

MAINE EAST-WEST HIGHWAY..

Economic Impact Analysis

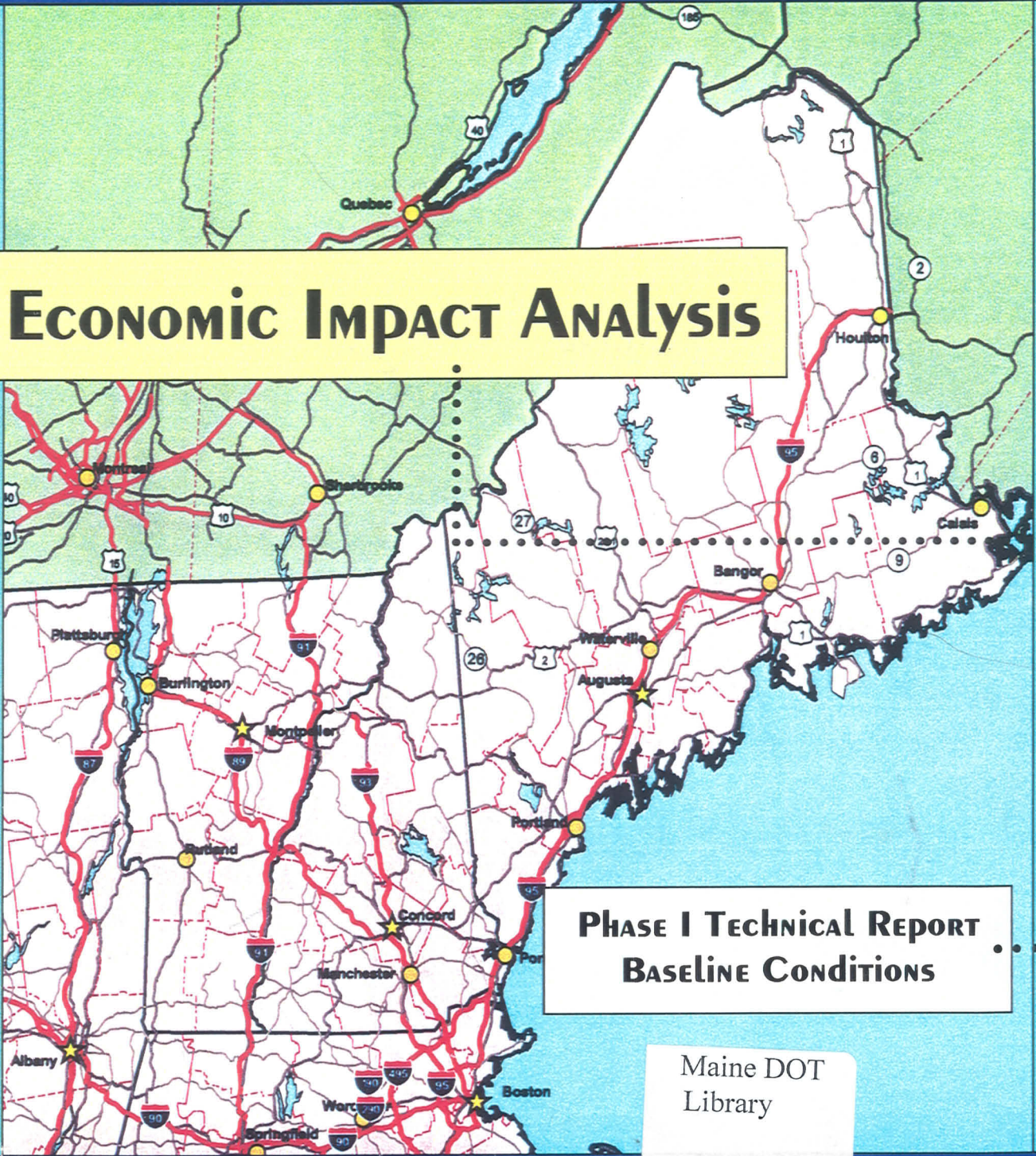
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BASELINE CONDITIONS

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**Maine East-West Highway:
Economic Impact Analysis**

**Phase I Technical Report
Baseline Conditions**

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Augusta, Maine 04333

June, 1999

Prepared for **Maine State Planning Office
Maine Department of Transportation**

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ANGUS S. KING, JR.
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DIRECTOR

July 12, 1999

To: Members, Appropriations Committee
Members, Transportation Committee
Members, DOT's East-West Highway Peer Review Group
Governor's Office
Interagency East-West Highway Working Group

From: Laurie Lachance

Re: Phase I Technical Report of the East-West Highway Economic Impact Analysis

After a full year of study, we are nearing completion of our East-West Highway Economic Impact Analysis. Because of the comprehensive nature and sheer density of our work, we decided to begin releasing smaller, more easily digestible reports. Our current plan is to deliver 4 technical reports over the upcoming eight weeks. Our final report on the economic impact of the proposed highway, along with DOT's analysis and findings, will be delivered to the Legislature and the Governor on September 15th.

I apologize for not being able to deliver these reports to you earlier. We decided months ago that, in an effort to maximize the response to our business survey in Atlantic Canada and Quebec, we would seek the signatures of the appropriate Canadian Premiers on the cover letter that accompanied the survey. Needless to say, working with the offices of foreign Governments to secure sign-off on the concept, cover letter, 9-page survey form and the grammar of the French translation cost us dearly in terms of time.

In addition, we decided, midway through our research, to expand the scope of the study in an effort to ensure that this study would produce as rich and comprehensive information as possible from which policy makers could better understand the array of policy options available to them. As you may know, we expanded the number of corridors being considered from 3 to 4, doubled the number of tourist surveys from 1,000 to 2,000, expanded our business surveying from 3,500 to 5,000, and raised the number of analogous routes to be studied from 1 to 3.

Included in this packet is a copy of a speech that I delivered to an RTAC (Regional Transportation Advisory Council) meeting in June. The speech provides a brief history of our research, an overview of the methodology employed and a summary of our findings to date. The Phase I Technical Report provides the baseline economic and demographic conditions of Maine, the Maritimes, Quebec, Ontario, and the northeastern US. It also provides detailed information



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on US/Canadian trading patterns in this region, a description of the existing transportation infrastructure and current traffic volumes, and commodity flows. **This report is purely technical in nature, providing information that is critical to the foundation of our analysis. Policy implications are not drawn in this report, nor will they be drawn in the technical reports that follow. They are meant to provide the essential information necessary to formulate and evaluate policy options.** That said, I would encourage and welcome your feedback on what you see as the most important implications from the 4 Technical Reports. To the fullest extent possible, we will supplement our findings with your ideas in developing the final report.

The Phase II Technical Report will include the results of our tourist and business surveys. Phase III will provide the economic impact analyses along the various corridors and the sensitivity analyses. The Phase IV report will contain estimated real estate impacts and the results of our Case Studies (analogous routes).

In an effort to reduce printing costs and to increase accessibility to this information, each report will be placed on the State's website (www.state.me.us) as it becomes available. Please feel free to encourage others to examine our work and provide me with any feedback they may have. To the extent that we can inform and increase the dialogue on this proposal, we will all benefit with a richer analysis of the full range of policy options available to us.

Thank you all for your patience and for your feedback. If you have any questions, please feel free to call me at 287-1479 or e-mail me at laurie.lachance@state.me.us . I will try to direct you to the most appropriate resource.

B. Selection of Routes

Our first major task was to select the corridors that would be studied. To determine which routes would be analyzed, we considered the following economic and market issues:

1. The characteristics of the existing economic base within those regions of the State which could be served by the potential E-W Highway.
2. The economic characteristics of the Canadian and US Hubs that could be expected to generate traffic along the route.
3. The quality, capacity and traffic volumes on highway systems beyond Maine's borders and the nature of cross border traffic that could be serviced by various corridors.
4. Estimated travel time savings to/from major hubs.
5. The probability that each corridor would produce measurably different economic impacts from the remaining alternatives.

From this work, 4 corridors were selected for study.

Corridor A- 2 lane

Upgrade existing route 6/16 from Vanceboro through Lincoln, Dover-Foxcroft, Greenville to Route 201 near Bingham. Follow 201 to Jackman- towards Quebec City.

Corridor B- both 2-lane and 4-lane

Calais to Bangor on or near Route 9, I-95 from Bangor to Newport, between Newport and Augusta - branch off towards Coburn Gore following the Route 27 direction.

Corridor C- 4-lane

Calais to Bangor Route 9, Bangor to Augusta on existing I-95, between Augusta and Gray- branch off towards Bethel, exit near Gilead

Corridor D- 2 lane

Upgrade Route 9 and 2. Calais to Bangor- Route 9, I-95 Bangor to Newport, Newport to Gilead- Route 2.

C. Primary Research

Once the potential corridors had been selected, we were ready to do our primary research.

Let's start with tourism. The tourism research was done in 2 parts:

1. Key Tourist Destination Survey

The first part was a series of face-to-face interviews with community leaders in several of Maine's key tourist destinations. Davidson- Peterson Associates interviewed leaders in

- Bar Harbor/Ellsworth
- Camden/Rockport
- Bangor
- Greenville
- Millinocket
- Bethel
- Old Orchard Beach
- Wells/Ogunquit
- Rangley
- Carrabasset Valley

They also talked with such retail interests as:

- Ski Maine Assoc.
- Forum Francophone Des Affaires
- Bangor International Airport
- Aroostook Mall
- Cyr Bus Lines

The purpose of these interviews was to better understand current Canadian visitation to regions of Maine and to gather impressions on the potential impact if a new E-W highway on tourist visitation.

2. Telephone Survey

Phase 2 of our tourism research entailed telephone surveys of 2,000 potential tourists distributed as follows:

- 500 Metro Montreal
- 300 Metro Quebec City
- 500 Metro Toronto
- 200 Atlantic Canada
- 250 Northern NH & VT
- 250 Upstate NY

Potential tourists were asked questions about past travel to and through Maine and the likelihood of future visits with various time and distance savings provided by the proposed highway.

3. Business Surveys

In addition to 2,000 tourist surveys, we mailed out 5,000 business surveys. The business surveys were developed to provide us with a thorough assessment of how existing businesses from Maine, Atlantic Canada, Quebec, Ontario, and Northeastern US currently ship their goods and how a new highway would effect their

- trading patterns
- investment plans
- overall business activity.

1,300 were mailed to Maine's largest commercial and industrial businesses
2,200 to firms in the northeastern US and
1,500 to Canadian firms

4. Analogous Routes

In an effort to enrich our understanding of the true potential for the economic development benefits of a new highway, we decided to supplement our survey work with a study of analogous situations. We selected two, 4-lane highways that were completed at least 2 decades ago that start in a metropolitan area, go through rural areas and end in Montreal.

The goal is to see what happened to the rural areas through which the highway passed.

- Was there any noticeable difference in the level of economic activity once the highway was built?
- What kind of growth, if any, occurred?
- What business or community types were hurt by the highway?
- What can Maine learn from this?

The 2 routes that are being studied are:

1. I-87 from Albany to Plattsburg to Montreal
2. I-91 from White River Junction in Vermont to St. Johnsbury to Sherbrooke to Montreal.

We are particularly interested in St. Johnsbury where I-91, I-93 and Route 2 intersect. This economy is similar to Skowhegan. We are also examining I-95 from Bangor to Houlton in an effort to better understand what has - or hasn't - occurred with the presence of a 4-lane highway.

Once all of this information is gathered and analyzed on

- economics/demographics and forecasts
- traffic patterns
- community flows and forecasts

- tourism
- business surveys
- analogous routes

It will be fed into Charlie Colgan's REMI model of the various regions of Maine to forecast the economic impact to Maine as a whole and to the individual regions.

IV. FINDINGS TO DATE

So what have we learned so far? Understanding that the full benefit/cost ratio is the final product and not yet complete, I will share what we've learned to date.

A. Economic Growth

1. The economies of the Maritime provinces:

- are small (6% Canada's GDP)
- are very similar in make-up to Maine's - tourism, natural resource based
- are not projected to see any significant growth
- the 4 Provinces combined are \$48 billion (Canadian \$) only slightly larger than Maine's \$29 billion(US \$)

2. The economy of Quebec is:

- much larger (22% of Canada) - nearly four times the size of Atlantic Canada
- industries in Quebec City region - similar to Maine
- Metro Montreal is the hub
- much more vital/diversified.

3. Ontario is huge, dynamic and projected to be the growth engine

- 41% Canada's GDP
- Canada's high tech center
- GDP forecast to grow 3.3% per year over next decade.

4. Northeastern US (NH, VT, Northern NY) is:

- like Maine - expected to see relatively slow population and economic growth.

B. Population Growth

Medium Forecast: Maine- 0.5% annually

Maritimes	(0.3)% - Newfoundland
	0.1% -New Brunswick
	0.2% -Nova Scotia
	0.3% -Prince Edward Island

Quebec- 0.7%
Ontario- 1.5%
Northeastern US- 0.5 to 0.9%

Population Size

	<u>1996(mill)</u>
Newf.	0.6
PEI	0.1
NS	0.9
NB	0.8
Prov. Quebec	7.4
Ontario	11.3

C. Trade

Canada remains the number one trading partner with Maine. US/Canadian Trade has grown rapidly in recent years, though little of this increase has flowed through Maine. Of the \$61 billion increase in bilateral trade between US and Canada from 1988-95, less than 1% flowed through New Brunswick and Maine. Nationally, trade is dominated by transportation equipment.

Bilateral trade is forecast to grow 4-7% annually over the next 20 years. The bulk of this growth will occur along the borders of Ontario and Western Quebec with Michigan and New York. ME, VT, and NH's trade with New Brunswick and eastern Quebec is forecast to grow 1.5% - 2.8%. Trade growth is expected, but at a slower pace.

Maine's larger export sectors are agriculture, paper, and wood products, industries in which Canada enjoys trade surpluses with the US. Canada is still Maine's most important trading partner but goods tend to flow east to west. Two-thirds of all imports to Maine come from Canada. Eighty percent of Maine's exports to Canada are shipped westward.

D. Border Crossings

With the exception of Calais/St. Stephen, existing traffic volumes at Maine's border crossings are light.

1997 Border Crossing Data:

- 4.3 million passenger cars
- 450,000 heavy trucks entered Maine at 11 Canadian border crossings
- Average Daily Crossing 11,900 passenger vehicles
1,230 trucks

Average Annual Daily Traffic

Calais	7,600
Houlton	2,300
Ft. Kent	2,000
Statton	1,420
Vanceboro	580

E. Commodity Flows

The flow of existing commodity traffic into and through Maine is primarily north-south. Trucks are the dominant mode of commodity transportation in Maine with 95% of the outbound tonnage and 52% of the inbound tonnage (water accounts for much of inbound).

Outbound trucks carry:

1. Paper
2. Paperboard products
3. Field crops

Southwest US is the largest destination. The largest commodities coming into Maine (by weight) are:

- building and paving materials
- agriculture and industrial chemical products
- paper and forest products
- food and consumer goods.

The flow of east-west commodity traffic through the Atlantic Provinces is heavily influenced by rail with about a 50/50 rail/truck split in Atlantic Canada.

F. Tourist Destination Interviews

From the key destination interviews, we found that the role of Canadian Visitors varies greatly:

Southern Coast:

- dominant
- 30% of all visitors to that region
- primarily French speaking

Mid Coast:

- some visitors
- but coastlines similar to Atlantic Canada

Mountain Areas:

- few visitors

-again feel Canada has similar terrain

Most tourism leaders are aware of east-west discussions. Most feel it will eventually be built but not within the next 10 years.

The perceived benefits are as follows:

- improved access to and through Maine
- will attract tourists from Canada, NH, VT, NY
- would be safer, more efficient
- will increase commerce

The perceived problems include:

- see no major problems but tourists may move too fast through Maine
- is this best use of Maine's limited resources?
- environmental concerns.

In all, Maine's tourism leaders show modest support of the proposed highway.

G. Tourist Survey

- being checked and cleaned
- seems quite favorable

H. Business Survey

- still coming in
- have received 11% response from Maine firms
- 50/50 North-South dispersion
- good response across industry sectors
- much data crunching left to do.

V. SUMMARY

In summary, as of early June, our research is well underway. The survey results are still being verified and fed into the economic impact models that will ultimately estimate the likely effects along the various corridors being considered. A Technical Report with full detail of the baseline economic, demographic, infrastructure, traffic and commodity flows will be published in July. Other information will be distributed as it becomes available. Our completed report should be available by mid-September.

**Speech of Laurie G. Lachance
on the
Proposed East-West Highway**

June 3, 1999 RTAC Meeting in Bangor, ME

I. INTRODUCTION

Good morning. It's a pleasure to be here, to have an opportunity to talk with you about the economic impact analysis of the proposed East-West Highway.

What I'd like to do today is:

1. First - provide a brief history of this proposal,
2. Second - describe the research of this proposal,
3. Finally - share with you some of the preliminary findings.

II. HISTORY

A. Legislation

As you may know, east-west highway studies have been going on for nearly ½ a century. But this time, when the legislature directed the Administration to prepare a study, they specifically charged the State Planning Office with:

“studying and reporting on the economic and trade issues associated with the development of an East-West Highway” and went on to say:

“The study must examine the projected increase in the Canadian highway traffic across Maine as well as the economic impact of the Canadian traffic”.

To the best of my knowledge, in all of the numerous studies, there has never been a thorough economic impact analysis performed. It was clear that this time, the Legislature wanted more than just a cost estimate of the proposal. They also wanted to understand the potential economic benefits.

B. Request for Proposals

When SPO developed its RFP, we asked that 5 areas of economic impact be examined:

1. economic activity generated by the flow of Canadian traffic,
2. economic activity derived from increased trade opportunities for Maine companies,

3. economic benefit resulting from lowering the costs of shipping raw materials into Maine,
4. economic activity stemming from increased tourism, and
5. increased land values along the corridor.

Four consulting teams bid on the project. The team that won the bid had 5 partners. It was led by RKG Associates, an economic analysis firm in Durham, NH. The other partners included:

- Vanasse, Hangen, Brustlin, Inc., a transportation firm from MA
- Standard & Poor's DRI for commodity /freight forecasts
- Davidson Peterson Associates, a Maine-based tourism/market research firm
- Professor Charlie Colgan from USM for the in-state, regional economic impact analysis.

In addition, a working team of DOT, DECD, and SPO was formed to guide the analysis and to facilitate the highly interactive nature of the SPO and the DOT study efforts.

III. RESEARCH METHODOLOGY

Given the comprehensive nature of this study, we used a number of tools to examine the key questions.

A. Secondary Research

First, we collected information on the economic and demographic condition of and forecast for...

- Maine
- Atlantic Canada
- Quebec
- Ontario
- Northeastern US

...to understand the relative size and health of the economies with which we were trying to connect and the existing infrastructure and traffic flows within this super-region. We looked at the known travel patterns of tourists and the documented flows of commodities through and around Maine.

This secondary research was used for 2 major purposes:

1. To shape and inform the Primary Research and
2. To focus the analysis and to narrow and define the actual corridors to be studied.

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I Introduction

Overview

The purpose of this report is to present and summarize the findings of baseline data collected as part of the economic impact analysis of the proposed Maine East-West Highway. The objectives of this first phase of study were to:

- a. Review the findings of prior studies of US and Canadian travel patterns and trade flows;
- b. Evaluate the physical characteristics and traffic volumes carried by existing transportation infrastructure which is located within and beyond Maine's borders;
- c. Summarize recent and projected economic and market conditions in the major US and Canadian metropolitan areas which are likely to generate traffic demand for the proposed highway;
- d. Document the volumes, characteristics, origin and destination of commodity flows which are currently passing through or around Maine, by mode of shipment;
- e. Draft survey instruments and develop survey sampling strategies for the next phase of study; and
- f. Recommend conceptual corridors for application of the economic impact analysis.

A prerequisite objective of Phase I was to recommend a limited number of conceptual highway corridors on which to focus the survey research, baseline data collection and the impact evaluation phase of the analysis. The selection of these corridors took place after an initial round of interviews, data analysis and presentations of preliminary findings to MSPO and MDOT staff. Comments from representatives of other interested agencies and interest groups were also solicited during this process.

Factors considered in proposing conceptual corridors for an east-west highway through Maine were limited to the following general economic and market issues:

- a. The characteristics of the existing economic base within those regions of the State which could be served by potential east-west highway corridor(s);
- b. The economic characteristics of the major Canadian and Northeast US hubs which could be expected to generate passenger and commercial travel demand for each alternative;

- c. The quality, capacity and traffic volumes on highway systems located beyond Maine's borders, and the nature of cross-border traffic that could be serviced by various corridors;
- d. Estimated travel time savings to/from major hubs that might be achieved by each corridor; and
- e. The probability that each corridor would produce measurably different economic impacts from the remaining alternatives.

Engineering and environmental evaluations are beyond the scope of this analysis and were not used to either include or eliminate any concept from consideration. It should also be understood that the resulting corridors are broad concepts and should not be characterized as highway alignments. It is assumed that a variety of possible alignments could be developed to implement each concept.

After considerable deliberation, five conceptual corridors, including three upgrade alternatives and two corridors on new alignments, were selected for further analysis. These are identified on Map I-1 and described below¹:

Corridor Upgrade Alternatives

Corridor "A": *The Trans-Maine Trail (Alternate)* This corridor begins at the Canadian border in Vanceboro and proceeds westerly via Route 6 through Lincoln, Milo, Dover-Foxcroft, and Guilford to Abbot, then westerly via Route 16 to Bingham. The trail proceeds northerly along Route 201 to Jackman and Sandy Bay at the Canadian Border. (Includes Routes 6, 16 and 201)

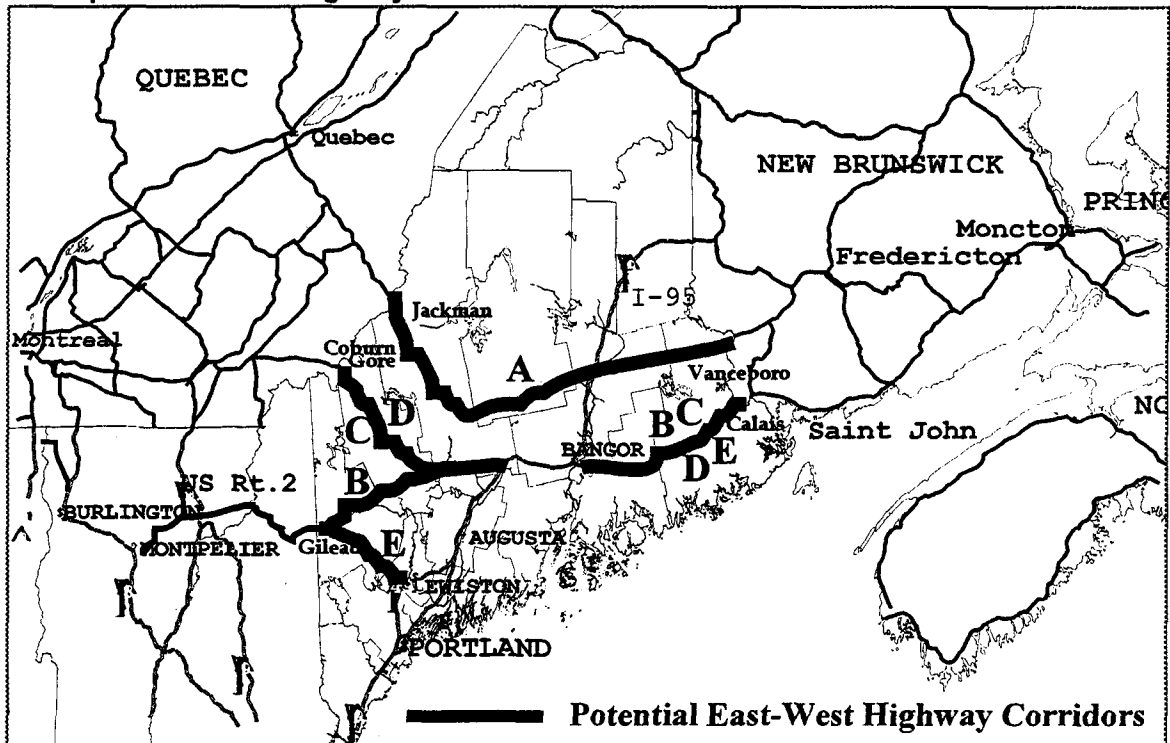
Corridor "B": *The East-West Highway* As defined in statute, this corridor begins at the Maine/New Brunswick border and proceeds westward along route 9 to Route 46 in East Eddington. The corridor continues southerly along Route 46 to Route 1A in East Holden, then westerly along Route 1A to I-395 in Brewer and connects with I-95 at or near Bangor. It then continues southwesterly along existing I-95, leaving I-95 in Newport. From this point, it continues westerly along Route 2 to the Maine/New Hampshire border at Gilead. (Includes Routes 9, 46 1A, I-395, I-95, & 2)

Corridor "C": *The East-West Highway (Alternate)* Beginning at the Maine/New Brunswick border, this corridor proceeds westward along Route 9 to Route 46 in East Eddington. The corridor continues southerly along Route 46 to route 1A in East Holden, then westerly along Route 1A to I-395 in Brewer and connects with I-95 at or near Bangor. It then continues southwesterly along existing I-95, leaving I-95 in Newport. From this point, it continues westerly along Route 2 to Route 27 in Farmington, then continues northwesterly along Route 27 to the Maine/Quebec border at Coburn Gore, linking Sherbrooke and

¹ Corridor definitions were provided by the Maine Department of Transportation.

