

# A Business Analysis of LYMO

## **Preliminary Report**

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## **Disclaimer**

This report attempts to provide an objective business analysis of LYMO. This report is commissioned by the Horry County government and is conducted via the Coastal Federal Center for Economic and Community Development at Coastal Carolina University. The CED is an independent research body and does not work for LYMO, Horry Country or any other organization. The policy suggestions in this report sole reflect the results of the study and do not reflect the personal opinions of the CED or anyone working for it.

Most of the data used in this study were provided by outside sources including LYMO, the Department of Transportation and the Sun News. The CED is not responsible if the conclusions of the study are wrong as a result of these figures being erroneous or unrealistic. Additionally, due time and budget constraints, some of the figures reported here are not estimated as accurate as they could be.

## **Acknowledgements**

I would like to thank Gary Loftus (Director of the Coastal Federal Center for Economic and Community Development at Coastal Carolina University) and Stephen Anderson (Interim Executive Director of LYMO) for helping me collect valuable data for this report. I would also like to thank Joshua Sloan for volunteering his time to collect and summarize background information on LYMO.

# **1. Introduction**

## **1.1. Research Objective**

The objective of this report is to examine LYMO's business model as well as LYMO's costs and benefits for Horry County. The report focuses on two of LYMO's services, general transportation and health transportation, and makes basic policy recommendations for each service.

## **1.2. Scope and Limitations**

Due to time, budgetary and logistical constraints, this report is incomplete. The report only investigates LYMO's two main services – general transportation and health transportation. Auxiliary services such as Dash About for Seniors, the Coastal Carolina shuttle, charters and the Key Attractions shuttle are not investigated in this report.

The report examines the costs and benefits to Horry County. Therefore, any revenue that is paid by outside sources (such as the state government, federal government or other outside private funds) is considered a benefit to Horry County since it creates employment in the County without imposing a cost of the country's residents.

## **1.3. Background on LYMO**

LYMO provides a variety of transportation services in the Grand Strand Area of South Carolina. The services are divided into three categories: general transportation (or fixed routes), health transportation, and auxiliary services such as Dash About for Seniors (an on-demand service that shuttles senior citizens for \$12 per ride), Key Attractions Shuttle, Coastal Carolina shuttle and charters. This report focuses on the first two services. The general transportation includes 22 fixed routes that transport passengers within the Myrtle Beach Area and between the Myrtle Beach Area and nearby towns (including Georgetown in Georgetown County) for a nominal fee. The health transportation service transport qualified individuals to health care and mental health providers at no charge to the passengers.

## 2. General Transportation

### 2.1. Ridership

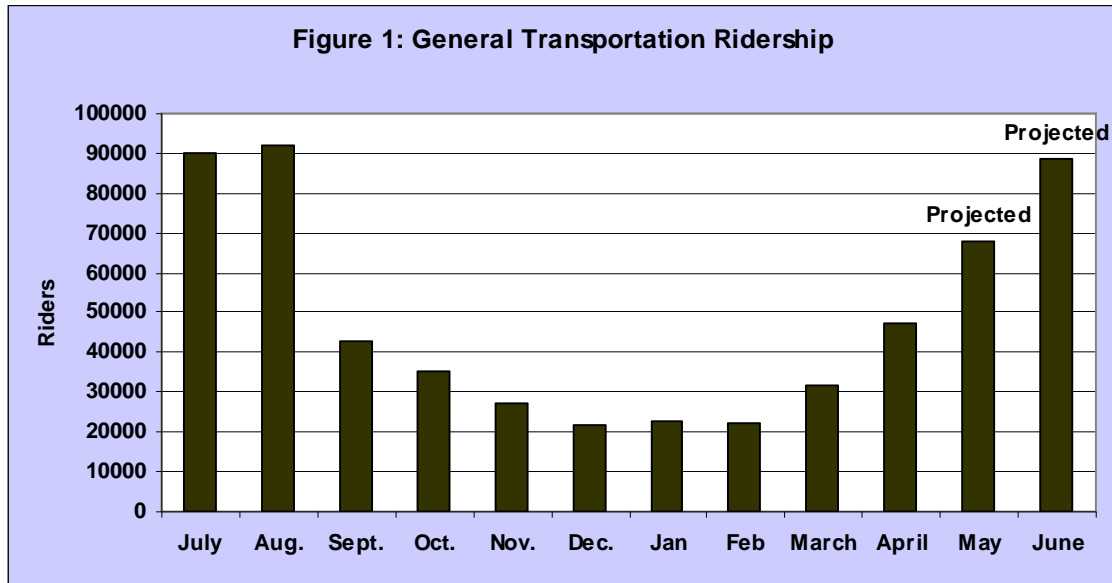
LYMO operates on a regular schedule along 22 fixed routes (17 main plus 3 minor routes and 2 attractions shuttles). The routes can be divided into three categories: (1) The peripheral routes that take passengers from the Conway Area and from nearby towns (Aynor, Loris, Bucksport and Yauhanna) to the Conway Terminal (routes 1, 2, 3, 5 and 6); (2) The connecting routes that take passengers from the Conway Terminal and from Georgetown to the Myrtle Beach Area<sup>1</sup> (routes 4, 7, 9 and 16); (3) The Myrtle Beach routes that transport passengers along within the Myrtle Beach Area (routes 8, 10, 11 and 15). Routes 8, 9, 10 and 15 are divided into a South line and a North line.

