as mail as they traced their routes across the Island countryside.

If anything, our railway suffered from too many stops, instead of too few. During the 1920s, a joke was making the rounds about the old railway. A mother and child get on board the train and eventually the conductor comes along collecting tickets. He eyes the woman's young son. "I'm sorry," he tells the woman, "only infants are allowed to travel for free." "Well," the woman replies, "he *was* an infant when I got on this train."

At one time, too, there was an extensive internal ferry system on Prince Edward Island. Maintained by the provincial government, it carried passengers and cargoes across many of our rivers and bays -- I grew up only a mile away from the Newport ferry, which made its last run round about the time I was born. Moreover, there were, at various times, regular, privately run steamship services that poked and pattered around our coastline. Having noted all of this, it is safe to say that asphalt and the automobile put an end to our long but surprisingly weak tradition of public transportation.

Luckily for me, I do not have to try to explain why public transportation remains on the distant margins of most Islanders' imaginations -- at least, not directly. My task is to present, albeit in a somewhat superficial fashion, a survey of what exists in some other island jurisdictions. Even within the limited confines of this exercise, the space of half an hour, I can only share with you a fraction of what we have learned, in the form of some figures, some observations, and some very tentative conclusions. We at the Institute of Island Studies do not claim that this survey contains

the answers to the conundrum of public transportation on Prince Edward Island, but I hope that the findings will help to fuel and focus the discussion.

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Methodology and Definitions

To explain what we have done for this presentation and why, I think I should explain a little bit about our organization. The Institute of Island Studies is a research, education and public policy institute based at the University of Prince Edward Island. Part of our mandate is to undertake comparative studies of Prince Edward Island and other islands. It was as a result of that mandate that we were asked to give a presentation at this conference.

There was an underlying assumption in our undertaking this task. Too often, in seeking answers to our problems on Prince Edward Island, we look in inappropriate places, usually at models developed for large, urban metropolises, places such as Montreal, or Toronto, or New York, or Boston. At the Institute of Island Studies, we believe that a good place to look for strategies for a small island might just be *other small islands*, places that have to cope with the same challenges using many of the same resources. Through our North Atlantic Islands Program and our involvement in the ISLE (Island Sustainability, Livelihood and Equity) program, we have established a dialogue with, and interest in, small islands in the North Atlantic and elsewhere. And so, it made logical sense to build on that network of contacts and research in addressing the issue of public transportation. There was also an attractiveness in breaking out of the purely North American perspective that often overtakes us when considering such issues. (And for that reason I apologize to the person who suggested that we might want to include Vancouver Island in our survey. Such comparisons would certainly be valid, but in this case they were beyond the boundaries of our survey.)

In selecting candidates for our "international" survey, we have tried to emphasize a) islands that have some measure of local or self-government -- and, thus, some ability to control their transportation destiny b) islands with comparable demographics and c) islands that are relatively developed. In practice, these criteria have been interpreted somewhat flexibly -- there is no island identical in size, population and development to ours. Finally, if the truth be known, we were also governed to a certain extent by the nature of our networks, in other words, by who was likely to help us. I did make an appeal to our director to make a research tour of the islands involved, but he didn't seem interested in funding that!

Not having the chance to travel widely myself, I am indebted to someone that has, Dr. Stephen Royle of Queen's University in Belfast, Ireland. Drawing upon his own vast experience of islands around the world, Dr. Royle has given freely of his time in helping identify suitable candidates for our survey and in helping to refine the questionnaire. I would like to be able to implicate him, as well, in the shortcomings of this presentation. Unfortunately, I can't.

In the end, we have gathered information from nine island jurisdictions. [See Table 1.] As you can see, they range in size from tiny Bermuda, only 52.5 km² in area, to Iceland, a country the

size of Newfoundland (103,000 km²); and in population, from the hardy 25,200 people on the Åland Islands to the 1.3 million inhabitants of Okinawa. Each of these jurisdictions answered, as their time and available data permitted, a simple questionnaire that we developed at the Institute of Island Studies. Since the questionnaire largely determined the survey results that I am about to present, I will show it to you now. [See Appendix One.] In planning the survey, we adopted a broad definition of public transportation: "For the purposes of this questionnaire, public transportation is defined as any system of transportation that allows equal access to all members of the public."

