

New Bedford-Martha's Vineyard Freight Study

1/C Matthew Brakebill

1/C Robert Burke

1/C Alexander Koehler

To be reviewed
in Spring 2010

Purpose

- Identify If New Bedford Exists as a Feasible Option for Freight Transport
- Cut Down Traffic In Woods Hole
- Offer Freight Companies a Faster and Cheaper Alternative to Going on Cape

Benefits

- Less Traffic "On-Cape", Less Likely for Accidents and Traffic Congestion
- Keeps Woods Hole a Touristy Area with Less Unsightly Trailer Trucks
- Invigorates New Bedford Docks and Ferry Services During Seasonal Months
- Environmentally Friendly and Safer

Contact Companies

Contact Made:

- United Parcel Service (UPS)

Potential Future Contacts:

- Stop and Shop
- Cape Cod Express



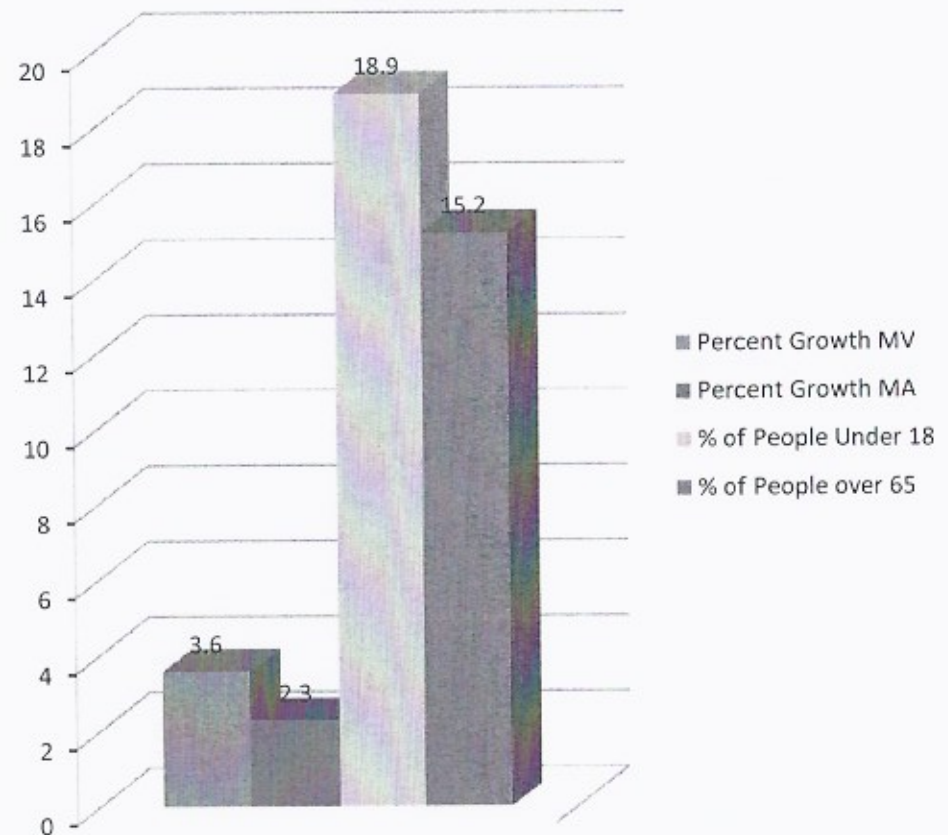
Regional Growth Rate

Regional Growth of Martha's Vineyard Population In Contrast With the Commonwealth of Massachusetts.

Population Percent of Under 18 and Over 65 is 34.1%.

Population of 18 to 65 is 65.9% of Martha's Vineyard Population.

