



Final Report

Economic Benefits of Amtrak Downeaster Service

Prepared for:



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Table of Contents

Executive Summary	a
Chapter 1. Introduction.....	1
1.1 Purpose.....	2
1.2 Study Approach	2
1.3 Structure of this Report.....	4
Chapter 2. Overview of <i>Downeaster</i> Service.....	6
2.1 Passenger Volumes by Station of Destination in Maine and New Hampshire..	8
2.2 Projected Service	10
Chapter 3. Statewide Impacts for Maine & New Hampshire Through 2004..	13
3.1 Visitor Spending	15
3.2 Economic Development.....	21
3.3 Passenger Savings of Maine and New Hampshire Residents	24
3.4 Construction Investment	26
Chapter 4. Forecasting Future Passengers by Station of Alighting on the <i>Downeaster</i>	28
.....	
4.1 Brunswick	30
4.2 Freeport.....	30
4.3 Rockport.....	31
4.4 Auburn	31
Chapter 5. Projected Statewide Impacts in Maine and New Hampshire	33
5.1 General Methodology	34
5.2 Visitor Spending	35
5.3 Economic Development.....	39
5.4 Future Transportation Cost Savings by Using the <i>Downeaster</i>	44
5.5 Construction.....	45
Chapter 6. Community Impacts	48
6.1 Visitor Spending	49
6.2 Economic Development.....	53
6.3 Construction Impacts	54
6.4 Extended Reach of the <i>Downeaster</i>	55

Chapter 7. State and Local Tax Implications.....57
7.1 Maine Calculations Based on State Tax Rates58
7.2 Analysis Using IMPLAN for Maine and New Hampshire.....61

Chapter 8. Other Impacts62
8.1 Economic Benefits of *Downeaster* Operations.....62
8.2 Public Investment for Station Development.....63
8.3 Contribution to Housing Values64
8.4 Transportation Synergies65

Chapter 9. Conclusions.....66

EXECUTIVE SUMMARY

The restored *Downeaster* service is barely three years old. Findings from this study show:

- Today, more than \$15 million of annual economic activities (business sales) in Maine and New Hampshire can be attributed to the rail service, supporting over 200 jobs and nearly \$5 million in wages; and accounting for new station development, projected increased ridership and economic opportunities that are becoming available when the service further matures.
- The potential economic benefits realized by the *Downeaster* in the two states may exceed \$100 million per year by 2015, including \$36 million in wages to more than 1,500 workers;
- Total private sector construction investment attributable to *Downeaster* service in the two states is expected to exceed \$37 million by 2015, based on existing projects, those under construction and others being planned; in addition,
- Current annual state and local tax revenues attributable to the *Downeaster* are estimated to be \$380,000 per state in Maine and New Hampshire. By 2015, projected revenues are estimated to grow to almost \$800,000 in New Hampshire and about \$4.6 - \$5 million in Maine.

Overview. The *Downeaster* passenger service between Portland, Maine and North Station in Boston was restored in 2002. The State of Maine commissioned Economic Development Research Group, Inc. (EDR Group) of Boston, MA and KKO Associates (KKO) of Andover, MA to assess the magnitude of economic impacts associated with *Downeaster* service in Maine and New Hampshire realized between the years 2002 and 2004, and projected to 2015. The *Downeaster* serves ten passenger stations. Three stations are in New Hampshire (Exeter, Durham on the University of New Hampshire campus, and Dover); and four stations are in Maine (Wells, Saco, summer seasonal service at Old Orchard Beach and Portland). In addition, three stations are in Massachusetts (North Station in Boston, Anderson Transportation Center in Woburn, and Haverhill). Currently, service is being planned to extend the *Downeaster* service northward from Portland to Freeport, Brunswick, Rockland and Lewiston/Auburn. This additional service is incorporated in the projections of future economic benefits.

Economic Role of the *Downeaster*. The *Downeaster* affects the economies of Maine and New Hampshire in multiple ways.

The *Downeaster* brings visitors. Visitor spending on retail items, food, lodging, amusements and local transportation is money added to state and local economies, generating jobs and worker income.

The *Downeaster* triggers local investment. Investment in the *Downeaster* stations leads to subsequent investments nearby as areas near stations receive an initial revitalization momentum.

Using the *Downeaster* saves New Hampshire and Maine residents dollars compared to other transportation choices. These savings can then be used as discretionary income for purchases of consumer goods and services.

The *Downeaster* generates state and local tax revenues. Visitor spending, salaries paid by affected businesses, and property development directly and indirectly generate tax revenues for Maine and New Hampshire.

Additionally, the *Downeaster* and AMTRAK are direct employers and, as an enterprise, purchase goods and services to maintain *Downeaster* operations. This includes train employees, station workers who serve passengers (such as ticket sellers), and construction investments in station facilities. Though this aspect is not a central part of the economic benefit analysis we conducted, it is a contribution that the *Downeaster* makes to the Maine and New Hampshire economies.

Approach. Annualized current and projected economic benefits accruing from *Downeaster* service to Maine and New Hampshire were calculated for visitor spending; economic development, and savings realized by residents of Maine and New Hampshire by riding the *Downeaster*. In addition, the one-time past and future construction impacts from economic and residential development associated with the *Downeaster*; and the tax benefits to Maine and New Hampshire that stem from *Downeaster* operations were calculated.

Methodology. To calculate the impacts associated with each of the factors cited above, EDR Group and KKO developed and applied a series of tools. These include:

- (1) **Passenger Survey.** The consultant team conducted a survey of *Downeaster* passengers during the summer of 2004 that yielded over 900 responses, including 399 travelers alighting in Maine, 100 in New Hampshire and 420 in Massachusetts. Through this survey, it was discovered that more than 22% of visitors to Maine and New Hampshire who used the train would not have made the trip were *Downeaster* service not available. It is these passengers who are accounted for when visitor spending is calculated. Residents of Maine and New Hampshire who claimed that they would have taken alternative transportation were the basis of calculating net savings experienced by passengers using the *Downeaster*.¹
- (2) **Tables of Boardings and Alightings.** Analyses were developed matching home origins and trip destinations by station along the *Downeaster* route.
- (3) **Site Visits and Interviews.** The consultant team visited each of the seven communities that host existing *Downeaster* stations, as well as Rockland, Freeport, Brunswick and Lewiston/Auburn. In all, 43 interviews were conducted with local planners, economic development officials, private sector realtors, and other

¹ For Maine and New Hampshire, survey results are reported at a 95% confidence interval.

business people. Also, several informal conversations were held with local shopkeepers and station workers.

- (4) **Econometric Modeling.** EDR Group employed the IMPLAN modeling package to trace spin-off effects, sometimes called multiplier or downstream impacts, to calculate how initial economic activities lead to additional business sales from suppliers, as well as respending of worker income.

Key Findings. The restored *Downeaster* service is barely three years old. Nonetheless, more than \$15 million of annual economic activities (business sales) in Maine and New Hampshire can be attributed to the rail service.² These sales include almost \$9 million in direct activities and more than \$6.6 million in spin-off activities in the two states. (Spin-off activities include downstream purchases of goods and services in each state by businesses that earn the initial sales and consumer spending of employees of those businesses). In all, the \$15 million of annual business sales supports over 200 jobs and \$5 million in wages. Moreover, construction investments spurred by the *Downeaster* yielded an additional \$1.3 million in direct and spin-off activities. (See Table ES-1.)

Table ES-1. Economic benefits of *Downeaster* Services to Maine and New Hampshire account for \$15 million annually.

	Business Sales	Jobs	Personal Income
Annual Benefits			
Direct Activities			
Visitor Spending	\$3,500,000	66	\$905,000
Economic Development Impact	\$4,390,000	83	\$1,545,000
Savings by using <i>Downeaster</i>	\$737,000	6	\$135,000
Total Direct Activities	\$8,627,000	155	\$2,585,000
Spin-off Activities	\$6,495,000	86	\$2,177,000
Total Direct & Spin-off Activities	\$15,122,000	240	\$4,762,000
One Time Construction Benefits			
Direct Benefits from Construction	\$649,000	9	\$222,000
Spin-off Activities	\$635,000	9	\$220,000
Total Direct & Spin-off Activities	\$1,284,000	18	\$442,000
Sources: Field interviews and observations, 2004 Passenger Survey; Minnesota IMPLAN Group (MIG), 2003 <i>Downeaster</i> round trips reported by ticket sales.			

Roughly \$6.8 million, or 45%, of the total annual business sales are in Maine and \$8.3 million, or 55%, are in New Hampshire. Of the annual jobs generated by the *Downeaster* for the two states, 111 are in Maine and 129 are in New Hampshire. The potential economic benefit for the *Downeaster* in Maine and New Hampshire may

² This is the combined total of benefits in Maine and benefits in New Hampshire. For the purpose of this project we did not create a single two-state model region.

exceed \$100 million per year by 2015, and support more than 1,700 jobs in the two states, if the new stations come on line and communities, property owners and entrepreneurs “cash-in” on economic development opportunities. In addition, \$87 million of construction investments and associated spin-off effects are projected based on interviews with local developers, realtors, business representatives and public officials.

Table ES-2. Projected 2015 Economic Benefits of *Downeaster* Services to Maine and New Hampshire are over \$100 million annually in 2004 Dollars. Direct construction investment attributable to the *Downeaster* will be almost \$37 million.

	Business Sales	Jobs	Personal Income
Annual Benefits			
Direct Benefits			
(1) ME - From operations at Current Stations	\$12,063,000	248	\$4,098,000
(2) ME - From operations at Planned Stations	\$ 41,283,000	743	\$15,434,000
(3) NH - From operations at Current Stations	\$5,195,000	91	\$1,715,000
Total Direct	\$ 58,542,000	1,081	\$21,246,000
<i>Spin-off Activities</i>	<i>\$ 44,746,000</i>	<i>632</i>	<i>\$15,305,000</i>
Total Direct & Spin-off Activities	\$ 103,446,000	1,713	\$36,552,000
One Time Construction Benefits			
Direct Benefits from Construction			
	\$36,861,000	503	\$12,467,000
<i>Spin-off Activities</i>	<i>\$35,689,000</i>	<i>502</i>	<i>\$12,312,000</i>
Total Direct & Spin-off Activities	\$72,550,000	1,005	\$24,779,000
Note: Totals may not add due to rounding.			
Sources: Interviews, July 2004 Passenger Survey, <i>Downeaster</i> passenger forecasts, ITE, RS Means Construction Calculator, MIG			

Conclusions. In Maine and New Hampshire, ridership, and therefore visitor spending, is expected to increase. In particular, the team found that the *Downeaster* service offers a significant economic “upside” in Maine, particularly in Saco, Wells, Freeport and Brunswick. Moreover, the economic benefits generated by the *Downeaster* could increase beyond the projections if:

- a. A station is opened in downtown Portland. A Bayside stop is under consideration;
- b. Scheduling changes make the *Downeaster* “more commuter-friendly”; and
- c. Plans are implemented to connect the population centers of Portland and Lewiston/Auburn, the college and universities in Brunswick, Lewiston and Portland, and the retailing center (and retail employment center) of Freeport. Connections are also being contemplated for Pinelands. Achieving these linkages, along with an enhanced commuter schedule, will add to development possibilities that might be generated by the *Downeaster*.

CHAPTER 1. INTRODUCTION

The *Downeaster* passenger service between Portland, Maine and North Station in Boston was restored in 2002. Along its 114-mile route, the *Downeaster* serves ten passenger stations. Three stations are in Massachusetts (North Station in Boston, Anderson Transportation Center in Woburn, and Haverhill); three stations are in New Hampshire (Exeter, Durham on the University of New Hampshire campus, and Dover); and four stations are in Maine (Wells, Saco, summer seasonal service at Old Orchard Beach and Portland). (See Figure 1-1, below). In addition, service is being planned to extend the *Downeaster* service northward from Portland to Freeport, Brunswick, Rockland and Lewiston/Auburn. The Maine Department of Transportation envisions that two rail lines will run north of Portland. Rockland Branch Service will connect Portland to Freeport, Brunswick and Rockland, while Lewiston/Auburn service will connect Portland with Lewiston and Auburn. Each line will run between Portland and Yarmouth Junction, where they will veer off to their respective termini.

Figure 1-1. Current *Downeaster* Service (Boston to Portland)



1.1 Purpose

The State of Maine commissioned Economic Development Research Group, Inc. (EDR Group) of Boston, MA and KKO Associates (KKO) of Andover, MA to assess the magnitude of economic impacts associated with *Downeaster* service in Maine and New Hampshire. The objectives of this study are to document measurable economic benefits of *Downeaster* service realized between the years 2002 and 2004 to the States of Maine and New Hampshire, and the potential economic benefit that can be inferred from current activities from the present to 2015. Current and potential impacts are estimated statewide in Maine and New Hampshire, and also by station. For future benefits, stations include those that exist today plus stations projected for Freeport, Brunswick and Lewiston/Auburn. The overarching purpose of this study is to measure benefits to the economies of Maine and New Hampshire that are generated by the presence of *Downeaster* service, and was not intended to estimate the effects of the service itself. Therefore, while direct *Downeaster* employment is discussed in the text of this report, is not included in the calculations of the economic contribution of the service to the two states.

1.2 Study Approach

Economic benefits were calculated for the following:

- (1) Current and future visitor spending;
- (2) Economic development attributable to the *Downeaster* near existing stations;
- (3) Economic development projects that are in the planning or conceptual stages and are expected to come on line by 2015 near either existing or planned stations;
- (4) Savings realized by residents of Maine and New Hampshire by riding the *Downeaster*;
- (5) Cumulative one-time construction impacts from economic and residential development that has happened or will likely happen that are associated with the *Downeaster*; and
- (6) Current and projected annual tax benefits to Maine that stem from *Downeaster* operations.

To estimate the impacts associated with each of the factors cited above, EDR Group and KKO developed and applied a series of tools, including:

Passenger Survey. The consultant team conducted a survey of *Downeaster* passengers during the summer of 2004. Over 900 surveys were completed, accounting for more than 1,000 passengers, including 484 boardings in Maine and New Hampshire and 574 alightings in the two states. (See Table 1.1). The primary objective of this survey was to measure visitor spending in Maine and New

Hampshire generated by the *Downeaster*.³ Secondly, the survey reported modes of transportation that passengers would have taken if the *Downeaster* were not available. More than 22% of visitors to Maine and New Hampshire who used the train would not have made the trip were *Downeaster* service not available. These are the passengers counted when visitor spending is calculated. The remaining 78% said that they would have used other modes, such as automobiles (own and rental), buses and, in a few cases, aviation. For these passengers, the team calculated the net savings that accrued to residents of Maine and New Hampshire for choosing the *Downeaster* instead of these other modes. (Appendix IV presents detailed survey findings.)

Table 1-1. Spending and ridership data were collected from 1,000 passengers.

State	Boardings	Alightings
Maine	336	464
New Hampshire	148	110
Massachusetts	571	483
Totals	1,055	1,055

Note: Massachusetts totals include residents of other states that boarded the train in Massachusetts.

Source: July 2004 Survey of Passengers

Tables of Boardings and Alightings. Three analyses were developed matching origins and destinations by station along the *Downeaster* route. The first analysis was based on 2003 ticket sales and counts all 2003 riders of the service. The 2004 passenger survey provides insights on riders who are returning to their homes and riders who are visiting non-home destinations in Maine and New Hampshire. The second analysis was based on combining the overall 2003 ridership with insights from the survey to estimate the spending that “true visitors” who use the *Downeaster* add to destinations along the rail line. A third analysis uses the 2003 passenger data, survey insights and 2015 base forecasts, as well as travel from planned extensions and connecting services by home origin station and non-home destination station. Survey results were extrapolated to the annual passenger counts to produce annual estimates of visitor spending and passenger savings attributable to *Downeaster* service.

Site Visits and Interviews. The consultant team visited each of the seven communities that host existing *Downeaster* stations, as well as Rockland, Freeport, Brunswick and Lewiston/Auburn. In all, 43 interviews and numerous informal conversations were conducted with local planners, economic development officials, private sector realtors, other business people and workers in or near stations. These visits and interviews established the 2002-2004 economic development impacts of the

³ The mean passenger spending for the survey is reported in the 95% confidence interval for all spending, and separately for spending by visitors to Maine and New Hampshire.

Downeaster in Maine and New Hampshire and the potential impacts envisioned by local informants.

The evaluation of the restoration of *Downeaster* service presents *both* current and observable impacts, as well as potential future impacts. Current impacts are based on:

- (1) Current ridership and sales generated for railroad operations and ancillary services, including seasonal variations and an analysis of origins and destinations of passengers;
- (2) Passenger spending in Maine by visiting out-of-state residents;
- (3) Real estate development and new (or expanded) business operations near stations in both Maine and New Hampshire; and
- (4) Comparisons of the cost of travel on the *Downeaster* and other modes. Maine and New Hampshire residents who choose to ride the *Downeaster* as opposed to driving, taking an intercity bus or making other transportation arrangements pay less for transportation in aggregate.⁴ Savings of transportation expenses is additional disposable income that accrues to Maine and New Hampshire residents.

For estimated 2015 benefits, all dollars are reported in 2004 value. In projecting a reasonable future scenario, the consultant team considered: (1) ridership projections; (2) the impacts of new Maine stations along the *Downeaster* corridor in Freeport, Brunswick, Rockland and Lewiston/Auburn; and (3) the future potential for real estate development and business expansion, based on current trends, available land and buildings near stations and the impacts of development on the local economy as suggested through local interviews. Visitor spending was held constant with findings from the 2004 passenger survey, and estimates of visitor spending for Rockland, Freeport, Brunswick and Lewiston/Auburn were based on 2004 spending in Portland. The single exception to this rule is retail spending estimated in Freeport. Given the profile of Freeport as a retail center, along with insights from the public and interviews in the community, we assumed that each visitor to Freeport would spend on average \$200 (in 2004 value) in retail purchases.