Montreal via Quebec Route 10. (Includes Routes 9, 46, 1A, I-395, I-95, 2 & 27)

Map I-1
Conceptual East-West Highway Corridors



Corridors on New Alignments

Corridor "D": This corridor is a limited access 4-lane highway, predominately on new alignment, beginning at the Maine/New Brunswick border, at a location somewhere in the vicinity of Calais/Baileyville and connecting to Saint John Fredericton, and Moncton via NB Routes 1, 2 and 3. The corridor then proceeds westward along or south of Route 9, connecting with I-395 and I-95 at or near Bangor, and continues southwesterly along existing I-95, leaving I-95 at a point between Newport and Augusta. From this point, it continues northwesterly to the Maine/Quebec border at or near Coburn Gore, linking Sherbrooke and Montreal via Quebec Route 10.

Corridor "E": Also a limited access 4-lane highway, predominately on new alignment, this corridor begins at the Maine/New Brunswick border at a location somewhere in the vicinity of Calais/Baileyville and connecting to Saint John Fredericton and Moncton via NB Routes 1, 2 and 3. The corridor then proceeds westward along or south of Route 9, connecting with I-395 and I-95 at or near Bangor, and continues southerly along existing I-95/I-495, leaving I-95/I-495 at a point between Augusta and Gray. It then continues in a generally northwesterly direction to the Route 2 corridor crossing into New Hampshire at or near Gilead, linking New Hampshire, Vermont, and Montreal via Route 2 and I-89.

As shown above, the selected concepts include a mix of northern, central and southern routes, two-lane upgrades, and 4-lane limited-access options for providing a border-to border, east-west highway connection across the state. These options serve different regions within the state and connect to different hubs to the east and the west of Maine. More importantly, the resulting economic impacts and user benefits from each alternative are likely to be distinguishable from the others, and will thereby provide a meaningful basis for comparison.

The collection and presentation of information in this report are intended to provide a sufficient baseline of information with which to evaluate the economic impacts of each east-west highway concept illustrated above. This progress report is organized around the above objectives and presented in three sections. Chapter II presents population, employment, market trend and forecast data for selected metropolitan areas in the Northeast US and Eastern Canada. Findings from prior studies of US/Canadian trade are also discussed in this section. Chapter III profiles existing conditions and traffic volumes along major transportation routes and facilities which service Maine, the Northeastern US and Eastern Canada. Chapter IV analyzes commodity flows by type, origin/destination and mode of shipment, into and out of the State of Maine and Atlantic Canada. The appendix to this report also contains detailed tables which provide the source data for many of the findings presented in the text.

The following section provides a summary of the overall findings of the baseline research presented in Chapters II through IV, and their potential implications for the development of an east-west highway through Maine:

Summary Findings

1. **Although US/Canada trade has grown rapidly in recent years, very little of this increased activity has flowed through Maine. Maine's opportunities to increase its share of Canadian trade appear to be linked to Canada's growing industrial centers in Southern Ontario and Southwestern Quebec. Significant characteristics of US/Canada trade include the following:**
 - Canada is a net exporter to the US. Canada has enjoyed a long-standing and growing trade surplus with the US. Measured in constant 1992 US dollars, the value of Canada's exports to the US grew at a 5.3% annual rate from 1988 through 1995, while imports from the US grew by 3.3% per year. Canada's trade surplus with the US has also increased in real terms, from \$11.3 billion in 1988 to \$30.6 billion in 1995. (These totals are expressed in 1992 constant US dollars.)
 - In monetary terms, trucks carry the dominant share of US-Canada trade. In 1995, trucks carried more than 66% of the dollar value of Canadian exports to the US and 90% of the value of US exports to Canada. Rail is used most heavily for the transportation of finished automobiles; wood, pulp and paper; and metal products. Trucks are the dominant transport mode for most other commodities.
 - The vast majority of bilateral trade also flows through the Eastern Canada and the Northeast US. Approximately 74% of the total 1995 value of Canadian exports to the US were delivered through the eastern border provinces of Ontario, Québec and New Brunswick. Similarly, 62.9% of total US exports to Canada were received through these same provinces.
 - The vast majority of cross border trade flows through Ontario. More than 86% of the total value of Eastern Canada's US exports, flowed through Ontario border crossings, compared to 11.8% for Quebec and 1.9% for New Brunswick. The value of US products imported into eastern Canada was similarly distributed, with 91% entering through Ontario, 7.9% through Quebec and only 1.1% entering through New Brunswick.
 - Trade between the US and Canada is concentrated within a few commodity groups and is heavily dominated by the automotive industry. Transportation equipment accounted for more than 30% (\$66.8 billion) of the total value of US/Canada trade in 1995, and more than 52% of Canada's \$30+ billion trade surplus with the US. In addition to transportation equipment, the two other categories of commodities with high levels of US-Canada trade were machinery & electronics (\$50.5 billion) and wood, pulp and paper products (\$24.8 billion). Together these three commodity groups accounted for nearly 61% of the total value of US-Canada trade in 1995.
 - The monetary value and growth of bilateral trade between Northern New England, New Brunswick and Quebec is modest compared to the other border regions. Of the approximate \$61 billion increase (real growth) in US-Canada trade between 1988 and 1995, more than half has flowed between Michigan and Ontario, 29% has flowed between Northern/Western New York State and Ontario/Québec, 19% has been captured by the western border regions. Less

than one percent has flowed through New Brunswick and Maine.

- Although only a small fraction of total US/Canada trade flows through the eastern-most section of the US/Canadian border, from Vermont to Calais/St. Stephen, the value of this trade still totaled nearly \$3.0 billion in 1995. Nearly 72% of that value consisted of Canadian exports to the US. The total value of cross-border trade between Northern New England and New Brunswick/Quebec grew by roughly \$480 million in real terms from 1988 to 1995.
 - A forecasting model of US/Canadian trade, developed for the Eastern Border Transportation Coalition in 1997, projects that bilateral trade will grow at an average annual rate of between 4% to 7% over the next 20 years. The impact of these trade flows will cause cross-border truck traffic along the Northern New England border with New Brunswick/Quebec to grow at an average annual rate of between 1.5 and 2.8% to the year 2015.
2. **Maine's larger export sectors, including agricultural, paper, and wood products industries, are areas where Canada enjoys strong trade surpluses with the US. Due in part to this factor, Maine has a large trade deficit with Canada .**
- The US enjoys a trade surplus with Canada in relatively few major commodity groups. Machinery and electronics is the single commodity group in which the US had a major trade surplus with Canada (of more than \$12.2 billion) in 1995. The US also had modest trade surpluses in chemicals (\$1.35 billion), textiles (\$600 million), rubber and plastics (\$390 million) and stone, ceramic and glass products (\$280 million). In other major commodity groups, Canada had substantial trade surpluses with the US. These groups included transportation equipment (\$16 billion), wood, pulp & paper products (\$13.6 billion), minerals (\$12.9 billion), metal products (\$3.8 billion) and agricultural products (\$580 million).
 - In 1995, Maine ranked 17th among all US States as a destination for Canadian goods, but was not ranked among the top 20 US States in terms of exports to Canada. Maine's trade deficit with Canada has also grown rapidly over the past 5 years. Measured in US dollars, Maine imported nearly \$1.9 billion worth of Canadian products in 1998, while exporting less than \$584 million. Trade imbalances occurred in all provinces except Ontario. Maine's estimated 1998 trade deficit with Canada totaled nearly \$1.3 billion, compared to a deficit of only -\$572 million in 1993.
 - Despite this trade imbalance, Canada is still Maine's most important export market, ahead of Europe and Asia. The majority of Maine's exports to Canada are destined for Quebec and Ontario. Trend data indicate that more than two-thirds of Maine's exports, measured in terms of value, are shipped "westbound" to Quebec, Ontario and western Canada. By contrast, roughly 60% of the State's Canadian imports are received from the east via the Atlantic Provinces.
 - The majority of Maine's trade with Canada (both imports and exports) is in natural resource-based commodities. Maine's Canadian imports include large

quantities of energy products (petroleum, coal and electricity) and wood pulp imported from New Brunswick, along with softwood lumber imports from Quebec. The value of imported wood pulp, lumber, news print, fuel and electricity represents nearly 47% of Maine's total Canadian imports.

- In contrast to Maine's largest exported commodities, New England's Canadian exports are concentrated in high technology equipment, electronic components, fabricated machinery parts and assemblies, medical and diagnostic equipment, aerospace equipment, seafood and agricultural products. Due to the high values associated with these products, Massachusetts, Connecticut and Vermont had higher Canadian exports than Maine in 1998.
3. **The dominant share of Canada's economic and population growth over the next 20 years is expected to occur in the Country's major urban markets located to the west of Maine. By comparison, growth prospects for the Atlantic Provinces, particularly areas outside of Metropolitan Halifax, are very limited.**
- Like the U.S., Canada's employment growth over the past decade has been led by high-technology, high-knowledge-intensive industries, both in the manufacturing and service sectors. Nation-wide, Canada's high-technology employment has expanded by more than 1.0 million (23%) since 1987. Over the same period, employment in medium- and low-technology sectors, including natural resource-based industries, was largely flat.
 - Ontario is projected to remain the growth engine of the Canadian economy, with real GDP growth of 3.3% per year over the next decade. A significant structural characteristic of Canada's economy is the fact that 53% of Canada's entire high-tech job base is located within the nation's seven largest metropolitan areas. Consistent with these trends, employment and population forecasts indicate that Canada's major urban centers, and Toronto in particular, will grow faster than its smaller cities and non-metropolitan areas for the foreseeable future.
 - The Atlantic Provinces represent only minor percentage of Canada's economy. Canadian GDP totaled just under \$798 billion (\$Can) in 1996. The four Atlantic Provinces, combined, contributed less than 6% to Canada's GDP in 1996, while Quebec and Ontario represented 22% and 41%, respectively. The combined GDP of the four Atlantic Provinces in 1996 totaled \$47.7 billion (\$Can), less than 15% of Ontario's GDP of \$323 billion.
 - Technological trends in the Canadian economy favor high-tech durable goods manufacturing over traditional industries. Electrical products, communications, business services, wholesale trade and chemical manufacturing industries are all projected to grow by more than 3% annually. Because most of these "high-growth" industries are concentrated in Ontario, overall growth forecasts for Ontario are more favorable than other parts of the country.
 - Rising labor productivity and high rates of capital investment are key to future Canadian economic growth. The continued competitiveness of Canada's high-tech industries will depend upon maintaining rapid technological change. These demands are projected to generate high levels of investment in industrial

machinery and equipment, as well as demand for business services. This demand should create growing export opportunities for U.S. firms.

- Canada's inflation rate is projected to remain below the US over the near term. Canadian inflation is expected to average 1.7% between 1998 and 2000, compared to a 2.6% average rate in the U.S. This factor, along with Canada's positive trade balance, should help to stabilize and eventually strengthen the Canadian dollar relative to the U.S. These developments should work to reduce currency barriers which have constrained Canadian travel and spending in the U.S. during most of the 1990s. As a popular destination for Canadian travel, Maine would obviously benefit from such a development.
 - In the aggregate, the population of Eastern Canada has been growing faster than New England over the past several years. However, more than 73% of the total population gain recorded in Eastern Canada since 1992 has occurred within Ontario. According to Statistics Canada, the combined populations of the six Eastern Provinces totaled more than 21.2 million in 1997. Ontario's growth from 1992 to 1997 was roughly 761,000, nearly 4 times the recorded population increase in New England over the same period. The Province of Quebec also experienced significant population growth of more than 259,000 (a 3.6% increase). Nova Scotia's population also grew by 23,000 (3.6%) from 1992 to 1997, roughly 3 times the total gain recorded in the State of Maine. New Brunswick and PEI experienced nominal gains of 8,900 and 5,800, respectively, while Newfoundland's population declined by more than 19,900.
 - The six Eastern Provinces had an estimated combined total employment of more than 9.6 million in 1997. Roughly 56% of that total job base is located in Ontario. Quebec's economy is roughly the size of Massachusetts, while Ontario's economy is larger than Massachusetts, Connecticut and Rhode Island, combined. Collectively, the four Atlantic Provinces had a total employment base of 960,000 in 1997. This total was roughly 14% lower than the number of jobs in Maine and New Hampshire combined. Maine's economy has also grown at a faster rate than the Atlantic Provinces (with the exception of PEI) since 1992.
 - Economic growth in Ontario and Quebec should far exceed the Atlantic Provinces over the next decade. Quebec's economy is projected to add 350,000 jobs by 2008. In addition, Quebec's population is expected to grow at a rate of 0.4% per year, expanding by more than 292,000 and creating more than 274,000 households by 2008. Job growth in Ontario is forecast at a 1.8% annual rate through 2008, which is projected to create more than 1.1 million jobs by the end of the forecast. Population and households are projected to grow at corresponding rates of 1.1% and 1.5% per year, respectively. The remaining Atlantic Provinces are projected to achieve a very modest expansion of less than 65,000 jobs (8.5%) by 2008, with more than 60% of that projected job growth occurring in Nova Scotia. The remaining Atlantic Provinces are also expected to experience minimal net gains in population and households over the period.
4. **Maine's economic growth during the 1990s actually compares favorably in percentage terms to most other States in the Northeastern US. Nearly all of the northeastern states are projected to slow in terms of population and job growth over the next two decades.**

- Population and employment trends and forecasts for Maine and 12 other Northeastern US States were obtained from the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). The source provided annual measurements of employment by industry, population and Gross State Product from 1969 to the present, as well as forecasts to the year 2045. The BEA forecast for Maine was reasonably consistent to internal forecasts generated by the State Planning Office. Highlights from that forecast are summarized below:
- In total, Maine's population is expected to grow by 71,000 from 1990 to 2000 and 275,000 (21.5%) between 2000 and 2025. BEA also forecasts that Maine's population will grow at a slightly faster annual rate from 2000 to 2015 (averaging 0.8% per year) that it did during the 1990s. The 0.6% rate of annual population growth in Maine during the 1990s is in the middle of the range of the other northeastern states, while the 0.8% annual growth rate forecast from 2000 to 2015 is higher than most of the Northeast.
- In percentage terms, the outlook for the population growth in much of the Northeast US is slower than Ontario and comparable to Quebec. Annual rates of population growth for the Northeast US states are expected to fall within a range of 0.5% to 0.9% from 2000 to 2015. Canada's population is projected to expand at average annual rates of between 0.7% and 1.4% to the year 2016. Under a "medium growth" scenario within this range, Ontario's population is projected to grow by nearly 1.5% per year and Quebec by 0.7%. The remaining Atlantic Provinces are projected to experience relatively nominal population growth of well under 0.5% per year.
- Growth in total employment among northeastern U.S. states during the 1990s shows significantly more volatility than population, due to the varying impacts and rates of recovery from the recession of 1990-91. The mid-western and northern New England states have exhibited the fastest rates of job growth during the 1990s, ranging from 0.8% to 1.4% annually, while Connecticut, Rhode Island and New York have had the slowest job growth (0.2% to 0.5% per year). Maine's economy is projected to add a total of 57,000 jobs by the end of the decade, an annual growth rate of 0.8%.
- According to BEA's forecasts, the northeastern states are projected to maintain very modest annual growth rates in total employment of between 0.5% to 1.0% from 2000 to 2015. Employment growth for the New England States is projected between 0.8% and 1.0% annually. Future job growth in New York and New Jersey is projected to accelerate slightly in comparison to the past decade, while Ohio, Indiana, Michigan, Illinois and Pennsylvania are projected to experience a slowdown in job growth. BEA's longer range employment outlook (1015 to 2025) calls for job growth to slow throughout the northeastern states, to annual rates of 0.4% or less.
- Maine's employment growth during the 1990's has varied greatly among the State's 16 Counties. During the post-recession recovery from 1992 to 1997, seven Maine counties either lost employment or experienced growth rates below 1% per year, five counties generated job gains ranging from 1% to 2% and the remaining counties generated annual job growth exceeding 2% per year.

5. **With the exception of Calais/St. Stephen, existing traffic volumes at Maine's border crossings are light.**
- Maine's National Highway System consists of 367 miles of Interstate highways, and 903 miles of principal arterial roadways. While interstates and principal arterial roadways comprise only about 12 percent of the total state system mileage, they serve over 60 percent of the total vehicle-miles of travel. Local roads comprise 61 percent of total road mileage but carry only about 11 percent of total vehicle-miles of travel. Maine's transportation system generates 13 billion vehicle-miles of travel (VMT) on the highway system.
 - Over the next 20 years, travel in Maine is expected to grow by approximately 18 percent, compared to a projected 6 percent growth in population and 12 percent growth in employment. These projections indicate that Maine residents will continue to travel more frequently and over increasing distances in the future.
 - According to 1997 border crossing data, approximately 4.3 million passenger vehicles and 450,000 heavy vehicles entered Maine at 11 Canadian border crossing locations. This translated to an average of roughly 11,900 incoming passenger vehicles and 1,230 incoming trucks per day at all locations. Approximately 35% of all incoming Canadian traffic entered Maine through Calais. Calais and Madawaska account for about 60 percent of incoming passenger vehicles, while Calais, Houlton, and Jackman together account for about 75 percent of total incoming trucks
 - Consistent with the above border crossing counts, average daily traffic volumes along most of the major roadways located along Maine's borders are fairly light. Average annual daily traffic counts (AADT) taken at points near the State's major border crossings are summarized below:

<u>Route (Location)</u>	<u>AADT</u>
I-95 (Houlton)	2,300
Route 9 (Calais)	7,600
US Route 201 (Jackman)	1,420
Route 1 (Fort Kent)	2,000
Route 6 (Vanceboro)	580
Route 16/27 (Stratton)	1,900

- Available traffic volume data suggest that the daily number of interprovincial trips along the Trans-Canada Highway from the Atlantic Provinces to points west of Quebec City, is limited. This observation is based upon the steadily declining traffic counts along major segments of the Trans-Canada moving eastward from Montreal.

<u>Corridor Segment</u>	<u>AADT</u>
Montreal and points west	136,000
Montreal to Quebec City	25,000
Quebec City to Riviere du-Loup	10,000
Riviere du-Loup to NB Border	5,000
Quebec Border to Fredericton	5,000
Fredericton to Route 1	5,000

6. **The flow of existing commodity traffic into and through Maine is primarily in a north-south direction. Despite Canada's importance to Maine as an export market, the volume (weight) of Maine commodities shipped to Canadian destinations is still modest compared to other US markets.**
- Trucks are the dominant mode of commodity transport in Maine. In 1997, 11.2 million tons of cargo left the state of Maine and 7.0 million tons entered the State by rail, truck, or water. Tonnage leaving the state travels primarily by truck, which accounted for 95.2% of outbound tonnage in 1997. Trucks also carried 52.6% of total tonnage entering the state. Much more tonnage enters the state via water transport than leaves the state by the same mode; 41.5% of total 1997 tonnage entered Maine by boat, compared to only 1% of total outbound tonnage.
 - Only a small percentage of total tonnage transported into and out of the state is carried by rail. Rail accounted for only 3.8% of outbound and 5.8% of inbound tonnage in 1997.
 - Maine's top three exported products in terms of total tonnage (paper, converted paper/ paperboard products, and field crops) are also the top commodities moved by truck. Of a total of 9.3 million tons of outbound freight carried by truck, nearly 55% consisted of these three commodity groups.
 - The Southeast US is the largest destination for cargo leaving the state of Maine, receiving 1.9 million tons of cargo in 1997. The Southeast accounted for 17.3% of the total tonnage exported from Maine to other US destinations in 1997. The Chicago and New York City/New Jersey areas are the second and third largest destinations for goods leaving the state with 1.4 million tons moving to each of the two areas. The Southwest, Washington D.C., and Boston follow the top 3 destinations closely, with each receiving between 790,000 (Boston) and 894,000 (Southwest) tons of cargo in 1997.
 - Commodities shipped to all of Canada account for just 4% of total outbound truck freight (tonnage) from Maine. Tonnage moving by truck from Maine to Canada is highly concentrated, with just over 70% of total truck tonnage accounted for by four commodities; sawmill or planing mill products, paper, waste or scrap and primary forest products. Together these four groups accounted for nearly 72% of the 446,000 tons of outbound truck freight shipped from Maine to all of Canada. Nearly 51% of Maine's outbound Canadian shipments were delivered to Quebec and nearly 70 percent of total Canada-bound tonnage was shipped to points to the west of the state.
 - The largest commodity groups (by weight) that are shipped into Maine by truck tend to fall under the categories of building and paving materials (445,000 tons), agricultural and industrial chemical products (310,000 tons), paper and forest products (301,000 tons) and a variety of food products and consumer goods, including automobiles. From the US, the majority of product is shipped from Southern New England, the Middle Atlantic and Southeastern US States (about 2.3 million tons). Roughly 327,000 tons arrive from US locations to the west of Maine, such as Detroit and Cleveland), which may be potential users of an east-west highway.

- Of the nearly 1.9 million tons of Canadian freight shipped into Maine by truck, more than 60% consisted of sawmill, wood products or primary forest materials. Maine also received a significant volume of motor vehicles and equipment (141,000 tons) from Canadian points of origin. Nearly 52% of the total tonnage was received from New Brunswick and another 34% from Quebec. Ontario also accounted for 11% of the total inbound product, or slightly less than 210,000 tons.
- 7. **The flow of east-west commodity traffic through the Atlantic Provinces is heavily influenced by rail. As a result, the overall weight of commodities currently moved by truck in the four Atlantic Provinces, combined, is less than the State of Maine.**
- Over land freight movements into and out of the Atlantic Provinces are more likely to be carried by rail. In 1997, 8.3 million tons of freight left Atlantic Canada, and 8.5 million tons entered the region from other Canadian and US locations. For out-bound shipments, 54.1% were transported by truck, and 45.9% by rail. Totals for inbound freight were essentially reversed, with 55% carried by rail and 45% by truck. These estimates indicate that the total weight of over-land freight moved into and out of the Atlantic Provinces (combined) was higher than the State of Maine (16.8 million compared to 15.2 million tons). However, total tonnage carried by truck was substantially greater in Maine (14.3 million tons compared to 8.3 million tons).
- Products exported from Atlantic Canada by truck are somewhat comparable to Maine, with a high composition of sawmill, wood, forest products and foodstuffs. These several commodity groups account for more than 2.9 million or 65% of the total outbound truck freight from the region. Approximately 1.9 million tons of this outbound truck freight was destined for Ontario and Quebec, roughly double the tonnage shipped to Maine. An additional 1.2 million tons of truck freight were likely to have been carried through Maine to destinations in Southern New England, the Mid-Atlantic and Southeastern U.S. Comparatively low volumes of truck freight appear to be shipped from the Atlantic Provinces to points west of Ontario, to either Canadian or US destinations.
- Of the 3.8 million tons of inbound truck freight to Atlantic Canada, roughly 1.5 million tons (40%) were shipped from Quebec and Ontario. An additional large volume of truck shipments (1.7 million tons) was also received from the province of Saskatchewan. By contrast, truck shipments into the Atlantic Provinces from the US were limited, with Maine accounting for less than 4% of the total.