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Table 1: Background Information for Sample Islands

Statistics for population, number of privately registered motor vehicles, and kilometres of roads based on most recent available statistics, which vary from 1990 to 1997, in sample islands.

Island	Status	Size (sq.km.)	Pop.	No. Cars (private)	Kms. of Road
<i>Åland Islands</i>	semi-autonomous state	1,527	25,200	14,000	900
<i>Bermuda</i>	dependent territory	52.5	61,000	21,591	480
<i>Iceland</i>	nation state	103,000	267,000	134,181	12,481
<i>Malta</i>	nation state	316	385,000	170,000	1,550
<i>Okinawa</i>	Japanese prefecture	2,200	1.3 million	800,000	n/a
<i>Skye</i>	in Highland Council	1,676	9,100	82% of households	330
<i>Tasmania</i>	state	68,049	473,501	403,442	18,800
<i>Western Isles</i>	administrative region	2,898	28,880	9,000	720
<i>Isle of Wight</i>	county	777	126,000	48,063	790
<i>PEI</i>	province	5,656	137,000	65,214	5,300

Before passing on to the observations and conclusions that flow from the survey results, it is important, I think, to note what the questionnaire is and isn't. Let's begin with the negative. The questionnaire is *not*, for example, a comprehensive examination of public transportation within the islands studied. *Nor* is it a comprehensive survey of all the "comparable islands." (Indeed, several islands that we were most keen on surveying in the end were not able to answer our questionnaire.) And, as our definition of public transportation in the survey mentions, it is *not* a look at transportation between islands and the mainland. Rather, it looks at public -- and I emphasize the word "public" -- transportation *within* islands. Where we mention ferries, we are referring to ferries that connect islands or other areas within the island jurisdictions (e.g. the Åland Islands).

That's what the survey isn't. What *is* it then?

The survey examines a cross-section of islands in various parts of the developed world that can usefully be compared to Prince Edward Island. To that end, it focuses on the forms of public transportation that exist; how many people use them; how much they cost; who pays for them; how public transportation fits into the bigger transportation picture; (rather unsuccessfully, I'm afraid) people's attitudes towards public transportation; and, since this is a conference with an "active transportation" dimension, what official encouragements exist for active transportation.

Now, perhaps, we should look at some of the results:

Table 2: Modes of Public Transportation Within Selected Small Islands

Island	Bus	Train	Ferry	Air	Public Taxi	Other
<i>Åland Islands</i>	yes	no	yes	no	yes	no
<i>Bermuda</i>	yes	no	yes	no	yes	no
<i>Iceland</i>	yes	no	yes	yes	no	no
<i>Malta</i>	yes	no	yes	no	yes	no
<i>Okinawa</i>	yes	no	yes	yes	yes	monorail
<i>Skye</i>	yes	no	yes	no	yes (in works)	no
<i>Tasmania</i>	yes	no	yes	yes	yes	no
<i>Western Isles</i>	yes	no	yes	yes	no	no
<i>Isle of Wight</i>	yes	yes	yes	no	no	no

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Table 3: Selected Figures for Passenger Traffic Within Island Jurisdictions

(Figures expressed in '000s)

Numbers shown are estimates based on available statistics. In the table, **N/A** signifies "unavailable"; an **X** signifies "not applicable."

Island	Bus	Train	Ferry	Air	Public Taxi	Other	Total
Åland Islands	27	X	1,000	X	X	X	1,030
Bermuda	4,800	X	627	X	n/a	X	5,400
Iceland	5,000	X	n/a	257	X	X	5,260
Malta	34,000	X	1,700	X	n/a	X	35,700
Okinawa	52,500	X	n/a	3,300	n/a	13,000 ¹	68,000
Skye	36 ²	X	42	X	X ³	36 ⁴	114
Tasmania	21,000	X	n/a	X	X	X	21,000
Western Isles	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Isle of Wight	n/a	n/a	n/a	n/a	n/a	n/a	n/a

¹Estimates of 34,000 - 44,000 passengers per day. Construction began in 1996, but monorail is not yet open.