1.3 Structure of this Report

This study begins at the general level with a discussion about the overall *Downeaster* service and an analysis of statewide benefits generated by the *Downeaster* and narrows down to benefits accruing to specific communities. Observations are made about benefits that were not quantified in this study and lastly, conclusions are presented. The context for this study is presented in **Chapter 2**, which is a brief discussion of *Downeaster* service.

⁴ This is a *net* benefit. Bus service is less expensive than the *Downeaster*, and other modes are generally more expensive.

The economic analysis begins in **Chapter 3**, which presents current economic benefits to Maine and New Hampshire on a statewide basis.

Chapter 4 presents projections of future *Downeaster* passenger levels, as well as boardings and alightings at the planned stations in Brunswick, Freeport, Rockland and Lewiston/Auburn. These projections were calculated by the consultant team based on previously published studies.

In **Chapter 5**, the team projects statewide economic benefits through to 2015. Then, in **Chapter 6** a review of the economic benefits generated by the *Downeaster* to the host communities of each station in Maine and New Hampshire, including current impacts for the seven communities directly served by the rail service and projected 2015 benefits to 11 communities in the two states, including Freeport, Brunswick, Rockland, and Lewiston/Auburn.

Current and future implications discussing how the *Downeaster* affects state and local tax revenues are discussed in **Chapter 7**.

Non-quantified benefits from *Downeaster* service are presented in **Chapter 8**, including discussions of real estate values and synergies with bus and water transportation.

In **Chapter 9**, the consultant team offers conclusions about future benefits that might be generated in Maine and New Hampshire by *Downeaster* service.

The report is supported by data organized into an accompanying volume of technical appendices. **Appendix I** portrays each of the communities in Maine and New Hampshire that now host a *Downeaster* station or that are expected to host stations by 2015. These portraits are drawn from our interviews and observations, and focus on current and expected development that might be generated by the rail service. **Appendix II** is a list of people interviewed for this assessment. **Appendix III** provides additional detail on the 2015 station to station passenger forecasts in this report. **Appendix IV** is a formal report on the passenger survey conducted in July, 2004. **Appendix V** provides a more detailed explanation of modeling used in this project than is provided in the main text.

CHAPTER 2. OVERVIEW OF *DOWNEASTER SERVICE*

Downeaster intercity passenger rail service is relatively new and still evolving as regularly scheduled service between Portland, Maine and Boston, Massachusetts. The service began slightly more than three years ago in December, 2001, following an eight-year planning, design and construction process. The four daily round trips between Portland and Boston are presently scheduled to make the 114-mile trip in 2 hours and 45 minutes for an average end-to-end service velocity of 41 miles per hour. The maximum allowable passenger rail speed along the route is generally 60 mph with some short stretches of higher speeds in Massachusetts and Maine.⁵

Along its route, the *Downeaster* serves a total of ten passenger stations between Boston and Portland, including: Portland (ME), Old Orchard Beach (ME, seasonal summer service), Saco (ME), Wells (ME), Durham (NH), Dover (NH), Exeter (NH), Haverhill (MA), Woburn (MA, the Anderson Transportation Center), and Boston (MA, North Station). The service operates along tracks owned by Guilford Transportation Industries (GTI) and the Massachusetts Bay Transportation Authority (MBTA). Guilford's ownership extends 78 miles from the terminal in Portland to the Massachusetts state line. The MBTA owns the 36 miles of right-of-way within Massachusetts.

Tables 2-1 and 2-2 summarize the current *Downeaster* schedule of service and the average ridership by train on the service through December 2003.

⁵ Since this report was prepared some *Downeaster* trips have been shortened to 2:40 in duration.

Table 2-1. Downeaster Weekday Service Schedule

Southbound Service				
Train Number	Days of Operation	Departs Portland	Arrives Boston	Average Riders ⁶
680	Daily	6:10am	8:50am	98
682	Daily	8:45am	11:30am	119
684	Daily	2:00pm	4:45pm	68
686	Mon-Fri	4:00pm	6:45pm	62
Northbound Service				
Train Number	Days of Operation	Departs Boston	Arrives Portland	Average Riders
681	Daily	9:45am	12:30pm	57
683	Daily	12:00pm	2:45pm	66
685	Mon-Fri	6:15pm	9:00pm	182
687	Daily	11:00pm	1:45am	43

Source: Amtrak

Table 2-2. Downeaster Weekend Service Schedule

Southbound Service				
Train Number	Days of Operation	Departs Portland	Arrives Boston	Average Riders
608	Daily	6:10am	8:50am	78
682	Daily	8:45am	11:30am	179
684	Daily	2:00pm	4:45pm	103
688	Sat-Sun	7:00pm	9:45pm	81
Northbound Service				
Train Number	Days of Operation	Departs Boston	Arrives Portland	Average Riders
681	Daily	9:45am	12:30pm	92
683	Daily	12:00pm	2:45pm	114
689	Sat-Sun	7:45pm	10:30pm	206
687	Daily	11:00pm	1:45am	49

Source: Amtrak

⁶ Average daily riders from December 2001 to December 2003.

2.1 Passenger Volumes by Station of Destination in Maine and New Hampshire

The seven stations served by the *Downeaster* in Maine and New Hampshire each have different passenger volumes ranging from a low of 0 monthly alightings at Old Orchard Beach in non-summer months to a high of 7,549 alightings at Portland for northbound trains (Boston to Portland). Table 2-3 presents monthly alightings at each of the stations for calendar year 2003.

Table 2-3. 2003 Northbound Alightings at Maine and New Hampshire Stations

	Portland	Old Orchard Beach	Saco	Wells	Dover	Durham	Exeter
January	3,599	2	564	757	988	183	1,738
February	4,255	2	678	631	952	462	1,751
March	4,356	0	826	699	1,109	544	1,598
April	6,307	0	699	880	1,058	555	1,698
May	6,211	181	812	924	822	444	1,618
June	6,296	464	1,049	1,100	961	408	1,713
July	6,354	794	877	1,423	995	349	1,525
August	7,549	1,003	1,083	1,653	974	385	1,617
September	4,291	221	635	1,051	756	1,066	1,471
October	5,321	175	818	957	760	1,309	1,672
November	4,825	0	921	790	732	1,395	1,607
December	4,524	11	872	851	1,107	949	1,835
Total	63,888	2,853	9,834	11,716	11,214	8,049	19,843

Source: Amtrak revenue reports and KKO analysis

As seen in Table 2-3, passenger volumes in Maine peak in the summer months, while ridership at New Hampshire stations is steady throughout the year. In Durham, with the station located on the University of New Hampshire campus, passenger volumes tend to follow the academic calendar. Characteristics of station usage in Maine and New Hampshire are summarized below.

- **Portland, ME.** Alightings at the Portland Station peaked in August 2003 at a high of 7,549. Alightings were consistently higher April through August.
- **Old Orchard Beach, ME.** The Old Orchard Beach station is open between May 1 and October 31. Alightings at the station peaked in August.
- **Saco, ME.** Alightings at Saco Station varied throughout the year, with peaks in the summer months.

- **Wells, ME.** Alightings at Wells Station peaked in August 2003 at 1,653. Alightings in the summer are sharply higher than during the rest of the year.
- **Durham, NH.** Durham Station was served on the weekends only in the month of January 2003. Daily service increased the alightings substantially, culminating in a peak in the early fall.
- **Exeter, NH.** Alightings at Exeter Station were consistently high all year round as shown in Table 2-3.

More than 475,000 of the 540,000 total passengers who rode the *Downeaster* through December of 2003 (two year totals) used the terminal stations in Boston or Portland. As shown in Table 2-4, approximately 48% of the *Downeaster* travelers rode the full length of the service between Portland and Boston. Among the eight intermediate stations, Exeter and Dover Stations have the heaviest ridership.

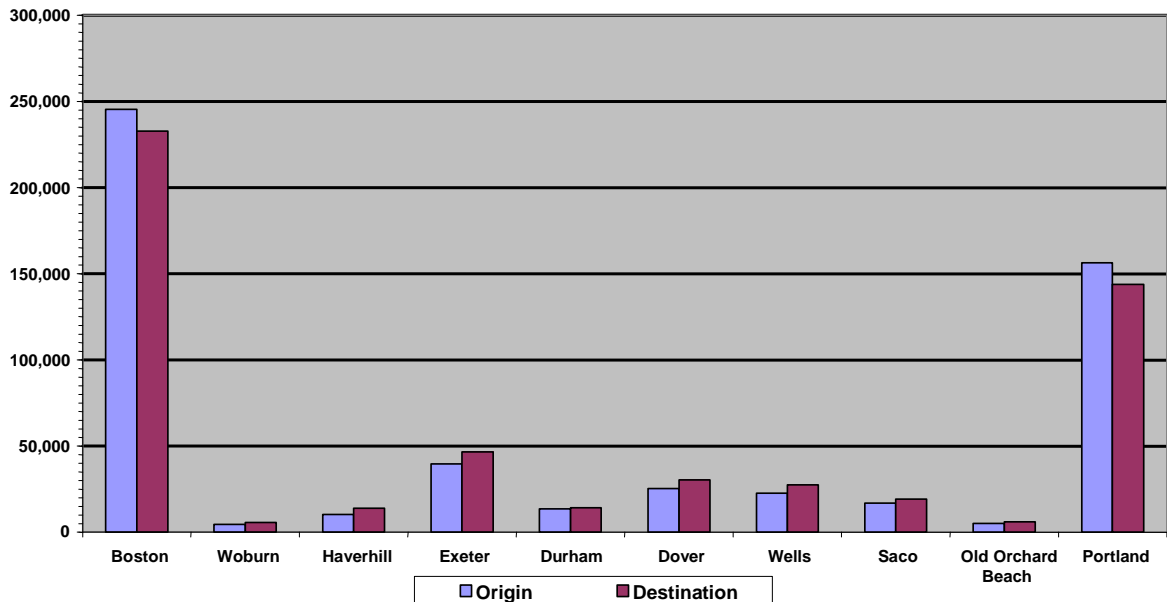
Table 2-4. *Downeaster* Origin and Destination January 2002 - December 2003

Origin	Destination										Total
	Boston	Woburn	Haverhill	Exeter	Durham	Dover	Wells	Saco	Old Orchard Beach	Portland	
Boston		0	4,357	38,066	9,764	23,091	23,775	16,422	3,721	126,278	245,474
Woburn	0		7	789	262	362	365	213	174	2,251	4,423
Haverhill	2,726	7		460	645	359	239	874	268	4,713	10,291
Exeter	32,739	750	600		603	745	175	95	304	3,621	39,632
Durham	9,276	405	983	716		202	208	435	42	1,459	13,726
Dover	19,561	389	416	820	262		210	202	317	3,234	25,411
Wells	19,831	432	362	216	200	190		104	124	1,162	22,621
Saco	14,021	234	1,037	139	382	240	182		28	549	16,812
Old Orchard Beach	2,792	175	346	397	69	416	197	35		657	5,084
Portland	131,829	3,181	5,791	4,981	1,980	4,673	2,163	862	1,007		156,467
Total	232,775	5,573	13,899	46,584	14,167	30,278	27,514	19,242	5,985	143,924	539,941

Source: Amtrak reports and KKO analysis

Figure 2-1 emphasizes the Boston-Portland orientation of the *Downeaster* service. During the first two years of operation, there were more than 475,000 boardings and alightings at North Station and 300,000 passenger trips starting or ending in Portland. The peak load segment is between Haverhill and Exeter.

Figure 2-1. *Downeaster* Origins and Destinations January 2002 - December 2003



Source: Amtrak monthly ridership and revenue by origin and destination

2.2 Projected Service

The goal of the *Downeaster* passenger rail network is to be a part of Maine’s statewide integrated, multi-modal passenger transportation system that supports and promotes tourism and economic development. The first step in the development of the passenger rail network was the implementation of the *Downeaster* service between Portland and Boston, which opened on December 15, 2001.

In addition to the current Boston-Portland service, current planning calls for passenger rail service to be extended past Portland to Freeport, Brunswick, Rockland and Lewiston/Auburn. The Brunswick extension of the *Downeaster* would serve two distinct travel markets and future ridership levels of these two markets have been estimated separately.

A next step in the development of Maine’s passenger rail network is the planning and implementation of passenger rail service north of Portland. The initial segment will extend the *Downeaster* service to Brunswick. Further extensions of Maine’s passenger rail network beyond Brunswick are expected to be feeders to, but not part of, the Amtrak national system. The service to Brunswick is the key link or bridge to the rest of the planned state passenger rail network.

In 2004, Maine DOT completed an Environmental Impact Assessment for extension of *Downeaster* service to Brunswick via Freeport. This extension will provide direct service between Boston and Freeport/Brunswick, connections with a seasonal rail service on the state-owned Rockland Branch, advance the development of a passenger service to Lewiston/Auburn, and open a rail path for possible seasonal service between Boston, Portland, the White Mountains, Quebec, and Montreal.

To support the Brunswick extension and related services, as well as increase the utility of the rail network for visitors to the state, Maine also plans to increase the daily service frequency of the *Downeaster* to five (and eventually more) round trips between Boston, Portland and Brunswick.

The feeder passenger rail services contemplated by Maine DOT include the state-owned Belfast and Moosehead Line, the Rockland Branch, the Augusta Branch, the Calais Branch and the Mountain Division. Passenger rail service is also being contemplated on the Montreal, Maine & Atlantic Railroad (formerly the Bangor & Aroostook) and the St. Lawrence and Atlantic Railroad. Each of these potential services will contribute ridership to the overall passenger rail network in Maine and help to grow ridership on the core *Downeaster* service. A planned intermodal center in Lewiston/Auburn may be connected to Portland by passenger rail. This segment may become the first leg of more extensive services to ski resorts and points north of Portland.

The feeder services most likely to be implemented in the near future are seasonal passenger service on the state-owned Rockland Branch and a year round service between Portland and the Lewiston/Auburn area. As of this time, station-specific forecasts have not been developed for the Rockland and Lewiston/Auburn services. (See Figure 2-2.)

Maine DOT has recently completed the rehabilitation of the Rockland Branch, which extends east from downtown Brunswick to Rockland, a distance of approximately 57 miles. Seasonal summer service is expected to begin on the line in 2007, approximately two years after the service from Portland to Brunswick has begun. With the implementation of this service, rail passengers may be able to connect to a high-speed ferry to Nova Scotia, as a ferry service operator has expressed an interest to Maine DOT to begin service based in Rockland.

The seasonal service is expected to operate between May and October. The proposed service schedule includes one to three round-trips, which will be run by a state selected operator. It is assumed that the trip from Brunswick to Rockland will take less than 70 minutes.⁷

⁷ The initial ridership estimates for the service were developed as part of the *US Route 1 Mid-Coast Transportation Study* prepared by VHB for the Maine Department of Transportation (MDOT). The purpose of the study was to determine the potential effectiveness of transportation demand management (TDM) and transportation system management (TSM) strategies in meeting existing and future transportation needs of the study area. The study area included a 71-mile long section of the Route 1 corridor from Bath to Belfast.

The *Maine Strategic Passenger Transportation Plan* prepared by Wilbur Smith for Maine DOT used the

The Lewiston/Auburn area is located about 35 miles north-northeast of Portland. Trains traveling between Portland and the planned Lewiston/Auburn Intermodal Terminal would operate along the St. Lawrence and Atlantic Railroad through the proposed Pineland development area. Between Yarmouth Junction and Portland, the Auburn service would operate over the same tracks as the Brunswick service. It is projected that the Lewiston/Auburn Service would contribute to ridership on the *Downeaster* service between Portland and Boston.

Figure 2-2. Feeder Services Most Likely to be Implemented in the Near Future

Portland to Rockland Branch Service		Portland to Lewiston Auburn Service	
Miles		Miles	
0	Portland	0	Portland
9.5	Cumberland	9.5	Cumberland
13.5	Yarmouth Junction	13.5	Yarmouth Jct
19.1	Freeport	19.7	Gray
27.6	Brunswick	24.3	New Gloucester
36.3	Bath	29.2	Danville Junction
47.8	Wiscasset	34.7	Auburn
	Newcastle	35.5	Lewiston
66.2	Waldoboro		
73	Warren		
	Thomaston		
84.3	Rockland		

information from the *US Route 1 Mid-Coast Transportation Study* as the basis for further development of ridership estimates for the Rockland Branch service. The service was defined as a seasonal service to be operated by a private operator (not Amtrak) connecting to the planned Amtrak service in Brunswick. The assumptions used to develop the ridership projections included one to three daily round trips with one-way travel times less than 70 minutes. It was estimated that this would result in an average of 110,000 annual trips. It appears that this was estimated by using about a 5-6 percent potential seasonal mode shift of the target market trips that were identified in the *US Route 1 Mid-Coast Transportation Study*. Ridership forecasts for the Lewiston/Auburn Service are documented in the *Intermodal Terminal Demand Forecast Final Report* prepared by MultiSystems for MaineDOT. Maine DOT is also currently in the planning stage for the return of passenger rail service to the Lewiston/Auburn area. The preliminary design and permitting for a new intermodal facility at the Lewiston/Auburn Airport is currently under development. This proposed facility would improve connections for automobile, bus, rail, and air travelers and aim to serve commuters working in Portland, as well as tourists and other travelers. In the future, Maine DOT hopes to establish seasonal passenger rail service from Portland through Auburn to the White Mountains, Montreal and Quebec.

CHAPTER 3. STATEWIDE IMPACTS FOR MAINE & NEW HAMPSHIRE THROUGH 2004

This chapter reviews the current contributions that *Downeaster* service brings to the Maine and New Hampshire economies. The restoration of *Downeaster* service is slightly more than three years old, and economic development benefits generated for Maine and New Hampshire by the service are in the early stages of gestation. In Chapter 5, we review projects in planning stages attributable to the *Downeaster*, and associated potential benefits that might be expected over time.