Detailed findings are presented in the following sections.

II

Economic, Market and Trade Issues

Introduction

The purpose of the following section is to summarize and compare the overall population size, industry composition and long term growth prospects for various in-State, Northeast US and Canadian markets which could be served by an East-West Highway. The data presented below will be used in other phases of the analysis to develop long-range regional growth assumptions for use in traffic forecasting, and to project possible economic impacts of an east-west highway on individual communities and sub-state regions.

This section is organized into three parts and begins with a discussion of trends in cross-border trade, which was assembled from a review of prior studies. The discussion of US/Canada trade is followed by a review of available market information for Eastern Canadian and Northeastern US metropolitan areas that could be serviced by an east-west highway through Maine. The section concludes with a presentation of Maine economic trends and forecasts at the state, MSA and county levels. Particular attention is given to those areas of the State which could potentially be impacted by one or more of the conceptual highway corridors outlined in Map I-1.

Information presented in this section was assembled from the sources listed below:

- ▶ Standard & Poor's DRI, Canadian Economic Service, *Canadian Market Outlook: Metro Focus*, Summer 1998.
- ▶ Pan Atlantic Consultants, *An Analysis of Maine/Canada Trade with Policy Recommendations*, prepared for the Mainewatch Institute, January, 1995.
- ▶ Parsons Brinckerhoff Quade & Douglas, Inc., *Trade and Traffic Across the Eastern US--Canada Border (Volumes I & II)*, prepared for the Eastern Border Transportation Coalition, March, 1998.
- ▶ Statistics Canada, Atlantic Region, *Assessment of Canadian Markets*, November, 1998.
- ▶ Cambridge Systematics, Inc., *Integrated Freight Plan*, prepared for the Maine Department of Transportation, Office of Freight Transportation, May 1998.
- ▶ Shih-Miao Chin, Oak Ridge National Laboratory, "Estimating State-Level Truck Activities in America", *Journal of Transportation Statistics*, January, 1998.
- ▶ U.S. Department of Transportation, Bureau of Transportation Statistics, *Freight Transportation in Maine: Selected Data from Federal Sources*, October, 1996.

- ▶ Maine State Planning Office, "Short-Range Economic Forecast: Fall 1998", October, 1998.
- ▶ Maine State Planning Office, "Employment Growth by Industry Sector: 1997-2010", November 1998.
- ▶ Charles S. Colgan Ph.D., "Maine Economic Outlook", *New England Economic Project: Economic Outlook 1998-2002*, October, 1998 and May, 1999.
- ▶ Canadian Consulate General, *A Summary of New England-Canada Trade: 1998, May, 1999*.

Trends in U.S./Canada Trade

The purpose of this section is to provide a general overview of trends in cross border trade between the Northeast US and Eastern Canada, as an introduction to more detailed information which will be presented later in this report. Most of the trend data summarized below were assembled from two sources; (1) *An Analysis of Maine/Canada Trade with Policy Recommendations*, prepared for the Mainewatch Institute, January in 1995 by Pan Atlantic Consultants, and (2) *Trade and Traffic Across the Eastern US-Canada Border (Volumes I & II)*, prepared for the Eastern Border Transportation Coalition in March, 1998 by Parsons Brinckerhoff Quade & Douglas, Inc. Most recent available trade statistics were obtained for calendar year 1998 and are also reported. The following pages highlight overall trends in US/Canada trade by region by dollar value and by types of commodities. Chapter IV will examine commodity flows in much greater detail by origin/destination, tonnage and mode of transport.

- ▶ The US and Canada are each country's largest respective trading partner. In 1993, the US supplied roughly 71% of Canada's total merchandise imports and bought 78% of its exports. The value of cross border merchandise trade has been increasing at annual rates of 5 to 6 percent during the 1990s. Canada is also Maine's most important export market, ahead of Europe and Asia. Canada received roughly a third of the state's total exports in 1993.
- ▶ Approximately 86% of the total value of US exports to Canada are manufactured goods, with the balance comprised of food (5.5%), fuel/raw materials (4.7%) and all other goods (3.6%). The US also exports a significant volume of services, (with an estimated value of \$17.7 billion in 1993) to Canada. The composition of Canada's exports to the US is characterized by a larger presence of fuel/raw materials (18%), food (5.5%) and other goods (6.3%), and a corresponding reduction in the percentage of manufacturing exports.

A more recent and detailed analysis of US/Canada Trade was completed in early 1998 for the Eastern Border Transportation Coalition. The Study Area for this analysis included ports of entry located along the Eastern US-Canadian Border from Detroit, Michigan/Windsor Ontario to Calais, Maine/St. Stephen New Brunswick.² The analysis examined trends in the value of cross-border trade from 1988 through 1995 by region, commodity and mode of transport, and included forecasts of trade and traffic flows to

² The rest of Canada which was not included in the study included ports of entry along the US-Canadian border from Minnesota westward to Washington.

the year 2015. Highlights from that report include the following.

- ▶ Canada is a net exporter to the US. Canada has enjoyed a long-standing and growing trade surplus with the US. Measured in 1992 constant US dollars, bilateral US/Canada trade totaled more than \$234.6 billion in 1995, with \$132.6 billion of that total representing the value of Canadian exports to the US. Canada's trade surplus with the US has also increased in real terms, from \$11.3 billion in 1988 to \$30.6 billion in 1995. (These totals are also expressed in 1992 constant US dollars.)
- ▶ Despite the recession of 1990 and 1991, the dollar value of cross border trade along the US-Canadian border has been growing in real terms. The vast majority of bilateral trade also flows through the Eastern Canada and the Northeast US. Measured in constant 1992 US dollars, the value of Canada's exports to the US grew at a 5.3% annual rate from 1988 through 1995, while imports from the US grew by 3.3% per year. Approximately 74% of the total 1995 value of Canadian exports to the US were delivered through the eastern border provinces of Ontario, Quebec and New Brunswick. Similarly, 62.9% of total US exports to Canada were received through these same provinces.
- ▶ The vast majority of cross border trade flows through Ontario. Measured on the basis of value, Ontario ports of entry alone delivered nearly 64% of Canada's total US exports, and received 57% of Canada's US imports during 1995. Among the Eastern Provinces, Ontario's market dominance is even higher. More than 86% of the total value of Eastern Canada's US exports flowed through Ontario border crossings, compared to 11.8% for Quebec and 1.9% for New Brunswick. The value of US products imported into eastern Canada was similarly distributed, with 91% entering through Ontario, 7.9% through Quebec and only 1.1% entering through New Brunswick.

▶ The monetary value of bilateral trade between Northern New England, New Brunswick and Quebec is modest compared to the other border regions. Bilateral trade along the eastern-most section of the US/Canadian border, from Vermont to Calais/St. Stephen, totaled just under \$3.0 billion in 1995, with nearly 72% of that value consisting of Canadian exports to the US. The total value of cross-border trade between Northern New England and New Brunswick/Quebec grew by roughly \$480

Value of Cross-Border Trade Through Northern New England: 1988-95

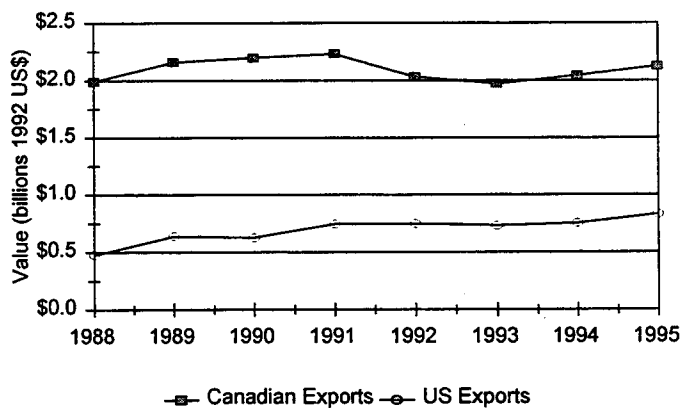


Figure II-1

million in real terms from 1988 to 1995. Although a significant increase, this total represented less than one percent of the approximate \$61 billion increase in US-Canada trade during the same period. By comparison, more than half of the real growth in US-Canada trade since 1988 has flowed between Michigan and Ontario, 29% has flowed between Northern/Western New York State and Ontario/Quebec, and 19% has been captured by the western border regions.

- ▶ In monetary terms, trucks carry the dominant share of US-Canada trade. In 1995, trucks carried more than 66% of the dollar value of Canadian exports to the US and 90% of the value of US exports to Canada. Rail is used most heavily for the transportation of finished automobiles; wood, pulp and paper; and metal products. Trucks are the dominant transport mode for most other commodities.
- ▶ Trade between the US and Canada is concentrated within a few commodity groups and is heavily dominated by the automotive industry. Transportation equipment accounted for more than 30% (\$66.8 billion) of the total value of US/Canada trade in 1995, and more than 52% of Canada's \$30+ billion trade surplus with the US. In addition to transportation equipment, the two other categories of commodities with high levels of US-Canada trade were machinery & electronics (\$50.5 billion) and wood, pulp and paper products (\$24.8 billion). Together these three commodity groups accounted for nearly 61% of the total value of US-Canada trade in 1995. Because the center of Canada's automotive industry is located in Southwestern Ontario near Detroit, it is not surprising that the vast majority of US-Canada trade flows through Michigan-Ontario ports of entry. In addition, many commodities classified in other categories, such as machine tools, primary and fabricated metal products, rubber & plastics, textiles, etc., are components of automotive production and further contribute to the region's dominance in terms of overall trade activity.
- ▶ The US enjoys a trade surplus with Canada in relatively few major commodity groups. Machinery and electronics is the single commodity group in which the US had a major trade surplus with Canada (of more than \$12.2 billion) in 1995. The US also had modest trade surpluses in chemicals (\$1.35 billion), textiles (\$600 million), rubber and plastics (\$390 million) and stone, ceramic and glass products (\$280 million). In other major commodity groups, Canada had substantial trade surpluses with the US. These groups included transportation equipment (\$16 billion), wood, pulp & paper products (\$13.6 billion), minerals (\$12.9 billion), metal products (\$3.8 billion) and agricultural products (\$580 million).
- ▶ Maine ranked 17th among all US States as a destination for Canadian goods, but was not ranked among the top 20 US States in terms of exports to Canada in 1995. As will be shown below, Maine has a large trade deficit with Canada. The value of Canadian exports to Maine totaled \$1.1 billion in 1995 (in 1992 constant \$), roughly 1.1% of the total value of Canada's US exports for that year. The real value Canadian exports to Maine grew at a 3.6% annual rate from 1988 to 1995, well below the rate of growth in total exports to the US.
- ▶ A forecast of US/Canadian trade, also developed for the Eastern Border Transportation Coalition in 1997, projects that bilateral trade will grow at an average annual rate of between 4% and 7% over the next 20 years. These percentages represent the low and high end of a range produced by alternative

forecasting methods developed for that analysis. The resulting allocation of these trade flows to the Northern New England border with New Brunswick/Quebec, forecasts principal Canadian commodity exports through the region to grow within a range of 1.0% to 2.2% annually. US export flows through Northern New England are projected to rise at rates ranging from 0.9% to 3.7% per year off a much smaller base. Although significant, these forecasted growth rates are roughly a third of the national averages and well behind growth rates which are forecast for other Eastern border regions. It should also be noted that these projections are absent of any assumed improvements to existing transportation systems.

- ▶ Despite these relatively low growth projections for commodity flows, growth in cross border traffic along the Northern New England border with New Brunswick/Quebec is expected to continue. Cross-border truck traffic is projected to grow within an average annual rate of 1.5% to 2.8% to the year 2015, while automobile traffic is similarly projected to increase between 1.3% and 2.5% per year. Because a major share of existing cross border traffic in these regions flows through Maine, it may be anticipated that these traffic forecasts will also apply to the state's border crossing locations.

Trends in Maine/Canada Trade

The latest available trade statistics for Maine/Canada Trade (and the other New England States) were obtained for Calendar year 1998 and are reported below.

- ▶ As shown in Table II-1, roughly 44% of Maine's \$584 million in Canadian exports were destined for Quebec in 1998. The combined value of Maine's "westbound" exports to Quebec and Ontario of nearly \$383 million (66% of the total) exceeded the value of exports to New Brunswick and Nova Scotia (\$187 million) by a significant margin. The majority of products exported to the rest of Canada were also shipped westbound, with British Columbia representing the most important destination among other provinces. It is also significant to note that Maine's 1998 exports to each of the Western Provinces of Manitoba, Saskatchewan, Alberta and British Columbia were substantially higher than the state's combined exports to the remaining Atlantic Provinces of Nova Scotia, PEI and Newfoundland.

Table II-1
Value of Maine Imports/Exports with Canada by Province: 1998

PROVINCE	Exports [1]		Imports		Trade Balance	
	\$ Value	% of Total	\$ Value	% of Total	\$ Value	% of Total
New Brunswick	\$186.6	32.0%	\$996.4	53.3%	(\$809.8)	63.0%
Quebec	\$256.7	44.0%	\$633.3	33.9%	(\$376.6)	29.3%
Ontario	\$126.6	21.7%	\$100.8	5.4%	\$25.8	-2.0%
Nova Scotia	\$0.9	0.2%	\$114.2	6.1%	(\$113.2)	8.8%
Rest of Atl. Canada [2]	\$0.7	0.1%	\$0.0	0.0%	\$0.7	-0.1%
Western Canada [3]	\$12.3	2.1%	\$24.9	1.3%	(\$12.6)	1.0%
Canada Total:	\$583.9	100.0%	\$1,869.6	100.0%	(\$1,285.7)	100.0%

[1] All values are in millions of 1998 US \$

[2] Includes PEI, Newfoundland and Labrador

[3] Includes Manitoba, Saskatchewan, Alberta, British Columbia, the Yukon & Northwest Territories.

- ▶ Measured in dollar value, Maine imports substantially more products from Canada than it exports, with roughly half of the total value of imports originating in New Brunswick. Maine recorded a trade deficit of nearly \$1.3 billion in 1998. Trade imbalances occurred in all provinces except Ontario, where Maine had a modest surplus of \$25.8 million. Roughly 63% of Maine's total trade deficit of -\$809 million, originated in New Brunswick alone. Maine's trade imbalance with Quebec totaled nearly -\$377 million, followed by Nova Scotia with -\$113 million. Maine's trade deficit with Canada has also been growing in recent years, up from -\$572 million (in current dollars) in 1993.

Table II-2
Value of Maine Imports/Exports with Canada by
Major Commodity Groups: 1998

Commodity	Exports [1]		Imports	
	\$ Value	% of Total	\$ Value	% of Total
Wood Pulp & Similar Pulp			\$333.0	17.8%
Petroleum and Coal Products			\$259.5	13.9%
Electricity			\$114.5	6.1%
Crude Wood Materials	\$111.9	19.2%		
Softwood, Lumber	\$17.3	3.0%	\$95.6	5.1%
Newsprint Paper			\$68.0	3.6%
Fish and Marine Animals	\$51.1	8.8%		
Other Fishery Foods & Feeds			\$67.0	3.6%
Inorganic Chemicals			\$64.9	3.5%
Other Motor Vehicles, Parts	\$15.1	2.6%	\$47.5	2.5%
Vegetables, Meats & Preparations	\$6.7	1.1%	\$36.4	1.9%
Paper & Paperboard	\$31.6	5.4%		
Waste & Scrap Materials	\$11.5	2.0%		
Electrical, Telecommunications Equip.	\$17.8	3.1%		
Stationer's & Office Supplies	\$10.0	1.7%		
All Other Commodities	\$310.8	53.2%	\$783.2	41.9%
Canada Total:	\$583.9	100.0%	\$1,869.6	100.0%

[1] All values are in millions of 1998 US \$

SOURCE: "A Summary of New England-Canada Trade: 1998", Office of the Canadian Consulate General, May 1999. Original source data provided by Statistics Canada.

- ▶ The distribution of Maine's Canadian trade by major categories of commodities is summarized in Table II-2. The majority of Maine's trade with Canada (both imports and exports) is in natural resource-based commodities.³ The high value of Canadian imports was attributable to energy products (petroleum, coal and electricity) and wood pulp imported from New Brunswick, along with softwood lumber imports from Quebec. The value of imported wood pulp, lumber fuel and electricity totaled \$707 million in 1998 and represented nearly 38% of Maine's total Canadian imports last year.
- ▶ Among other commodities, the relatively small volume of Maine exports of industrial machinery and electronic components were shipped primarily to Ontario, while exports of Maine paper products were fairly evenly distributed throughout Canada. The major share of Maine's exports of fish and agricultural products were sent to New Brunswick. Maine's imports of most Canadian

³ More detailed information on commodity flows is presented in Chapter IV.

chemical products originated in Quebec and Ontario.

- ▶ In contrast to Maine's exported commodities, New England's largest Canadian exports are concentrated in high technology equipment, electronic components, fabricated machinery parts and assemblies, medical and diagnostic equipment, aerospace equipment, seafood and agricultural products. Due to the high values associated with these products, Connecticut, Vermont and Massachusetts all had higher Canadian exports than Maine.
- ▶ Despite this different export mix, the combined New England States ran a large trade deficit with Canada in 1998. Total Canadian imports to New England were valued at \$19.3 billion (\$Can), while the region's exports to Canada totaled only \$11.5 billion (\$Can). Connecticut was the only NE State to run a trade surplus with Canada (\$322 million) in 1998. Maine shipped less than 7.6% of the value of New England's Canadian exports in 1998, ahead of NH and RI, but received more than 13.2% of New England's imports of Canadian goods. Detailed New England-Canada Trade data are provided in the Appendix.

Canadian Market Profile

Canadian Economic Overview

Canada occupies 3.8 million square miles and is the second largest country in the world in terms of land area. Despite Canada's massive size, the country's population totals only 30.2 million according to latest estimates provided by Statistics Canada. Roughly 77% of that population resides within urban areas and more than 80 percent is located within 125 miles of the U.S. border.

Canada has the seventh largest industrial economy in the world and enjoys comparable living standards to the U.S. Like the U.S., Canada's employment growth over the past decade has been led by high-technology, high-knowledge-intensive industries, both in the manufacturing and service sectors. Nation-wide, Canada's high-technology employment has expanded by more than 1.0 million (23%) since 1987, to a current (1997) level of 5.5 million jobs. Within the high-technology sector, employment in information-technology, led by telecommunications, software and computer equipment industries, expanded at an even faster rate (more than 38%). Over the same period, employment in medium- and low-technology sectors, including natural resource-based industries, was largely flat.

Although high-technology industries are located throughout Canada and have been growing in all provinces, a significant structural characteristic of Canada's economy is the fact that more than 70% of the country's high-tech employment (and 65% of total employment) is concentrated in its 25 "Census Metropolitan Areas" or CMAs. More importantly, 53% of Canada's entire high-tech job base is located within the nation's seven largest CMAs.⁴ Canada's rapidly growing information-technology industries have an even higher concentration of employment (80% of the total) in the Country's largest urban areas. The fact that most of Canada's largest and faster growing CMAs are physically distant from Maine, may make it more difficult to tap the growth centers of Canada's economy via an east-west highway.

Consistent with these trends, employment and population forecasts provided by both Standard & Poor's DRI and Statistics Canada indicate that Canada's major urban centers will grow faster than its smaller cities and non-metropolitan areas for the foreseeable future. Ontario is projected to remain the growth engine of the Canadian economy, with real GDP growth of 3.3% per year over the next decade. Growth prospects for the Atlantic Provinces are substantially weaker, particularly for areas outside of the City of Halifax. Out-migration and high unemployment are projected to characterize much of Atlantic Canada over the next decade.

Other summary characteristics of the Canadian Economy, as reported by Standard & Poor's DRI, are highlighted below:

- Canada's population has a significantly older age distribution than the U.S. Labor force growth is projected to slow significantly (to 1.0% per year) in the coming decade, as Canada's prime working-age population (25-54) begins to decline relative to total population. Slow labor force growth over the next decade will have a

⁴ Canada's largest metropolitan areas are Toronto, Montreal, Vancouver, Ottawa-Hull, Calgary, Edmonton and Winnipeg.

corresponding downward influence on household income growth and spending on consumer goods. Consumer spending is projected to grow at a 2.5% annual rate between 2000 and 2010.

- Rising labor productivity and high rates of capital investment are key to future Canadian economic growth. The continued competitiveness of Canada's high-tech industries will depend upon maintaining rapid technological change. These demands are projected to generate high levels of investment in industrial machinery and equipment, as well as demand for business services. This demand should create growing export opportunities for U.S. firms.

- Technological trends in the Canadian economy favor high-tech durable goods manufacturing over traditional industries. Electrical products, communications, business services, wholesale trade and chemical manufacturing industries are all projected to grow by more than 3% annually. Because most of these "high-growth" industries are concentrated in Ontario, overall growth forecasts for Ontario are more favorable than other parts of the country. Ontario's gross domestic product (GDP) is projected to grow at a 3.3% annual rate over the next five years. Atlantic Canada's GDP is projected to grow by 2.5% annually over the same period.

Table II-3
Canada's Top 10 Industries
 (Average Annual Percent Growth, 1998-2021)

1. Electrical Products	4.2
2. Communications	3.6
3. Business Services	3.5
4. Wholesale Trade	3.3
5. Chemicals	3.2
6. Rubber & Plastics	2.9
7. Transportation Equipment	2.8
8. Metal Fabricating	2.5
9. Finance, Insurance & Real Estate	2.4
10. Primary Metals	2.4

Source: Standard & Poor's DRI

- The current Asian Crisis, coupled with Canada's structural economic problems outside of the high-tech sector, will cause unemployment to remain well above US average in the near term. Standard & Poor's DRI projects that Canada's unemployment rate will remain above 9.0% to the year 2000, decline to an average of 7.7% by 2005 and gradually fall below 7% by the end of the next decade. Tight labor markets will begin to act as a constraint to economic growth after 2005.
- Canada's inflation rate is projected to remain below the US over the near term. Canadian inflation is expected to average 1.7% between 1998 and 2000, compared to a 2.6% average rate in the U.S. This factor, coupled with Canada's positive trade balance, are projected to stabilize and eventually strengthen the Canadian dollar relative to the U.S. These developments should work to reduce currency barriers which have constrained Canadian travel and spending in the U.S. during most of the 1990s.
- Prospects for Canadian trade growth remain strong. Canadian exports projected to grow at 5.2% per year beyond 2000, while imports are projected to grow at a faster 5.5% annual rate. These forecasts favor a continuation of growth in cross-border commercial traffic and trade with the U.S.