(Courtesy of Census Bureau)



Vessel Specification

- Freight Ferries: KATAMA, GAY HEAD, SANKATY
- Length 235' x Breadth 40'
- Max Speed: 13.5 Knots
- Cargo Space: 50 Car Equivalent Units (Average of 10 Trucks Per Trip)
- Passenger Space: 147 (6 Crew); 16 During Hazardous Trips
- Fuel Consumption: 10 Gallons per Mile (approx.)

Trucks Ferried

Year to Date as of September 2009

Martha's Vineyard

Total # of Trucks Carried 72,718

20' < 38,854

Percent growth vs. Prev. Year 1.6%

20' > 33,960

Percent Loss vs. Prev. Year 9.5%

Revenue Per Truck \$105.06

Nantucket

Total # of Trucks Carried(NT) 29,752

20' < 10,473

Percent Loss vs. Prev. Year 12.8%

20' > 19,279

Percent Loss vs. Prev. Year 16.3%

Revenue Per Truck \$242.82

- 2009 has seen a decrease in trucking volume to the islands
- This can most likely be attributed to the Nation's current economy
- Trucking should begin growing once the market turns around
- The population growth of the islands should increase the need for trucking in the future as well

Trucking Pros/Cons for NB Ferry

Pros

- Lower Fuel cost for Trucks
- Lower Miles(wear and Tear) Put on trucks
- Potentially will save time during peak summer months

Cons

- Steamship Authority will charge a higher cost for NB Ferry
- Trucks may have to wait for a full ship, meaning lost time

SSA Pros/Cons for NB Ferry

Pros

- Will cut down on passenger standby on ferries
- Could get Government subsidy
- Better relations with trucking company

Cons

- Higher Fuel Cost
- Not needed during winter months
- Lose a ship that could be ferrying passengers
- Could have docking scheduling conflicts