Benefits consist of “direct” economic activities and spin-off benefits to the economies of the two states. *Downeaster* service makes an economic contribution to the states of Maine and New Hampshire through four *types* of direct impacts:

1. **Visitor spending** in the two states that would not occur were it not for *Downeaster* service. Visitors to Maine and New Hampshire spend money on lodging, meals, and other purchases. Considering just the portion of the out-of-state visits that can be attributable directly to the *Downeaster* (visitors who would not travel to Maine or New Hampshire without access to the train service) accounts for \$3.5 million in visitor spending annually in the two states.
2. **Economic development** proximate to stations that can be partially or entirely attributed to the *Downeaster*. We interviewed stakeholders in communities that host *Downeaster* stations in Maine and New Hampshire. Based on these interviews, as well as observations, we estimate that new development (not including visitor spending) accounts for \$4.5 million of annual economic activity.
3. Estimated **net savings** of residents of Maine or New Hampshire who chose to use the *Downeaster* over other transportation modes, such as bus, auto or airplane. These are people who would have traveled by other means were the *Downeaster* not available. Based on survey findings the two primary alternative modes of *Downeaster* passengers are bus and private auto. Bus travel is less expensive than the train, however for the most part auto travel, as well as other modes such as car rental and airplane is more expensive. The total annual net savings to residents of Maine and New Hampshire who use the *Downeaster*, and would travel if the service was not available, is more than \$700,000.⁸

⁸ For visitor spending, we count people *going* to Maine or New Hampshire on the first leg of a round trip that would not be made without *Downeaster* service. To determine passenger savings, we count people with home origins in Maine and New Hampshire who reported they would make their trips by another means if the *Downeaster* were not available.

4. **Construction investments** from development that can be attributed to the presence of *Downeaster* service, which are one-time boosts to the state economies and are separated from annual totals. Through 2004, we estimate construction investment to be \$650,000.

Spin-off effects include the benefits that accrue suppliers of goods and services to businesses that are (1) patronized by visitors, (2) established as a result of the *Downeaster*, and (3) directly engaged in construction activities due to the presence of the *Downeaster*, as well as the economic activity generated when employees of both direct beneficiaries and suppliers spend their wages on local consumer purchases. (See the Text Box on the following page)

Overall, the *Downeaster* generates almost \$8.8 million of direct annual economic activity in Maine and New Hampshire, leading to the spin-off of additional downstream spending by suppliers as well as through respending of employee income, which total an additional \$6.7 million. This \$15 million of annual economic activity in Maine and New Hampshire support \$5 million in wages and 243 jobs. Construction activity to date has contributed nearly \$1.3 million more to the states' economies. (Please see Table 3-1.)

Table 3-1. The Annual Contribution of the *Downeaster* to Maine and New Hampshire Exceeds \$15 million (\$8.8 million in direct benefits).

	Business Sales	Jobs	Personal Income
Annual Benefits			
Direct Activities			
Visitor Spending	\$3,500,000	66	\$905,000
Economic Development Impact	\$4,390,000	83	\$1,545,000
Savings by using <i>Downeaster</i>	\$737,000	6	\$135,000
Total Direct Activities	\$8,627,000	155	\$2,585,000
Spin-off Activities	\$6,495,000	86	\$2,177,000
Total Direct & Spin-off Activities	\$15,122,000	240	\$4,762,000
One Time Construction Benefits			
Direct Benefits from Construction	\$649,000	9	\$222,000
Spin-off Activities	\$635,000	9	\$220,000
Total Direct & Spin-off Activities	\$1,284,000	18	\$442,000
Note: Dollars are rounded to \$ thousands. Columns may not add due to rounding.			
Source: 2004 Summer Survey of Passengers and 2003 total reported ticket sales by station pair			

THE FULL STORY: TRACKING SPIN-OFF EFFECTS

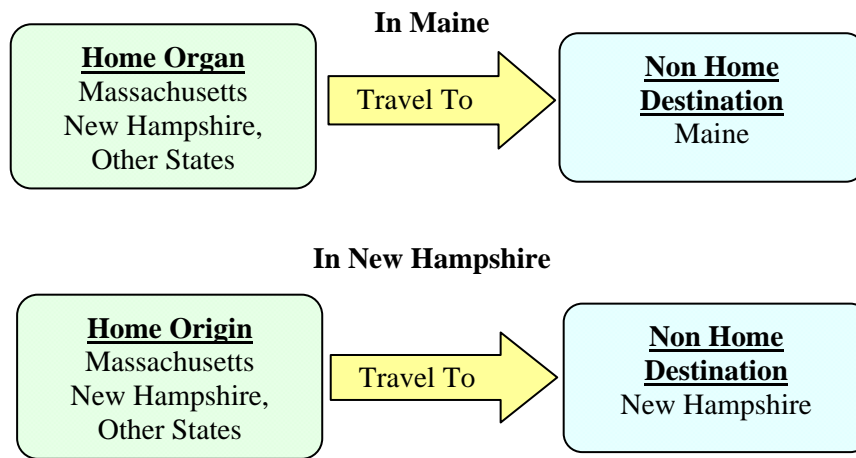
Input-output accounting traces the full contribution of an activity (e.g., *Downeaster* service) to the level of economic activity occurring in an area (e.g., the states of Maine and New Hampshire). This flow works as follows:

- People who visit Maine or New Hampshire from another state spend a portion of their income on purchases of food, gifts, entertainment and, at times, for lodging.
- Businesses that receive this income (e.g., museums, restaurants, stores and hotels) spend a portion of that revenue to order equipment and supplies, and to purchase business services, and another portion of it to pay on-site workers.
- Both the orders for services and supplies and the pay to workers generate additional off-spin-off site business activities
 - The orders generate a stream of revenue to firms that provides the needed goods and services, and those firms also pay their own workers and purchase required materials;
 - Income flowing to workers generates a subsequent stream of off-site spending on consumer purchases.
- These streams of spin-off impacts (also known as ripple or domino effects) do not go on forever. In the end, every product or service is comprised of some raw materials and some value-added by workers along the way. Input-output models can be used to calculate these total effects on business sales and associated jobs and income, and the portion occurring in Maine and New Hampshire. The part associated with business supplier orders is sometimes referred to as the “indirect effect,” while the part associated with worker income respending is sometimes referred to as the “induced effect.” Both parts affect the overall level of economic activity occurring in the region.

3.1 Visitor Spending

Benefits to state economics from visitor spending involve visitors from out of state spending money in the states targeted for analysis. Accordingly, to count benefits of visitor spending due to the *Downeaster* for Maine, we count *Downeaster* passengers people who have home origins in Massachusetts and New Hampshire and a non-home destination in Maine. Similarly to determine economic impacts in New Hampshire, we count only those alighting passengers visiting New Hampshire with home origins in Massachusetts, Maine and other states. (See Figure 3-1.)

Figure 3-1. Who Counts for Measuring Spending Benefits Attributable to the *Downeaster*?



Roughly 139,000 people make round trips on the *Downeaster*. Table 3-2 shows station to station travel along the *Downeaster* from station of origin to station of alighting.

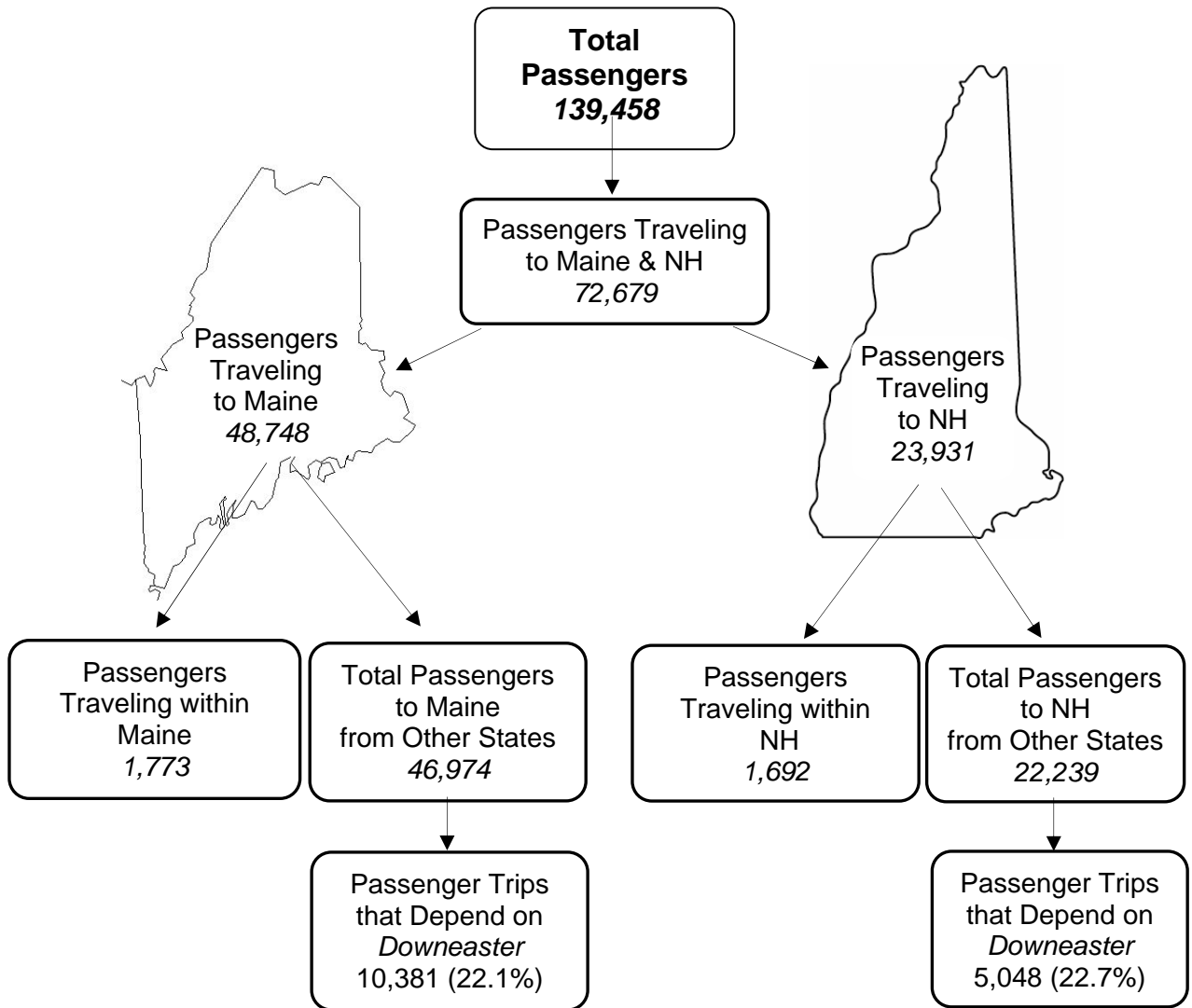
Table 3-2. Estimated Annual Round Trip Travel on *Downeaster* by Home Origin Station and Non-Home Destination Station (2003)

Home Origin	Non Home Destination										Total
	Portland	OOB	Saco	Wells	Dover	Durham	Exeter	Haverhill	Woburn	Boston	
Portland		241	188	127	1,042	1,077	1,436	789	609	25,442	30,951
OOB	132		8	54	215	0	88	0	35	176	707
Saco	105	8		55	119	498	30	393	110	5,111	6,429
Wells	748	54	55		57	42	29	125	40	4,696	5,846
Dover	781	0	0	32		175	561	92	264	8,048	9,953
Durham	178	38	0	42	0		0	0	224	4,208	4,691
Exeter	152	88	30	53	0	957		226	878	13,095	15,480
Haverhill	1,088	216	393	39	92	829	226		8	2,209	5,100
Woburn	1,084	63	43	381	264	224	0	0		0	2,059
Boston	30,488	1,627	3,372	6,785	3,260	3,076	9,633	0	0		58,243
Total	34,756	2,336	4,089	7,566	5,049	6,878	12,004	1,626	2,168	62,986	139,458

Source: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

Of the total 139,000 round-trip passengers, 52% (nearly 73,000) travel to locations in Maine and New Hampshire in the initial leg of their trips. Almost 3,500 passengers travel between points within Maine or within New Hampshire, and therefore their use of the *Downeaster* does not add to economic activities in either state. Annual spending of approximately 69,000 *Downeaster* passengers add to the economies of Maine and New Hampshire, including 47,000 to Maine and 22,000 to New Hampshire. (See Figure 3-2.)

Figure 3-2. Just 22% of *Downeaster* Passengers are Counted in Visitor Spending Calculations



Source: July 2004 Survey of Passengers and 2003 reported ticket sales by station pair

Findings from the passenger survey conducted for this study found that 22.1% of round-trip passengers boarding in Massachusetts or New Hampshire and alighting in Maine and 22.7% of passengers boarding in Massachusetts or Maine and alighting in New Hampshire would not have made their trips were it not for the *Downeaster* service. About 78% of passengers would have chosen other modes, such as automobile or bus, if the *Downeaster* was not available. (See Table 3-3.)

In total 15,430 visitors are counted when calculating annual visitor spending benefits; including 10,381 in Maine and 5,048 in New Hampshire. In addition, Table 3.3 shows how other visitors would arrive in Maine and New Hampshire if the *Downeaster* were not available.

Table 3-3. More than 22% of *Downeaster* Passengers to Maine and New Hampshire Rely on *Downeaster* Service

MA and NH Visitors to ME		ME and MA Visitors to NH	
Mode	Percent	Mode	Percent
Would not make trip	22.1%	Would not make trip	22.7%
Drive car/ truck	35.8%	Drive car/ truck	36.1%
Bus	23.7%	Bus	37.1%
Air	6.8%	Air	1.0%
Rental car	11.6%	Rental Car	2.1%
Commuter rail	0.0%	Commuter Rail	1.0%
Total	100%	Total	100%

Source: July 2004 Summer Survey of Passengers

Economic Benefits Associated with Visitors

The Downeaster generates \$3.5 million of new direct visitor spending annually in Maine (\$2.87 million) and New Hampshire (\$625,000)

In this chapter, we review state impacts only. Therefore, trips within Maine or within New Hampshire are not considered (but will be reviewed in Chapter 6 below, when we talk about economic benefits to specific station-communities.)

Visitor spending attributable to the *Downeaster* accounts for nearly \$3.5 million in direct business sales in Maine and New Hampshire, representing average spending of \$226 per visitor. These are sales in the two states that would not occur were it not for the train service. Average spending of visitors to Maine and New Hampshire are \$277 and \$124, respectively. We also found that spending levels vary significantly by destination. For example, Average visitor spending in Maine ranges from \$301 in Portland to \$88 in Saco; and in New Hampshire from \$154 in Exeter to \$65 in Dover.

This level of spending accounts for passengers who said that they would not have made the trip if *Downeaster* service was not available, representing a combined 22.3% of

visitors to Maine and New Hampshire (2004 survey). Our assumption is that the remaining 78% would have made the trips by other modes. We then applied our survey findings to reported sales by station pair in 2003 to calculate annual spending totals. (See Table 3.4.)

Table 3-4. \$3.5 Million Annual Visitor Spending in ME and NH is Directly Attributable to the *Downeaster*

State of Destination	# of <i>Downeaster</i> Visitors	Total Direct Visitor Spending (rounded to thousand)
Maine	10,381	\$2,875,000
New Hampshire	5,048	\$ 625,000
Totals	15,430	\$3,500,000

Source: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

Visitor spending includes overnight lodging, food & drink, entertainment, retail purchases and local transportation at destinations, but does not include the cost of *Downeaster* service itself. Visitors to Maine and New Hampshire, who use the *Downeaster*, spend an average of \$73 for food and drink, \$72 for hotel and other lodging, \$27 for entertainment and amusements, \$46 for local transportation and \$9 for local transportation. Table 3-5 shows the breakdown by sector and state and Table 3-6 shows how each “average” visitor purchases goods and services in Maine and New Hampshire after disembarking from the *Downeaster*.

Table 3-5. State Visitor Spending by Sector

Category of Expense	Total Sector	ME	NH
Lodging	\$1,117,000	\$904,000	\$213,000
Food and beverage	\$1,122,000	\$930,000	\$184,000
Entertainment	\$413,000	\$344,000	\$68,000
Retail	\$706,000	\$579,000	\$128,000
Local transportation	\$142,000	\$110,000	\$32,000
Total	\$3,500,000	\$2,875,000	\$625,000

Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.
Source: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

Table 3-6. Average Visitor Spending by Sector

Category of Expense	ME	NH
Lodging	\$87	\$42
Food and beverage	\$90	\$36
Entertainment	\$33	\$14
Retail	\$56	\$25
Local transportation	\$11	\$6
Total	\$277	\$124

Source: July 2004 Summer Survey of Passengers

Total Economic Contribution

Downeaster service generates more than \$6.2 million annually of visitor spending that represents new economic activity in the Maine and New Hampshire economies. The total includes \$3.5 million of direct (or initial) spending by visitors and \$2.7 million of spin-off sales. Overall, these sales support roughly 100 workers and pay them over \$1.8 million in personal income. Table 3-7 below breaks out the visitor spending benefits by initial spending and spin-offs in the Maine and New Hampshire economies jointly and individually.

Table 3-7. Visitor Spending by Initial Spending and Spin-Off Effects Generate \$6.2 Million of Economic Activity in Maine and New Hampshire

Visitor Spending	Benefits from Initial Visitor Spending	Spin-off Benefits	Total Benefits
Totals for Maine and New Hampshire			
Business Sales	\$3,500,000	\$2,745,000	\$6,244,000
Employment	66	38	103
Personal Income	\$905,000	\$924,000	\$1,829,000
Maine			
Business Sales	\$2,875,000	\$2,264,000	\$5,139,000
Employment	55	32	87
Personal Income	\$729,000	\$762,000	\$1,490,000
New Hampshire			
Business Sales	\$625,000	\$480,000	\$1,105,000
Employment	10	6	16
Personal Income	\$176,000	\$162,000	\$338,000

Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.