- The Canadian economy has added approximately 1.2 million payroll jobs, an 11% increase, since early 1994. Total seasonally adjusted employment in Canada exceeded 11.6 million in mid-1998, up from a level of 10.4 million at the beginning of 1994.⁵

**Total Canadian Employment
(Seasonally Adjusted) 1/94-7/98**

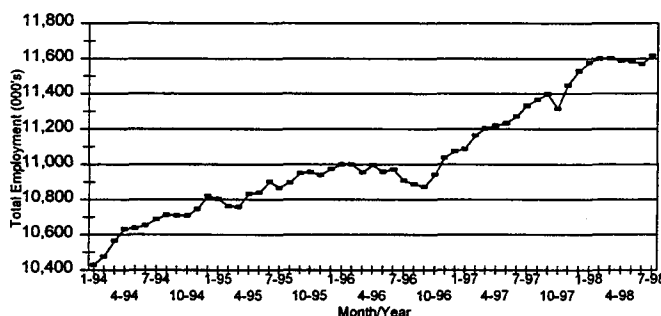


Figure II-2

The national recovery from a severe

recession in the early 1990's continued through the early part of 1998, with total employment growth averaging 2.6 percent per year over the past four years. As is shown in the graph, seasonally adjusted employment growth slowed significantly and was essentially flat over the first half of 1998. More recent data indicate that job growth resumed over the latter half of the year and into early 1999.

Economic Overview: Eastern Provinces

Provincial Population Trends

Current (1997) population estimates for Canada's Eastern Provinces are shown on Map II-1 on the following page. For comparison, estimates are also provided for the six New England States and the State of New York. Population growth trends from 1992 to 1997 are also summarized in the accompanying table. Because of their proximity to Maine, it is assumed that the majority of travel demand for an east-west highway through Maine, would be generated within these states and provinces.

The combined populations of the 13 states and provinces shown on the map totals 52.6 million. New York is the largest population center with nearly 18 million people, followed by Ontario (11.4 million), Quebec (7.4 million) and Massachusetts (6.1 million). In sharp contrast to the major urban population centers located to the west and south of Maine, the Atlantic Provinces of Newfoundland, Prince Edward Island (PEI), Nova Scotia and New Brunswick, have populations ranging from 137,000 to 950,000. The combined population of the four Atlantic Provinces totals 2.4 million, roughly double the population of the State of Maine, but is distributed over a much larger land area. It is also significant to note that the combined population of the Atlantic Provinces is less than a third of the size of Quebec and significantly smaller than the City of Montreal alone.

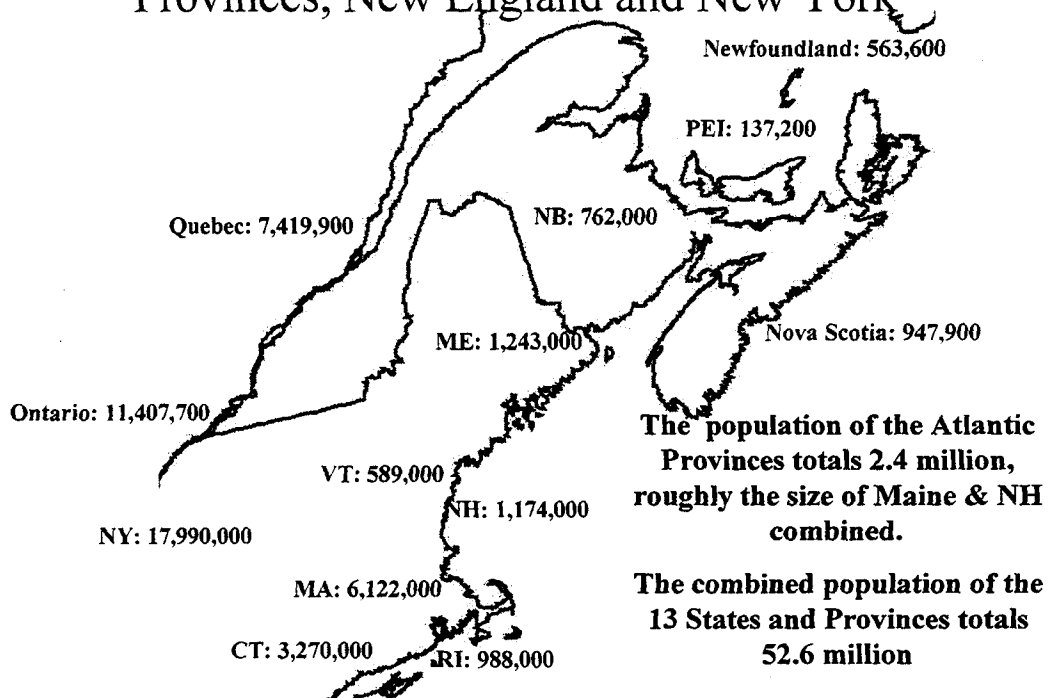
⁵ Source: "Seasonally Adjusted Estimates of Employment for all Employees", Employment, Earnings and Hours, 1998, Statistics Canada. Latest reported data was for the month of July, 1998. This graph reports wage and salary or "payroll" employment only. Totals exclude self-employed individuals, military personnel and unpaid family workers.

**Table II-4
Comparison of Provincial & New England
Population Change: 1992 to 1997**

CANADIAN PROVINCES	1992	1997	Change: 1992-1997		
			Total	% Change	Ann. Rate
Newfoundland	583,551	563,641	(19,910)	-3.4%	-0.7%
Prince Edward Island	131,448	137,244	5,796	4.4%	0.9%
Nova Scotia	924,737	947,917	23,180	2.5%	0.5%
New Brunswick	753,135	762,049	8,914	1.2%	0.2%
Quebec	7,160,562	7,419,890	259,328	3.6%	0.7%
Ontario	10,646,801	11,407,691	760,890	7.1%	1.4%
Total: Eastern Canada	20,200,234	21,238,432	1,038,198	5.1%	1.0%
NEW ENGLAND					
Connecticut	3,276,000	3,270,000	(6,000)	-0.2%	-0.0%
Maine	1,235,000	1,243,000	8,000	0.6%	0.1%
Massachusetts	5,994,000	6,122,000	128,000	2.1%	0.4%
New Hampshire	1,114,000	1,174,000	60,000	5.4%	1.1%
Rhode Island	1,001,000	988,000	(13,000)	-1.3%	-0.3%
Vermont	570,000	589,000	19,000	3.3%	0.7%
Total: New England	13,190,000	13,386,000	196,000	1.5%	0.3%

SOURCE: Statistics Canada & the New England Economic Project

1997 Population Estimates for Eastern Canadian Provinces, New England and New York



Map II-1

According to Statistics Canada, the combined populations of the six provinces shown in Table II-4 totaled more than 21.2 million in 1997. This population is nearly 20 percent larger than the State of New York and 60 percent larger than New England's estimated 1997 population of 13.4 million. Statistics Canada estimates that Eastern Canada grew faster than New England from 1992 to 1997, adding more than 1.0 million residents (a 5.1% increase) over that time. This contrasts to New England's population growth of less than 200,000 (1.5%) since 1992.

More than 73% of the total population gain recorded in Eastern Canada since 1992 has occurred within Ontario. Ontario's 5-year growth of roughly 761,000, was nearly 4 times the recorded population increase in New England over the same period. The Province of Quebec also experienced significant population growth of more than 259,000 (a 3.6% increase). Nova Scotia's population also grew by 23,000 (3.6%) from 1992 to 1997, roughly 3 times the total gain recorded in the State of Maine. New Brunswick and PEI experienced nominal gains of 8,900 and 5,800, respectively, while Newfoundland's population declined by more than 19,900.

Table II-5
Population Projections: 1996 - 2016
Canada and Eastern Provinces

Province	Total Estimated Population				
	1996	2001	2006	2011	2016
Newfoundland	571,657	577,300	566,200	550,900	533,300
Prince Edward Island	136,743	138,100	141,200	143,700	145,700
Nova Scotia	943,219	952,800	964,100	971,500	975,600
New Brunswick	762,031	768,000	771,300	771,200	770,100
Quebec	7,388,028	7,727,000	8,004,200	8,275,500	8,491,100
Ontario	11,258,391	12,274,000	13,220,500	14,164,900	15,106,800
Canada	29,963,700	31,877,300	33,677,500	35,420,300	37,119,800
	Numeric Change				
	1996-01	2001-06	2006-11	2011-16	1996-16
Newfoundland	5,643	(11,100)	(15,300)	(17,600)	(38,357)
Prince Edward Island	1,357	3,100	2,500	2,000	8,957
Nova Scotia	9,581	11,300	7,400	4,100	32,381
New Brunswick	5,969	3,300	(100)	(1,100)	8,069
Quebec	338,972	277,200	271,300	215,600	1,103,072
Ontario	1,015,609	946,500	944,400	941,900	3,848,409
Canada	1,913,600	1,800,200	1,742,800	1,699,500	7,156,100
	Annual Percent Change				
	1996-01	2001-06	2006-11	2011-16	1996-16
Newfoundland	0.2%	-0.4%	-0.5%	-0.6%	-0.3%
Prince Edward Island	0.2%	0.4%	0.4%	0.3%	0.3%
Nova Scotia	0.2%	0.2%	0.2%	0.1%	0.2%
New Brunswick	0.2%	0.1%	-0.0%	-0.0%	0.1%
Quebec	0.9%	0.7%	0.7%	0.5%	0.7%
Ontario	1.7%	1.5%	1.4%	1.3%	1.5%
Canada	1.2%	1.1%	1.0%	0.9%	1.1%

NOTE:

[1] "Medium-Growth Scenario", as defined by Statistics Canada.

SOURCE: Statistics Canada, Demography Division, Population Projections Section.

Provincial Population Projections

Population projections for Canada, the Eastern Provinces and individual metropolitan areas were also obtained from Statistics Canada. Provincial-level forecasts are summarized above, for the "medium growth" scenario developed by Statistics Canada. (Slow and high-growth projections were also provided.) The medium growth scenario forecasts Canada's population to expand at an average annual rate of 1.1% over the 1996 to 2016 period, while the low and high growth scenarios forecast annual growth rates of 0.7% and 1.4%, respectively. (Similar variations apply to individual provinces.) Under the medium growth scenario, Canada's population is projected to grow by nearly 7.2 million over the 20-year period, with roughly 54% of that growth occurring within Ontario.

As shown in the Table, the forecast calls for a continuation of population losses in Newfoundland over the next 20-years. The remaining Atlantic Provinces are projected to experience relatively nominal growth while Quebec and New Brunswick are projected to grow at annual rates of 0.7% and 1.5%, respectively. Under this medium growth scenario, the populations of Ontario and Quebec will grow faster than most of the Northeastern US over the next two decades. Under Statistics Canada's more conservative "slow growth" scenario, projected growth rates in Ontario and Quebec are more consistent with the Northeastern US, and the remaining Eastern Provinces are collectively projected to lose population to the Year 2016.

It should also be noted that there was a substantial difference in 1997 provincial-level population estimates provided by Statistics Canada and Standard & Poor's DRI.⁶ Current population counts in Eastern Canada could therefore be lower than Statistics Canada estimates. However, both sources are consistent regarding the provincial distribution of population growth, particularly the higher growth rates reported for Ontario. These projections reflect the observed concentration of high-technology employment and job growth within Canada's largest urban areas and the resulting migration of population into those areas.

Economic Trends

Figures II-3 and II-4 illustrate the recent performance of Canada's economy and the relative contributions made by the Eastern Provinces and the rest of western and northern Canada to the country's gross domestic product (GDP) in 1996. Canada's real GDP growth over the past decade is illustrated in Figure II-3. This exhibit shows that the Canadian economy was in recession, much like the U.S.,

**Canadian Real GDP Growth
(1986 Constant \$)**

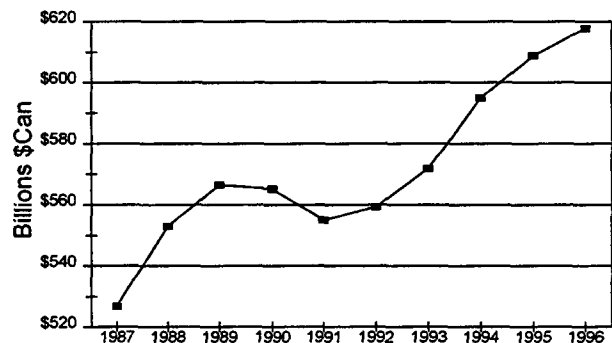


Figure II-3

Source-Statistics Canada, Canadian Economic Observer, October, 1998.

⁶ 1997 population data supplied by Standard & Poor's DRI, indicated that the six provinces had a combined population of 20.4 million, roughly 840,000 below the totals reported by Statistics Canada. DRI's 1997 population estimates and 2008 projections are provided in Table II-3.

during 1990 and 1991. Canada's economy slowly recovered in 1992 and has exhibited moderate growth since that time.

Figure II-4 compares the relative size of the provincial economies of Eastern Canada. The illustration shows that the four Atlantic Provinces, combined, contributed less than 6% to Canada's GDP of nearly \$798 billion in 1996, while Quebec and Ontario represented 22% and 41%, respectively. The combined GDP of the four Atlantic Provinces in 1996 totaled \$47.7 billion (\$Can), less than 15% of Ontario's GDP of \$323 billion.⁷

Provincial Employment Trends

Employment growth trends from January of 1994 through the first half of 1998 are provided in the following series of graphs for each of the Eastern Provinces.⁸ The graphs illustrate the substantial size differences and variations in recent job growth experienced among the Eastern Provinces since 1994. A brief summary of employment characteristics in each province is also provided.

Distribution of 1996 Canada

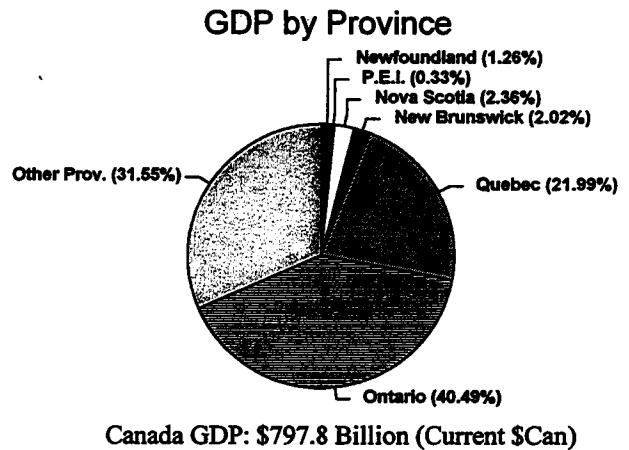


Figure II-4: Source-Statistics Canada, Canadian Economic Observer, October, 1998.

Newfoundland

With an average provincial unemployment rate of 18.8% in 1997, recent economic trends and near-term forecasts for Newfoundland are relatively bleak. The province has not shared in Canada's economic recovery since 1992 and is dominated by slow growth industries. The provincial economy is characterized by a relatively small manufacturing base, which represents less than

Total Seasonally Adjusted Employment Newfoundland: 1/94-7/98

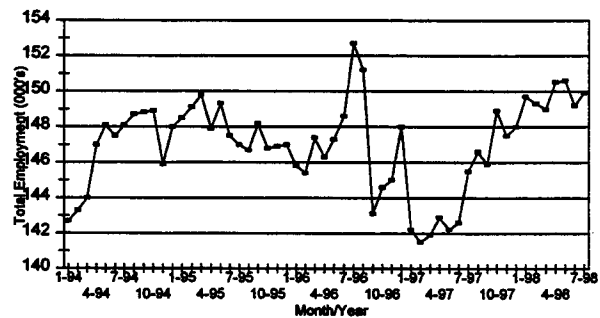


Figure II-5

⁷ To place these figures in context, Maine's 1996 Gross State Product was \$26.05 billion (current \$US). Source: New England Economic Project.

⁸ The graphs report monthly seasonally adjusted payroll employment by place of work. Totals exclude self-employed persons, military personnel and unpaid family workers.

9.2% of total employment, and a high concentration of jobs in the transportation and utilities sectors. The Province has been losing population during the 1990s and that trend is projected to continue over the next decade.

Prince Edward Island

PEI enjoyed a strong economic recovery in 1995-96, but has experienced minimal job growth since that time. As a result, unemployment within the province averaged 14.9% in 1997. Manufacturing is also a relatively small component of PEI's economy, accounting for only 9.5% of total employment in 1997. Nearly 13% of PEI's job base is in "primary" agricultural and fishing industries. Although its total population of 137,000 is by far the smallest among the Atlantic Provinces, PEI has exhibited the fastest rate of recent population growth.

Nova Scotia

Nova Scotia has gained the largest number and maintained the most consistent rate of job growth among the Atlantic Provinces since 1992. A strong service-based economy centered in Halifax has accounted for nearly all of the Province's net job gains in recent years. Manufacturing industries employ 11.5% of the provincial work force and have remained relatively stable over the past two years. Nova Scotia also had the lowest annual average 1997 unemployment rate among the Atlantic Provinces at 12.2%.

**Total Seasonally Adjusted Employment
Prince Edward Island: 1/94-7/98**

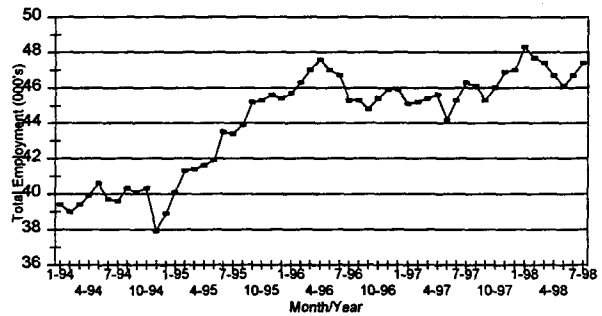


Figure II-6

**Total Seasonally Adjusted Employment
Nova Scotia: 1/94-7/98**

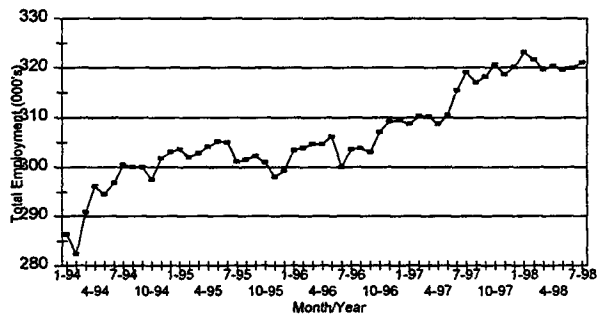


Figure II-7

New Brunswick

After experiencing minimal job growth from 1994 through 1996, the New Brunswick economy added nearly 20,000 payroll jobs during 1997. Payroll jobs then began to decline again during the first half of 1998. New Brunswick has the highest percentage of manufacturing to total employment among the Atlantic Provinces (at 12.5%), but has fewer manufacturing jobs in total than Nova Scotia. Despite its significant job growth in 1997, unemployment still averaged 12.8% for the year.

Quebec

With the exception of a relatively short downturn in 1996, the economy of Quebec Province has steadily added more than 200,000 payroll jobs since 1994. Manufacturing is a larger component of Quebec's economy than any of the Atlantic Provinces, accounting for nearly 19% of total employment in 1997. The number of provincial manufacturing jobs also grew modestly over the past two years. Employment growth in the service sector also averaged more than 3% per year in 1996 and 1997 and accounted for most of the Province's net job growth over that period. Quebec's unemployment rate was slightly lower than the Atlantic Provinces in 1997, averaging 11.4 percent for the year.

**Total Seasonally Adjusted Employment
New Brunswick: 1/94-7/98**

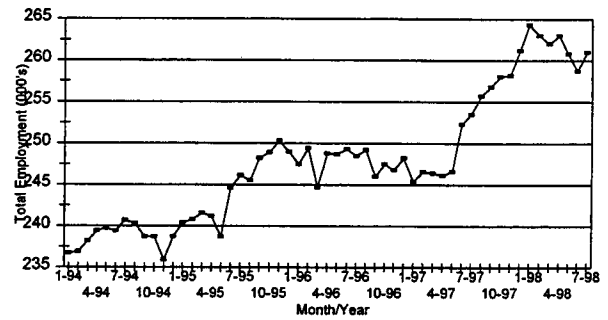


Figure II-8

**Total Seasonally Adjusted Employment
Province of Quebec: 1/94-7/98**

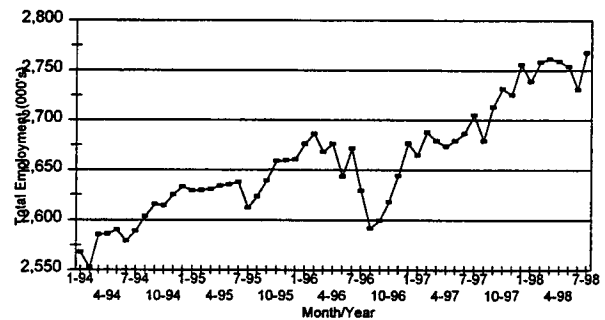


Figure II-9

Ontario

With nearly 4.6 million payroll jobs, employment in Ontario is nearly 30 percent larger than the five remaining Eastern Provinces, combined. Ontario's economy has also added more jobs since 1994 (about 450,000) than the five remaining provinces, combined. Ontario has roughly the same ratio of manufacturing to total employment as Quebec (18.6%), but has experienced more manufacturing job growth in recent years. Ontario's average 1997 unemployment rate, at 8.5 percent, was also the lowest among the Eastern Provinces.

**Total Seasonally Adjusted Employment
Province of Ontario: 1/94-7/98**

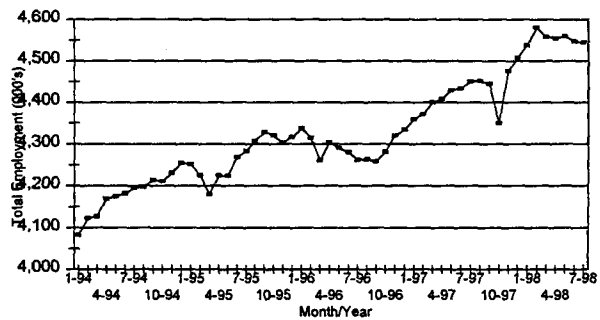
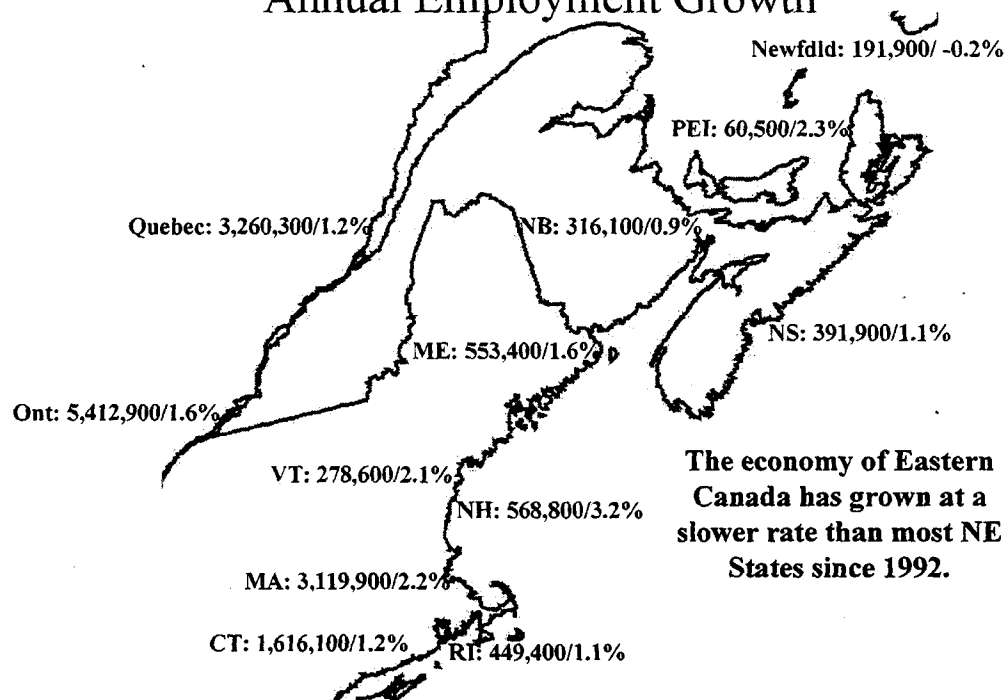


Figure II-10

**1997 Employment & 1992-97
Annual Employment Growth**



Map II-2

The comparative size and recent rates of job growth in the six Eastern Provinces are compared with the New England States in Map II-2. Employment totals shown on the Map include both payroll workers and other categories of self-employed workers and military employment, which were not counted in the preceding graphs. As indicated on the Map, Quebec's economy is roughly the size of Massachusetts', while Ontario's economy is larger than those of Massachusetts, Connecticut and Rhode Island, combined. Collectively, the four Atlantic Provinces had a total employment base of

960,000 in 1997. This total was roughly 14% lower than the number of jobs in Maine and New Hampshire combined. Maine's economy has also grown at a faster rate than Atlantic Canada (with the exception of PEI) since 1992.