Costs

TRUCK

From Freetown to NB

21.59 miles

Fuel Cost=\$11.20 at 5mpg

112.00 for Full Ferry

From Freetown to Woods
Hole

55.59 miles

Fuel Cost=29.12 at 5mpg

\$291.20 for full Ferry

FERRY

From New Bedford to VH

19.5 Nautical miles

Fuel Cost=\$544.05 at .1mpg

\$656.05 Total cost with 10 Trucks

From Woods Hole to VH

5.5 Nautical Miles

Fuel Cost=\$153.45 at .1mpg

\$444.65 Total cost with 10 Trucks

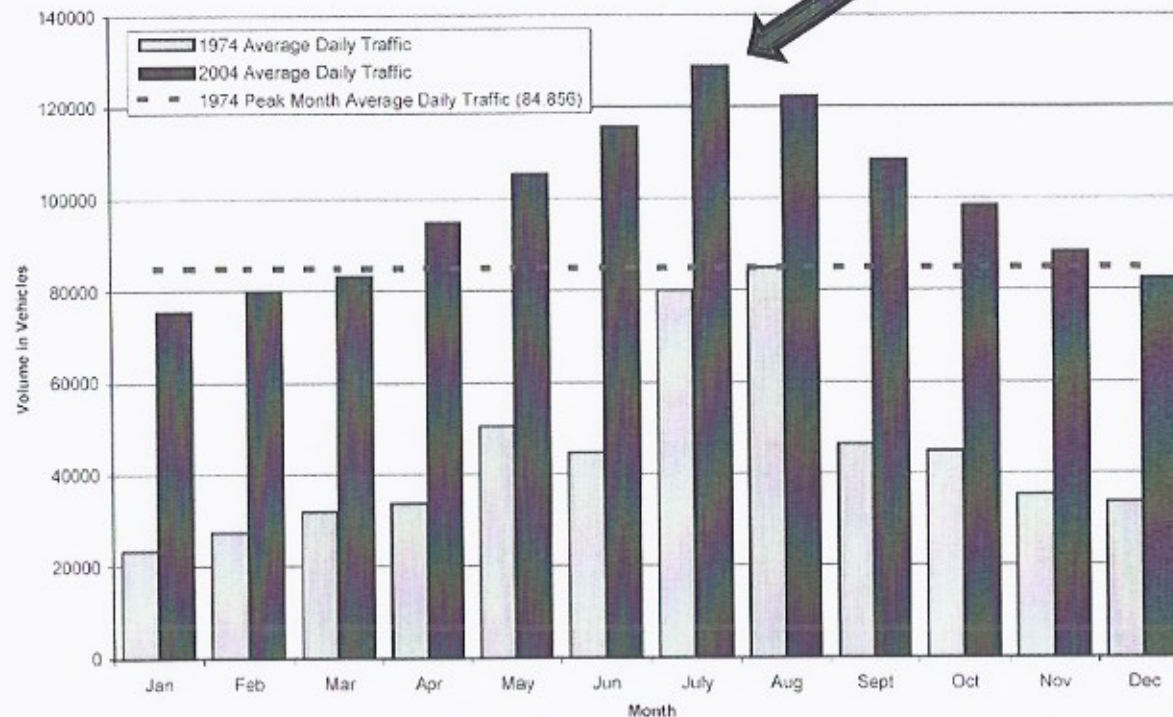
Traffic Counting Program

The Cape Cod Commission, funded by MassHighway, has been collecting traffic data since 1984. This data includes traffic volumes on key roadway segments around Cape Cod and turning movement counts collected at key intersections. The traffic counting program is established in a systematic way to provide historic data at key locations as resources allow. Counts are also made to support traffic studies and, in areas of concern, to identify congested situations. Development of the annual traffic counting program is done in consultation with the Cape Cod Joint Transportation Committee. The principal product of this effort is the annual traffic counting report.

The traffic counting program will continue to provide data for the CMP. Examination of changes in traffic volume will be done and trends will guide further investigation of traffic problems as part of the CMP. As the traffic counting program is defined each spring, counts to investigate suspected or identified congestion areas will be included. In addition, counts will be programmed to monitor congestion in areas where CMP initiatives are in place.