Source: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

3.2 Economic Development

In total, the Downeaster generates \$7.7 million of annual economic activity in Maine and New Hampshire, which supports 125 jobs and \$3.2 million in earnings.

In this section we present an assessment of economic activities in Maine and New Hampshire so far that are attributable to the restoration of *Downeaster* service. For the purpose of this study, we exclude from this analysis:

- (1) Amtrak and station employment. The intent of this study is to show the economic activities in the Maine and New Hampshire economies by *Downeaster* service, and benefits generated from those activities. In Chapter 8, we will separately account for employment associated with the *Downeaster*, itself; and
- (2) Retail establishments that benefit due to *Downeaster* passengers. These exclusions are to avoid double counts with the economic benefits counted as visitor spending.

At the time of this study, *Downeaster* service is three years old. Economic development, however, requires years for maturation. For example:

- In the short term, *property* may start to be sold and purchased for development, and local planners may envision new land uses as a consequence of station activities;
- In the medium term, *construction* may begin as companies locate new facilities or expand existing facilities near stations; and
- In the longer term, *businesses* start to operate in the newly constructed (or expanded) facilities and thus generate additional jobs in that area.⁹

In Chapter 5, we will review future economic development potential from the *Downeaster* by projecting outcomes from observed real estate churning and projections of local economic development officials. Analyses in this chapter are of actual economic activities attributable to communities where the *Downeaster* now operates:

- **Maine** - Saco, Wells, Old Orchard Beach and Portland; and
- **New Hampshire** - Dover, Durham and Exeter.

Methods and Assumptions

Interviews. Our accounting of economic development is based on interviews with public sector economic development officials and business people, including realtors, developers and staff of local Chambers of Commerce. In each interview, informants were asked to comment on development near stations, other local development that can be attributable to establishment of *Downeaster* service, and the proportion of development that can legitimately be credited to the service. Midpoints were used when

⁹Another aspect of long term benefits is an increase in property values near stations. It is too early in the life of the *Downeaster* to clearly measure this, but we discuss early stages in Chapter 7.

there were disagreements among informants or when ranges were provided (e.g., we used 37.5% if we were told that the *Downeaster* is responsible for 25% - 50% of development).

Observations. We observed business activities at operating *Downeaster* stations, and used our interviews to identify (1) the importance of the *Downeaster* to the location of these businesses, and (2) if these are new businesses to the area or relocated from other parts of the current host state.¹⁰

Metrics. Through observations and interviews, we are able to glean of part of the story of economic development. Sometimes we found new businesses by address or building size by function (e.g., office or retail). To develop profiles of businesses to measure economic development, including employment, personal income and business sales, the following sources were used:

- **Business Credit USA** requires business names and addresses, and provides employment and business sales estimates.¹¹
- **Institute of Transportation Engineers (ITE)** provides ratios of employment to square feet for various types of businesses, such as retail, manufacturing, office, etc.
- State and county data sets from the **Minnesota IMPLAN Group** that provides ratios of business sales and personal income per worker by about 509 employment classifications for 509 industries based primarily on data from the United States Department of Commerce, as well as other federal agencies.¹²

Findings

At this time, business activities of 20 establishments in Maine and New Hampshire can be all or partially attributed to operation of the *Downeaster* in three communities associated with *Downeaster* service (see Table 3-8):

- **Saco, ME** – 7 downtown establishments for which 37.5% of its development is attributed to the *Downeaster*. (Source: local interviews.)
- **Old Orchard Beach, ME** – 25% of the new chamber of commerce building is attributed to potential tourism and business development anticipated from the *Downeaster*. (Source: local interviews.)

¹⁰ New or expanded businesses (leading to new jobs and additional economic activity) create economic benefits. Intra-state relocations without expansion are generally not counted in benefit analyses.

¹¹ Business Credit USA provides ranges from employment and business sales, and we used midpoints of those ranges.

¹² IMPLAN provides wage data based on the concept of “total compensation,” which includes employer paid benefits, such as companies’ shares of health care premiums or retirement contributions. We adjusted the wage data to reflect items that are generally shown in gross paychecks before payroll deductions for workers’ shares paid for benefits or taxes. We used 83.5% of total compensation to estimate gross paychecks, which is from 2003 national data of the Bureau of Economic Analysis, U.S. Department of Commerce. This is an estimate, since the actual ratio varies by industry, by company and location.

- **Dover, NH** – 12 establishments in Mill building near train station. (Source: observations and interviews.)

Table 3-8. Jobs Attributable to the *Downeaster* to Date

Location	Description	Attributed to <i>Downeaster</i>	Employment Assumption
Maine			
Saco	7 downtown establishments	37.5% per interviews	7 jobs
OOB	Chamber of commerce building	25% per interviews	4 jobs
New Hampshire			
Dover	12 establishments in mill building	100% per interviews	72 jobs
Sources: Local interviews, Business Credit USA, ITE (office 4.05 workers per 1,000 square feet).			

Economic development attributable to the *Downeaster* is furthest advanced in Dover, New Hampshire and significantly less pronounced to date in Maine. However, this should be seen as Dover “cashing-in” early on economic potential provided by the *Downeaster*, while in Maine there is significant growth potential associated with the train service that is being nurtured.¹³ (Please see Chapters 5 and 6.)

In total, shown in Table 3-9, the *Downeaster* generates \$7.7 million of annual economic activity in Maine and New Hampshire, which supports 125 jobs and \$3.2 million in earnings. About 88% of economic development benefits (measured by estimated business sales) are found in New Hampshire and 12% in Maine.

¹³ Alternative explanation, Dover is close enough to Boston for *Downeaster* to have a measurable effect. Also, it may be years before Boston’s commuter shed spreads wide enough to reach Maine. In Dover, the mill building was renovated before *Downeaster* service began and was ready for occupancy. (Interviewees said the impetus for the renovation was not the train service).

Table 3-9. Downeaster Generated Economic Development Activities in Maine and New Hampshire Total Almost \$8 Million in Annual Economic Activities

	Direct Benefits	Spin-off Benefits	Total Benefits
Totals for Maine and New Hampshire			
Business Sales	\$4,390,000	\$3,348,000	\$7,738,000
Employment	83	42	125
Personal Income	\$1,545,000	\$1,113,000	\$2,658,000
Maine			
Business Sales	\$537,000	\$381,000	\$918,000
Employment	11	5	16
Personal Income	\$180,000	\$129,000	\$310,000
New Hampshire			
Business Sales	\$3,853,000	\$2,967,000	\$6,820,000
Employment	72	37	109
Personal Income	\$1,364,000	\$984,000	\$2,348,000

Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.

Source: Local interviews, Business Credit USA, ITE, IMPLAN modeling package for Maine and New Hampshire

3.3 Passenger Savings of Maine and New Hampshire Residents

Residents of Maine and New Hampshire who use the Downeaster save \$737,000 per year, which can then be spent on consumer purchases and services in their states' economies.

Nearly 69,000 residents of Maine and New Hampshire use the *Downeaster*. Based on the July 2004 Passenger Survey, we can extrapolate that 10% would not make their trips if *Downeaster* service was not available, while nearly 58% would drive and 29% would take the bus.¹⁴ Table 3-10 shows the transportation mode split of riders who started their trips in Maine and New Hampshire as inferred from results of the Survey.

¹⁴ Earlier in this chapter, we reported that 22% of visitors to Maine and New Hampshire rely on the *Downeaster* to travel. This analysis, however, is by place of residence – not destination as for spending. While 25% of travelers who start in Massachusetts (counted in visitor spending calculations but not for passenger savings) would not take their trips without the *Downeaster*, the proportions are 14% and 7% of Maine and New Hampshire, respectively.

Table 3-10. *Downeaster* Passengers with Home Origins in Maine and New Hampshire

	Number	Percent
Total Riders	68,622	100%
Would not make trip without rail service	7,067	10.3%
Own Car	39,432	57.5%
Bus	20,004	29.2%
Air	1,375	2.0%
Auto Rental	744	1.1%

Sources: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

We compared two single way point-to-point *Downeaster* fares for trips that originate in Maine or New Hampshire with destinations in Maine, New Hampshire and Massachusetts to standard point to point bus fares, mileage charges of \$.36/mile (tax deduction rate of the U.S. Internal Revenue Service at the time of this study) for using town-vehicle, basic daily mid-sized car rental and Boston to Portland air fare.¹⁵ Key findings are described below and displayed in Tables 3-11 and 3-12.

- *Downeaster* is cheaper than using one's car. Though partly dependent on distance, virtually all *Downeaster* travel is less expensive than driving. We adjusted cost to account for parties traveling together on the train – they pay separate fares but only would have paid for one automobile round trip. We calculated savings based on an average passenger load of two.
- *Downeaster* service is uniformly more expensive than inter-municipal bus
- *Downeaster* is far less expensive than renting a car or using air transportation. For car rentals, we adjusted the gross findings to account for: (1) shared rentals and divided gross finding by two; and (2) trips of longer than one day – based on survey findings we then multiplied the product of (1) by 1.7.

Table 3-11. Maine and New Hampshire residents save more than \$700,000 annually in transportation costs by using the *Downeaster*

State of Home Origin	Driving Difference	Bus Difference	Air Difference	Auto Rental Difference	Totals
Maine	\$349,000	-\$201,000	\$321,000	\$0	\$470,000
NH	\$144,000	-\$58,000	\$165,000	\$17,000	\$268,000
Totals	\$492,000	-\$259,000	\$487,000	\$17,000	\$737,000

Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.

Source: 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

¹⁵ The survey did not make the distinction between air carrier service and private planes.

For this analysis we assumed that these savings are spent in the Maine and New Hampshire economies for purchases of goods and services by households that have retained this extra income. Using this assumption, *Downeaster* service is responsible for adding \$737,000 annually to the economies of Maine and New Hampshire and this spending in turn generates an additional \$400,000 of economic activity in the two states. (See Table 3-12.)

Table 3-12. Total benefit of passenger savings to Maine and New Hampshire is \$1.1 million in business sales.

Totals for Maine and New Hampshire			
Business Sales	\$737,000	\$402,000	\$1,140,000
Employment	6	\$6	12
Personal Income	\$135,000	\$140,000	\$275,000
Maine			
Business Sales	\$470,000	\$257,000	\$ 727,000
Employment	4	4	8
Personal Income	\$84,000	\$89,000	\$174,000
New Hampshire			
Business Sales	\$268,000	\$146,000	\$414,000
Employment	2	2	4
Personal Income	\$50,000	\$50,000	\$101,000
Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.			
Source: IMPLAN modeling package, 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers			

3.4 Construction Investment

Construction investments are one-time expenditures that throw-off significant employment impacts and generate economic activities for building supplies, other business expenses, as well as consumer sales generated by construction workers and employees of businesses that do business with construction firms. In general, the spin-off economic value generated by the construction industry is considerably higher than other industries.

To date, construction projects initiated (whole or in part) due to the *Downeaster* have generated about \$1.3 million in economic activity, including about \$650,000 in project value and the same in spin-off effects. Projects accounted for include downtown buildings and supporting investments in Saco and commercial development in Old Orchard Beach. Scale of investment and portions of project costs attributed to the *Downeaster* were estimated from local interviews. (See Table 3-13.)

Table 3-13. Construction Value Attributed to *Downeaster*¹⁶

Location	Description	Attributed to <i>Downeaster</i>	Construction Value From <i>Downeaster</i>
Saco	Downtown investments	\$1.3 million total. 37.5% per interviews	\$489,000
Old Orchard Beach	Downtown commercial building & chamber building	\$640,000 total. 25% per interviews	\$160,000
TOTALS		\$1.94 million .33% attributed to the <i>Downeaster</i>	\$649,000

Sources: Interviews

Results. As the information in Table 3-14 displays, construction activities to date that have been associated with the *Downeaster* have generated \$1.3 million in business sales, paid \$442,000 in wages to Maine residents and supported 18 jobs.

Table 3-14. *Downeaster* Generated Economic Development Activities in Maine

	Direct Benefits	Spin-off Benefits	Total Benefits
Business Sales	\$649,000	\$635,000	\$1,284,000
Employment	9	9	18
Personal Income	\$222,000	\$220,000	\$442,000

Note: Dollars are rounded to \$ thousands. Rows may not add due to rounding.
Source: Interviews and IMPLAN Modeling Package

¹⁶ These represent completed projects. Projects now under construction or in pre-construction stages are reviewed in chapters 5 and 6.

CHAPTER 4. FORECASTING FUTURE PASSENGERS BY STATION OF ALIGHTING ON THE *DOWNEASTER*

Presently, the *Downeaster* carries approximately 300,000 passenger trips annually. Over the next decade, the State of Maine is planning to expand and improve its passenger rail services substantially in several key areas. It plans to:

1. Improve *Downeaster* service along the 114 miles between Boston and Portland principally by increasing service frequency and speed to make the service convenient and attractive for a wider spectrum of riders;
2. Extend the *Downeaster* service 27 miles east to Brunswick providing direct service to shopping destinations at Freeport and connections with other services in Brunswick;
3. Foster a privately operated regional service along the 57 miles of state owned railway between Brunswick and Rockland; and
4. Develop an independent local service that will run 35 miles between Portland and Auburn sharing track with the *Downeaster* for the route's southernmost 13 miles.

Passenger forecasts used for this study are presented below in Table 4-1. A detailed review of the methodology used to derive these estimates, including rough forecasts of future travel at all Rockland Branch stations, is found in Appendix III.

Table 4-1. Forecast Annual Ridership by Line Segment and Improvement Responsible for Riders (2015)

Segment	Base Service with Improvements	Brunswick Extension	Rockland Branch	Lewiston Auburn	Total
Boston to Portland	470,095	64,512	75,494	14,753	624,854
Portland to Brunswick		97,799	75,494		173,293
Brunswick to Rockland			100,659		100,659
Portland to Auburn				147,527	147,527

Note: We used a manual methodology that combined empirical statistics with professional judgment to allocate the forecast 2015 ridership to stations and station pairs. Forecasts are based on current *Downeaster* travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services.

Source: KKO analysis of various reports prepared by others.

The allocation of approximately 625,000 annual passengers forecast between Boston and Portland is shown in Table 4-2. on the following page. A more detailed projection of passenger trips between Portland and “Points East” is seen in Appendix III.

Table 4-2. 2015 Travel Table with Extensions

Home Origin	Non Home Destination											
	Points East	Portland	OOB	Saco	Wells	Dover	Durham	Exeter	Haverhill	Woburn	Boston	Total
Points East		85,881	784	1,951	3,035	2,773	2,586	5,333	1,398	1,171	33,176	138,088
Portland	85,881		407	318	213	1,756	1,815	2,421	1,330	1,026	42,880	138,047
OOB	340	222		13	90	363	0	148	0	59	296	1,531
Saco	3,093	176	13		92	201	840	51	663	185	8,614	13,928
Wells	2,813	1,260	90	92		97	71	50	210	68	7,915	12,666
Dover	4,789	1,317	0	0	53		295	945	155	445	13,565	21,564
Durham	2,257	300	64	0	71	0		0	0	378	7,093	10,163
Exeter	7,448	256	148	51	89	0	1,613		381	1,481	22,071	33,538
Haverhill	2,454	1,834	364	663	65	155	1,397	381		13	3,723	11,050
Woburn	991	1,826	107	72	642	445	378	0	0		0	4,461
Boston	28,023	51,386	2,743	5,683	11,436	5,494	5,185	16,236	0	0		126,187
Total	138,088	144,460	4,721	8,844	15,787	11,284	14,179	25,565	4,138	4,824	139,334	511,223

Note: Based on current *Downeaster* travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services.

Forecasts for key stations currently in planning stages are discussed below.

4.1 Brunswick

Brunswick will serve as a terminal for rail connections between Amtrak and Maine Eastern trains. As shown in Table 4-3, it is expected that approximately 57,000 passengers will alight in Brunswick in 2015. Of these passengers, approximately 38,000 will be changing trains between Amtrak and the Maine Eastern at Brunswick terminal. Nearly 2,600 local travelers will use the *Downeaster* to travel to Portland and Freeport. An equivalent number of Portland and Freeport area residents will use the train to travel to Brunswick. Moreover, about 2,100 local residents will ride the *Downeaster* south of Portland and an equivalent number of travelers living south of Portland will use the *Downeaster* to reach Brunswick. Annually, about 1,000 vacationers staying in Portland will use the *Downeaster* for travel to Brunswick.

Table 4-3. Forecast Travelers Alighting at Brunswick Station (2015)

Amtrak/Maine Eastern Interchange Traffic	37,747
Local travel to Freeport and Portland	2,578
Local travel from Freeport and Portland	2,578
Travel to points south of Portland	2,150
Travel from points south of Portland	2,150
Vacationer's day trips from Portland	1,075
Local travel to Rockland Branch	3,649
Local travel from Rockland Branch	4,655
Total Annual Alightings	56,582
Source: Based on current <i>Downeaster</i> travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services	

4.2 Freeport

As shown in Table 4-4, it is expected that approximately 40,000 passengers will alight in Freeport in 2015. Most (29,000) of these passengers will be arriving from points south of Portland for shopping and sightseeing. Approximately 740 local travelers will use the *Downeaster* to travel to Portland and Brunswick. An equivalent number of Portland and Brunswick area residents will use the train to travel to Freeport. Annually, about 9,700 vacationers staying in Portland will use the *Downeaster* for travel to Freeport.