²Figures only available for bus service provided on contract to local authority (i.e. 20% of routes).

³A public taxi service is in the works for Skye, but not yet in place.

⁴These numbers represent school children transported on a public bus system.

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Table 4: Budgets/Subsidies for Public Transportation in Selected Islands

(Converted to Canadian Dollars at 10 June 1998 Values)

Island	Bus	Train	Ferry	Air	Public Taxi	Other	Total
<i>Åland Islands</i>	940,000	X	2.04 million	X	X	X	2.44 million
<i>Bermuda</i>	n/a ⁵	X	n/a	X	n/a	X	16.9 million
<i>Iceland</i>	10 million ⁶	X	n/a	n/a	X	X	10 million
<i>Malta</i>	2.74 million ⁷	X	n/a	X	n/a	X	2.74 million
<i>Okinawa</i>	X	X	n/a	X	n/a	n/a	n/a
<i>Skye</i>	2.48 million	X	165,000	X	47,744	X	2.6 million
<i>Tasmania</i>	n/a	X	n/a	X	X	X	34.8 million
<i>Western Isles</i>	1.9 million	X	262,592	381,952	X	X	2.54 million
<i>Isle of Wight</i>	1.96 million	n/a	873,700	X	X	n/a	2.77million

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⁵Includes capital expenditures of 4.1 million. Figures are for 1996-97.

⁶This represents the subsidy for municipal bus service only. Long distance bus routes are not subsidized.

⁷This figure is broken down as "administration, enforcement and operating staff" - \$2.61M Cdn; infrastructure - \$111,900; and equipment for regulation, public information and monitoring - \$18,650. These figures represent only government expenditure on the bus service.

Observations and Conclusions

The most obvious and, perhaps, most important conclusion is that each of these nine islands, despite the differences in size, population, and level of self-rule, have sophisticated and heavily used systems of public transportation. A second important observation is that most forms of transportation in each island are subsidized in one way or another by one or more levels of government. The notable exceptions relate to routes, regions, and forms of transport from which a private firm can reasonably expect to turn a profit. Where there is money to be made from public transportation, private industry will provide it; where gaps occur, government steps in.

A number of other observations are worth making. Here are some of them, presented in somewhat random order:

- Bermuda is unique among the sample in actually limiting the number of privately owned vehicles to one per household and does not allow car rentals (mopeds and scooters are OK). The reasons have much to do with overcrowding, safety considerations, and pollution. (Anecdotal evidence suggests that pollution from heavy automobile traffic is also a problem in other, similarly tiny islands, such as Malta and the Island of Jersey, which I had hoped to include in this study.)
- Indeed, Bermuda is unique in this study in that the state *appears* to take virtually sole responsibility for providing the major forms of public transport. In most jurisdictions there are multiple forms of government/private sector division of responsibility. For example, in some areas, private industry handles the more lucrative routes, leaving government to provide for the rest; in other instances, government contracts public transportation services by tender to the lowest private sector bidder; and, of course, in many sectors private operators run the public transportation system with government subsidies.
- This tempts one into the generalization that personal space -- a refinement of physical space -- is a key factor in attitudes towards the necessity of public transportation. Bermuda has the 3rd highest population density of any self-governing territory in the world -- 61,000 people in only 52 sq. km., with another 600,000 tourists per year thrown in, plus more cars per sq. km. than any other jurisdiction in the world. Where such crowding occurs, one might argue, the public interest tends to outweigh the claims of private freedom.
- That being said, one must note that in the teeming islands of Okinawa Prefecture, where over 1.2 million people crowd 2,200 km of land mass, urban bus transport figures are declining and taxis and private automobiles are a favoured form of transport. Similarly, the Public Transport Authority in Malta reports that "Malta has become highly car-oriented." This suggests a caveat to the above generalization: population density helps make public transportation financially viable, but too many people struggling to access (for example) a bus system, makes that service unattractive. I hasten to acknowledge that there are many other possible factors than the few I have just introduced.
- I note that there is virtually no rail service in the islands studied. There is a railway only in Wight (where it has recently been contracted out by Brit Rail to private interests -- as being a losing proposition financially) and Okinawa, where Naha City is working on a monorail system to ease traffic congestion. Either railways have vanished elsewhere, as in Bermuda (killed by cars), or they never existed in the first place, as in Iceland.
- I might mention that on the Isle of Skye and in one or two other islands in this sample, the local authority considers the transport of school children to be part of its public transportation responsibility. In Tasmania, for example, rural students have their fares subsidized by up to 80%. There is a sort of inside-out effect on Skye, where the school buses also function as public transport -- except that they only operate during school hours and along rather narrowly defined routes.
- Geography has an obvious and expected impact on modes of public transportation. As with Godzilla, size does matter. Large islands such as Iceland and widely scattered jurisdictions such as Okinawa, 1,700 km from east to west, rely heavily on internal air