Traffic By Month

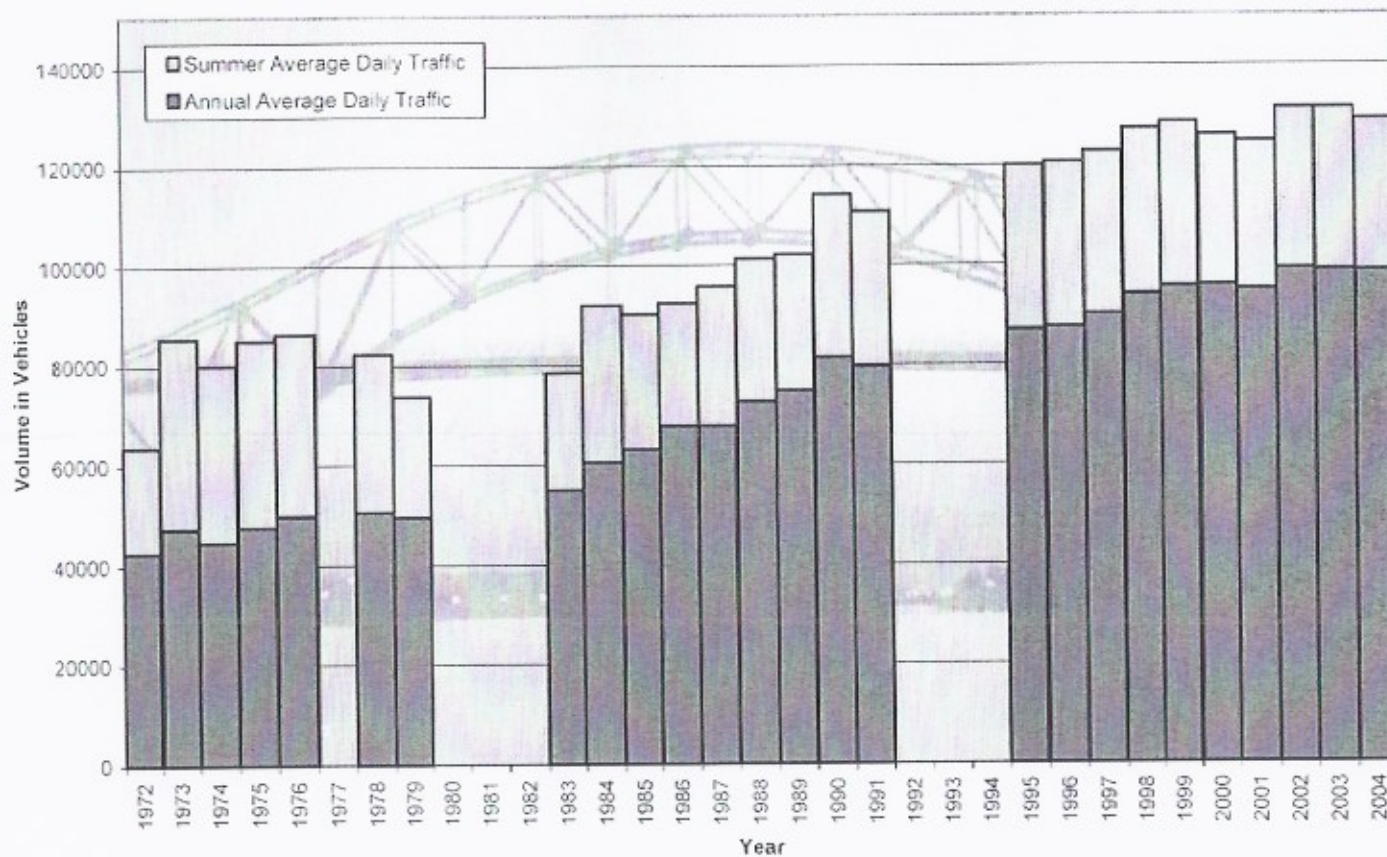
Thirty-Year Comparison of Combined Average Daily Traffic
over the Bourne and Sagamore Bridges



	2004	1974	Diff	Per Year Inc.	Six Years	2010 Projection
May	105,000	50,000	55,000	1833.3	11000	116,000
June	115,000	45,000	70,000	2333.3	14000	129,000
July	130,000	80,000	50,000	1666.7	10000	140,000
August	120,000	84,856	35,144	1171.5	7028.8	127,029
September	110,000	47,000	63,000	2100.0	12600	122,600