Table 4-4. Forecast Travelers Alighting at Freeport Station (2015)

Local travel to Brunswick and Portland	736
Local travel from Brunswick and Portland	736
Travel to points south of Portland	0
Travel from points south of Portland	29,030
Vacationer's day trips from Portland	9,677
Total Annual Alightings	40,180

Source: Based on current *Downeaster* travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services

4.3 Rockport

As shown in Table 4-5, approximately 16,000 annual passenger trips are expected to alight in Rockport, including 6,200 trips by local residents to the *Downeaster* and 6,200 trips by predominately out-of-state visitors arriving in Maine via the *Downeaster*. Almost 1,800 Rockland area residents will use the Maine Eastern to travel along the Rockland Branch, and approximately 2,300 residents of the mid-coast region will use the Maine Eastern to travel to Rockland.

Table 4-5. Forecast Travelers Alighting at Rockport Station (2015)

Local residents traveling on Maine Eastern	1,762
Maine Eastern travel to Rockland	2,265
Local residents connecting to <i>Downeaster</i>	6,258
Vacationers arriving on the <i>Downeaster</i>	6,258
Total Annual Alightings	16,542

Source: Based on current *Downeaster* travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services

4.4 Auburn

As shown in Table 4-6, approximately 81,000 annual alightings are expected in Auburn. Of these trips, the vast majority are expected to be local residents returning from trips for work and other purposes to Portland. Approximately 7,400 trips by local residents to connect to the *Downeaster* are expected. An equivalent number of trips by predominately out-of-state travelers to the Androscoggin Valley using the *Downeaster* are expected to make connections in Portland for travel to Auburn.

Table 4-6. Forecast Travelers Alighting at Auburn Station (2015)

Local residents traveling to Portland	66,387
Local residents connecting to <i>Downeaster</i>	7,367
Non-residents arriving on the <i>Downeaster</i>	7,367
Total Annual Alightings	81,140

Source: Based on current *Downeaster* travel patterns adjusted upward to reflect growth on the existing ten-station service plus travel from planned extensions and connecting services

CHAPTER 5. PROJECTED STATEWIDE IMPACTS IN MAINE AND NEW HAMPSHIRE

The potential economic benefit for the Downeaster may exceed \$100 million per year by 2015, if the new stations come on line as anticipated and communities, property owners and entrepreneurs take advantage of economic development opportunities

In this chapter, we project statewide economic benefits of *Downeaster* service to 2015 for Maine and New Hampshire. These projections are developed for stations that are currently operating in the two states (Saco, Wells, Old Orchard Beach and Portland, ME; and Dover, Durham and Exeter, NH), as well as selected new stations being planned in Maine (Brunswick, Freeport, Rockland and Lewiston/Auburn). Projected annual benefits to each state are based on anticipated visitor spending, economic development, and construction activities.

By 2015, the total annual direct economic benefit associated with the *Downeaster* could approach \$58 million in business sales and roughly 1,200 jobs, before state multipliers effects are calculated. Spin-off economic activities will add approximately \$44 million in downstream economic spin-offs, generating additional jobs and personal income. Less than 30% of direct benefits are projected to be derived from activities at existing stations in Maine and New Hampshire and slightly more than 70% are from tapping the potential at Brunswick, Freeport, Rockland and Lewiston/Auburn, should those stations be in full operation. Major components of the anticipated benefits include:

- More visitor spending due to projected ridership increases and direct access to the Freeport retail center. The projected ridership gains will also increase the total savings from using the *Downeaster* over other modes of transportation; and
- Economic development, principally in Saco, Wells, Freeport and Brunswick, along with residential construction in Portland.

By 2015, and assuming development and operation of the new stations in Rockland, Freeport, Brunswick and Auburn, annual economic benefits attributable to the *Downeaster* in Maine and New Hampshire are expected to include \$102 million in business sales, supporting 1,700 jobs that pay an aggregate of about \$36.5 million in wages. (See Table 5-1.) In addition, almost \$37 million of construction investment is anticipated, based on the expectations of local economic development officials and businesspeople.

Table 5-1. By 2015, Annual Economic Benefits from *Downeaster* Service May Exceed \$100 Million in Annual Business Sales, Which Would Support 1,700 Jobs.

	Business Sales	Jobs	Personal Income
Annual Benefits			
Direct Benefits			
(1) ME - From operations at Current Stations	\$12,063,000	248	\$4,098,000
(2) ME - From operations at Planned Stations	\$ 41,283,000	743	\$15,434,000
(3) NH - From operations at Current Stations	\$5,195,000	91	\$1,715,000
Total Direct	\$ 58,542,000	1,081	\$21,246,000
<i>Spin-off Activities</i>	<i>\$ 44,746,000</i>	<i>632</i>	<i>\$15,305,000</i>
Total Direct & Spin-off Activities	\$ 103,446,000	1,713	\$36,552,000
One Time Construction Benefits			
Direct Benefits from Construction	\$36,861,000	503	\$12,467,000
<i>Spin-off Activities</i>	<i>\$35,689,000</i>	<i>502</i>	<i>\$12,312,000</i>
Total Direct & Spin-off Activities	\$72,550,000	1,005	\$24,779,000

Note: Totals may not add due to rounding.

Source: Interviews, July 2004 Passenger Survey, *Downeaster* passenger forecasts, ITE, RS Means Construction Calculator, MIG

5.1 General Methodology

Our approach to calculating future economic contribution of *Downeaster* service rests on ridership projections, observation of ongoing construction, recent real estate transactions and insights of local economic development planners and businesspeople. Data received from these interviews were used when available, but were often fragmentary. These partial data were augmented by other data tools available and calibrated to local conditions. Tools used to support the analysis of future economic benefits include:

Ridership projections. These were developed by the consultant team based on past studies, including The 1997 Maine Strategic Passenger Transportation Plan and the subsequent 2003 *Downeaster* forecast, and are the basis for visitor spending projections.

July 2004 Summer Survey of Passengers. Results of the 2004 survey are assumed constant for the 2015 analysis.

ITE ratios for office, retail and manufacturing employment. From interviews, we could often estimate square footage and types of use for planned/envisioned development. In many cases, though, employment projections were not available and ITE ratios were used.

Minnesota IMPLAN Group. MIG provides ratios of business sales and personal income per worker by industry and also provides multipliers to determine total economic benefits per state.

RS Means Construction Estimator. The RS Means package was used to estimate construction costs of new projects, when not provided through interviews or obtainable by using comparable local projects.

A Note About Future Office and Retail Assumptions

IMPLAN, as well as RIMS and REMI – the other two major econometric packages available - are industry based. This means the more clearly that potential development can be identified, the more accurate impacts can be estimated based on statewide (or regional) economic patterns. For example, “hotel,” “convenience store” and “insurance agency” are clearly defined industries and we know from state/county data in Maine or New Hampshire actual business sales and wages per employee, generally how the industry purchases goods and services, wage and profit scales per industry and can profile how workers spend their money, given their income. “Office” or “retail”, however, are general land uses and not defined industries. Yet in many instances, 10 – 15 year horizons for economic development planning cannot be more specific. This presents two solutions: (1) pick an industry associated with the general sector or (2) average retail sector industries and those sectors that are generally thought of as providing office jobs. As it is not reasonable to randomly choose a specific industry, we modeled aggregations of retail and office-type industries. Sectors that were used for general “office” development are shown below. Of course, when we had a rational basis for identifying a specific office use or retail industry, we did not use these aggregations.

Office-based industries included in aggregation: legal services, accounting & bookkeeping, architectural & engineering, specialized design, custom computer programming, computer systems design, other computer related services, including facilities management, management consulting, environmental & other technical consulting, scientific research & development, advertising & related services, photographic services, veterinary services, all other miscellaneous professional & technical services, management of companies & enterprises, office administration, facilities support services, employment services, business support services.

Retail industries included in aggregation: furniture & home furnishings, electronics & appliance stores, building materials & garden supplies., food & beverage stores, health & personal care stores, clothing & clothing accessories, sporting goods, hobby, book & music stores, general merchandise stores and miscellaneous store retailers.

See Appendix V for additional explanation of IMPLAN.

5.2 Visitor Spending

Total visitor spending is the product of out of state visitors to Maine and New Hampshire projected for 2015 (see Chapter 4), the proportion of visitors would not have traveled were it not for the *Downeaster* and average spending per passenger reported from the 2004 passenger survey.

We used the 2004 passenger survey to determine:

- The proportion of out-of-state visitors to Maine and New Hampshire that made their trips only due to the presence of the *Downeaster* (22.1% of visitors to Maine and 22.7% of visitors to New Hampshire).
- The level of spending per visitor. Spending patterns and levels for visitors to operating stations in Maine and New Hampshire were assumed to be constant with findings of the 2004 survey and are reported in 2004 dollars. (See Chapter 3 and Appendix IV.) Visitor alightings at the planned stations of Brunswick, Freeport, Rockport and Lewiston/Auburn are assumed to spend at the levels reported in the survey of visitors to Portland. Based on interviews, however, we assumed that each visitor to Freeport will spend \$200 on retail purchases, compared to about \$50 per capita counted visitors to Brunswick, Rockport and Lewiston/Auburn, which the 2004 Passenger Survey indicates is the average level of visitor spending in Portland for retail purchases. Our assumptions of the rates of visitor spending for 2015 are shown in Table 5-2 below.

Table 5-2. Future Spending Per Visitor Ranges from \$124 to \$451 in 2004 Dollars.

Category of Expense	ME -Currently Operating Stations	ME - Brunswick, Rockport, Lewiston/Auburn	ME - Freeport	NH
Lodging	\$87	\$105	\$105	\$42
Food and beverage	\$90	\$95	\$95	\$36
Entertainment	\$33	\$38	\$38	\$14
Retail	\$56	\$50	\$200	\$25
Local transportation	\$11	\$13	\$13	\$6
Total	\$277	\$302	\$451	\$124

Note: Outside of retailing in Freeport, all other visitor spending assumptions for Freeport, Brunswick, Rockport and Lewiston/Auburn represent visitor spending in Portland reported in 2004 Passenger Survey. Totals may not add due to rounding.

Source: July 2004 Passenger Survey, Interviews.

By 2015, nearly \$46 million will be spent by out of state visitors to Maine and New Hampshire who use the *Downeaster*. (See Table 5-4.) Of this total, approximately \$10 million will be by passengers who would not have traveled were it not for the train service. (See Table 5-3 below.)

5-3. Total and Shares Attributable to *Downeaster* Service of Projected Visitor Spending

	Projected Spending by all <i>Downeaster</i> Passengers	Portion of Visitor Spending Attributed to <i>Downeaster</i> Service ¹
Total Maine and New Hampshire	\$45,770,000	\$10,143,000
Maine		
Lodging	\$12,195,000	\$2,695,000
Food and Beverage	\$11,220,000	\$2,480,000
Entertainment	\$4,505,000	\$996,000
Retail	\$11,697,000	\$2,585,000
Local Transportation	\$1,513,000	\$334,000
Total Maine	\$41,130,000	\$9,090,000
New Hampshire		
Lodging	\$1,580,000	\$359,000
Food and Beverage	\$1,366,000	\$310,000
Entertainment	\$507,000	\$115,000
Retail	\$948,000	\$215,000
Local Transportation	\$239,000	\$54,000
Total NH	\$4,640,000	\$1,053,000
¹ Calculated at 22.1% of total passenger spending in Maine and 22.7% of total passenger spending in New Hampshire		
Note: Totals may not add due to rounding		
Sources: July 2004 Summer Survey of Passengers, 2015 passenger projections, and Interviews		

The \$10 million of direct visitor spending that is attributable to the *Downeaster* will generate an additional \$7 million in downstream economic activities. Overall, by 2015 visitor spending that would not have occurred were not for the availability of the *Downeaster* is expected to engender 286 jobs in the two states and \$5 million of personal income. In Maine, projected visitor spending exceeds \$9 million, with about 45% accruing to operating stations and 55% to the planned new stations, which in total is expected to generate 258 jobs in the state. (see Table 5-4.)

Table 5-4. Future Visitor Spending in Maine and New Hampshire is Projected to Approach \$18 Million and Support Almost 300 Jobs.

	Direct Benefits	Spin-off Benefits	Total Benefits
Totals for Maine and New Hampshire			
Business Sales	\$10,143,000	\$7,624,000	\$17,768,000
Employment	180	106	286
Personal Income	\$2,457,000	\$2,546,000	\$5,003,000
Maine Operating Stations			
Business Sales	\$4,119,000	\$3,305,000	\$7,424,000
Employment	80	47	126
Personal Income	\$1,060,000	\$1,107,000	\$2,166,000
Maine Planned Stations			
Business Sales	\$4,970,000	\$3,419,000	\$8,390,000
Employment	84	48	132
Personal Income	\$1,101,000	\$1,166,000	\$2,267,000
New Hampshire			
Business Sales	\$1,053,285	\$900,535	\$1,953,820
Employment	17	11	28
Personal Income	\$297,000	\$273,000	\$570,000
Note: Rows might not add due to rounding.			
Sources: Interviews, July 2004 Passenger Survey, <i>Downeaster</i> passenger forecasts, IMPLAN modeling package.			

5.3 Economic Development

Based on interviews and observations, major economic development projects at least in part attributable to the Downeaster are being planned or are under construction in Saco, Wells, Freeport and Brunswick. These are all in Maine – though it should be noted that Dover NH has already achieved Downeaster-spurred economic development with the occupation of the mill building.

In Chapter 3, we reviewed current economic development activities that are attributable, at least in-part, to the *Downeaster*. In this chapter, we review economic development activities expected to be generated by *Downeaster* activities in both currently operating stations and the stations that are planned to be in operation by 2015.

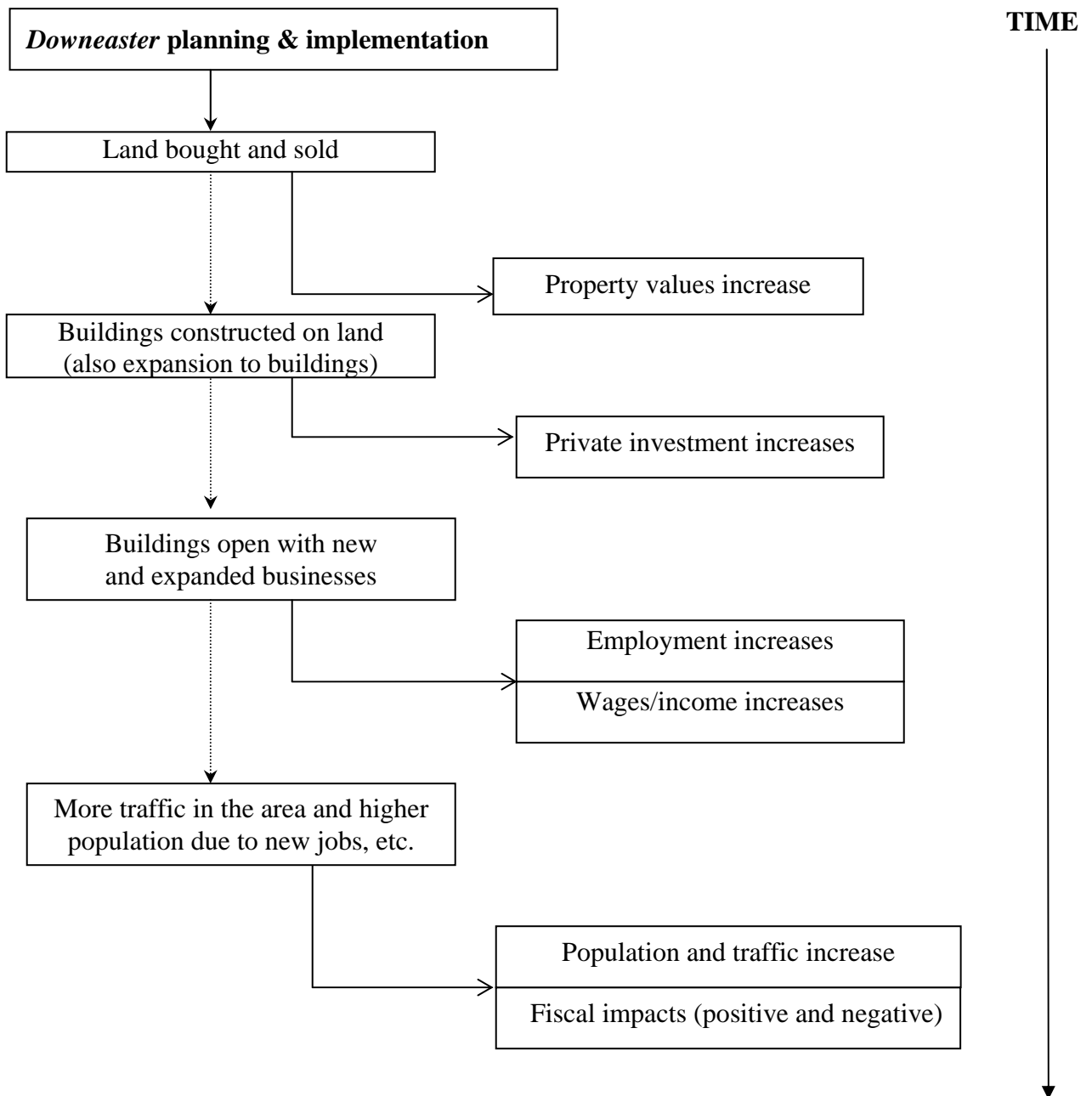
Long-term economic development attributable to the *Downeaster* may take many years following beginning of service to be measurable. To determine if there is some causal connection between business growth and rail service, there should be at least some anticipated business reliance on the *Downeaster* for access to customers, suppliers and workers. This information was collected through interviews with local planners, realtors, chambers of commerce and affected businesses, as well as observations inferred from signage facing rail cars (such as business operations now in Dover, NH) or from redevelopment activities occurring adjacent to stations, such as those seen at Saco. Much of the information provided is qualitative and some is anecdotal.