Economic Outlook

A 10-year economic forecast for Canada's Provinces and Census Metropolitan Areas was obtained for this analysis from Standard & Poor's DRI. A summary of the forecast results for the six Eastern Provinces profiled above, appears in Table II-6. More detailed tables are also provided in the Appendix. The reader should note that the employment estimates contained in the following table include payroll and non-payroll workers. The starting (1997) population estimates used in DRI's forecast are also lower than those provided by Statistics Canada, which were presented previously.

The forecast in Table II-6 is consistent with the general discussion of Canada's economic outlook, which was summarized above. The forecast calls for continued population and job losses in Newfoundland over the next decade. The remaining Atlantic Provinces are projected to achieve a very modest expansion of less than 65,000 jobs (8.5%) by 2008, with more than 60% of that projected job growth occurring in Nova Scotia. The remaining Atlantic Provinces are also expected to experience minimal net gains in population and households over the period. Average household income is projected to grow at a 3 percent annual rate, roughly a percentage point above Canada's expected average rate of inflation. Growth prospects for the Province of New Brunswick are particularly low, with less than 19,000 jobs and essentially zero population growth anticipated through 2008.

The economic growth forecasts for Ontario and Quebec are more favorable than those for the Atlantic Provinces and are somewhat comparable to the New England States. The Quebec economy is projected to add 350,000 jobs over the coming decade. In addition, Québec's population is expected to grow at a rate of 0.4% per year, expanding by more than 292,000 and creating more than 274,000 households by 2008. Because most of these new jobs are expected to be created in Montreal and surrounding metropolitan areas located in the southwest corner of the province, much of Quebec's growing population and employment centers could be accessible to an east-west highway through Maine.

Projected job growth in Ontario reflects the expected expansion of Canada's high-technology manufacturing and service industries located in and near Metropolitan Toronto. Annual job growth is forecast at a moderate 1.8% annual rate through 2008, which is projected to create more than 1.1 million jobs by the end of the forecast. Population and households are projected to grow at corresponding rates of 1.1% and 1.5% per year, respectively. This growth is expected to be supported in part by out-migrants from the Atlantic Provinces. Average household income levels in Ontario are also projected to rise by 3.5% per year, nearly twice the projected rate of Canadian inflation. The current (1997) estimated average household income for Ontario, at nearly \$70,000, is also higher than the other Eastern Provinces and well above the national average.

Table II-6
Summary Economic Outlook: 1997-2008
Eastern Canadian Provinces

Indicator	Newfound-land	New Brunswick	Nova Scotia	PEI	Quebec	Ontario
Total Employment: (1997)	191,900	316,100	391,900	60,500	3,260,300	5,412,900
Total Employment: (2008)	184,057	334,951	430,992	67,371	3,613,309	6,556,680
Projected Employment Change: (97-08)	(7,843)	18,851	39,092	6,871	353,009	1,143,780
Annual Employment Growth: (97-08)	-0.4%	0.5%	0.9%	1.0%	0.9%	1.8%
Population: (1997)	545,006	738,995	913,801	135,736	7,174,387	10,905,068
Population: (2008)	475,689	740,284	952,453	147,411	7,466,513	12,350,488
Projected Population Change: (97-08)	(69,317)	1,289	38,659	11,675	292,126	1,445,420
Annual Population Growth: (97-08)	-1.2%	0.0%	0.4%	0.8%	0.4%	1.1%
Households: (1997)	188,105	275,453	348,524	49,300	2,878,467	4,022,881
Households: (2008)	191,453	297,122	384,865	56,332	3,152,588	4,752,700
Projected Household Change: (97-08)	3,348	21,669	36,341	7,032	274,121	729,819
Annual H'hold Growth: (97-08)	0.2%	0.7%	0.9%	1.2%	0.8%	1.5%
Average Household Income 1997: [1]	\$51,918	\$53,657	\$52,863	\$52,110	\$54,777	\$69,772
Average Household Income 2008: [1]	\$65,314	\$73,173	\$74,183	\$73,347	\$77,657	\$101,650
Annual Household Income Growth: (97-08)	2.1%	2.9%	3.1%	3.2%	3.2%	3.5%
Average Annual Housing Starts: (97-08)	868	2,116	3,718	639	25,624	65,806

NOTE:

[1] Household income estimates and projections are in Current Canadian Dollars.

SOURCE: Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998.

Sub-Provincial Markets

Sub-provincial demographic and employment data are collected in Canada for "Census Agglomerations" (CAs) and "Census Metropolitan Areas" (CMAs). Census Agglomerations are economically grouped Census Divisions (the Canadian equivalent of U.S. counties) which are used to identify non-metropolitan labor markets. The CMA is the regional geography which is used to define Canada's major metropolitan areas and largest urban labor markets. The criteria used to define Canadian CMAs are similar their US equivalents, Metropolitan Statistical Areas.

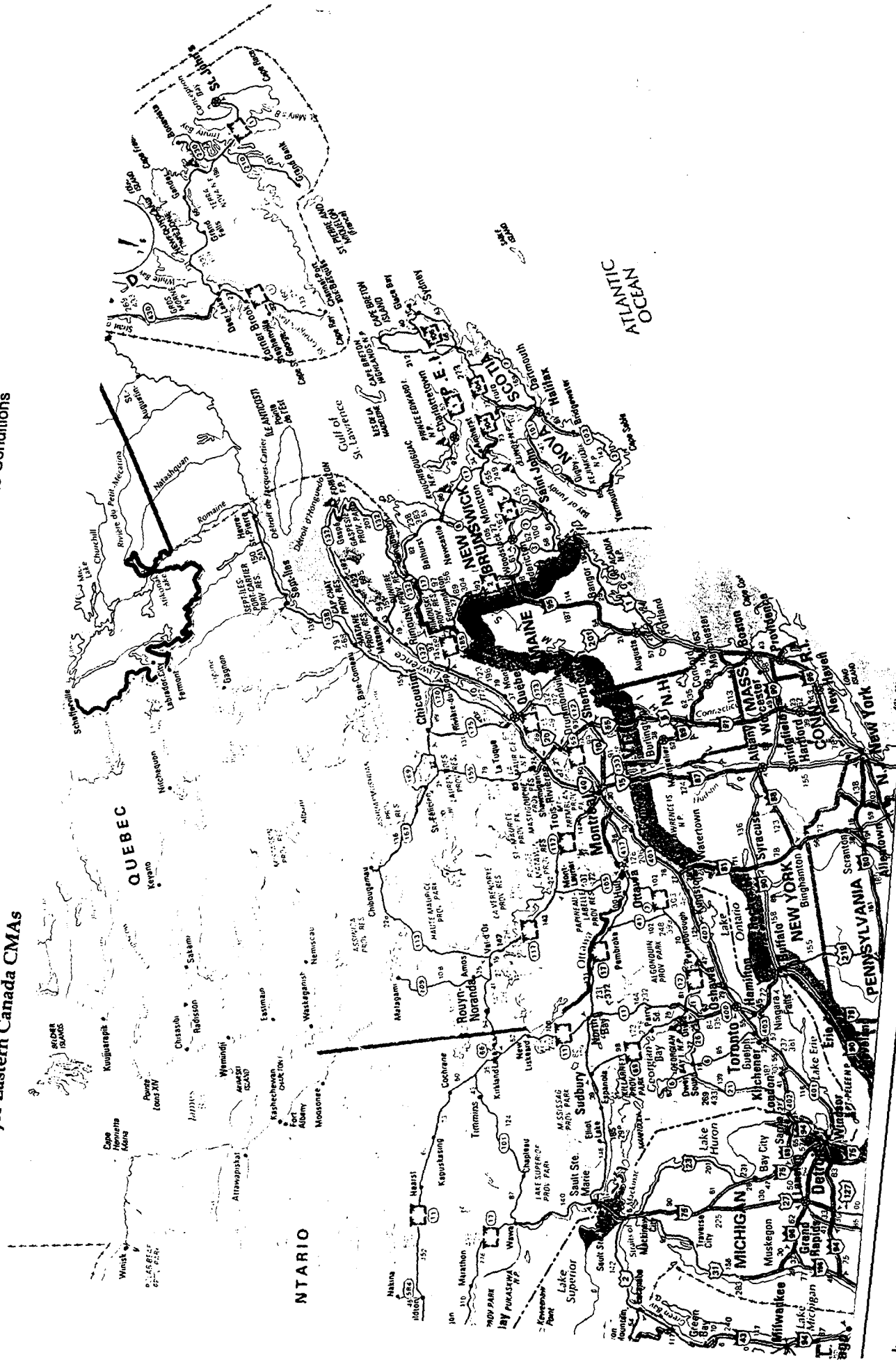
Numerous Census Agglomerations have been designated throughout Eastern Canada. However, a minimal amount of current statistical information is collected for these smaller areas. Three CAs, Fredericton, Moncton and Edmundston-Woodstock, are important to this analysis because of their proximity and highway connections to Maine. Employment (1992 to 1997 trends) and corresponding population counts are provided below for those CAs which might be influenced by an east-west highway corridor through Maine. No forecast data was available for these non-metropolitan areas.

Maine East-West Highway: Economic Impact Analysis

Map II-3

Locations of Major Eastern Canada CMAs

Phase I Technical Report: Baseline Conditions



There are 25 Census Metropolitan Areas in Canada, with an estimated combined 1997 population of 18.7 million. Of these, 14 CMAs are located near the U.S. border along the northern shores of the Great Lakes and south of the Saint Lawrence Seaway, between Windsor, near Detroit Michigan, and Halifax, Nova Scotia. These CMAs contain the majority of Eastern Canada's population and job base and are directly serviced by the Trans-Canada Highway. These 18 sub-provincial regions are highlighted in the following tables because of their proximity to Maine and potential to be served by an east-west highway through the State. An additional CMA, St. John's Newfoundland, is also included in the analysis because it is one of only three metropolitan areas located in the Atlantic Provinces.

Economic and demographic trend and forecast data for these CMAs were obtained from Statistics Canada and Standard & Poor's DRI. The following summary tables include current employment and population estimates, along with forecasts to 2008. Additional detailed tables are contained in the Appendix.

Employment Trends

Recent (1992 to 1997) employment trends within the larger population centers of the Atlantic Provinces, Southern Quebec and Ontario are presented in Table II-7. The time series covers a period of economic recovery, following a recession during 1990-91. All but one of the areas identified (Saint John, New Brunswick) experienced net job gains during this period. Of the 18 CAs and CMAs listed in the table, 13 equaled or out-performed their respective provinces in terms of the annual rate of job growth over the five years. Summary trends for those major markets located within the Atlantic Provinces, Quebec and Ontario are provided below.

Atlantic Provinces

Within the Atlantic Provinces, Halifax is by far the dominant employment center. Total 1997 employment in the Halifax CMA accounted for nearly 18% of the combined employment of the four provinces. In addition, Halifax captured more than 67% of Nova Scotia's net job gains and 36% of the net job gains recorded throughout the Atlantic Provinces from 1992 through 1997. Annual job growth in Halifax averaged 1.7% over the period, exceeding 14 of the 18 regions profiled in Table II-7.

Among the other markets identified in the table, St. John's added jobs at a 1.4% annual rate from 1992 to 1997, while Newfoundland as a whole lost employment. In New Brunswick, the economies of the larger population centers performed more poorly than the Province as a whole, running counter to national trends. Saint John was in fact the only CMA which lost employment over this period, while Fredericton and Moncton under-performed New Brunswick's 0.9% annual rate of job growth. The relatively rural Edmundston-Woodstock area, which borders Aroostook County, in fact added more jobs in total than Fredericton, Moncton or Saint John. This observation suggests that the economies of New Brunswick's largest population centers lack growth industries and are structurally weaker than the province as a whole.

Table II-7
Total Employment Trends: 1992-1997
Selected Canadian Census Metropolitan Areas, Census Agglomerations
and Economic Regions

TOTAL EMPLOYMENT [1]	1992	1997	Change: 1992-1997		Annual Rate
			Number	Percent	
Atlantic Provinces					
St. John's, Newfoundland	74,400	79,800	5,400	7.3%	1.4%
Halifax, N.S.	155,800	169,700	13,900	8.9%	1.7%
Saint John N.B.	59,500	57,100	(2,400)	-4.0%	-0.8%
Moncton, N.B. [2]	77,900	80,400	2,500	3.2%	0.6%
Fredericton-Oromocto, N.B. [2]	54,700	55,500	800	1.5%	0.3%
Edmundston-Woodstock, N.B. [2]	32,400	35,200	2,800	8.6%	1.7%
Quebec Province					
Quebec City	310,200	319,400	9,200	3.0%	0.6%
Trois-Rivières	58,200	61,000	2,800	4.8%	0.9%
Sherbrooke	61,200	65,600	4,400	7.2%	1.4%
Montreal	1,492,700	1,590,600	97,900	6.6%	1.3%
Ontario					
Ottawa-Hull [3]	497,800	531,800	34,000	6.8%	1.3%
Oshawa	118,800	136,000	17,200	14.5%	2.7%
Toronto	2,020,800	2,246,500	225,700	11.2%	2.1%
Hamilton	295,300	315,200	19,900	6.7%	1.3%
St. Catharines - Niagara	153,000	161,900	8,900	5.8%	1.1%
London	198,200	210,400	12,200	6.2%	1.2%
Windsor	119,100	133,900	14,800	12.4%	2.4%
Kitchener - Waterloo	194,300	204,900	10,600	5.5%	1.1%

NOTES:

- [1] Figures represent the total employed labor force (age 15+) by place of residence, including payroll workers and the self-employed.
- [2] Denotes a Census Agglomeration or Economic Region. All other geographies are Census Metropolitan Areas (CMAs)
- [3] A portion of the Ottawa-Hull CMA is located in Quebec Province.

SOURCE: Statistics Canada, from the Labour Force Survey.

Quebec

Similar to the Atlantic Provinces, Quebec's economy is dominated by a single CMA. Montreal's employment base of nearly 1.6 million represented nearly 49% of total provincial employment in 1997. With a 1.3% annual rate of job growth, Montreal also captured nearly 51% of Quebec's total employment gains over the period. The province's other major metropolitan area, Quebec City, is only one-fifth the size of Montreal in terms of employment. Employment in Quebec City also grew at less than half the rate of Montreal over the period and under-performed the province as a whole. Much of the cause of this slow job growth in the Quebec CMA can be attributed to the downsizing of the provincial government during the early 1990's.

The two remaining Quebec CMAs shown in the table, Sherbrooke and Trois-Rivières, have natural resource-based economies that are structurally similar to Northern Maine. Located roughly 60 miles from Coburn Gore, Sherbrooke lies a similar distance from Maine's borders as Saint John, New Brunswick. With a total job base of more than 65,000, Sherbrooke is also larger than Saint John and gained more jobs (4,400 in total) from 1992 to 1997.

Ontario

Consistent with the discussion of provincial growth trends presented above, nearly all of the CMAs located in Southern Ontario grew faster than those in the Atlantic Provinces and Quebec from 1992 to 1997. The Toronto CMA alone added 225,700 jobs, more than all of the Atlantic Provinces and Quebec combined. Toronto's 2.1% annual employment growth also exceeded most of the major metropolitan areas in the Northeastern U.S. over this same period. The other Ontario CMAs listed in the table added jobs at comparable rates ranging from 1.1% to 2.7% per year.

Population and Employment Forecasts

The 10-year economic outlook for the 15 CMAs included in Table II-7 was also forecast by Standard & Poor's DRI and is summarized below.⁹ More detailed tables containing selected annual demographic and employment by industry trends and projections from 1995 to 2008, are also included in the appendix. Summary highlights for each CMA are provided below:

Halifax, Nova Scotia

- Halifax is the economic center of Atlantic Canada, with above average employment in the financial, trade and business services sectors;
- less than 6.5% of total employment is in manufacturing;
- more than 43% of Nova Scotia's employed population lives in the Halifax CMA;
- average household income is near the national average;
- 7.1% unemployment rate is lowest in the Atlantic Provinces and below the national average;
- annual job growth was also above the national average.

Saint John, New Brunswick

- Saint John is New Brunswick's largest city with a population of nearly 126,000, but is the second smallest among all of Canada's CMAs;
- Saint John's economy is oriented toward transportation, warehousing & distribution, communications, utilities, retail & wholesale trade;
- manufacturing accounts for 12.1% of total employment;
- the CMA has an aging population base with one of the lowest labor force participation rates in Canada (62%);
- younger workers are out-migrating;

- the CMA's average household income of \$56,000 is 11% below the national average;
- economic prospects are less favorable than either Fredericton and Moncton.

St. John's, Newfoundland

- St. John's is Newfoundland's center for warehousing & distribution, shipping, mining & electric power generation, the CMA economy is oriented to slow growth industries;
- St. John's has more than twice as many governmental employees than the average of Canada's 25 CMAs;
- The CMA has a very small manufacturing base accounts for only 6% of total employment;
- population base and labor force participation rates are shrinking;
- despite St. John's high rate of unemployment, personal income per household ranks 16th among CMAs and is just below the national average.

⁹ Comparable data for the smaller Census Agglomerations was not available.

Table II-8
Summary Economic Outlook: 1998-2008
Atlantic Province Census Metropolitan Areas

Indicator	Halifax NS	Saint John, NB	St. John's Newfoundland
Total Employment: (1997)	169,700	57,100	79,800
Total Employment: (2008)	203,726	62,249	80,974
Projected Employment Change: (97-08)	34,026	5,149	1,174
Annual Average Job Growth: (97-08)	1.7%	0.8%	0.1%
1997 Average Unemployment Rate: (%)	9.1	12.7	13.8
Estimated Current Population: (1997)	337,111	125,999	173,373
Projected Population: (2008)	375,868	126,732	165,444
Annual Population Growth: (97-08)	1.0%	0.1%	-0.4%
Estimated Current Households: (1997)	131,090	47,771	61,827
Projected Households: (2008)	153,527	51,523	66,582
Annual Household Growth: (97-08)	1.4%	0.7%	0.7%
Average Household Income: 1997[1]	\$61,761	\$55,965	\$61,124
Average Household Income: 2008[1]	\$89,247	\$74,081	\$77,458
Annual H'hold Income Growth (97-08)	3.4%	2.6%	2.2%
Average Annual Housing Starts: (97-08)	2,210	302	480

NOTE:

[1] Income estimates and projections are in current Canadian Dollars.

SOURCE: Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998.

Table II-9
Summary Economic Outlook: 1998-2008
Selected Quebec Census Metropolitan Areas

Indicator	Montreal	Quebec City	Sher- brooke	Trois- Rivieres
Total Employment: (1997)	1,590,600	319,400	65,600	61,000
Total Employment: (2008)	1,764,391	350,204	73,419	64,037
Projected Employment Change: (97-08)	173,791	30,804	7,819	3,037
Annual Average Job Growth: (97-08)	0.9%	0.8%	1.0%	0.4%
1997 Average Unemployment Rate: (%)	10.9	10.5	11.8	14.2
Estimated Current Population: (1997)	3,353,874	676,402	148,760	140,441
Projected Population: (2008)	3,581,110	716,473	159,351	143,763
Annual Population Growth: (97-08)	0.6%	0.5%	0.6%	0.2%
Estimated Current Households: (1997)	1,368,220	282,942	63,382	59,437
Projected Households: (2008)	1,520,823	312,885	70,631	63,646
Annual Household Growth: (97-08)	1.0%	0.9%	1.0%	0.6%
Average Household Income: 1997[1]	\$57,445	\$56,807	\$51,043	\$49,770
Average Household Income: 2008[1]	\$79,399	\$80,056	\$72,954	\$69,103
Annual H'hold Income Growth (97-08)	3.0%	3.2%	3.3%	3.0%
Average Annual Housing Starts: (97-08)	9,226	2,250	748	404

NOTE:

[1] Income estimates and projections are in current Canadian Dollars.

SOURCE: Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998.

Montreal, Quebec

- The Montreal CMA has been experiencing rapid job growth in information technology and other high-tech industry sectors;
- at the same time, large job losses are occurring in other industries, causing slow overall employment growth & high unemployment;
- because the economy is undergoing major structural change, income disparities within the local population are deepening;
- despite the loss of traditional industries, manufacturing still represents 19.4% of total employment;
- Montreal's high cost, high tax, highly-regulated business climate has caused some businesses to out-migrate to lower-cost markets;
- political uncertainty is also limiting near term growth prospects.

Quebec City, Quebec

- The Quebec CMA has a strong employment base in finance, insurance, retail trade and services;
- manufacturing industries employ fewer than 30,000 workers;
- public-sector jobs account for 12.5% of total employment;
- although its economic base has insulated the City from past cyclical downturns, reduced government spending is expected to limit job growth in the near term;
- future growth prospects could be impacted by the eventual resolution of the Separatist issue.

Sherbrooke, Quebec

- Sherbrooke's economy is somewhat similar to Northern Maine, with an above average concentration of employment in pulp & paper products and food processing industries;
- nearly 22% of total employment is in manufacturing;
- the CMA economy is under-represented in services and retail

trade;

- average household income is 20% below the national average;
- an out-migration of younger workers has lowered labor force participation to 61%, among the lowest in Canada;
- the area has a higher concentration of English-speaking population than most of Quebec.

Trois Rivières, Quebec

- Trois Rivières is located between Quebec City and Montreal and is the smallest CMA in the province;
- the CMA's economic base is similar to that of Sherbrooke, with a high concentration of paper & pulp manufacturing;
- the area suffers from chronic unemployment and has historically had one of the highest unemployment rates in among all of Canada's CMAs;
- the area's average household income, below \$50,000, and 60% labor force participation rate are also last among all CMAs.

Table II-10
Summary Economic Outlook: 1998-2008
Selected Southern Ontario Census Metropolitan Areas

Indicator	Toronto	Ottawa-Hull	Hamilton	London	Kitchener	St. Cath. Niagara	Oshawa	Windsor
Total Employment: (1997)	2,246,500	531,800	315,200	210,400	204,900	161,900	136,000	133,900
Total Employment: (2008)	2,752,453	660,596	358,529	235,440	245,929	183,989	180,526	155,884
Projected Employment Change: (97-08)	505,953	128,796	43,329	25,040	41,029	22,089	44,526	21,984
Annual Average Job Growth: (97-08)	1.9%	2.0%	1.2%	1.0%	1.7%	1.2%	2.6%	1.4%
1997 Average Unemployment Rate: (%)	8.0	9.0	6.5	7.7	7.4	9.9	8.2	9.2
Estimated Current Population: (1997)	4,347,239	1,025,892	630,079	402,405	389,028	374,282	275,302	281,942
Projected Population: (2008)	5,122,874	1,175,202	681,667	437,680	444,482	390,268	336,197	315,158
Annual Population Growth: (97-08)	1.5%	1.2%	0.7%	0.8%	1.2%	0.4%	1.8%	1.0%
Estimated Current Households: (1997)	1,530,267	396,468	239,335	159,833	144,739	146,885	96,492	108,568
Projected Households: (2008)	1,878,795	474,113	268,734	180,485	174,026	158,359	124,642	126,233
Annual Household Growth: (97-08)	1.9%	1.6%	1.1%	1.1%	1.7%	0.7%	2.4%	1.4%
Average Household Income: 1997[1]	\$80,407	\$69,515	\$66,989	\$64,580	\$69,344	\$59,718	\$77,092	\$62,951
Average Household Income: 2008[1]	\$118,167	\$101,436	\$94,830	\$89,316	\$99,879	\$84,124	\$114,538	\$90,575
Annual H'hold Income Growth (97-08)	3.6%	3.5%	3.2%	3.0%	3.4%	3.2%	3.7%	3.4%
Average Annual Housing Starts: (97-08)	31,359	5,648	3,601	1,854	2,803	1,039	2,578	2,848

NOTE:

[1] Income estimates and projections are in current Canadian Dollars.