The routes that carry passengers to Conway and the routes that carry passengers from Conway and Georgetown to Myrtle Beach primarily transport local residents to and from work and on various errands (DMV, court, healthcare centers, etc.). Many of these passengers are too poor to use private transportation and a growing number of these passengers appear to be immigrants who cannot obtain a South Carolina driver license due to new, stricter regulations. The routes that transport passengers inside the Myrtle Beach Area transport both local residents and tourists between their hotel and various attractions. The Myrtle Beach routes are subject to substantial seasonal variations, although there are no seasonal variations in the frequency of the routes.

During the fiscal year of 2003-2004 the ridership in December, January and February (the off season) was 21,625, 22,569 and 22,113 passengers respectively while in July and August (the tourist season) it was 90,172 and 91,828 passengers respectively – more than 4 times higher (see figure 1 for seasonal variations). Much of the variation is due to changes in the number of tourists. However, some variation is probably due to variation in seasonal jobs – there are more residents taking LYMO to Myrtle Beach in the summer (as can be see from figure 5 on page 13).

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<sup>1</sup> The Myrtle Beach Area is defined as the urban area from Surfside to North Myrtle Beach.



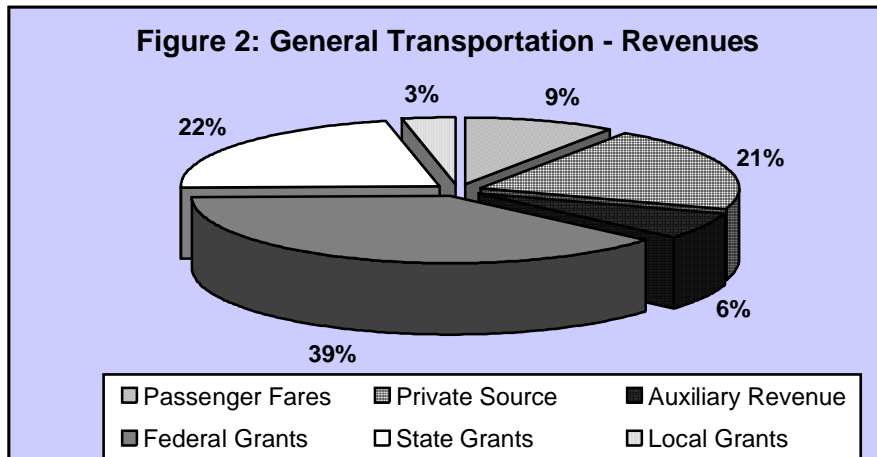
There has been a considerable increase in the number of riders between the fiscal year of 2002-2003, when 330,380 rode LYMO, and the fiscal year of 2003-2004, with ridership projected at 588,938 – an increase of 78.26%.<sup>2</sup> There are two likely explanations for this increase. First, an increase in the number of tourists to the Myrtle Beach Area and improvements in advertisement increased ridership along the Myrtle Beach routes. Secondly, increases in the unemployment in Georgetown County and some of the towns of Horry County such as Loris (due to a weak economy, the closure of the Steel Mill in Georgetown and possibly migration into the area) probably increased the ridership of workers into the Myrtle Beach Area. The increase is seasonal; during the summer months (July and August) ridership increased by 129.3% compared with the smaller increase in the winter months (December, January and February) of 42.0%. This seasonal increase is probably due mainly to an increase in use by tourists but it may also be due to an increase in use by local residents (possibly because of the availability of seasonal jobs) as can be observed from the large increase in the use of the connecting routes. See Appendix B for summary of average ridership (per vehicle) in two different seasons.