Indicators of economic development by a transportation project tend to proceed in the general sequence illustrated in Figure 5-1. In the short term, property transactions tend to occur. In fact, an initial round of property transactions may occur in advance of project development, as speculators anticipate the impacts of a new transportation facility. Once property is acquired by developers and businesses, physical structures may be built on that property. Once those structures are built, new businesses can open with increased employment, and other impacts may follow. Observable impacts may be classified into four general stages, which are listed below. In some cases, in our experience, projects have required 10 or more years before there were measurable employment and income effects. In other cases, new jobs were added more quickly.

- **Stage 1 – Property Demand.** In the short term (starting within a year after or even prior to actual initiation of rail service), property may start to be sold and purchased at higher prices by companies or individuals anticipating increased demand for the affected location.
- **Stage 2 – Building Construction.** In the medium term (typically starting within the first five years after completing ion of the transportation facility improvement), construction may begin as companies locate new facilities or expand existing facilities to exploit better access to their markets and/or meet emerging demand for their services in that area.

- **Stage 3 – Business Growth.** In the longer term (starting within the first five years, but often extending 10 years or more), businesses start to operate in the newly constructed (or expanded) facilities and, thus, generate additional jobs in that area.
- **Stage 4 – Other Regional Change.** Ultimately, personal income levels may rise due to the increase in available jobs in the area, ancillary activities may co-locate with the initial business growth, additional population may be attracted to move in, and local tax revenues may rise. Business activity may evolve as the area develops a new tourism base or new technology cluster, building upon market access changes made possible by the transportation facility.

Figure 5-1. Process for Evolution of Impacts



We have identified six economic development projects that are at least in part attributable to current or future operation of the *Downeaster*. Three projects are in Saco, and the others are in Wells, Freeport and Brunswick. Though all six projects are in Maine, it should be noted that Dover, NH has already realized economic development output as a result of the *Downeaster* and these benefits are expected to continue through 2015, as the Maine projects come on line. The six projects are described below and summarized in Table 5-5.

Saco. Two projects are the reuse of mill buildings near the station. Renovation of one building is now underway as a biotech center, and the second building slotted for mixed-use development has just been purchased. The third project is a proposed new mixed-use commercial development on a five-acre vacant parcel.¹⁷

- The biotech building is expected to house classrooms for the University of New England School of Pharmacy, rooms for a community college and space for biotech related firms. The developer does not know at this time how the space will break down by use.
- An additional 150,000 square feet of mill space is being purchased. Future uses are not clear yet, but will probably be a mix of commercial and residential.
- A five-acre parcel across the street from the mills will be developed as some type of mixed-use development (no biotech, probably). This site is zoned a Planned Development District. This zone allows the planning board to negotiate the mix of uses, and does not use a floor-area-ratio (FAR). Density is part of the negotiation. We assume an FAR not greater than 2.

It is difficult to gauge the effects of the *Downeaster* on these future development projects. Interviews conducted suggested that the influence of the rail service was anywhere between 100% and zero. We based our judgment of past research of commuter rail stations. A recent detailed analysis of the Dallas commuter rail system (DART LRT) places the rate of influence at 53%. However, current *Downeaster* scheduling does not facilitate widespread commuter service. Therefore, we assume half of the Dallas analysis, 26.5%, to be the portion of attribution of the *Downeaster* on the future economic development near the Saco station. This includes the “intangible” boost to the business climate sparked by development and operation of the train station, as well as its current schedule. Should the *Downeaster* change its schedule to be more “commuter-friendly”, then this assumption of the influence of *Downeaster* service could be significantly understated.

Wells. The industrial area around the transit center has been divided into two zones – 100 acres remains an industrial park and 26+/- acres have been rezoned as a Transportation Center District. Of the 26 acres, approximately 11 acres are available for development (the remainder comprise the transit center and related parking). The zoning allows a minimum lot size of 20,000 square feet, with 65% lot coverage and

¹⁷ The three properties have common ownership.

three-story building. (FAR is approximately 2.0.) Businesses being considered include an 88 room hotel and conference center, a Dunkin' Donuts, a Burger King, a 99 Restaurant, and a Puffin Stop gas station with a Subway inside. Currently, there is a self-storage facility and a bus storage/parking area located within the Transportation Center Zone. These are expected to be relocated because the land is too valuable as rezoned. To be conservative, for this analysis we consider only the hotel, which is the idea that is furthest along in planning.

Bayside in Portland

The City of Portland would like a second *Downeaster* Station at Bayside, while maintaining the primary stop with its associated parking at the current location. A *Downeaster* station in Bayside east of Downtown Portland may contribute 300 – 800 jobs annually to Maine in potential economic development.

City officials want to redevelop the area and view a Bayside rail station as an important marketing tool when marketing the whole Bayside redevelopment plan. The City is promoting the area as a site for Transit Oriented Development (TOD), but the area is currently served only by local bus service.

The City supports a Bayside rail station if it can be located adjacent to I-295, and not be sited in the middle of its planned redevelopment area. The rail station was not part of the original redevelopment plan, but was incorporated after the state and Amtrak expressed interest in a potential station in the vicinity. Bus service (local, not intercity) was always part of the plan, and the City intends to include a circulator bus from Bayside to downtown.

The proposed Bayside development is about a five minute walk from downtown. The City has completed a redevelopment plan for the area, and has purchased a 6.8 acre rail yard for that purpose. A Request for Proposal (which mentions the potential train station) has been issued and four proposals have been received. In addition, the Bayside area includes roughly three additional acres of city-owned vacant land, as well as two scrap yards equal to about another three acres. Some warehouse/industrial buildings may be redeveloped. In total, the area will probably have 11 acres available for redevelopment. The area is now a brownfields site.

The redevelopment plan includes extending Chestnut Street from Congress Street (downtown) to Marginal Way. The rail station would be at the corner of Marginal Way and Chestnut. The current plan is to attract mixed uses, dominated by offices with ground floor retail. Some housing is also expected. The site is called Bayside Business and Technology Park, and the City would like to attract technology-oriented businesses.

The site should accommodate about 500,000 square feet of development, with parking for 600-700 cars. Possibly, according to city officials, the *Downeaster* might be responsible for 10%-20% of this development. In addition, the *Downeaster* might help to increase transit options enough so that the parking ratio could be reduced, allowing for increases in density of between 10% and 20%. At this time, we recommend that 10% of the expected 500,000 square feet of development be attributed to the *Downeaster*. The presence of the train might reduce required parking in Bayside and allow developers to build an additional 50,000 square feet (or 10%), which would also be attributable to the *Downeaster*. In total, we foresee up to

100,000 square feet of development counted as an effect of the *Downeaster*, should Bayside be developed and if a *Downeaster* station is sited in the district.

Using the most conservative estimates provided to us, the *Downeaster* may account for 300 – 400 jobs in Bayside after buildout, depending on the mix of industries that locate in the district. This is at the 10% range mentioned in the interviews; the high-end 20% estimates for the effects of the *Downeaster* would double this total.

Freeport. The train station is being proposed to be located within a 99-room Hilton with 300-person capacity conference facility now under development.

Brunswick. The station will be developed with retail/office/housing on over 4+ acres to include 160,000 square feet of new development, resulting in 640 new service and retail jobs. A twenty-five acre site across from the train station is available for redevelopment/development. It is in a mixed-use zone that allows residential, commercial and retail. There is no FAR ratio, but there is a 75% lot coverage factor and a height limitation of 40 feet. There may be future proposals to increase the limit to 60 feet (and perhaps increase the lot coverage ratio to 100%). The station development will provide the necessary link between the downtown and this site. We did not include the speculation of increased density in our analysis.

Table 5-5. Anticipated Economic Development Attributable to *Downeaster*

Location	Project	Comments/Assumptions
Saco	1. Biotech Center	26.5% of impacts attributed to <i>Downeaster</i> based on past research. Could double with better commuter services.
	2. 150,000 sq ft mill building -mix of commercial & residential. Assume 1/3 condos, 2/3 office	
	3. 5 acre parcel-mixed use - 1/3 retail, 2/3 office. FAR=2. Total square feet assumed is 435,600.	
Wells	Hotel	Transit Center District has been created. Industrial Park next to District is in place. Assume only hotel development
Freeport	100 room hotel and conference center	Hotel as part of train station complex. Assume 78% of annual economic benefits are attributed to the <i>Downeaster</i> , but no construction
Brunswick	160,000 sq ft of retail and service development (interviews). Assume 1/3 retail, 2/3 office	Based on station development

Source: Interviews

These projects (complemented with the annual economic development contributions reported in Chapter 3) are expected to generate almost \$47 million of direct business activities attributable to the *Downeaster*, which in turn will generate an additional \$36 million in spin-off activities. (See Table 5-6.)

Table 5-6. Annual Benefits from Economic Development Attributable to the *Downeaster* May Generate Almost 1,400 Jobs.

	Direct Benefit	Spin-off Benefits	Total Benefits
Totals for Maine and New Hampshire			
Business Sales	\$46,484,000	\$36,075,127	\$82,716,197
Employment	885	510	1,395
Personal Income	\$18,444,000	\$12,397,000	\$30,842,000
Maine - At Currently Operating Stations			
Business Sales	\$7,056,000	\$5,511,000	\$12,568,000
Employment	160	80	240
Personal Income	\$2,879,000	\$1,918,000	\$4,797,000
Maine – At Planned Stations			
Business Sales	\$35,575,000	\$27,464,000	\$63,039,000
Employment	653	393	1,046
Personal Income	\$14,201,000	\$9,496,000	\$23,696,000
New Hampshire			
Business Sales	\$3,853,000	\$2,967,000	\$6,820,000
Employment	72	37	109
Personal Income	\$1,364,000	\$984,000	\$2,348,000
Note: Includes impacts reported as of 2004			
Sources: Interviews, IMPLAN modeling package, ITE Ratios			

5.4 Future Transportation Cost Savings by Using the *Downeaster*

Future passenger savings estimates are based on findings from the 2004 passenger survey and are scaled to the ridership forecasts described in Chapter 4. At this time there is not a *Downeaster* fare structure for the planned stations northeast of Portland. Therefore, savings to be realized by passengers expected to board at the planned stations in Maine were averaged with those boarding at existing stations. Overall, using these assumptions, rail passengers are projected to save nearly \$2 million over other modes, including \$1.6 million in Maine and \$300,000 in New Hampshire. These estimates are summarized in Table 5-7.

Table 5-7. Projected Annual Economic Benefits Generated by Passengers Using the *Downeaster* over other Modes includes \$3 million of Business Sales and 32 Jobs by State of Boarding.

	Direct	Spin-off Effects	Total
TOTAL Maine and New Hampshire Boardings			
Business Sales	\$1,915,000	\$1,047,000	\$2,962,000
Employment	16	16	32
Wages	\$345,000	\$362,000	\$707,000
Maine Boardings at Operating & Planned Stations			
Business Sales	\$1,626,000	\$889,000	\$2,515,000
Employment	14	14	28
Wages	\$291,000	\$308,000	\$599,000
New Hampshire Boardings			
Business Sales	\$289,000	\$158,000	\$447,000
Employment	2	2	4
Wages	\$54,000	\$54,000	\$108,000
Note: These are savings of round trip passengers boarding in Maine and New Hampshire who would travel by other modes if <i>Downeaster</i> service were not available.			
Sources: 2004 Summer Survey of Passengers, Ridership Projections, IMPLAN Modeling Package			

5.5 Construction

We estimate that construction to build the six expected economic development projects listed above plus housing development on vacant land next to the Portland train station will generate more than \$86 million in economic activities, including roughly \$25 million in wages for 1,200 construction and construction-related jobs.

Based on fieldwork, we are projecting housing development in Saco, as part of the renovation of mill buildings that we discussed above. In addition, in Portland there are approximately 29 acres of land adjacent to the train station that could be developed. Local officials interviewed believe that eventually the land will be developed for housing. The site allows densities of 60 dwelling units per acre.

Table 5-8 below outlines construction projects that are included in this analysis. The table lists assumptions made and sources used in developing the construction effects anticipated to emanate from *Downeaster* operations.

Table 5-8. Anticipated Future Construction Investment in Maine Attributable to *Downeaster* by Project

Location	Project and Project Assumptions	Cost Assumptions	Attributed to <i>Downeaster</i>
Saco			
<i>26.5% of impacts attributed to Downeaster based on past research. Could double with better commuter services.</i>	1. Biotech Center	\$16M (interviews)	\$4.2M
	2. 150,000 sq ft mill building -mix of commercial & residential. Assume 1/3 condos, 2/3 office	TPC=\$9.1M (RS Means)	\$2.4M
	3. 5 acre parcel-mixed use - 1/3 retail, 2/3 office. FAR=2. Total square feet assumed is 435,600.	TPC = \$22.2M (RS Means)	\$5.9M
Wells			
<i>Transit Center District has been created. Industrial park next to district is in place. Assume only hotel development</i>	Hotel	TPC = \$6.8 M (interviews based on proposed Freeport Hotel)	All
Portland			
<i>28.9 acres next to train station</i>	Housing - Buildout is approximately 1,372 units. Assume development of 1/3 (457 units @ 1,200 sq ft per)	TPC= \$7.1 M (RS Means & interviews)	All
Freeport			
<i>Train station will be developed as part of hotel complex</i>	100 room hotel and conference center	TPC=\$6.9M (interviews)	None
Brunswick			
<i>Based on station development</i>	2. 160,000 sq ft of retail and service development (interviews). Assume 1/3 retail, 2/3 office	TPC=\$10.2M (RS Means)	All
Sources: Interviews, ITE Ratios, RS Means.			

Total construction effects projected in the Maine economy from current and planned *Downeaster* operations are seen below in Table 5-9. Note that the construction industry creates exceptionally robust spin-off effects in state economies.

Table 5-9. About \$37 Million of Construction Investment Attributable to the Downeaster is Anticipated in Maine

	Direct Benefits	Spin-off Benefits	Total Benefits
Totals for Maine			
Business Sales	\$36,861,000	\$35,689,000	\$72,550,000
Employment	503	502	1,005
Personal Income	\$12,467,000	\$12,312,000	\$24,779,000
Maine Operating Stations			
Business Sales	\$26,679,000	\$25,736,000	\$52,415,000
Employment	362	362	724
Personal Income	\$8,987,000	\$8,867,000	\$17,853,000
Maine Planned Stations			
Business Sales	\$10,182,000	\$9,953,000	\$20,135,000
Employment	141	140	281
Personal Income	\$3,480,000	\$3,445,000	\$6,925,000
Sources: Interviews, IMPLAN modeling package, ITE Ratios, RS Means			

Pinelands

Libra Foundation acquired 3,000 acres at the Pinelands in 2000, between Portland and Lewiston-Auburn. The site is a former mental institution which had 26 old brick buildings on it, of which 19 have been renovated for office and specialty schools (e.g., K -12 special needs school and adult education classes) and seven have been torn down. So far, approximately 50%-60% of the buildings (160,000 square feet) have been leased. Other than schools, uses include the headquarters for Energy East (a Fortune 500 firm with 150 employees on site), and non-profits, including the Cumberland County YMCA and others. The Foundation expects that the current buildings could house 1000-1500 workers at buildout; however, they envision added 100,000 – 200,000 square feet (150,000 are pre-approved with the planning board in New Gloucester) of office space, potentially accommodating 400-800 additional employees, and they feel the train would be important to reaching this goal. They envision the train using the St. Lawrence line, provided a direct link to Portland (20 miles south) and to Lewiston-Auburn (15 miles north).

Libra has purchased land in Portland and had thought of running small diesel rail vehicles back and forth as an independent commuter service. The state told them it would be too expensive given the employment projected.

Through our interviews, we were not able to determine what percentage of new development would be attributable to the *Downeaster*, but some sort of commuter-serving rail connection will be a huge boost to the development potential of the area. The key phrase is commuter-oriented to serve office workers as the Pinelands looks to rail as a way to get employees to and from the site. We could estimate that potentially that 10%-20% of the potential future new development (the additional 100,000 – 200,000 square feet) could be attributed to the *Downeaster* if it serves commuters.

CHAPTER 6. COMMUNITY IMPACTS

Potential annual economic contribution by the Downeaster to Maine and New Hampshire communities along its current and planned route range from \$95 million and almost 1,000 jobs in Brunswick to one-half million dollars and eight jobs in Durham. Overall, the Downeaster is expected to generate at least one-million dollars of business sales annually in seven of the 11 current and planned stations, and over 100 jobs in each of four communities. In addition, \$60 million of construction investment attributable to the train service has been or is anticipated to be made within six communities along the Downeaster route.

In this chapter, we review current and projected economic benefits of the *Downeaster* to the Maine and New Hampshire communities that are directly served by the train, as well as municipalities in Maine where service is planned. Appendix I presents profiles of the development climate for each community that are gleaned from local interviews and observations of the consultant team.

Local and community benefits for visitor spending and economic development projected for 2015 are shown below in Table 6-1. Note:

- In 2015, we anticipate that present-day economic development will continue to benefit Maine and New Hampshire communities, though volatility associated with small-businesses may mean that specific establishments will close and others will open in their place;
- Spin-off effects (multipliers) for community benefits are countywide, and so extend further than each municipality. This is different than the analysis presented in Chapters 3 and 5 that presented statewide direct and spin-off effects. Moreover, spin-off effects for counties are lower than those statewide.
- Visitor spending is based on community-specific findings in the 2004 Passenger Survey.
- Economic development benefits are counted for six communities: Old Orchard Beach, Saco, Wells, Brunswick, Freeport and Dover; and
- Table 6-1 below does not include potential economic benefits that the *Downeaster* might bring to the Bayside district of Portland or Pinelands. However, both of these areas are discussed in the narrative of Chapter 5, above.