transportation to get around. Island jurisdictions that are archipelagoes, such as Okinawa, require elaborate ferry networks to carry people between islands. On the Ålands, which comprise over 6,500 islands, about 65 of them inhabited, the ferry service is funded almost entirely by the state: which provides a 95% subsidy -- nearly \$2.04 million Cdn per year. In an island of 25,000 inhabitants, that is a sizeable commitment. But even in tiny Malta, ferries are essential for convenient travel between the main island and the adjacent island of Gozo.

- Iceland is a particularly interesting case. Straddling two continents it seems to encompass a mixture of North American and European approaches. There is a strong tradition of public transportation, but bus travel on long distance routes is declining. There are at least two reasons. One, the opening up of internal air routes to competition in recent years has resulted in it becoming just as cheap in many cases to fly as to bus over long distances. Two, the spread of improved roads and the proliferation of automobiles in the last few decades of Icelandic affluence -- private car ownership is the highest per capita figure in the world after the United States -- seem to have inculcated a stereotypically North American attitude towards travel that stresses individual convenience. Why go by public transport, when you can leave when you want and go where you want in your own car? In general, however, the questionnaire has not been successful in measuring attitudes towards public transportation. More on that a little later.

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- The Mediterranean island of Malta is also worth more detailed comment. Ferry services there are provided by a public limited company owned by the government, which exercises price control over fares (discriminating in favour of residents of the adjacent island of Gozo). The bus system is more complex and more interesting. The responsibility for "route" buses is divided between the Government (through the Public Transport Authority) and private operators (who have a loosely knit cooperative, the Public Transport Association). There are approximately 350 individual bus owners, who share 504 licenses; the number of licenses is fixed by government, providing an effective barrier to competition and creating a quasi-monopoly for private operators. For its part, the Public Transit Authority is responsible for a) planning, monitoring and regulating bus services b) prohibiting illegal entry into the sector by non-license-holding competitors and c) establishing fare levels. The virtual monopoly enjoyed by the private operators is balanced by the government's control over fares, which protects consumers; complaints tend to centre around quality of service (e.g. poor vehicles, rude drivers, late buses) rather than the cost of travel. In the Maltese bus system, fares account for 92% of revenue, with subsidies contributing only 7% of the total funding.
- Active Transportation: Most jurisdictions have hiking and/or cycling routes in rural and, in some cases, urban areas (e.g. Tasmania's capital city, Hobart). To judge from island webpages, the trails tend to be aimed at tourists, but the questionnaire responses suggest they are also intended for recreational use by local residents. Significantly, they do not seem to be regarded or promoted as modes of "active transportation," to be used as alternatives to motorized transportation, e.g. as a way to get to work. That being said, our Malta respondents link the (admittedly weak) demand for dedicated walking or cycling paths to dissatisfaction among some residents with the crowding and pollution caused by

the amount of automobile traffic. The survey sample does indicate that, for whatever reason, cycling/hiking routes are now claiming more official attention. Skye actually has a Cycling Officer and is developing a Cycling Strategy (as is the Isle of Wight).