<sup>2</sup> The month of May was projected by multiplying the number of riders in May of 2003 times the percent change in ridership between April of 2003 and April of 2004. The month of June was projected by multiplying the number of riders in June of 2003 times the percent change in ridership between August of 2002 and August of 2003.

## 2.2. Revenues and Costs

LYMO receives revenue from various sources to operate and maintain its general transportation services. Sources of revenue include fares, private organizations, auxiliary services (mainly advertisement) as well as federal, state and local grants (see figure 2 below for breakdown of revenues). For the fiscal year of 2002-2003 LYMO collected a total of \$2,908,240 from its general transportation services.<sup>3</sup>

Passengers' fares totaled \$271,184 and made up for a small portion of the total revenue collected from general transportation, about 9.32%. Fares vary from \$.75 within Conway to \$2.00 between Loris and Myrtle Beach, with the most common fare being \$1.25.<sup>4</sup> LYMO also received sizable contributions from private sources – \$603,359 or 20.75% of total revenue – mainly Burroughs and Chapin who pay for the operation of an open shuttle that journeys along Myrtle Beach's the main attractions. Additionally, LYMO made \$179,823 (6.18% of total) in auxiliary revenue such as advertisement, ticket packages and maintaining the Greyhound Station in Myrtle Beach and non-transit revenue as interest income, insurance reimbursement and financial charges.



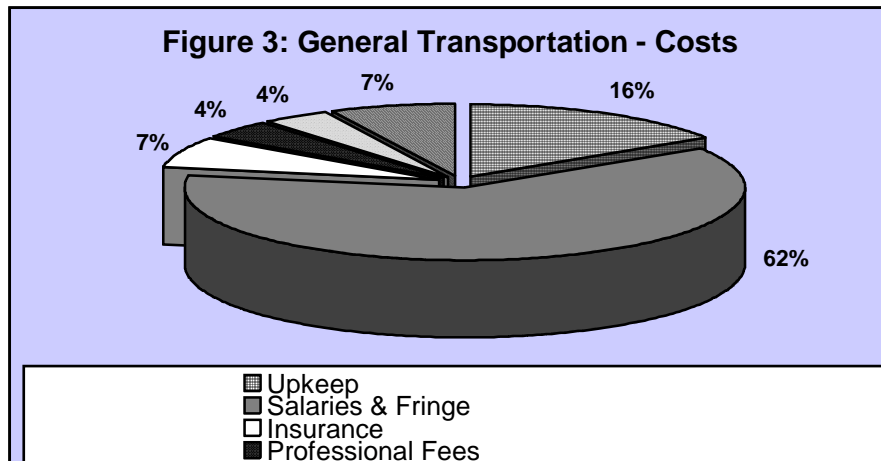
LYMO received grants from the federal government, the state government and from local governments. The local grant totaled \$100,000 for the 2002-2003 fiscal year and was furnished by Horry County. LYMO reports receiving \$75,000 from Horry County and

<sup>3</sup> This figure include auxiliary services (LYMO lumped these services together for convenience, but most of the revenues and costs relate to the fixed-routes service.