SOURCE: Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998

Toronto, Ontario

- Toronto is Canada's most populated CMA with a total population of nearly 4.4 million;
- Toronto has the highest average household income among all CMAs, 28% above the national average;
- nearly 445,000 manufacturing jobs are located in the region, including a large concentration of high-tech and core information-technology (IT) industries;
- Toronto has strong financial and business service sectors and has the lowest unemployment rate in Eastern Canada;
- the dominant CMA within the "Golden Horseshoe", a region located along the southwest shore of Lake Ontario opposite Buffalo, New York, which has created 300,000 jobs over the past decade;
- the Golden Horseshoe, has a combined population of nearly 6.4 million, (22% of Canada's total population) and is projected to grow by nearly 1.0 million over the next ten years;
- the region's strong growth is expected to attract in-migrants from other provinces (and nations).

Ottawa-Hull, Ontario-Quebec

- Canada's Capital and fourth largest CMA with a population of 1.0 million;
- located midway between Montreal and Toronto, Ottawa-Hull is the only CMA to cross provincial borders;
- the area is noted as having the highest concentration of IT employment and the most skilled labor force among all CMAs;
- as a result, average household income and the labor force participation rate are well above the national average.

Hamilton, Ontario

- A center for heavy-manufacturing in Ontario, located on the western shore of Lake Ontario between Toronto and Buffalo, New York;
- economic restructuring to meet

international competition caused the area's manufacturing sector to downsize over the past decade, but job gains in other sectors have more than offset those losses;

- because the region's manufacturing industries have restructured to become more competitive, job growth over the next decade is projected to occur at double the rate of the 1990s.

London, Ontario

- This CMA has a balanced, diversified economy that is very close to in composition to the average of all of Canada's CMAs;
- located roughly midway between Toronto and Detroit, London has become a shopping and entertainment destination for much of southwestern Ontario;
- unemployment, job growth and personal income levels are all near the national average.

Kitchener, Ontario

- Located west of Toronto, Kitchener has a strong high-tech manufacturing sector that works closely with the region's nearby education and research institutions;
- noted as an economic development success story and one of Canada's fastest growing CMAs;
- manufacturing accounted for nearly 28.5% of total employment in 1997, one of the highest ratios among all CMAs.

St. Catherines-Niagara, Ontario

- Strategically located between Lake Erie and Ontario, opposite Buffalo, New York, St. Catherines-Niagara is situated near the US border point which carries a major share of truck-transported trade between Canada and the US;
- a service center for an active agricultural region, tourism destination and popular retirement area;
- the CMA still maintains a large

- manufacturing base which accounts for 21% of total employment;
- traditional industries were hard hit during 1990-91 and have grown more slowly than other regions.

Oshawa, Ontario

- Located just east of Toronto at the eastern end of the Golden Horseshoe, this CMA is rapidly being absorbed into the economy of the Toronto, CMA;
- a relatively small population of roughly 275,000, this CMA has more manufacturing jobs (30,000+) than Quebec City and is the center of General Motors' Canadian production;
- Oshawa's population is projected to be the fastest growing among all CMAs (at 2% per year) over the next decade, due mainly to the area's proximity to Toronto;
- the Oshawa CMA has the highest average household income (at \$77,000) among all of Canada's CMAs, 23% above the national average.

Windsor, Ontario

- Located east of Detroit in the southwest corner of the province, Windsor's economy is heavily identified with the automotive industry, many of its residents actually work in the US;
- 27% of total CMA employment is in manufacturing and half of all manufacturing jobs are in the transportation equipment industry;
- recent economic growth has been tied to the recovery of the US auto industry;
- the region also has a rapidly growing wholesale trade sector as a result of expanding US-Canada trade, and is growing as a shopping and entertainment destination as a result of the recent introduction of casino gambling.

Non-Metropolitan Area Population Trends

Comparable economic and demographic forecast information for Canada's non-metropolitan areas are not maintained to the same level of detail as reported above for CMAs. However, current population estimates for a number of other locations in the Atlantic Provinces, Quebec and Ontario were obtained and are listed in Table II-11. The Census Divisions (counties) identified in the Table were selected because of their size and proximity to Maine or to the Trans-Canada highway.¹⁰ These non-metropolitan counties could therefore generate potential travel demand for an east-west highway through Maine.

The table indicates that most of the identified locations nearest to Maine's borders tend to have small populations and have either been stable or losing residents since 1992. With the exception of the Moncton area, which has been growing at a 1% annual rate since 1992, recent population growth in most of the non-metropolitan areas within the Atlantic Provinces has been slower than comparable areas of Quebec and Ontario. Locations between the Maine border and Quebec City have generally exhibited slower population growth rates than those locations which are nearer to Montreal. Most of the non-metro counties located within southern Ontario also tend to be growing faster than those located in Quebec.

¹⁰ Numerous additional Census Divisions which were either very rural or geographically remote from Maine were omitted from this table.

Table II-11
1992 and 1997 Population Estimates
Selected Canadian Non-Metropolitan Census Divisions (Counties)

Census Division or County Major City/Town in ()	Total Population		Change: 1992-1997		Annual Rate
	1992	1997	Number	Percent	
Atlantic Provinces					
Queens (Charlottetown), PEI	68,570	71,576	3,006	4.4%	0.9%
Cape Breton (Sydney), NS	122,686	121,347	(1,339)	-1.1%	-0.2%
Pictou (New Glasgow), NS	50,618	50,350	(268)	-0.5%	-0.1%
Colchester (Truro), NS	49,204	51,144	1,940	3.9%	0.8%
Yarmouth, NS	28,441	28,461	20	0.1%	0.0%
Cumberland (Amherst), NS	34,881	35,245	364	1.0%	0.2%
Charlotte (St. Stephen), NB	27,816	28,534	718	2.6%	0.5%
Carleton (Woodstock), NB	27,897	27,744	(153)	-0.5%	-0.1%
Madawaska (Edmundston), NB	37,780	37,187	(593)	-1.6%	-0.3%
York (Fredericton), NB	86,216	89,552	3,336	3.9%	0.8%
Kings (Sussex), NB	65,334	66,887	1,553	2.4%	0.5%
Westmoreland (Moncton), NB	119,511	125,525	6,014	5.0%	1.0%
Quebec					
Drummond (Drummondville)	82,964	86,934	3,970	4.8%	0.9%
La-Haute-Yamaska (Granby)	76,438	79,377	2,939	3.8%	0.8%
Memphremagog (Magog)	37,282	40,038	2,756	7.4%	1.4%
Beauce-Sartigan (St.-Georges)	45,377	47,791	2,414	5.3%	1.0%
Le Granit (Lac Megantic)	21,465	21,945	480	2.2%	0.4%
Les Maskoutains (St.-Hyacinthe)	79,578	80,372	794	1.0%	0.2%
Le Haut-Richelieu (Saint-Jean-sur-Richelieu)	96,762	102,511	5,749	5.9%	1.2%
L'Amiante (Thetford Mines)	46,954	45,094	(1,860)	-4.0%	-0.8%
Arthabaska (Victoriaville)	62,507	64,613	2,106	3.4%	0.7%
Ontario					
Stomont, Dundas & Glengarry (Cornwall)	114,091	117,605	3,514	3.1%	0.6%
Leeds and Grenville (Brockville)	95,274	100,914	5,640	5.9%	1.2%
Frontenac (Kingston)	135,267	139,824	4,557	3.4%	0.7%
Hastings (Belleville)	123,870	130,538	6,668	5.4%	1.1%
Peterborough	125,385	129,953	4,568	3.6%	0.7%
Northumberland (Port Hope)	82,212	85,252	3,040	3.7%	0.7%
Brant (Brantford)	120,825	125,733	4,908	4.1%	0.8%
Oxford (Woodstock)	97,799	103,411	5,612	5.7%	1.1%
Kent (Chatham)	114,517	116,186	1,669	1.5%	0.3%

Source: Statistics Canada, Annual Demographic Statistics, 1997.

Northeast US Market Overview

Introduction

The following section contains a presentation of population and employment trend and forecast data for those Northeast US States and Metropolitan Areas which are most likely to generate user demand for an east-west highway through the State of Maine. The states and metropolitan areas included in this section were selected because of their proximity to the US/Canadian border, or to major transportation routes which either connect to Maine or could be connected via an east-west highway. In addition, these states and metropolitan areas tend to be the origins or destinations of significant commodity movements to and from Canada.

Information presented in this section includes state-level population and employment trend data and forecasts (1969 to 2045) supplied by the U.S. Department of Commerce, Bureau of Economic Analysis. Population and employment trend data (1969 to 1997) for

US metropolitan areas were also obtained from the same source. Although comparable long range forecasts were not available for metropolitan areas, short-range forecasts for selected metro areas were obtained from Standard & Poor's DRI and are presented in the Appendix.

State-Level Trends/Forecasts

Population and employment trends and forecasts for Maine and 12 other Northeastern US States were obtained by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). The source provided annual measurements of employment by industry, population and Gross State Product from 1969 to the present, as well as forecasts to the year 2045. A summary of this information appears in Table II-12. Included in the Table are the 6 New England States, New York, New Jersey and Pennsylvania, and the mid-west border States of Ohio, Indiana, Michigan and Illinois.

Population

In total, Maine's population is expected to grow by 71,000 from 1990 to 2000 and 275,000 (21.5%) between 2000 and 2025. BEA also forecasts that Maine's population will grow at a slightly faster annual rate from 2000 to 2015 that it did during the 1990s, when Maine was impacted by both a severe recession and the closure of Loring Air Force Base. The 0.6% rate of annual population growth in Maine during the 1990s is in the middle of the range of the other northeastern states, while the 0.8% annual growth rate forecast from 2000 to 2015 is higher than most of the Northeast.

Annual rates of population growth for other northeast states are expected to range from 0.3% to 0.9% over the current decade. Southern New England and Pennsylvania are projected to have higher rates of population growth from 2000 to 2015 compared to the 1990s, while the remaining northeastern states are all projected to have similar or slower growth rates in the future. In percentage terms, the outlook for the population growth in much of the Northeast US is slower than Ontario and comparable to Quebec.

Employment

Growth in total employment among northeastern U.S. States during the 1990s shows significantly more volatility than population, due to the varying impacts and rates of recovery from the recession of 1990-91. The Midwest US and Northern New England States have exhibited the fastest rates of job growth during the 1990s, ranging from 0.8% to 1.4% annually, while Connecticut, Rhode Island and New York have had the slowest job growth (0.2% to 0.5% per year).

According to BEA's forecasts, the Northeastern States are projected to maintain modest annual growth rates in total employment of between 0.5% to 1.0% from 2000 to 2015. Employment growth for the New England States is projected between 0.8% and 1.0% annually. Future job growth in New York and New Jersey is projected to accelerate slightly in comparison to the past decade, while Ohio, Indiana, Michigan, Illinois and Pennsylvania are projected to experience a slowdown in job growth. BEA's longer range employment outlook (1015 to 2025) calls for job growth to slow throughout the Northeast, to annual rates of 0.4% or less.

The BEA's 2000-2015 population (0.8%) and employment (0.9%) growth rates forecast for Maine are very similar to a recently released 1997 to 2010 forecast released by the Maine State Planning Office. The MSPO forecast calls for a 1.0% annual rate of job growth to 2010, consistent with the longer-range BEA forecast, but a slower 0.6% rate of population growth.

Table II-12
Population and Employment Trends and Projections [1]
Maine and Northeast U.S. States

Total Population	1990 History	1998 Estimate	Total Change		Annual Growth Rate			
			1990-00	2000-15	1990-00	2000-15	2015-25	
Maine	1,231,000	1,280,000	71,000	160,000	115,000	0.6%	0.8%	0.8%
New Hampshire	1,112,000	1,191,000	106,000	177,000	116,000	0.9%	0.9%	0.8%
Vermont	565,000	605,000	54,000	85,000	55,000	0.9%	0.9%	0.8%
Massachusetts	6,018,000	6,219,000	283,000	720,000	529,000	0.5%	0.7%	0.7%
Connecticut	3,289,000	3,378,000	145,000	420,000	306,000	0.4%	0.8%	0.8%
Rhode Island	1,005,000	1,021,000	32,000	112,000	91,000	0.3%	0.7%	0.8%
New York	18,002,000	18,358,000	470,000	751,000	747,000	0.3%	0.3%	0.4%
New Jersey	7,740,000	8,182,000	594,000	952,000	674,000	0.7%	0.7%	0.7%
Illinois	11,448,000	12,087,000	812,000	1,296,000	919,000	0.7%	0.7%	0.7%
Indiana	5,555,000	5,890,000	407,000	578,000	453,000	0.7%	0.6%	0.7%
Michigan	9,311,000	9,656,000	430,000	682,000	603,000	0.5%	0.5%	0.6%
Ohio	10,862,000	11,353,000	570,000	868,000	750,000	0.5%	0.5%	0.6%
Pennsylvania	11,896,000	12,277,000	517,000	1,002,000	904,000	0.4%	0.5%	0.7%

TOTAL Employment	1990	1998	1990-00	2000-15	1990-00	2000-15	2015-25
Maine	696,500	731,500	57,000	108,100	25,500	0.8%	0.9%
New Hampshire	638,100	694,500	78,800	118,800	32,100	1.2%	1.0%
Vermont	339,500	374,200	46,600	60,400	14,800	1.3%	1.0%
Massachusetts	3,612,400	3,749,900	235,400	541,300	129,500	0.6%	0.9%
Connecticut	1,996,100	2,029,800	94,000	310,600	79,000	0.5%	0.9%
Rhode Island	551,000	564,600	27,800	73,500	16,600	0.5%	0.8%
New York	9,855,000	9,874,300	196,300	797,100	30,700	0.2%	0.5%
New Jersey	4,339,900	4,513,700	301,600	630,700	127,400	0.7%	0.9%
Illinois	6,425,600	6,970,900	721,700	941,100	192,900	1.1%	0.8%
Indiana	3,065,000	3,462,000	471,800	430,500	89,200	1.4%	0.8%
Michigan	4,756,000	5,152,600	468,400	514,100	87,200	0.9%	0.6%
Ohio	5,892,900	6,428,700	639,600	696,300	109,500	1.0%	0.7%
Pennsylvania	6,301,000	6,674,400	506,600	700,400	106,800	0.8%	0.7%

NOTE:

[1] Employment totals include all categories of workers, including military personnel, agricultural workers and the self-employed.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table II-13
Employment Trends [1]
Selected Maine and Northeast U.S. Metropolitan Areas

Major Metropolitan Areas	Total Wage & Salary Employment [1]					Total Employment Change			Annual Growth Rate		
	1970	1980	1990	1997	1999	1970-80	1980-90	1990-97	1970-80	1980-90	1990-97
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH (NECMA)	2,247,858	2,632,732	3,024,228	3,180,140	391,496	155,912			1.6%	1.4%	0.7%
New York-No. New Jersey-Long Island, NY-NJ-CT-PA (CMSA)	8,236,076	8,502,955	9,525,429	9,485,026	214,607	1,304,874	(262,399)		0.3%	1.1%	-0.1%
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD (CMSA)	2,335,707	2,466,466	2,878,719	2,958,791	106,931	443,613	55,127		0.5%	1.6%	0.4%
Pittsburgh, PA (MSA)	996,276	1,063,450	1,062,446	1,120,527	78,987	(34,356)	73,649		0.7%	-0.0%	0.8%
Cleveland-Akron, OH (CMSA)	1,273,048	1,329,512	1,405,687	1,526,914	74,990	32,564	127,968		0.4%	0.6%	1.2%
Detroit-Ann Arbor-Flint, MI (CMSA)	1,964,347	2,128,191	2,417,556	2,630,735	251,954	139,328	211,413		0.8%	1.3%	1.2%
Chicago-Gary-Kenosha, IL-IN-WI (CMSA)	3,460,668	3,758,630	4,198,578	4,600,113	358,490	320,316	424,923		0.8%	1.1%	1.3%
Other Selected MSAs											
Bangor, ME (NECMA)	46,724	60,043	69,733	69,779	13,319	9,690	46		2.5%	1.5%	0.0%
Lewiston-Auburn, ME (NECMA)	38,121	42,063	44,854	46,643	3,942	2,791	1,789		1.0%	0.6%	0.6%
Portland, ME (NECMA)	88,295	111,576	155,838	170,574	23,281	44,262	14,736		2.4%	3.4%	1.3%
Burlington, VT (NECMA)	54,474	70,965	97,631	108,272	16,491	26,666	10,641		2.7%	3.2%	1.5%
Springfield, MA (NECMA)	224,903	250,440	271,637	268,968	25,537	21,197	(2,669)		1.1%	0.8%	-0.1%
Pittsfield, MA (NECMA)	59,099	62,173	65,572	64,728	3,074	3,399	(844)		0.5%	0.5%	-0.2%
Providence-Warwick-Pawtucket, RI (NECMA)	352,937	397,390	436,550	435,772	44,453	39,160	(778)		1.2%	0.9%	-0.0%
Hartford, CT (NECMA)	472,027	571,950	665,029	626,645	99,923	93,079	(38,384)		1.9%	1.5%	-0.8%
Albany-Schenectady-Troy, NY (MSA)	322,143	362,757	439,561	444,375	40,614	76,804	4,814		1.2%	1.9%	0.2%
Glens Falls, NY (MSA)	35,813	41,218	49,713	51,682	5,405	8,495	1,969		1.4%	1.9%	0.6%
Utica-Rome, NY (MSA)	125,790	124,009	134,613	130,612	(1,781)	10,604	(4,001)		-0.1%	0.8%	-0.4%
Syracuse, NY (MSA)	259,051	293,255	352,205	346,668	34,204	58,950	(5,537)		1.2%	1.8%	-0.2%
Rochester, NY (MSA)	406,263	456,690	527,913	546,715	50,427	71,223	18,802		1.2%	1.5%	0.5%
Buffalo-Niagara Falls, NY (MSA)	513,353	521,792	558,902	562,250	8,439	37,110	3,348		0.2%	0.7%	0.1%
Erie, PA (MSA)	102,645	118,767	125,313	134,196	16,122	6,546	8,883		1.5%	0.5%	1.0%
Toledo, OH (MSA)	243,552	265,644	299,794	332,558	22,092	34,150	32,764		0.9%	1.2%	1.5%

NOTE:

[1] Employment totals include civilian non-farm wage & salary employees only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Metropolitan Areas

Employment Trends

Comparable BEA forecasts for US metropolitan were not available. However, annual average wage and salary employment for states, metropolitan areas and counties are maintained by the BEA for 1969 through 1997. This information is summarized in Table II-13 for the 6 largest Consolidated Metropolitan Statistical Areas (CMSAs) in the Northeast.¹¹ In addition, 16 smaller MSAs (including three in Maine) are highlighted in the table. As noted previously, these MSAs are located relatively close to the US/Canadian border or to major transportation routes which either connect to Maine or could be connected via an east-west highway.

Among the MSAs listed in Table II-13, those with the fastest rates of job growth during the 1990s are concentrated in the Midwest States, while MSAs with the slowest job growth tend to be located in southern New England and New York. Not surprisingly, several of the metro areas with the largest job gains since 1990, such as Chicago, Detroit, Cleveland and Toledo, have strong trading relationships with Southwestern Ontario. Much of the recent job growth in these MSAs may be linked to the rapid expansion of US/Canada Trade.

Average annual job growth in most of the MSAs in New England and New York State from 1990 to 1997, were roughly half the rates experienced during the 1980s. Most of the MSAs located in Southern New England, with the exception of Boston, had not yet recovered pre-recession employment levels by the end of 1997. Similarly, the MSAs in New York State also experienced net job losses or very minimal gains. Portland and Burlington, Vt. out-performed most other New England MSAs in terms of 1990-97 job growth. Lewiston-Auburn was in the middle of the range of and Bangor was near the bottom, with no net job growth over the period.

Population and Employment Outlook

Similar market forecasts to those presented above for Eastern Canada's CMAs, were supplied for selected Northeast MSAs by Standard & Poor's DRI. However, the data provided were 5-year rather than 10-year forecasts. The geographic extent of the MSA's defined below may also be different than those presented in Table II-13. Because the forecasts are of a short-term nature and are less detailed than those obtained for Canada, each MSA is briefly highlighted below.

Boston (Pop 5.1 Million)

- The Boston PMSA is projected to achieve a 0.9% annual rate of job over the next 5 years, creating 121,000 new jobs;
- business services, software, biotech & pharmaceuticals, financial services, information technology & communications are leading growth sectors;
- declining export markets are hurting

durable goods manufacturing sectors
 high housing costs & low
 unemployment will be a drag on
 future expansion.

¹¹ In order of size, the largest metropolitan areas in the Northeast are New York, Chicago, Boston, Philadelphia, Detroit, Cleveland and Pittsburgh.

Table II-14
Summary Economic Outlook
Selected Northeast US Metropolitan Areas

	New York [1]	Buffalo- Niagara Falls	Albany Schenectady Troy	Syracuse	Rochester
Total Employment (1998)	3,984,700	546,200	433,200	337,000	528,900
Total Emp. Change (1998-2003)	86,600	1,600	11,400	3,000	7,900
Average Annual Job Growth	0.4%	0.1%	0.5%	0.2%	0.3%
1998 Unemployment Rate (%)	7.4	5.6	4.5	4.7	4.3
Population (1998)	8,618,000	1,159,000	877,000	737,000	1,088,000
Labor Force (1998)	4,007,000	583,000	454,000	365,000	573,000
Ann. Population Growth (98-03)	0.1%	-0.2%	0.3%	0.0%	0.3%
Ann. Wage Growth (98-03-Percent)	3.4	3.1	2.9	2.9	3.0
Avg Annual Housing Starts: (98-03)	12,433	2,450	2,533	1,117	2,317
		Boston [1]	Pittsburgh	Cleveland	Detroit
Total Employment (1998)		2,772,400	1,082,800	1,160,000	2,133,600
Total Emp. Change (1998-2003)		121,100	23,700	18,300	72,800
Average Annual Job Growth		0.9%	0.4%	0.3%	0.7%
1998 Unemployment Rate (%)		3.1	4.6	4.3	3.4
Population (1998)		5,122,000	2,357,000	2,224,000	4,489,000
Labor Force (1998)		2,753,000	1,160,000	1,134,000	2,267,000
Ann. Population Growth (98-03)		0.6%	-0.0%	-0.0%	0.5%
Ann. Wage Growth (98-03-Percent)		3.4	3.1	3.0	2.8
Avg Annual Housing Starts: (98-03)		15,900	5,767	6,400	16,150

NOTE:

[1] Standard & Poor's DRI uses the Primary Metropolitan Statistical Area (PMSA) for "New York" and "Boston". These regions are much smaller than the CMSA definitions used in Table II-13.

DRI McGraw Hill-US Markets Regional Review: Metro Focus, Third Quarter 1998

New York, NY-NJ (Pop 8.6 Million)

- Total employment is approaching 4.0 million;
- 1998 job growth (1.7%) is the strongest exhibited in 12 years;
- Manufacturing is a very small component of the regional economy (8% of total employment);
- Job growth projected to slow sharply (to 0.4%/year) over the next 5 years due in part to consolidation in the banking & insurance sectors

Upstate New York

- Four largest metro areas (Albany, Syracuse, Rochester, Buffalo) contain 1.8 million jobs;
- Minimal population and job growth expected over the next five years.