Table 6-1. Annual Visitor Spending and Economic Development Benefits by Community Projected for 2015

Community where <i>Downeaster</i> Stations are Operating or Planned	Economic Benefits Include County Spin-offs		
	Total Business Sales	Total Employment	Total Wages
Lewiston-Auburn	\$803,000	17	\$240,000
Rockland	\$675,000	11	\$191,000
Brunswick	\$95,111,000	993	\$30,675,000
Freeport	\$4,320,000	53	\$964,000
Portland	\$6,588,000	114	\$1,937,000
OOB	\$668,000	13	\$226,000
Saco	\$10,029,000	198	\$3,885,000
Wells	\$2,217,000	40	\$729,000
Dover	\$6,544,000	125	\$2,305,000
Durham	\$502,000	8	\$138,000
Exeter	\$1,162,000	16	\$369,000

Note: Dollars are rounded to thousands.

Sources: 2004 Summer Passenger Survey. Interviews, IMPLAN modeling package

Aspects of economic impacts that are considered for community impacts, include:

- **Visitor spending.** For community specific impacts, visitor spending includes both visitors from out-of-state as well as instate: (1) impacts from boardings in Massachusetts and New Hampshire for alightings in Maine, and boardings in Massachusetts and Maine for alightings in New Hampshire; and (2) boarding and alightings within each of the two states.;
- **Economic development and construction benefits.** These are the projects described in Chapter 3 and Chapter 5, but reported on community bases

6.1 Visitor Spending

Table 6-2 shows current annual visitor spending by communities that hosts a *Downeaster* stations. In all, visitor spending generates \$3.6 million in business sales within these communities and additional local county-wide spin-offs per station totaling \$2.4 million in additional purchases of goods and services by businesses and employees (consumer purchases). More than 63% of the economic benefits from annual visitor spending at all station communities are received in Portland. The rest of community benefits from visitor spending are divided almost evenly between other three communities in Maine (18.2%) and the three communities in New Hampshire (18.5%).

- Our working assumption is that visitor spending is limited to these communities. We recognize that spending can spillover into neighboring municipalities. However, the short duration of average trips (less than 2 days) and our restrictions of limiting this analysis to 22% of ridership allow us to be comfortable that the representation of local visitor spending is reasonable.¹⁸

Table 6-2. Profile of current annual visitor spending by community that hosts Downeaster Stations

Category of Expense	Maine				New Hampshire		
	Portland	OOB	Saco	Wells	Dover	Durham	Exeter
Lodging	\$792,000	\$60,000	\$14,000	\$66,000	\$0	\$83,000	\$151,000
Food and beverage	\$723,000	\$45,000	\$32,000	\$161,000	\$24,000	\$50,000	\$124,000
Entertainment	\$293,000	\$13,000	\$16,000	\$35,000	\$10,000	\$14,000	\$49,000
Retail	\$381,000	\$24,000	\$20,000	\$165,000	\$37,000	\$19,000	\$76,000
Local transportation	\$100,000	\$2,000	\$3,000	\$7,000	\$1,000	\$16,000	\$19,000
TOTAL Direct Visitor Spending at Station	\$2,289,000	\$144,000	\$85,000	\$434,000	\$71,000	\$182,000	\$419,000
Spin-off Activities	\$1,620,000	\$87,000	\$50,000	\$227,000	\$34,000	\$116,000	\$271,000
Total Economic Activities from Visitor Spending	\$3,909,000	\$231,000	\$135,000	\$661,000	\$105,000	\$298,000	\$690,000
Total Employment	68	4	.3	11	2	.5	.10
Total Wages	\$1,149,000	\$69,000	\$42,000	\$192,000	\$30,000	\$82,000	\$219,000

Note: Columns may not add due to rounding.

Total Employment and Total Wages include direct and spin-off effects.

Spin-off calculations are based on county-wide benefits.

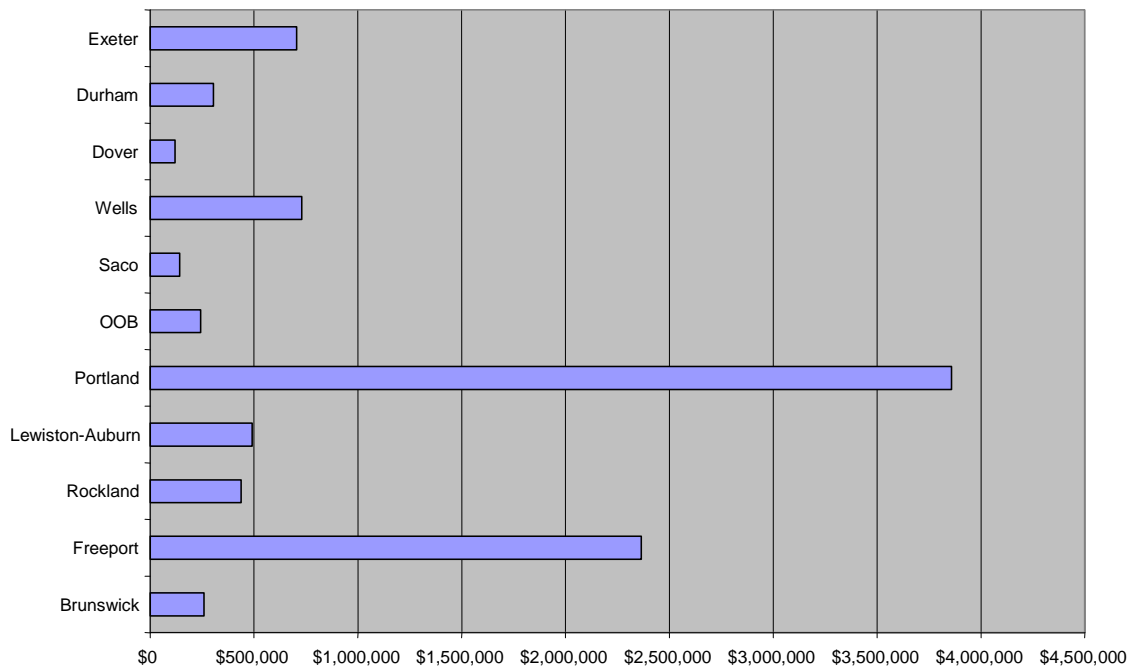
Sources: IMPLAN modeling package, 2003 total reported ticket sales by station pair and July 2004 Summer Survey of Passengers

By 2015, total visitor spending at current *Downeaster* stations expected to increase by almost 70% in total to \$6.1 million in constant 2004 dollars for direct spending and more than \$10 million in total economic benefit including spin-off effects. An additional \$5 in direct visitor spending and spin-off business sales are expected to be generated by the planned service extensions to Brunswick, Freeport, Rockland and Lewiston/Auburn. Community by community visitor spending projected for 2015 is illustrated in Figure 6-1 and shown in detail in Tables 6-3 and 6-4, for currently operating and planned stations, respectively. These projections are based on methodology used for current visitor spending plus:

¹⁸ For local visitor spending calculations, statewide visitor ratios of 22.1% for Maine arrivals and 22.7% for New Hampshire arrivals were used to maintain strong sample sizes. Actual proportions of people responding in the 2004 survey who depend on the *Downeaster* vary by destination.

- Ridership projections to 2015
- Working assumptions that spending levels (in constant dollars) are the same for passengers in 2015 as we found in the 2004 survey, and that the same statewide percentage of riders will rely on the *Downeaster* in 2015 as found in 2004 (22.1% of Maine visitors and 22.7% of New Hampshire, respectively).
- Portland spending patterns were used for visitors projected for Brunswick, Freeport, Rockland and Lewiston/Auburn. Except – (1) travelers whose trips originate in Maine were not counted when calculating lodging expenses; and (2) as described in Chapter 4, retail spending per visitor to Freeport was calculated at \$200 compared to about \$50 found in the July 2004 survey for visitors to Portland.

Figure 6-1. Projected Annual Visitor Spending at Station Communities Attributable to *Downeaster* Service



Local annual visitor spending generated by *Downeaster* service is projected to range from \$143,000 to \$3.9 million in Maine communities and \$120,000 to \$700,000 in New Hampshire communities. Table 6.3 below presents expected benefits from future visitor spending in communities that now host *Downeaster* stations. Table 6.4 presents expected economic benefits in Brunswick, Freeport, Rockland and Lewiston/Auburn.

Table 6-3. Downeaster generated visitor spending will total nearly \$4 million annually in Portland and more than \$300,000 in Wells and Dover among communities that are currently served by the rail service.

Category of Expense	Non Home Destination						
	Maine				New Hampshire		
	Portland	OOB	Saco	Wells	Dover	Durham	Exeter
Lodging	\$1,334,000	\$102,000	\$23,000	\$111,000	\$0	\$141,000	\$254,000
Food and beverage	\$1,219,000	\$76,000	\$55,000	\$271,000	\$40,000	\$84,000	\$209,000
Entertainment	\$494,000	\$22,000	\$27,000	\$58,000	\$17,000	\$23,000	\$82,000
Retail	\$642,000	\$40,000	\$33,000	\$279,000	\$62,000	\$32,000	\$128,000
Local transportation	\$168,000	\$3,000	\$5,000	\$12,000	\$1,000	\$26,000	\$32,000
TOTAL Spending at Station	\$3,858,000	\$243,000	\$143,000	\$731,000	\$120,000	\$306,000	\$706,000
Spin-off Activities	\$2,731,000	\$146,000	\$83,000	\$383,000	\$57,000	\$196,000	\$456,000
Total Economic Activities from Visitor Spending	\$6,588,000	\$389,000	\$226,000	\$1,114,000	\$177,000	\$502,000	\$1,162,000
Total Employment	114	7	4	19	3	8	16
Total Wages	\$1,937,000	\$117,000	\$70,000	\$323,000	\$50,000	\$138,000	\$369,000

Note: Total Employment and Total Wages include direct and spin-off effects.

Sources: IMPLAN modeling package, 2015 projections by station pair and July 2004 Summer Survey of Passengers

Table 6-4. Annual visitor spending at new station communities is expected to range from \$250,000 in Brunswick to \$2.4 million in Freeport

Category of Expense	Non Home Destination – Planned Stations			
	Brunswick	Freeport	Rockland	Lewiston-Auburn
Lodging	\$50,000	\$671,000	\$145,000	\$170,000
Food and beverage	\$100,000	\$818,003	\$142,000	\$155,000
Entertainment	\$60,000	\$332,000	\$63,000	\$63,000
Retail	\$37,000	\$431,000	\$70,000	\$82,000
Local transportation	\$13,000	\$113,000	\$19,000	\$22,000
TOTAL Spending at Station	\$259,000	\$2,365,000	\$439,000	\$491,000
Spin-off Activities	\$189,000	\$725,000	\$236,000	\$312,000
Total Economic Activities from Visitor Spending	\$448,000	\$3,090,000	\$675,000	\$803,000
Total Employment	9	30	11	17
Total Wages	\$141,000	\$514,000	\$191,000	\$240,000
Sources: Summer 2004 Passenger Survey, Ridership Forecasts, IMPLAN				

6.2 Economic Development

Economic Development projects are described and itemized in Chapter 3 (existing development attributable to the *Downeaster*) and Chapter 5 (economic development projects in construction and anticipated), and discussed in community context in Appendix I. For convenience, we list them below followed by an accounting of annual benefits. Table 6-5 reports anticipated annual local benefits from *Downeaster*-generated economic development (not including Bayside or Pinelands potential development)..

Saco (current)

Partial attribution of seven downtown establishments

Saco (future)

Mill renovation into biotech building

Mill renovation for mixed use (including some residential)

Development of vacant parcel for mixed use

Wells (future)*Hotel in transit District***Old Orchard Beach (current)***Partial credit for development of Chamber of Commerce building***Freeport***Hotel***Brunswick***160,000 square feet of retail/office space next to station.***Dover (current)***12 establishments in mill building***Table 6-5. Future Annual Economic Development Benefits Generated by the *Downeaster* in Maine and New Hampshire Station Communities**

	Old Orchard Beach	Saco	Wells	Brunswick	Freeport	Dover
Direct Business Sales	\$176,000	\$6,213,000	\$676,000	\$56,049,000	\$538,000	\$3,742,000
Spin-off Business sales	\$103,000	\$3,590,000	\$427,000	\$38,614,000	\$441,000	\$2,625,000
Total Business Sales	\$279,000	\$9,803,000	\$1,103,000	\$94,663,000	\$979,000	\$6,367,000
Total Employment	6	194	21	984	18	122
Total Wages	\$109,000	\$3,815,000	\$406,000	\$30,534,000	\$351,000	\$2,255,000

Sources: Interviews, IMPLAN modeling package, ITE ratios.

6.3 Construction Impacts

As described in Chapters 3 and 5, about \$60 million of direct construction investment are attributable to the *Downeaster* from the initial operation of the service through anticipated activities in 2015. These construction activities have been observed in Saco and Old Orchard Beach, and anticipated in Saco, Portland, Freeport and Brunswick. In addition to the projects listed above as economic development impacts by community, construction activities include housing development in Portland and Saco, described in the community descriptions in Appendix I and also in Chapter 5. The total of actual and anticipated community-based construction benefits generated by the *Downeaster* is presented in Table 6-6 below.

Table 6-6. Construction investments attributable to *Downeaster* service are anticipated to range from \$160,000 to \$13 million in Maine communities.

	Saco	Wells	OOB	Portland	Brunswick
Construction investment	\$13,283,000	\$6,763,000	\$160,000	\$22,720,000	\$10,182,000
Spin-off business sales	\$9,591,000	\$4,893,000	\$116,700	\$17,991,000	\$8,589,000
Total Business Investment & Spin-off Sales	\$22,874,000	\$11,656,000	\$276,000	\$40,711,000	\$18,771,000
Total Employment	326	167	4	507	239
Total Wages	\$7,940,000	\$4,055,000	\$96,000	\$14,491,000	\$6,806,000

Sources: Interviews, IMPLAN modeling package, ITE ratios

6.4 Extended Reach of the *Downeaster*

The influence of the *Downeaster* extends beyond the eleven current and prospective host communities. Though now providing direct service to four communities in Maine and three in New Hampshire, defining the *Downeaster* as servicing seven communities in the two states significantly understates its importance. The 2004 passenger survey found that residents of 116 cities and towns the Maine and New Hampshire use the *Downeaster*, 68 in Maine and 48 in New Hampshire. For commercial properties, community-based impacts can be generally limited to areas close by each station. For residential properties, however, the distance would extend to neighboring communities. A review of the survey data would provides insight into a true residential study area. Table 6-7 lists the municipalities of the two states that are served by the *Downeaster*. To avoid double counting, the table does not count residents of station communities who board at different stations.

Table 6-7. Maine & New Hampshire Communities Served by Stations of Boarding

<i>Portland Station</i>	<i>OOB Station</i>	<i>Dover Station</i>	<i>Durham Station</i>	<i>Haverhill Station</i>
Auburn	Hollis	Allenstown	Alton Bay	Kingston, NH
Augusta	Lewiston	Barrington	Durham	Pelham, NH
Bangor	Old Orchard Beach	Berwick, ME	East Rochester	Portsmouth, NH
Bath	Pine Point	Cherryfield, ME	Eliot, ME	Salem, NH
Biddeford		Concord	Kittery, ME	
Boothbay, Boothbay Harbor	<i>Saco Station</i>	Dover	Lebanon	
Brewer	Arundel	Eliot, ME	Lee	
Brunswick	Biddeford	Kittery, ME	Newmarket	
Camden	Buxton	Lebanon, ME	Northwood	
Cape Elizabeth	Fayette	Loudon	Nottingham	
Cumberland	Limerick	Middleton	Portsmouth	
Dover	Portland	Milbridge, ME	South Berwick	
Freeport	Saco	Milton	Stafford	
Gardiner	Scarborough	Newmarket		
Gorham	Union	Portsmouth	<i>Exeter Station</i>	
Gray		Rochester	Brentwood	
Harpswell	<i>Wells Station</i>	Salisbury	Durham	
Lewiston	Alfred	Sanbornville	East Kingston	
Oakland	Arundel	Somersworth	Epping	
Old Town	Cushing	S. Berwick, ME	Exeter	
Portland	Greene	York, ME	Fremont	
Raymond	Kennebunk		Greenland	
Readfield	Kennebunkport		Hampton	
Scarborough	Nashua, NH		Kingston	
South Portland	Sanford		Newfield	
Steuben	Shapleigh		Newmarket	
Topsham	Springvale		North Hampton	
Turner	Wells		Nottingham	
Waterford			Portsmouth	
Waterville			Raymond	
Westbrook			Stratham	
Whitefield				
Wilton				
Winterport				
Winthrop				
Yarmouth	Source: 2004 Passenger Survey.			

CHAPTER 7. STATE AND LOCAL TAX IMPLICATIONS

Current annual state and local tax revenues attributable to the Downeaster are estimated to be \$375,000 - \$380,000 in both Maine and New Hampshire. By 2015, projected revenues are estimated to be almost \$800,000 in New Hampshire and \$4.2 - \$4.6 million in Maine, accounting for new station development and economic opportunities that are becoming available.

Visitor spending, property development and business activities attributable to the Downeaster generates tax revenues to Maine and New Hampshire. In this chapter we present a broad overview of state revenues from current Downeaster operations (Chapter 3) and from economic benefits projected in future years (Chapter 5). Future tax revenues carry an assumption that current rates remain static through 2015. Please note that tax implications reported in this chapter should be considered as an “order of magnitude” and not as a definitive study of tax revenues.

The major taxes we look at are sales taxes (including hotel and meal tax), property taxes and income taxes. Note, though New Hampshire does not have a general sales tax or an income tax, the state does tax meals, car rentals and hotels, as well as on an individual's interest and dividends income.

Two methods are used to estimate local and state tax revenues for Maine, modeling major tax impacts by (1) tax rates supplied by the Maine Revenue Services (MRS) and (2) the IMPLAN package. The result show equivalent estimates, with a difference of 1.3% in current revenue generation and 9.6% in projected future generation.