<sup>4</sup> Seniors receive a discounted fare and small children can ride LYMO for free.

\$150,000 from Myrtle Beach for the 2003-2004 fiscal year. The state of South Carolina granted LYMO \$633,749 or 21.79% of the total. By far, LYMO's largest source of revenue was a \$1,120,129 grant from the Federal government (38.52% of the total).<sup>5</sup>

LYMO paid a total cost of \$2,971,699 for operating its general transportation, which exceeded LYMO's revenue creating a shortfall of \$63,458. The costs included direct, fixed costs and indirect, variable costs that varied with travel distance. The largest fixed cost was employees' compensations (salaries and fringe benefits representing 40.3% of total cost, followed by upkeep (fuel and maintenance) and vehicle leases. The indirect costs included employees' compensations (on top of a fixed salary), insurance, utilities, legal and professional fees, advertisement, training and travel, and an interest payment made on a loan to purchase new vehicles. Costs are shown in figure 3. Appendix A summarizes LYMO's revenues and costs from general transportation.



### 2.3. Policy Recommendations

Clearly LYMO does not generate enough revenue to offset its large costs. LYMO generates \$1,054,365 in revenue from passengers' fares, private source funding, advertisement and other auxiliary services and has a total cost of \$2,971,698 for its general transportation services. However, LYMO is also generously funded by local, state and federal grants. The federal grant, which totaled \$1,120,129 during the 2002-

<sup>5</sup> The federal government matches 50% of revenue granted by the local governments, state governments and private sources for transportation (80% for administrative cost only in rural areas).

2003 fiscal year, and a state grant, which \$633,743, were LYMO's largest and second largest sources of revenue.

Horry County, which pays a relatively small share of the cost, greatly benefits from these federal and state grants since they both directly and indirectly increase employment and spending within Horry County. Nonetheless, there is strong need to increase the efficiency of LYMO's operation in order to increase its revenue and reduce its cost. Doing so should not affect the grant from the federal government, since the grant is based on matching contributions, but it could decrease LYMO's shortfall and perhaps even make it profitable. LYMO had a shortfall of \$63,458 from general transportation, which may decrease this fiscal year because of a rise in ridership. The following policy recommendations can increase the efficiency of public transportation in Horry County.

1. Smaller vehicles should be used, when possible, to reduce operational cost. As can be seen from Appendix B, most routes can use the smaller 14 and 20 seat shuttles instead of the larger 25 to 27 seats buses. Shuttles require less fuel.
2. The frequency of the routes should be seasonally adjusted. During the last fiscal year the number of riders in the summer was 4 times higher than the number of riders in the winter, yet the frequency was not reduced in the winter on most routes. Having 2 different schedules with lower frequencies in the off-season will help control cost.
3. Some of the peripheral and connecting routes may need to be eliminated. For instance, the Loris to Conway route and the North Myrtle Beach Connector, which goes from Conway to North Myrtle Beach via Loris, are long, expensive and have less than one passenger on average even during the tourist season. Peripheral routes from Yahuanna, Bucksport, Loris and Aynor to Conway could potentially be replaced with a government-subsidized carpool program.
4. Some of the Myrtle Beach routes can be redrawn to include important destinations such as Coastal Grand Mall and Myrtle Beach International Airport. Most of the routes come together around Myrtle Square Mall, even though the mall is no longer operational. It may be wise to alter these routes to Broadway at the Beach. A survey should be conducted to determine consumers' patterns of use.
5. It may be possible to increase LYMO's revenue from advertisement. The inside of vehicle can be used for advertisement, particularly along the Myrtle Beach routes.

### **3. Health Transportation**

#### **3.1. Ridership**

One of the most important services that LYMO provides is transporting senior citizens and handicapped individuals to health care and mental health care providers. This service is provided at no charge for those individuals who are on Medicaid or are otherwise qualified through the support of a health care center. Passengers request the service ahead of time and are picked up directly from their residence. Most passengers are transported using a van, although shuttles are sometimes used to transport handicapped passengers.