- The more local autonomy an island jurisdiction has, the easier it apparently is to shape public transportation policy to local needs. In Okinawa, our correspondent observed, the centralized authority exercised from Tokyo makes it hard for the prefecture to monitor or influence public transport needs.
- A few final observations. The questionnaire has obvious limitations as a way to "get at" public transportation. The systems are far more complicated and multi-layered than we imagined in terms of private/public partnerships, modes, subsidies and statistics-keeping. And that sometimes made it difficult for our respondents to fit their answers on our simple questionnaire form. More often, our usual contacts -- government officials -- did not have easy access to statistics about fare revenues, total transportation expenditure, and passenger totals, especially where private industry operated all or part of the public transportation system.
- It is clear that this preliminary survey of nine comparable island jurisdictions is really just that: the beginning of what might become a very useful exchange of information. If we expect more pointed lessons, we will need more research and a more expert massaging of the data.
- Finally, we need to explore attitudes more closely. That was a noticeable failure of this questionnaire. Although we did inquire about community attitudes towards public transportation, only two respondents tackled the issue. Malta has done two "attitudinal surveys" on the issue of public transport over the past decade, but the emphasis was less on the value of public transport than on how well it was working. Not surprisingly, concern centered on cost and quality of service. The transport officer for the administrative region that includes Skye, noted that public opinion had been polled from time to time about public transportation issues there. "Results cannot easily be summarized," he writes, "but public transport is generally valued. Timing, fares and vehicle accessibility are important issues to people." I suspect that the same might be said for the other islands in this sample, but much more work needs to be done on the subject, precisely because community attitudes appear to be a key factor on Prince Edward Island.
- In discussing this presentation with a colleague the other day, he made reference to a mythical "Charter of Rights" for Prince Edward Islanders. Among the clauses, he said, there was bound to be a statement to the effect that, "*Islanders shall be able to park within five feet of any building that they desire to enter.*" The governments that subsidize public transportation in the islands surveyed here are unlikely to do so simply because of their leadership ability, sense of vision or iron will. I suspect that they are responding to the clearly expressed desires of their voters, for whom public transportation is a key issue. Accounting for that sense of its importance is critical to an understanding of why we have essentially no public transportation on Prince Edward Island; convincing *Islanders* of its importance is the key to getting it.

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Appendix One

Public Transportation Within Island Jurisdictions Questionnaire

Island:

Jurisdiction (e.g. nation, province, state, county, colony, territory):

Contact Person:

Address:

Tel.: Fax.: E-mail:

Population: Size (sq. km.):

For the purposes of this questionnaire, public transportation is defined as any system of transportation that allows equal access to all members of the public. We are interested in public transportation within the jurisdiction as opposed to between jurisdictions.

Does your jurisdiction have a system of public transportation? If so, what form?

Bus Train Ferry Other

What is the basic cost per user per trip (expressed in the currency of your jurisdiction)?

Bus Train Ferry Other

If there is no uniform basic fare per user per trip, is there some formula that is used for calculating fares?

Bus
Train
Ferry
Other

How many passengers per year use public transportation (rounded to nearest 1,000)?

Bus Train Ferry Other

Is there a different public transportation system for urban areas and rural areas within your jurisdiction? Please explain briefly. Is your public transportation system operated by the state, run privately, or operated through some form of public/private partnership? Please explain briefly for each mode of available public transport.

Bus
Train

Ferry
Other

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What is the total budget for public transportation in your jurisdiction? (Estimates acceptable.)

Bus Train Ferry Other

How is public transportation funded and in what proportions?

Fares % Subsidies % Other (please identify) %

Bus
Train
Ferry
Other

How many private automobiles are registered in your jurisdiction?

How many miles of roads exist in your jurisdiction (estimates acceptable)?

Is there any official encouragement within your jurisdiction for forms of "active transportation" (i.e. which do not involve mechanized transport)? For example, has there been provision for walking, hiking or cycling trails? Do businesses provide shower facilities for employees who walk or cycle to work? Are there special traffic lanes for cyclists? Are bike racks provided for parking bicycles? Explain briefly:

To your knowledge has any research been done in your jurisdiction to assess attitudes towards public transportation among citizens? If so, are the results available to us?

Please make any additional comments here:

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Appendix Two

Acknowledgments

The following people and departments have been of tremendous assistance in gathering the material for the survey presented today. While they must not be held responsible for any of its shortcomings, they deserve my thanks:

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