Pittsburgh, Cleveland & Detroit

- These 3 major metros combined contain 4.3 million jobs;
- Employment growth will slow to less than 0.5% per year over next 5 years, creating 115,000 jobs;
- Cleveland & Pittsburgh are both developing into major transportation & distribution centers;
- The outlook for manufacturing is uncertain in all 3 markets;
- Detroit is projected to have the strongest economic performance of the three metros due to several planned, large-scale infrastructure projects and an emerging gaming industry in Detroit & Windsor Ontario.

Maine

Wage and salary employment trends for Maine, the State's three MSAs and its Counties are presented in Table II-15 and the following three graphs. For purposes of this analysis, Maine's 16 counties were divided into two regions. The 10 counties which may be directly impacted by one of the four conceptual east-west highway corridors are collectively labeled the "Study Area Counties" or "Northern Maine" and the remaining six are labeled "Southern Maine".¹²

The long range trend line in Figure II-11 shows that the State of Maine has added roughly 204,000 wage and salary jobs over the past 28 years ending in 1997. When the effects of business cycles are removed from the graph, the rate of annual job growth averages just over 1.5% per year. As is also shown, Maine's economy was characterized by unusually strong growth during the 1980s, followed by a severe recession and slow recovery thereafter. Annual job growth since 1992 has been comparable to growth rates during the mid-1970s.

Figure II-12 illustrates the substantial differences in growth rates which have occurred in Northern and Southern Maine over this same period. (These differences are further highlighted Table II-15, which provides individual employment trend data for each county.) Whereas in 1969 there were substantially more jobs in Northern than Southern Maine (220,000 compared to 160,000), the regions had achieved near equal employment levels by 1997 (299,000 compared to 286,000 jobs). In addition, the Southern Counties had completely recovered and exceeded 1990-92 recession job losses by 1997, while Northern Maine had yet to do so. Overall rates of job growth in Northern Maine were nearly flat

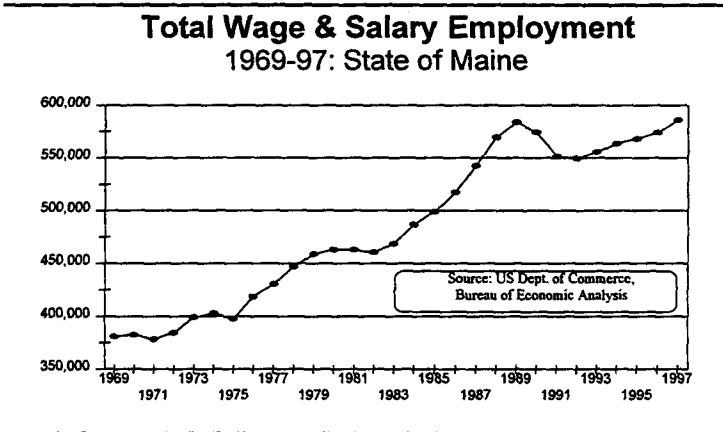


Figure II-11.

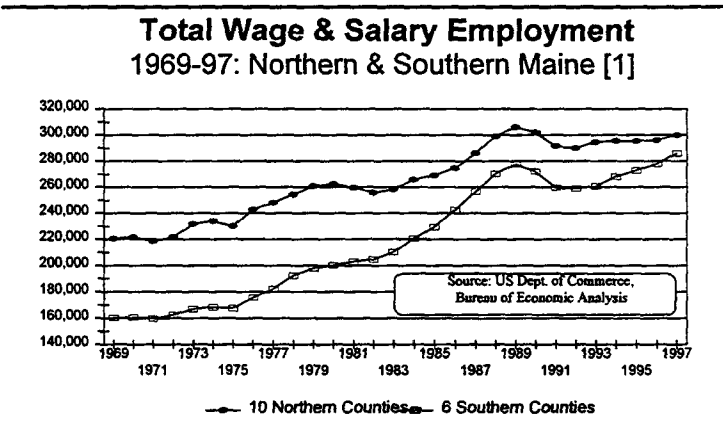


Figure II-12. [1] See footnote for definitions of Northern & Southern Maine

¹² The 10 Study Area Counties include Androscoggin, Aroostook, Franklin, Hancock, Kennebec, Oxford, Penobscot, Piscataquis, Somerset and Washington. The remaining Southern Maine counties consist of Cumberland, Knox, Lincoln, Sagadahoc, Waldo and York.

from 1992 to 1997.

Table II-15
Employment Trends: 1970-1997[1]
Maine, MSAs and Counties

	1970	1980	1990	1997	Annual Growth Rates		
					1970-80	1980-90	1990-97
Maine	382,416	462,824	574,507	586,076	1.9%	2.2%	0.3%
MSAs							
Bangor, ME (NECMA)	46,724	60,043	69,733	69,779	2.5%	1.5%	0.0%
Lewiston-Auburn, ME (NECMA)	38,121	42,063	44,854	46,643	1.0%	0.6%	0.6%
Portland, ME (NECMA)	88,295	111,576	155,838	170,574	2.4%	3.4%	1.3%
Northern Maine (Study Area) Counties							
Androscoggin	38,121	42,063	44,854	46,643	1.0%	0.6%	0.6%
Aroostook	32,940	33,748	37,094	31,575	0.2%	0.9%	-2.3%
Franklin	9,139	11,373	12,745	12,186	2.2%	1.1%	-0.6%
Hancock	11,564	15,107	20,608	22,905	2.7%	3.2%	1.5%
Kennebec	40,951	50,353	62,024	60,161	2.1%	2.1%	-0.4%
Oxford	14,926	18,142	17,931	18,374	2.0%	-0.1%	0.3%
Penobscot	46,724	60,043	69,733	69,779	2.5%	1.5%	0.0%
Piscataquis	5,326	6,280	6,544	6,339	1.7%	0.4%	-0.5%
Somerset	13,733	14,716	18,331	19,437	0.7%	2.2%	0.8%
Washington	8,231	10,686	12,344	12,569	2.6%	1.5%	0.3%
Subtotal:	221,655	262,511	302,208	299,968	1.7%	1.4%	-0.1%
Southern Maine Counties							
Cumberland	88,295	111,576	155,838	170,574	2.4%	3.4%	1.3%
Knox	9,196	11,778	15,039	18,369	2.5%	2.5%	2.9%
Lincoln	7,581	6,442	9,804	10,876	-1.6%	4.3%	1.5%
Sagadahoc	8,803	13,387	19,611	15,587	4.3%	3.9%	-3.2%
Waldo	6,538	6,784	7,754	8,856	0.4%	1.3%	1.9%
York	40,348	50,346	64,253	61,846	2.2%	2.5%	-0.5%
Subtotal:	160,761	200,313	272,299	286,108	2.2%	3.1%	0.7%

NOTE:

[1] Employment totals include civilian non-farm wage & salary employees only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table II-13 further illustrates how Maine's recent employment growth has varied greatly among the State's 16 Counties. Since 1990, six Maine counties have experienced net job losses, five have experienced growth rates below 1% per year and five counties generated job gains ranging from 1.3% to 2.9% percent. Only one of the five counties with post-1990 job growth above 1.0% per year (Hancock County) is located in "Northern Maine" as defined above.

Similar differences in the State's three metropolitan areas can be observed in Figure II-13. The Bangor MSA experienced virtually no net job growth from 1990 to 1997. By comparison, Bangor out-performed the state average in terms of job growth from 1970 to 1980, and had a healthy 1.5% rate of growth during the 1980s. The Lewiston-Auburn MSA has consistently under-performed the State's average rate of job growth since 1969, while the Portland MSA has exceeded the State average by about a percentage point.

County level population trends from 1990 to 1997 are contained in Appendix E. The population data show a similar growth pattern, with six counties experiencing population losses since 1990. Five counties have increased population by 4.0% or more since 1990 and the remainder have experienced minimal growth of under 4% or roughly 0.5% per year.

Total Wage & Salary Employment 1969-97: Maine Metropolitan Areas

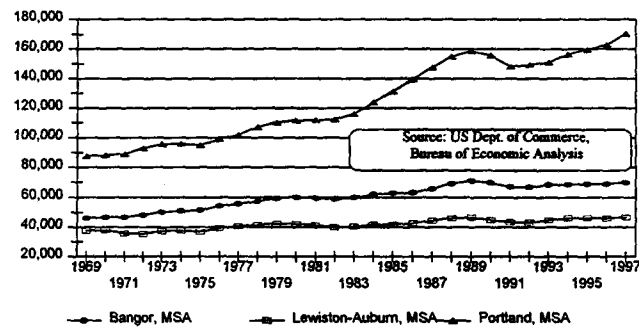


Figure II-13.

Summary Conclusions

In total, Maine is expected to grow by 71,000 people and gain 57,000 jobs from 1990 to 2000. Despite modest projections for the future, the State's population is still expected to grow by 275,000 between 2000 and 2025, while the economy adds another 134,000 jobs. However, population and employment growth during the 1990s has varied greatly among Maine's 16 Counties, and these trends are likely to continue without some form of major intervention to counteract long term trends.

Although Maine's economic growth has slowed considerably during the 1990s compared to prior decades, internal growth rates actually compare favorably in percentage terms to most other States in the Northeastern US, as well as the four Atlantic Provinces. Nearly all of the Northeastern US states and Eastern Provinces performed more poorly than Maine in terms of their respective rates of population and job growth during the 1990s. Similarly, nearly all are projected to slow in terms of population and job growth over the next two decades. Only Ontario is forecast to maintain annual growth rates above 1.0% over the long term. In light of these trends and forecasts, planning for an east-west highway through Maine should anticipate modest future growth rates, both internally, and in nearly all of the major consumer markets surrounding the state.

III

Transportation Infrastructure/Traffic Issues

Introduction

This chapter presents an inventory of the North Atlantic Regional transportation network. It qualitatively discusses the adequacy of the existing transportation infrastructure in Maine to attract regional economic markets of today and tomorrow, and provides an existing transportation context for the proposed East-West highway. The purpose and scope of this presentation is to provide a transportation context for the market trend data presented in Chapter II. The reader should understand that the Maine Department of Transportation is preparing a separate and more in-depth transportation analysis for this project, which includes the preparation of traffic forecasts for all five potential highway corridors.

The regional area of influence addressed in this chapter is depicted in Figure 1 and includes New York, New England, Maritime Canada, and Quebec. The following infrastructure elements are discussed:

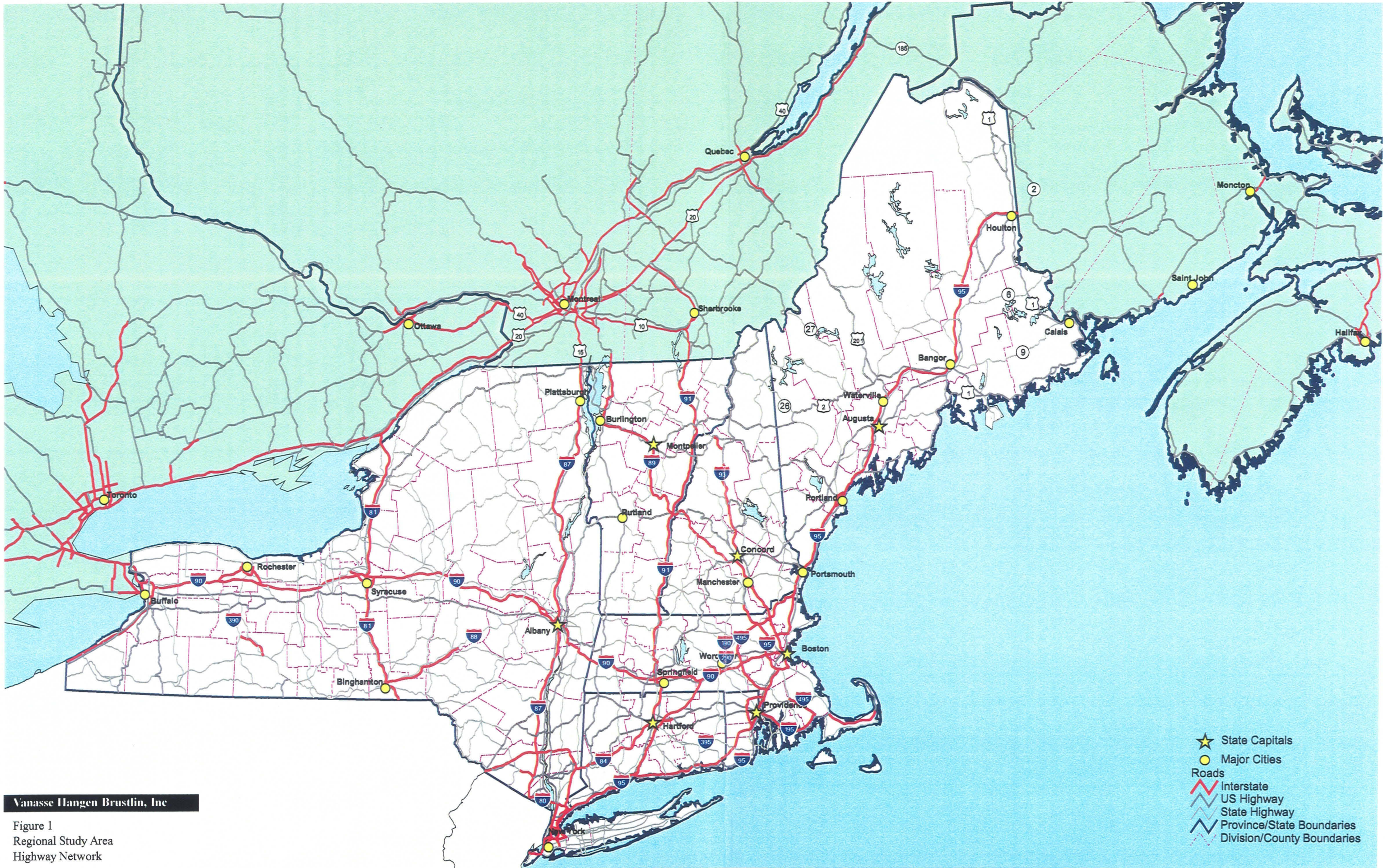
- Interstate highways and major arterial roadways;
- Rail infrastructure and intermodal facilities;
- Freight and passenger ports;
- Airports; and
- Ferry services.

Interstate Highways and Major Arterial Roadways

This section presents an inventory of interstate highways and major roadways in the study area that service interregional travel. Interregional travel consists of trips with origins and ultimate destinations that involve the crossing of a regional boundary. The highway system in the New England region is the most dominant element of the interregional transportation system.

The study area supports interregional highway travel on Interstates 95, 93, 84, 89, 91 and 90, as indicated in Figure 1. All of the interstates within New England, with the exception of I-84 in Connecticut and I-90 in Massachusetts, are predominately oriented north to south. These facilities are equipped with rest areas with full amenities. In Canada, the major regional highway facility is the Trans-Canada Highway.

The New England interregional highways were inventoried and capacity constrained areas were identified as part of the New England Transportation Initiative (NETI) study in 1995. NETI was a cooperative venture of the six New England states to develop a coordinated strategic transportation planning vision as directed by the various states Departments of Transportation, Environmental Protection, and Economic Development.



Vanasse Hangen Brustlin, Inc

Figure 1
Regional Study Area
Highway Network

Pertaining to interstate facilities, the study identified corridors where traffic demands approach capacity during the peak demand periods, resulting in peak hour congestion. According to the study, twenty percent of the existing interstate highway miles in New England are congested during the evening peak period. These congested corridors include:

- I-95 throughout the state of Connecticut, Rhode Island, and in Massachusetts where it merges with Route 128 outside of Boston.
- I-95 in New Hampshire associated primarily with toll collection activities and I-95 in Southern Maine.
- I-91 approaching Hartford, Connecticut, and in the vicinity of downtown Springfield, Massachusetts. I-91 north of Massachusetts also experiences off-peak congestion over the winter season on Friday and Sunday evenings from recreational travelers to major ski resorts in Vermont and New Hampshire.
- I-84 throughout Connecticut; and
- I-93 in Massachusetts (approaching Boston) extending to southern New Hampshire.

Interstates and Major Roadways - Maine

The largest and most important component of Maine's transportation system is its roadway network. Maine's roadway network totals over 22,000 miles, comprised mostly of principal and minor arterials, collector roads, and local roads. I-95 is the only regional interstate facility in Maine, connecting the state with Southern New England and Canada. Through Maine, I-95 is a north-south toll facility varying from four to six lanes.

Maine's National Highway System consists of 367 miles of Interstate highways, and 903 miles of principal arterial roadways. While interstates and principal arterial roadways comprise only about 12 percent of the total state system mileage, they serve over 60 percent of the total vehicle-miles of travel. Local roads comprise 61 percent of total road mileage but carry only about 11 percent of total vehicle-miles of travel. Maine's transportation system generates 13 billion vehicle-miles of travel (VMT) on the highway system.

Over the next 20 years, travel in Maine is expected to grow by approximately 18 percent, compared to a projected 6 percent growth in population and 12 percent growth in employment, indicating that Maine residents will continue to travel increasingly longer distances.¹

¹ Twenty Year Transportation Plan: 1998-2018, Maine Department of Transportation.

Existing urban and rural corridors that are projected in Maine's 20-Year Transportation Plan to become congested include:

- I-95, from Portland to Brunswick, and in Bangor;
- I-295 in Portland/South Portland;
- Route 1, from Bath to Wiscasset;
- Route 1, from Ogunquit to Wells;
- Route 1, from Rockland to Camden;
- Route 201, from Augusta to Gardiner;
- Route 302, from Portland to Windham.

I-295 in Portland and South Portland is currently the most heavily traveled urban highway corridor in Maine. I-95 between Portland and Brunswick is Maine's most heavily traveled rural highway experiencing moderate traffic congestion. Table 2-1 presents typical daily traffic volumes on I-95 and I-295, and other roadways in Maine that, for this study, are significant.

Table 2-1 **Maine's Major Roadways**

Roadway	Functional Classification	Description/Capacity	AADT ¹ (Various Locations)
I-95	Interstate	North-south access controlled highway Six-lanes from just north of the New Hampshire state line To the York/Ogunquit town line Four-lanes from the York/Ogunquit town line to Houlton	2,300 (Houlton) 36,800 (Yarmouth) 18,200 (Richmond)
I-295	Interstate	North-south access controlled highway Four to six lanes	51,900 (Portland area) 69,800 (S. Portland)
Route 9	Principal arterial	East-west, two-lane roadway from Bangor to Calais	7,600 (Calais) 2,100 (Amherst) 11,400 (Bangor)
U.S. Route 201	Principal arterial	North-south, two-lane roadway from Route 2 (Skowhegan) to Canadian border	1,420 (Jackman) 11,900 (Madison) 10,400 (Skowhegan)
U.S. Route 2	Principal arterial Minor arterial	East-west alignment from New Hampshire state line to Newport (principal arterial) North-south alignment from Newport to Houlton (minor arterial) Two-lanes	2,600 (Milford) 23,700 (Skowhegan) 18,100 (Farmington)
Route 1	Principal arterial Minor arterial Major collector	North-south, two-lane roadway from New Hampshire to Canada Minor arterial from Kittery to Topsham Principal Arterial from Topsham to Ellsworth Minor arterial from Ellsworth to Calais Major collector from Calais to Houlton Principal collector from Houlton to Fort Kent	2,000 (Fort Kent) 1,700 (Calais) 19,000 (Kittery)
Route 6	Minor arterial	East-west, two-lane roadway from Route 201 (Jackman) to the Canadian border at Vanceboro (designated as Route 6/15, 6/16, 6/155 west of Howland)	580 (Vanceboro) 4,150 (Lincoln) 9,450 (S. Lincoln)
Route 16/27	Minor arterial	North-south, two-lane roadway from Route 2(Farmington) to Canadian border	1,900 (Stratton) 8,400 (Fairbanks)

1. Two-way Average Annual Daily Traffic (AADT), expressed in vehicles per day (vpd).

Source: Traffic Volume Counts, Maine Department of Transportation, 1997.

Interstates and Major Roadways - Regional Context

Principal interstate facilities in the study area are described in the following paragraphs. Table 2-2 presents these interstate facilities. Traffic volumes are annual average daily traffic (AADT) volumes from published sources.

Table 2-2 Study Area Interstate Facilities

Roadway	Description/Capacity	Major Problem Areas/Congestion	Highest Recorded AADT ¹
I-95	North-south interstate from New York to Canada Four to eight lanes, divided	Throughout Connecticut, Rhode Island, and in Massachusetts where it merges with Route 128 outside of Boston. Southern Maine	144,000 (Stanford, CT) 170,000 (Providence, RI) 180,000 (Boston, MA)
I-91	North-south interstate from New Haven, Connecticut to Canada Four to six lanes, divided	Approaching Hartford, Connecticut, and in the vicinity of downtown Springfield, Massachusetts	137,000 (New Haven, CT)
I-84	East-west interstate from New York to Massachusetts Four to six lanes, divided	Throughout Connecticut	160,000 (Hartford, CT)
I-93	North-south interstate from Massachusetts to New Hampshire Six to eight lanes, divided	From Boston, extending north to southern New Hampshire	190,000 (Boston, MA)
I-89	Southeast-northwest interstate from Concord, New Hampshire to Burlington, Vermont, extending north to Canada from Burlington Four to six lanes, divided	None	33,000 (Lebanon, NH)
I-90	East-west interstate from Boston to Albany, New York and beyond Four to eight lanes, divided	Tollbooth delays approaching and departing metropolitan Boston	100,000 (Boston, MA)
Trans-Canada Highway	Major highway across Canada extending from Ontario to New Brunswick in study area Two to six lanes	In the vicinity of Montreal	136,000 (Montreal, CAN)

1. Two-way Average Annual Daily Traffic (AADT), expressed in vehicles per day (vpd).

Sources: 1997 Traffic Log, Connecticut Department of Transportation.

Special Count Report, Rhode Island Department of Transportation, 1995.

1996 Traffic Volumes, MassHighway Department.

1997 Traffic Counts, New Hampshire Department of Transportation.

Interstate 95

I-95 is a major regional north-south corridor from New York City to Houlton, Maine. Through Connecticut, I-95 runs along the Long Island Sound shoreline, providing a direct link to all points in Connecticut from New York City, Boston, and Providence. Through Massachusetts, I-95 approaches Boston and connects with Route 128 as the principal beltway around Metropolitan Boston. Continuing north to New Hampshire and southern Maine, I-95 runs along the Atlantic Ocean shoreline, connecting the major cities of Portsmouth, New Hampshire and Portland, Maine. From Portland, I-95 connects to Augusta and Bangor, Maine. I-95 continues north past Bangor, and terminates in Houlton at the Maine/Canada border crossing. I-95 connects directly to the Canadian road network.

As identified in Table 2-2, I-95 has several constrained areas with traffic demands up to 180,000 vehicles per day (vpd). Tourist information centers are provided on I-95 at the Massachusetts/New Hampshire line and in Maine at the Maine/New Hampshire line.

Interstate 91

I-91 is a major regional north-south highway linking southern Connecticut and the Metropolitan New York area with western Massachusetts, Vermont and New Hampshire. It continues north through New England to Canada. I-91 connects directly into the Canadian road network via Autoroute 55.

I-91 carries significant truck traffic and recreational travel to tourist destinations including the major ski resorts in Vermont and New Hampshire over the winter season. I-91 begins at I-95 in New Haven, Connecticut and continues north up the Connecticut River Valley through western Massachusetts and Vermont. Recurring congestion occurs from New Haven to Hartford, where I-91 carries up to 137,000 vpd. A tourist information center is provided on I-91 at the Massachusetts/New Hampshire line.