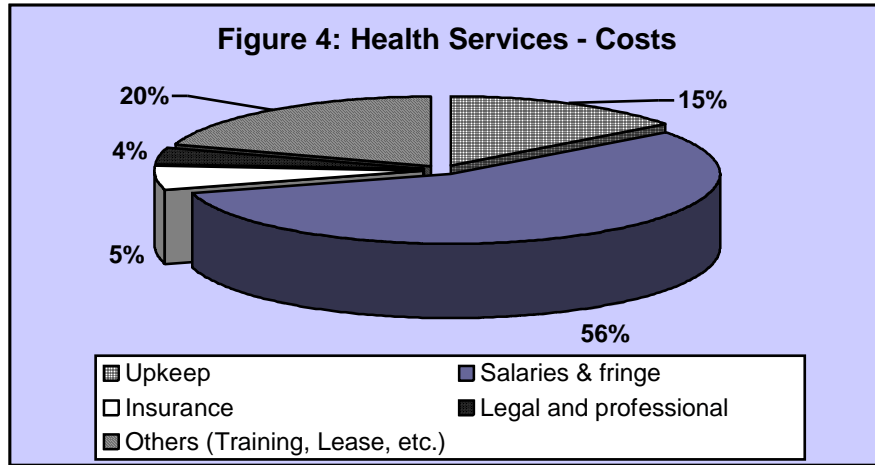
A total of 60,766 used LYMO's health transportation service during the fiscal year of 2002-2003 and about the same number of riders is expected for the fiscal year of 2003-2004. Although, it is logical to assume that there will be a gradual increase in the number of riders due to an aging population and retirees moving into the area. Monthly, ridership varied from 4,574 to 5,380 with no apparent seasonal effect. On average, LYMO carries 10 riders per vehicle, although the actual number greatly varies.

#### **3.2. Revenues and Costs**

LYMO funds its health transportation service primarily through a funding that it receives from the South Carolina Department of Health and Human Services. In the fiscal year of 2003-2004 these funding totaled \$851,206 and represented over 94% of the revenue obtained for health transportation services. The funding is allocated by the government of South Carolina through a competitive bidding process and is only available to not-for-profit organization. Additionally, LYMO received \$53,714 in auxiliary revenue chiefly from adult daycare centers that support the program. Qualified riders who use the service do not have to pay any fees, and LYMO does not receive any additional grants from the federal, state or local government.

The health transportation service cost LYMO \$1,008,967 in the 2002-2003 fiscal year. The cost of the service exceeded its revenue creating a \$104,047 shortfall. Just as with general transportation, the bulk of the cost, \$555,542 or 56% of the total was due to employees' compensation (salaries and fringe benefits). Other major costs included

upkeep (fuel and maintenance), insurance and legal and professional fees (see figure 4 for breakdown). LYMO did not pay to advertise its health transportation service.



### 3.3. Policy Recommendations

According to LYMO, Horry County does not directly support its health transportation service. The program is primarily funded by the South Carolina Department of Health and Human Services. Therefore, there is no economic reason for Horry County not to support this service. Nonetheless, the program has had a shortfall during the 2002-2003 fiscal year and there is little LYMO can do to increase revenue from this non-commercial service. Thus, there may be a need for some support from the local governments. Alternatively, if the general transportation service can be made profitable, then the earnings from general transportation can be used to support health transportation.

There is little evidence to suggest that the program is inefficient. The vans and shuttles are used quite efficiently and carry 10 riders per trip on average,. Additionally, the fact that LYMO has won funding from the state of South Carolina through a competitive bidding process suggests that it is the most efficient organization to provide this service.

## 4. Concluding Remarks

## **4.1. Summary**

LYMO provides various transportation services in the Grand Strand Area of South Carolina. This report focuses on LYMO's two main services, its general transportation service and its health transportation service. It finds that although the general transportation service is growing and receives substantial financial support from the state government and the federal government, the service can benefit from some restructuring. In particular, some of the peripheral and connecting routes have very low ridership. It may be wise to reduce the frequency of those routes or replace them with a carpool program. Additionally, smaller vehicles should be used when possible and the frequency of some of the routes should be reduced during the off-season, when fewer people use LYMO, in order to lower cost. Furthermore, some of the Myrtle Beach routes could potentially be redrawn in order to attract more riders. As of now, there is little evidence to suggest that the health transportation service should be restructured. The ridership on the program seems reasonably high and most of the program is supported by state funding that LYMO won via a competitive bidding.