Traffic by Year

Chart 6.3
Combined Average Daily Traffic over the Bourne and Sagamore Bridges



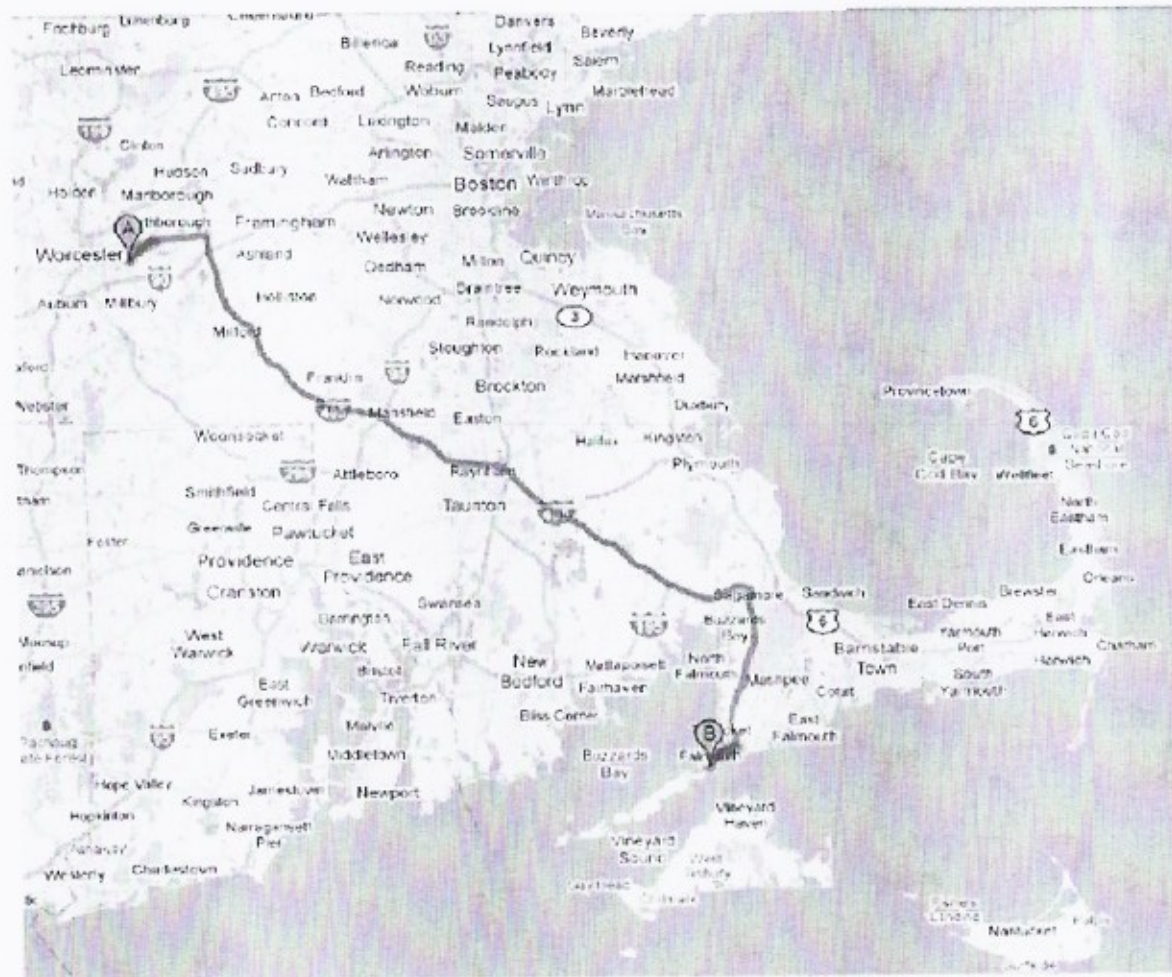
UPS Shipments

- UPS Delivers to Woods Hole for Ferry Services.
- Normally, One Trailer a Day, Five Days a Week.
- Two Trailers Are Usually Brought a Day During the Summer Peak.

UPS Shipments

- Trailer Shipments for Martha's Vineyard are Delivered to UPS Shrewsbury Hub.
- Trailers are sent overnight to Woods Hole and Wait Until the Next Morning for the Ferry.
- Trailers are Brought to MV, Sorted Into Package Cars and Delivered.

UPS Route to MV



Worcester, MA

- 98.3 mi to W/H
- 78.2 mi to NB
- 20.1 mi difference
- 127.6 min to W/H
- 85.3 min to NB
- 42.3 min difference

48 Month Regional Gas Price Chart



Trucking Route

FREETOWN TO NEW BEDFORD



FREETOWN TO WOODS HOLE



Visual stimulus through animations.

Conclusions and Areas of Concern

- **Conclusions**

- An Advantage for New Bedford Ferry Would Be mostly in Time Saved During the Summer Months.
- During the Off Season (Oct.-Apr) It Makes Sense to only Ship Out of Woods Hole.

- **Concerns**

- Cost Benefit analysis is not strong enough to support a relocation of freight transport.

Recommendations

- Government subsidize ferry costs to push for New Bedford freight service.
- Cadet internship opportunity to make contact with other MV distributors.
Investigate possibility of government support.