(1) Modeling Tax Impacts through Hand Calculations. The web site of MRS provides sales tax rates for general purchases, meals, lodging and car rental. Secondly, on January 14, 2005, MRS released a tax incidence study for the state (as of 2002). These data track the effective rate of individual and business taxation by income deciles of Maine residents. Given the scope of this study, we did not develop an analysis of income deciles to match the MRS report. Therefore, as a guide we used the percent of each tax against the total income of Maine residents and applied the rates against direct and spin-off personal income generated by visitor spending, economic development and income that Maine residents saved by using the Downeaster. By this method current annual revenues are \$375,000 and projected annual tax revenues are \$4.2 million.

(2) Modeling Tax Impacts through IMPLAN. Second, we calculated local and state tax implications using the IMPLAN modeling package for Maine. IMPLAN internally makes assumptions of income levels based on the wage rates of jobs in each sector of direct and spin-off activities related to the economic benefits analyses presented in chapters three and five. By using IMPLAN, current annual revenues are \$380,000 and projected annual tax revenues are \$4.6 million.

For New Hampshire, we used the IMPLAN package to estimate current and projected tax revenues attributable to *Downeaster* service, which are estimated currently at \$378,000 and are projected to increase to \$783,000.

7.1 Maine Calculations Based on State Tax Rates

Current annual tax revenues in Maine attributable to the Downeaster is approximately \$375,000, with \$152,000 derived from taxes on visitor spending and \$223,000 based on earnings of Maine residents due to the Downeaster.

From MRS, we gathered the following tax rates that we applied to visitor spending:

General Sales Tax	5%
Sales Tax for Auto Rental	10%
Sales Tax for Lodging	7%
Sales Tax for Meals	7%

Roughly \$152,000 of tax revenues are generated from visitor spending, and are displayed by type of spending in Table 7-1.

Table 7-1. Visitor Spending Generates More Than \$150,000 a Year to Maine in Tax Revenues

Type of Spending	Total Direct Spending	Tax Revenues
Lodging	\$904,000	\$63,280
Food & Beverage	\$938,000	\$65,660
Retail	\$344,000	\$17,200
Entertainment	\$579,000	not taxed
Car Rental ¹	\$55,000	\$5,500
	\$2,820,000	\$151,640

¹We assume that one-half of the \$110,000 spent for local transportation is for car rental.

Source: Summer 2004 Passenger Survey, Maine Revenue Services.

The average effective tax rate for Maine taxpayers reported in the recently released a tax incidence study by MRS is summarized in Table 7-2 below. This was applied to wages calculated in economic benefit analyses shown in Chapter 3 (current benefits) and Chapter 5 (projected benefits).

Table 7-2. Maine residents pay 11.3% of their income for state and local taxes

Tax	2002 Effective Rates Based on Total Income of Maine Resident Taxpayers		
	Individual	Business	Total
Income Tax	3.5%	0.1%	3.6%
Sales Tax ¹	1.9%		1.9%
Excise Tax		0.8%	0.8%
Local Property Taxes	3.6%	0.7%	4.3%
Other State and Local Taxes	0.7%		
Total	9.7%	1.6%	11.3%

¹ Individual sales tax is calculated on 70% of income, which is a rough calculation of “disposable income” available for consumers.

Source: Maine Tax Incidence Study, Maine Revenue Services, January 14, 2005.

The calculations of Maine and local are taxes based on 11.3% of income generated by the *Downeaster* percent of income, and are shown on Table 7-3.

Table 7-3. Over \$200,000 in annual state and local tax revenue is attributable to the *Downeaster* by on Maine residents’ income (individual and business taxes)

Economic Benefit Categories	Total Personal Income Generated	Income Tax	Sales/Excise Taxes	Property Tax	Other state & Local Taxes	Totals
Visitor spending	\$1,490,475	\$53,657	\$40,243	\$64,090	\$10,433	\$168,424
Economic Development	\$309,785	\$11,152	\$8,364	\$13,321	\$2,168	\$35,006
Passenger Savings	\$173,680	\$6,252	\$4,689	\$7,468	\$1,216	\$19,626
Annual totals	\$1,973,940	\$71,062	\$53,296	\$84,879	\$13,818	\$223,055

Sources: Maine Tax Incidence Study, Maine Revenue Services, January 14, 2005, Summer 2004 Passenger Survey

Annual tax revenues in Maine attributable to the *Downeaster* can exceed \$4 million, with almost \$430,000 derived from taxes on visitor spending and \$3.8 million based on earnings of Maine residents due to the rail service. This estimate assumes stable tax rates, growth in passengers and visitor spending and the development projects discussed in Chapters 4, 5 and 6.

Tables 7-4 and 7-5 show future revenues that are based on visitor spending (Table 7-4) and Maine's effective tax rates by total income of residents (Table 7-5). These calculations include tax implications for current stations and stations anticipated in Brunswick, Freeport, Rockland and Lewiston/Auburn, and are based on ridership projections presented in Chapter 4 as well as visitor spending projections and potential economic development discussed in Chapters 5 and 6.

Table 7-4. Visitor spending attributable to the *Downeaster* is expected to generate over \$400,000 year to Maine in tax revenues in 2015

Type of Spending	Total Direct Spending	Tax Revenues
Lodging	\$2,695,095	\$188,657
Food & Beverage	\$2,479,620	\$173,573
Retail	\$995,605	\$49,780
Entertainment	\$2,585,037	not taxed
Local transportation ¹	\$167,187	\$16,719
Annual Totals	\$8,922,544	\$428,729

¹We assume that one-half of the \$1.5 million projected to be spent for local transportation will be for car rental.

Sources: Summer 2004 Passenger Survey, 2015 Ridership Projections

Table 7-5. Almost \$4 million in annual state and local tax revenue is expected to be attributable to the *Downeaster* based on Maine residents' income (individual and business taxes)

Economic Benefit Categories	Total Personal Income Generated	Income Tax	Sales/Excise Taxes	Property Tax	Other state & Local Taxes	Totals
Visitor spending	\$4,433,632	\$159,611	\$119,708	\$190,646	\$31,035	\$501,000
Economic Development	\$28,493,000	\$1,025,748	\$769,311	\$1,225,199	\$199,451	\$3,219,709
Passenger Savings	\$707,000	\$25,452	\$19,089	\$30,401	\$4,949	\$79,891
Annual totals	\$33,633,632	\$1,210,811	\$908,108	\$1,446,246	\$235,435	\$3,800,600

Sources: Maine Tax Incidence Study, Maine Revenue Services, January 14, 2005, Summer 2004 Passenger Survey, Interviews

7.2 Analysis Using IMPLAN for Maine and New Hampshire

We used the IMPLAN package to double-check revenue estimates for Maine and to calculate tax revenues for New Hampshire that can be attributed to *Downeaster* service.

Findings. Current annual tax revenues attributable to the *Downeaster* in Maine and New Hampshire are relatively even at around \$380,000 for each state. For future revenue generation, New Hampshire's revenues are expected to more than double (in constant 2004 dollars) to about \$783,000 annually, driven primarily by the increase in visitors expected to use the rail service.

For Maine, tax revenues are expected to increase to \$4.6 million, based on increased volumes of visitors, operation of service northeast of Portland and new development projected for the rail line corridor. Tax revenues attributable to the *Downeaster* are reported in Tables 7-6 and 7-7 for Maine and New Hampshire, respectively. The tables display estimates of current revenues and potential future revenues by tax that can be attributed to *Downeaster* service for each state.

Table 7-6. State and local tax revenues generated by the *Downeaster* in Maine are not \$380,000 per year and are expected to increase to \$4.6 million.

Type of Tax	Current	Projected
Property Tax	\$111,428	\$1,137,000
Sales Tax	\$134,773	\$1,375,000
Income Tax	\$71,923	\$1,214,000
Other Taxes	\$61,454	\$903,000
Totals	\$379,578	\$4,629,000

Sources: Sources: Summer 2004 Passenger Survey, 2015 Ridership Projections, Interviews, IMPLAN

Table 7-7. State and local tax revenues generated by the *Downeaster* in New Hampshire are now \$378,000 per year and are expected to double.

Type of Tax	Current	Projected
Property Tax	\$276,670	\$594,000
Sales Tax	\$0	\$0
Misc. Income Related Taxes	\$4,226	\$8,000
Other Taxes	\$97,217	\$182,000
Totals	\$378,113	\$783,000

Sources: Summer 2004 Passenger Survey, 2015 Ridership Projections, Interviews, IMPLAN

CHAPTER 8. OTHER IMPACTS

Downeaster service includes many benefits to Maine and New Hampshire that either fall outside the general scope of this study or cannot readily be quantified. In this chapter we discuss:

1. Employment associated specifically with *Downeaster* operations, including AMTRAK employment and workers at train stations;
2. Construction investment of station development;
3. The portion of housing values attributable to proximate location to *Downeaster* service; and
4. Synergies with water and bus transportation.

8.1 Economic Benefits of *Downeaster* Operations

About 65 people are directly employed to provide *Downeaster* service in Maine and New Hampshire, including Amtrak crews, food service and cleaning workers and New England Passenger Rail Authority (NNEPRA) staff.¹⁹ These workers in turn earn wages that they then spend on consumer goods and services. Depending on the proportion of higher paid railroad workers and the lower paid food service and cleaning crews, disposable income earned from *Downeaster* activities and circulated in the Maine and New Hampshire economies amount to \$900,000 - \$2.7 million.²⁰ In turn, with spin-off effects- the total benefits to the two states from AMTRAK/*Downeaster* workers spending their wages range from:

- 15 to 44 jobs
- \$434,000 to \$1.3 million in wages
- \$1.5 million - \$4.3 million in total business sales.

Locally, in Maine and New Hampshire:

- Concord Trailways owns the Portland station – NNEPRA leases space for a ticket counter and the service manager’s office, and contracts with Amtrak for two ticket agents in Portland. There is also an Amtrak clerk there.
- Saco and Old Orchard Beach are just platforms. No ticketing or anything. The Towns maintain them.

¹⁹ Estimate from NNEPRA.

²⁰ Sources are IMPLAN and estimate from NNEPRA. Calculations by EDR Group.

- Wells employs two half- time employees paid through an employment agency, and one half-time agent is paid by chamber. These employees serve train and bus customers, so the jobs cannot be fully attributed to the train – we estimate about 1/3 time is devoted to the *Downeaster* as the train probably accounts for about 1/3 of the traffic through the station
- The Dover facility is operated by C&J Trailways. They have a ticket agent but do not sell *Downeaster* tickets.
- Exeter is just a platform maintained by the town. There’s a ticket machine in the convenience store adjacent to the platform.
- Durham has only a platform maintained by UNH. A QuikTrak ticket machine is in the Whittemore Center near the platform.

8.2 Public Investment for Station Development

Investments for station development have not been counted in our economic benefits analysis unless it is cojoined with other development (such as the transportation center in Wells). Examples of other development investments for station development include:

- Roughly \$2.4 million was invested in the Wells station and adjoining parking facilities (a 1600 square foot building and two parking lots, a 100 car park and ride lot and a 96 space transportation center including spaces for buses and Recreational vehicles). The money was from both federal sources and the Maine Turnpike Authority.²¹
- The town of Brunswick has received a \$150,000 brownfields grant for the train station site, which he expects to increase to \$1.5 million when all is said and done. One million dollars will be from the revolving loan fund and \$500,000 from a pot set aside for creating public open space with brownfields sites. The train station was a critical component for securing the grant.²²
- The town of Exeter invested \$160,000 through town meeting for station development.

²¹ The delays in start-up of the service hurt the development of the transportation center. The cost of the project kept increasing, the Pike was under pressure, the project lost tenants who could not wait for the train decision and the building size was dropped from 5800 square feet to 1600 square feet. It was required that this space includes a rest room and mechanical operations room. The rental space, which was to pay for the operations of the station, was lost. Now the station relies on brochure pockets and advertising boards to pay for what goes on at the station. The brochure pockets are also used to provide information on all transportation services.

²² Source: Site interviews in Brunswick.

8.3 Contribution to Housing Values

Past studies of LRT and commuter rail indicate that an average premium on housing values near trains is roughly 6%. Given that the *Downeaster* now is not set up to be a commuter line – we should assume half of this value at best. Future scheduling changes (including expansion from Portland to Lewiston/Auburn) might warrant assuming a 6% premium for all or part of the line. The potential for worker commuting trips between Portland and Lewiston/Auburn would justify an assumption that 6% of housing values near the stations of these two cities are attributable to the *Downeaster*. Moreover, by the time these stations are online, it is possible that scheduling adjustments will allow for easier commuting between Portland and points south.

We have not found an emphasis of the *Downeaster* from realtors in their marketing efforts. We have picked up anecdotal information from some realtors and others that it is a benefit, but have also heard from other realtors that customers have not been asking about it. For example, we spoke with a residential broker in Dover who said that she saw no impact from the train that none of her customers have asked about it, and she is not aware of it being a consideration in any sale, the rate of development, the pace of sales, or the value of homes. The Dover Downtown Executive Director, on the other hand, believes that the train has had some impact on real estate values. In Exeter, real estate prices have gone up 12% over the past two years according to a realtor, and 1% per month according to the assessor. A realtor based in Exeter told us that the train has had positive effect, but was unable to put a range or specific percentage to its impact.

At this time, the effect of the *Downeaster*, however, appears to be a small part of the 16% annual increase in sales prices that have been experienced in Saco (Saco is in York County, which is the closest Maine county to Boston). Reviewing the Maine Association of Realtors' data, the increase in sale prices throughout York County was 15.6% from 2003 to 2004. This exceeds Maine's statewide average for this time period. However, 5 counties had higher percentage increases in sales price and 10 had lower percentage increases over the past year, so it is difficult to attribute any change to the train. The number of sales in York County increased at a 10.7% rate over the year, which is above the statewide increase of 9%. Note that York and Cumberland Counties (Portland is in Cumberland County) have by far the highest number of sales than any other counties, and the two counties have the highest median sales value in the state, approaching \$230,000.

Our observation is that at this time the *Downeaster* may have some small impact on prices for those who commute to Boston. This is evidenced in part by the large number of cities and towns in Maine and New Hampshire where riders live. (See Table 6-7 in Chapter 6.)

8.4 Transportation Synergies

Tourism and visitor spending is a major benefit of the *Downeaster* in Maine and New Hampshire. The *Downeaster* can also help increase the volume of business of intercity buses, ferry services and cruise ships.

Intercity bus services are operated at the train stations of Portland, Wells and Dover. *Downeaster* passengers can enjoy transportation links to destinations to communities without rail service.

Ferries and cruise ships operate out of Portland. As *Downeaster* service grows, and with coordinated marketing and operational planning, travelers can benefit and passenger volumes can increase by the presence of all train, water and bus modes jointly located in Portland.

The *Downeaster* could increase its impact with cruise boat operations in Rockland, and could influence ability to get ferry to Canada. Rockland officials interviewed expressed that hope that *Downeaster* service might reduce the significant traffic that affects tourists trying to get to the town.

In Lewiston/Auburn the passenger rail station will be located in the center of an area that is a proposed Foreign Trade Zone (FTZ, which is in final stages of approval.) Also within the FTZ are the Auburn/Lewiston Airport, the St. Lawrence and Atlantic Freight Intermodal facility, and the St. Lawrence and Atlantic Rail Road. Though these facilities are not within walking distance of the train station, an interchange of the Maine Turnpike is about 1-1/2 mile away from the station site – so shuttle service is a realistic expectation. The train station is planned to be part of an intermodal facility that serves passenger rail, airport users, motor coaches, car-pooling, and private autos.

CHAPTER 9. CONCLUSIONS

After two years of operation, *Downeaster* service has already had a measurable impact on the Maine and New Hampshire economies. The *Downeaster* has brought visitors to the two states who would not have made those trips otherwise. In addition, initial business opportunities have been realized and the service has increased the desirability of areas near the stations for business opportunities and construction investments. Lastly, residents of Maine and New Hampshire who choose to use the *Downeaster* over other transportation modes have saved money in the aggregate by using the train as opposed to other modes.

The scale of future contributions of the *Downeaster* to the economies of Maine and New Hampshire depend on the evolution of the service and entrepreneurs who take advantage of opportunities brought about by the train. Projections discussed in Chapters 5 and 6 are based on the best available information today regarding projected passenger levels and development projects in progress or under consideration. In coming years, these projected economic benefits should be reevaluated based on:

- Updated ridership projections.
- Progress towards planning, developing and operating stations in Brunswick, Freeport, Rockland and Lewiston/Auburn.
- Zoning changes and land-use changes needed to take advantage of opportunities near stations, such as desired housing development near the Portland station and development at Wells and Brunswick.

Secondly, projections in this report can be considered low, if:

- **Schedules are adjusted to better accommodate commuters.** This will increase use of the *Downeaster* for commuting to Boston, of course, but also increase its utility for servicing new development in Saco and encourage more housing developments near *Downeaster* stations. Moreover, commuter connections will strengthen train-oriented development opportunities in Portland and Lewiston after the two cities are connected.
- **A downtown Portland train station is developed.** The Bayside project or another option to bring the train downtown may significantly increase *Downeaster*-dependant tourism, and synergy of the *Downeaster* with the Bayside project carries the potential for economic development in Portland.
- **Connections to Pinelands are facilitated.** Connections between Pinelands and Portland, Brunswick and Lewiston/Auburn can generate train-oriented development for office/research and other professional services.

- **The *Downeaster* can connect major educational institutions in Maine, including those in Brunswick, Lewiston and Portland.** These connections might not only fuel “knowledge-sector” development opportunities in these three communities, but it could also fuel economic development in places like Saco (for example, the proposed biotech center) and Pinelands, as well as residential development in many *Downeaster* communities and nearby municipalities. Furthermore, these connections will include rail linkages to the University of New Hampshire, Massachusetts and points along Route 128 and Route 495, which might facilitate additional travel between these points.

Given that the service is just three years old, the *Downeaster* is proving to be a strong economic engine for Maine and New Hampshire. The potential for growth of the service carries with it likelihood that the *Downeaster* will make major contributions to the future economies of Maine and New Hampshire.



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