## **4.2. Future Work**

This is a preliminary report and does not include any new data, extensive economic analysis or a detailed business analysis. Future work can further examine the costs and benefits from each of LYMO's services. For instance, the reduction in pollution and congestion are not considered in this study. However, given the relatively low ridership that LYMO has, 908 riders per day, it is unlikely that these effects are significant, except perhaps for some of the Myrtle Beach routes during the height of the tourist season.

Future research can focus on how to improve LYMO's efficiency, particularly its general transportation, by examining each of the routes and determining how each one of them should be restructured (if at all). Surveys can be conducted to determine the demand for revised routes. Additionally, external organization(s) can help LYMO improve its marketing campaign and business model.

## Appendix A: Revenues and Costs

Table 1: LYMO' Revenues and Costs					
	GENERAL TRANSPORT*	PERCENT OF TOTAL	HEALTH SERVICES	PERCENT OF TOTAL	TOTAL
<b>Revenues</b>					
Operating Revenues					
Passenger fares	271,184	9.32	0		271,184
Private source revenue	603,359	20.75	851,207	94.06	1,454,565
Auxiliary transit revenue	153,887	5.29	45,966	5.08	199,853
Non-transit revenue	25,936	0.89	7,747	0.86	33,683
	179,823	6.18	53,713	5.94	
Grant Revenues					
Federal grants	1,120,129	38.52	-	-	1,120,129
State grants	633,746	21.79	-	-	633,746
Local grants	100,000	3.44	-	-	100,000
Total revenues	2,908,240		904,920		3,813,160
<b>Costs</b>					
Direct costs					
Salaries & fringe	1,197,733	40.30	364,470	36.12	1,562,202
Fuel and maintenance	472,867	15.91	147,889	14.66	620,756
Vehicle leases	27,473	0.92	178,276	17.67	205,749
Indirect costs					
Salaries & fringe	639,680	21.53	191,073	18.94	830,754
Insurance	204,371	6.88	54,326	5.38	258,697
Utilities	46,053	1.55	13,756	1.36	59,809
Legal and professional	125,438	4.22	37,468	3.71	162,906
Advertising	25,675	0.86	-	-	25,675
Training and travel	73,490	2.47	8,166	0.81	81,655
Interest	113,582	3.82	-	-	113,582
Other	45,338	1.53	13,543	1.34	58,881
Total costs	2,971,699		1,008,967		3,980,666
Loss	(63,458)		(104,047)		(167,505)

\* Revenues and costs for general transportation included all the auxiliary services as well.

## Appendix B: Average Ridership by Route

Route	Course	Weekdays Frequency	February Average	July Average
1	Conway Local	24	3.69	6.07
2	DSS/Brown's Swamp	5	2.39	2.43
3	Conway to Bucksport/Yauh.	6	3.60	4.38
4	Conway to AVX	3	6.71	8.61
5	Conway to Aynor	2	1.55	3.53
6	Conway to Loris	2	0.55	0.55
7	Conway to Myrtle Beach	15	14.51	22.29
8N	MB Local North Loop	16	3.52	6.22
8S	MB South Loop	16	3.82	4.37
9N	MB Connector North	2	0.60	0.67
9S	MB Connector South	2	1.92	2.31
10N	Neighborhood Lymo North	10	0.52	0.74
10S	Neighborhood Lymo South	18	0.89	1.40
11	North Myrtle Beach Local	7	2.39	4.63
16	Georgetown to MB	5	11.67	9.48

\* Frequency is the daily number of trips per day during weekdays (Monday through Saturday for most routes). Routes 12 and route 15, which take passengers to tourist attractions and hotels Myrtle Beach are subject to seasonal changes and are not included on this list.