Interstate 84

I-84 travels southwest from central Massachusetts through central Connecticut into New York and is one of the primary highway routes between Boston and New York. I-84 provides direct access to Hartford, and indirect access to other communities via arterial connections. For the most part, I-84 is a six-lane interstate highway. Recurring congestion occurs on I-84 near Hartford, where it carries 160,000 vpd. A tourist information center is provided on I-84 in Connecticut, approaching the New York state line.

Interstate 93

I-93 is a north-south highway joining northern Vermont and New Hampshire with the metropolitan Boston area, Cape Cod, and Providence, Rhode Island. I-93 directly links the major cities of Boston, Manchester, and Concord. I-93 ends at I-91 in northern Vermont. Recurring congestion on I-93 occurs from the New Hampshire/Massachusetts border, to the metropolitan Boston area where I-93 carries up to 190,000 vpd. A tourist information center is provided on I-93 in New Hampshire at the New Hampshire/Vermont line.

Interstate 89

I-89 crosses the states of Vermont and New Hampshire in a southeast-northwest manner. I-89 links Burlington and Montpelier with Concord, New Hampshire. I-89 carries a significant amount of recreational travelers in the winter months. I-89 is relatively free of recurring congestion.

Interstate 90

I-90 is the major controlled access highway for east-west interstate travel in Massachusetts, directly linking Boston with Albany, New York and beyond. I-90 varies from four to eight-lanes carrying from 17,000 vpd near the New York/Massachusetts state line to 100,000 vpd approaching Boston. Tollbooth delays are fairly common, especially approaching and departing metropolitan Boston. A tourist information center is provided on I-90 in Massachusetts, in advance of the New York state line.

Trans-Canada Highway

The Trans-Canada Highway integrates Canada with the New England interstate network. The Trans-Canada Highway runs from St. John's in Newfoundland to Vancouver Island in British Columbia, a distance of nearly five thousand miles. The Trans-Canada was constructed in the 1950's and '60s as a two-lane roadway to provide a continuous link from the Atlantic to the Pacific Oceans. In the late 1980's, improvements were made to the Trans-Canada to address increasing traffic demands. Today, the Trans-Canada Highway varies from a two-lane road to a divided highway ranging from two to six lanes.

Located along the axis of the Saint Lawrence River, the Trans-Canada Highway connects major urban centers of Ottawa, Quebec, and Montreal within the study area. In the vicinity of Montreal, the Trans-Canada follows Route 20 on an east-west alignment, carrying up to 136,000 vpd. Between Montreal and Quebec City, traffic volumes are much lower - about 25,000 vpd. Through Quebec, volumes along the Trans-Canada increase to about 60,000 vpd. East of Quebec City to Riviere du-Loup (still designated Route 20), the Trans-Canada carries only up to 10,000 vpd.

At Riviere du-Loup, the Trans-Canada follows Route 2 on a north-south alignment, carrying only up to 5,000 vpd to the New Brunswick/Quebec province boundary. South of the New Brunswick/Quebec province boundary, traffic volumes on the Trans-Canada remain low, except in Fredericton, where demand increases to about 20,000 vpd. South of Fredericton, volumes return to about 5,000 vpd.

The Trans-Canada connects with Route 1 in Sussex, New Brunswick. Route 1 runs west through Saint John to Route 9 in Calais, Maine and links Route 9 with the Trans-Canada Highway. Traffic volumes on Route 1 in the vicinity of Saint John are 8,000 vpd.

Border Crossings

Border crossing data provides an indication of origins and destinations of regional traffic and activity between Maine and Canada. There are numerous border crossings between Canada and Maine, mostly between New Brunswick and Maine (Jackman and Coburn Gore are the only major border crossings between Maine and Quebec). Table 2-3 quantifies border crossing activity using data from the United States Customs Service.

For vehicles entering Maine, Calais and Madawaska account for about 60 percent of incoming passenger vehicles. In fact, the Calais crossing alone handles almost 40 percent of incoming vehicles. Calais, Houlton, and Jackman account for about 75 percent of total incoming trucks. About one third of the total traffic crossing at Jackman were classified as heavy vehicles.

Table 2-3 Maine/Canada Border Crossing Activity, 1997

Border Crossing	<u>Incoming Passenger Vehicles</u>		<u>Incoming Heavy Vehicles</u>	
	1997 Total	Percent	1997 Total	Percent
Calais (Route 9)	1,561,000	36%	126,000	29%
Madawaska (Route 1)	897,000	21%	21,000	5%
Van Buren (Route 1)	427,000	10%	19,000	4%
Houlton (I-95)	414,000	10%	108,000	24%
Fort Kent (Route 11) ¹	324,000	7%	13,000	3%
Jackman (Route 201)	217,000	5%	100,000	22%
Fort Fairfield (Route 1A) ¹	202,000	5%	15,000	3%
Bridgewater (Route 1) ²	103,000	2%	8,000	2%
Coburn Gore (Route 27)	76,000	2%	24,000	5%
Vanceboro (Route 6)	60,000	1%	5,000	1%
Limestone (Route 89) ¹	59,000	1%	9,000	2%

1. No data were available for the month of December.

2. No data were available for the months of November and December.

Sources: United States Customs Service, Mission Support Services, Office of Field Operations

Truck Flows

In support of the East-West Highway Project, truck volumes were estimated for various origin-destination (OD) pairs using data from a 1997 For-Hire Trucking Survey conducted by Statistics Canada and truck weight data collected on the Trans-Canada Highway by the New Brunswick Department of Transportation. The purpose of analyzing these data was to arrive at an order of magnitude estimate of truck flows between Canada and the United States.

The Statistics Canada survey estimated the yearly tonnage for truck shipments with either Canadian origins or Canadian destinations. The database contains about 29,000 records. The raw OD survey data were aggregated as follows:

- New Brunswick data were disaggregated by county;
- Relevant urban areas of Quebec (Montreal, Quebec City, and Sherbrooke) were disaggregated;

- United States OD's were aggregated by region (Southern New England, Northern New England, New York/New Jersey/Pennsylvania, Southeast United States, Midwest United States, and Western United States).

In past analyses, Statistics Canada has converted shipment data to trucks using 22 metric tons per truck as a conversion. The shipment data were therefore converted to truck flows using 22 metric tons per shipment (to be consistent with Statistics Canada). The following O-D tables were developed from the Statistics Canada data:

- Table 2-4: Annual Truck Flows (assuming 22 metric tons per truck);
- Table 2-5: Average Annual Daily Truck Flows (assuming 22 metric tons per truck);

The next step for the East-West Highway project is to use these truck flows to estimate the volume of trucks that could potentially divert to an East-West Highway through Maine due to significant travel time savings. These calculations will be made during the following phase of the analysis, after completion of the survey process.

Table 2-4
Statistics Canada For-Hire Trucking Survey, 1997 (CAN Origin or CAN Destination)
Origin Destination Pairs
Estimated Annual Truck Flows (Assuming 22 metric ton/shipment per Statistics Canada)

ORIGIN	DESTINATION																			Other United States										
	Newfoundland	Nova Scotia	NB (Saint John City)	NB (Charlottetown City)	NB (Sunbury City)	NB (Queens City)	NB (Kings City)	NB (Albert City)	NB (Westmorland City)	NB (Kent City)	NB (Northumberland City)	NB (York City)	NB (Carleton City)	NB (Victoria City)	NB (Madawaska City)	NB (Restigouche City)	NB (Gloucester City)	PEI	Ontario		Quebec (Sherbrooke)	Quebec (Montreal)	Quebec (Quebec)	Other Quebec	N. New England	S. New England	NY/NJ/PA	MidWest United States	Western United States	Southeast United States
Newfoundland	19,319	3,203	1,316	256	14	0	0	0	0	0	0	143	25	0	0	0	23	29	961	851	181	916	70	1,801	342	353	1	87	37	
Nova Scotia	4,747	175,292	12,903	1,852	1,119	273	1,153	505	26,220	719	3,976	2,419	1,847	288	140	632	1,740	5,781	8,461	3,487	161	6,174	1,801	3,316	4,488	1,027	73	4,417	545	
NB (Saint John City)	707	5,210	453	2,426	1,958	2,551	1,617	116	9,233	406	1,900	6,327	1,887	404	511	87	540	789	1,575	0	677	6	614	3,224	1,425	1,320	714	1	658	136
NB (Charlottetown City)	22	1,272	4,075	748	0	0	0	0	0	0	0	131	0	0	0	0	278	278	3,463	1,781	0	938	499	1,409	2,145	145	60	207	122	
NB (Sunbury City)	1	1,122	56	0	0	0	0	0	0	0	0	0	278	0	0	0	0	278	75	1	0	389	0	0	27	68	154	64	0	
NB (Queens City)	10	107	17,991	2,741	0	394	198	0	21	0	29	1,206	1	3	2	112	1	2	43	2	183	9	42	1,085	346	22	0	311	0	
NB (Kings City)	27	949	13,450	85	47	5,733	2,503	47	757	127	227	894	264	48	87	47	114	252	78	5	485	1,644	75	7	0	0	9	0	0	
NB (Albert City)	114	192	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0	0	0	0	0	0	0
NB (Westmorland City)	1,898	23,210	4,832	529	489	229	1,545	24	3,559	947	2,819	2,365	416	1,123	267	1,613	1,507	5,987	3,612	4	1,046	2	1,958	959	3,032	2,556	126	4	1,694	439
NB (Kent City)	2	808	879	209	15	38	108	0	566	64	1,910	239	72	0	0	140	292	64	781	245	0	477	292	7	215	182	4	410	58	
NB (Northumberland City)	517	2,839	3,016	595	12	1,723	22	0	47	164	1,893	169	0	0	203	641	4,230	0	788	8	245	1,828	2,306	595	1,523	891	0	928	482	
NB (York City)	236	1,345	21,896	762	0	47	665	75	516	729	291	132	66	81	51	28	407	343	1,990	0	244	0	799	14,829	1,563	2,368	4	0	137	12
NB (Carleton City)	741	1,783	14,273	38	6	0	581	0	698	0	823	136	11	2	764	56	56	87	2,813	1,781	0	1,277	1,568	115	383	6	0	156	86	
NB (Victoria City)	182	427	424	165	4	0	298	0	0	0	2138	100	0	0	45	0	46	6	1,034	4	1,035	630	3,256	176	211	0	365	7		
NB (Madawaska City)	16	21	6,356	108	31	49	105	0	22	0	353	310	666	0	14,864	1,691	1,740	6	488	216	158	4,992	4,546	417	641	195	7	95	20	
NB (Restigouche City)	1,306	83	358	0	0	0	0	0	0	0	1,893	169	0	29	9,208	3,639	82	0	1,221	504	112	2,297	9,038	82	250	115	0	124	263	
NB (Gloucester City)	109	1,186	172	0	0	0	1	643	169	3,762	64	0	0	1	51	501	1,024	74	3,454	950	169	3,411	178	1,008	2,408	602	46	624	257	
PEI	302	4,393	304	123	15	283	15	3,436	3	587	263	296	228	0	0	1	23	5,782	4,636	389	938	0	717	729	880	4,970	337	3	1,803	43
Ontario	5,894	23,593	2,130	1,928	1,057	62	655	25	15,723	145	391	1,845	981	104	227	277	421	1,451	2,141,569	3,548	135,526	2,614	174,277	13,187	15,538	174,045	218,440	12,928	56,031	269,404
Quebec (Sherbrooke)	454	396	0	0	0	1	736	13	7,193	228	46	855	312	258	1,638	283	355	453	110,609	8,112	3,512	3,350	149,858	6,000	10,148	35,932	15,850	891	9,177	10,738
Quebec (Montreal)	2,972	8,121	2,895	178	465	1	0	0	74	0	88	2	9	78	7	0	0	89	4,638	179	2,863	635	12,476	7,726	1,128	2,086	465	36	1,072	201
Quebec (Quebec)	3,481	8,792	2,693	330	409	13	295	16	6,243	944	1,293	3,095	438	1,593	6,901	509	1,718	5,681	231,182	64,186	144,841	10,922	739,750	27,711	24,310	77,659	43,064	2,441	26,391	31,272
Other Quebec	2	2,504	528	1,258	0	0	187	0	222	159	205	122	188	13	122	0	624	498	7,003	238	2,560	2,323	13,137	0	0	0	0	0	0	0
N. New England	266	1,599	99	204	0	0	0	0	838	146	146	50	0	5	0	0	133	64	14,236	187	8,078	282	13,507	0	0	0	0	0	0	0
S. New England	195	1,568	187	277	0	0	1	12	1,082	0	75	444	5	0	0	0	459	100	151,287	963	25,953	843	35,247	0	0	0	0	0	0	0
NY/NJ/PA	478	2,235	910	25	0	0	120	0	353	1	237	80	84	5	12	1	215	92	188,942	755	18,443	333	26,503	0	0	0	0	0	0	0
MidWest United States	6	46	0	0	0	0	0	0	30	0	0	2	1	4	0	0	2	4	13,114	0	4,660	1	1,955	0	0	0	0	0	0	0
Western United States	298	3,237	57	26	0	32	894	0	0	0	0	314	1	84	13	183	102	54	59,453	711	11,801	351	18,275	0	0	0	0	0	0	0
SouthEast United States	190	396	2	0	2	0	21	67	139	1	60	23	0	0	0	70	69	145	120,638	335	6,543	34	7,785	0	0	0	0	0	0	0

MidWest United States includes: NE, IA, IL, IN, OH, KY, TN, MS, AL, LA, TX, OK, KS, MO, AR.
 Western United States includes: CA, NV, UT, AZ, CO, NM.
 South East United States includes: WV, MD, DE, VA, NC, SC, GA, FL.
 Other United States includes: OR, WA, ID, WY, MT, ND, SD, MI, WI, MN.

Planned Upgrades/New Highway Facilities

Highway mobility improvement projects in Maine identified in the Six Year Transportation Plan include:

- Augusta to Manchester, Route 202 - involves the construction of additional travel lanes;
- Portland, I-295 Connector - construction of a new highway from I-295 to Portland Harbor;
- Portland, I-295 - reconstruction of the Forest Avenue interchange.
- Saco, Route 1 - widening the 4-lane section between I-195 and Route 98.

In New Brunswick, a new 195 kilometer, four-lane toll highway is planned from Fredericton to Moncton, New Brunswick. This toll highway will serve as an alternate route to the Trans-Canada Highway, with anticipated time saving of approximately 30-35 minutes from end-to-end. The new highway will be equipped with electronic toll collection technology and is anticipated to be open to traffic in November 2001. The new highway will be designated a truck route, requiring trucks traveling through the region to use the toll road, making existing travel routes such as the Trans-Canada safer for passenger traffic. The planned facility ends at Route 2 (Trans-Canada Highway) at Fredericton which continues west to I-95 in Houlton, Maine.

Another key infrastructure project that was completed in late 1997 was the construction of the Confederation Bridge between the provinces of Prince Edward Island and New Brunswick. The 12.9 km bridge physically connects the province of Prince Edward Island with mainland New Brunswick.

In Quebec, bypass projects are planned for the cities of Montreal and Sherbrooke. The Route 73/ Autoroute 173 corridor from Quebec City to Beauceville will be upgraded to a 2-lane controlled access roadway. South of Beauceville, Autoroute 173 continues south and connects with Maine's Route 201 in the vicinity of Moose River, Maine. No other major corridor improvements are planned for roads connecting Quebec and Maine.

Rail Infrastructure

The study area rail infrastructure network is depicted in Figure 2. Similar to the interstate facilities in the study area, the rail network is predominately oriented north to south in New England, and especially Maine.

In New England, there are 31 railroads that own or operate rail lines in New England. The major, regional carriers in the study area are Amtrak, Conrail, Guilford Transportation Industries, Canadian American, Bangor and Aroostook, St. Lawrence and Atlantic, Central Vermont, and Providence and Worcester. Two public agencies in the region, the Massachusetts Bay Transportation Authority (MBTA) and the Connecticut Department of Transportation operate substantial commuter rail networks in Boston and southwest Connecticut, respectively.



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Figure 2
Regional Study Area
Multimodal Infrastructure

Intercity passenger service in the study area is provided by Amtrak and includes shore-line service from Boston to New York City and points south, and inland service from Boston to points west and south via Springfield and Hartford. Amtrak service also extends through Vermont, to Montreal. The only Amtrak destination in New Hampshire is in Claremont. Passenger rail transportation is currently not provided to Maine by Amtrak, although a Portland to Boston connection is planned to be in operation in the next 2 to 3 years.

Maine Rail Infrastructure

The State of Maine has over 1,100 miles of railroad track operated by seven private railroads. Pulp, paper, lumber, and other wood products account for a majority of the total freight rail tonnage originating within Maine. Major rail connection points where various lines meet are at Brownville and Hermon (west of Bangor).

Maine is served by three regional railroads: The Bangor & Aroostook Railroad (BAR); the Guilford Rail System, and the St. Lawrence & Atlantic Railroad. All three have connections with large national carriers. The BAR connects Searsport, Patten, Limestone, Ashland, Fort Kent, and Van Buren. The main track extends predominately north to south from Searsport, north to Van Buren. Minor east-west spurs from the mainline branch off at Houlton and Presque Isle.

The Guilford Rail System is a regional rail line that runs from Mattawamkeag, southwest to Bucksport, Portland, and Portsmouth, and continuing through Lawrence, Massachusetts to Rotterdam Junction, New York. In the study area, the St. Lawrence & Atlantic Railroad runs from Montreal to Portland. This railroad is affiliated with the Canadian National Railroad and connects Maine with the U.S. Midwest and Halifax, Nova Scotia.

Other railroads in Maine include:

- Eastern Maine Railroad/New Brunswick Southern Railroad -operates between Brownville junction and Vanceboro, continuing to St. John, New Brunswick.
- Belfast & Moosehead Lake Railroad -a relatively small length of rail track (about 33 miles) between Belfast and Burnham Junction, Maine. Since the mid-1980's, excursion trains have been the primary traffic on this line.
- Maine Coast Railroad - operates along the coastline, connecting Rockland, Brunswick, Wiscasset, and Augusta on about 90 miles of track supporting freight and excursion services between Brunswick to Rockland and Augusta.
- Canadian American Railroad - operates from Brownville Junction to the Quebec border and beyond.

Maine Truck/Rail Intermodal Facilities

Intermodal transfer facilities provide for the transfer of shipments between rail and truck modes. In Maine, these facilities currently exist in Auburn (on the St. Lawrence & Atlantic Railroad), in Waterville (on the Guilford Rail System) and in Bangor (on the BAR). Another facility will be constructed in the spring of 1999 in Presque Isle, Maine. This facility will enable cargo containers to be transferred to train flatbeds, allowing rail

users and freight haulers the opportunity for dedicated train service to southern Maine and other parts of New England.

In Jackman and Houlton, Maine, facilities are planned which will enable the transfer of forest products from truck to rail. These facilities will shift long-haul truck cargo to the existing rail line, thereby reducing heavy vehicle traffic from Maine roadways.

Freight and Passenger Ports

Principal ports for freight and passenger transportation in New England include:

- Eastport, Portland, and Searsport, Maine;
- Portsmouth, New Hampshire;
- Boston, New Bedford, Fall River, Massachusetts;
- Providence, Davisville, Rhode Island;
- New London, New Haven, Bridgeport, Connecticut.

Maine's Ports

Maine's three deep water ports of Eastport, Portland, and Searsport have shown steady, consistent growth and expansion in the past 10 years. Portland is a public/private facility specializing in containers and breakbulk and bulk products. Direct rail access to the Port is provided by the Guilford Rail System. The port has a public container operation that allows for the transfer of containerized cargo to trucks. Portland is the only operating container facility in New England besides Boston. The NETI study compared New England Port Volumes from 1991 and concluded that Portland carried the second highest volume of products in the New England region, second to Boston. Planned improvements to this port include the construction of an I-295 connector to improve highway access to the port as well as dedicating more storage for the container operation.

Searsport and Portland also have direct rail access for non-containerized cargo. Eastport is primarily export-based. Eastport's primary customer is Georgia Pacific which exports value-added forest products. Eastport has the deepest water of any port between Halifax, Nova Scotia and Norfolk, Virginia and is the only export-based port in New England. A new \$19 million, 634-foot pier was constructed in July 1998 at the port of Eastport. Searsport has access to the Bangor and Aroostook Railroad and currently handles bulk and breakbulk products. Planned redevelopment efforts at Mack Point in Searsport include two new modern piers with four fully serviceable berths providing increased capacity and more efficient service at Searsport.

According to the 20-Year Transportation Plan, Maine's port traffic was about 1.4 million tons in 1996 - an increase of 100 percent from 1986. Maine's ports have experienced average annual growth rates of about 7.6 percent over the last 10 years. This growth is attributable to continuous improvements to, and development of Maine's port infrastructure resulting in Maine shippers using Maine ports instead of out-of-state and Canadian ports. ²

² Integrated Freight Plan. Maine Department of Transportation Office of Freight Transportation. May 1998.

Canada's Ports

Canadian national marine policy categorizes ports as:

- National Ports (Canadian port authorities)- Canadian port authorities (CPAs) are independent management corporations mandated to operate ports deemed essential to domestic and international trade, forming a national ports system.
- regional and local ports - These ports, smaller than the CPAs, serve regional and local economic, tourism and recreational needs.
- remote ports.

Canada's major commercial ports in the study area are Montreal, Halifax, and St. John. In 1996, these ports handled 7.9, 3.2, and 0.23 million metric tons of container traffic. Comparatively, Portland handled about 49,000 metric tons in 1996.³

Table 2-6 provides an indication of activity levels at major study area ports for containerized traffic. As the table indicates, Maine's capabilities in the area of container traffic are limited to Portland. Regionally, Portland attracts a relatively small share of the container traffic.

Table 2-6 Study Area Port Container Traffic, 1996

Port	TEU's ¹	Metric tons
Montreal, Quebec	852,530	7,948,309
Halifax, Nova Scotia	392,273	3,178,392
Boston, MA	127,087	939,852
St. John, New Brunswick	37,026	234,229
Portland, ME	4,177	49,294

1. TEU is the standard international unit of measurement for containers. One TEU is almost equivalent to one 20-foot container.

Source: American Association of Port Authorities Advisory

Airports

The New England region is home to several commercial airports with significant levels of scheduled passenger service. In Maritime Canada and Quebec, there are 11 airports that are part of Canada's National Airport System and have regional significance (this includes Ottawa airport in Ontario).

³ Integrated Freight Plan. Maine Department of Transportation Office of Freight Transportation. May 1998.

Air Passenger Traffic

Demand for air passenger transportation is significantly effected by the regional economy and is measured by the level of passenger activity in terms of enplanements, deplanements and connections. By this measure, Logan International captures the majority of this demand in New England serving 25.1 million passengers in 1996. Bradley International and TF Green (Providence) also capture significant market shares, serving 5.3 and 2.5 million passengers in 1996, respectively. Of the Canadian airports in the study area (including Ontario), Toronto International serves as the hub for air passenger traffic, serving 22.7 million passengers in 1996 - slightly less than Logan International. Dorval Airport in Quebec served 6.1 million and Ottawa served 2.8 million passengers. Table 2-7 summarizes these activity levels for 1996.

Table 2-7 Study Area Major Airports

Airport	City, State/Province	1996 Passenger Activity ¹
Logan	Boston, Massachusetts	25,135,000
Toronto	Toronto, Ontario	22,669,000
Dorval	Montreal, Quebec	6,142,000
Bradley	Hartford, Connecticut	5,280,000
Ottawa	Ottawa, Ontario	2,763,000
TF Green	Providence, Rhode Island	2,490,000
Halifax	Halifax, Nova Scotia	2,462,000
Mirabel	Montreal, Quebec	2,391,000
Portland International Jetport	Portland, Maine	1,140,000
Manchester	Manchester, New Hampshire	1,000,000
Burlington	Burlington, Vermont	830,000
Bangor International	Bangor, Maine	720,000

1. Passenger activity includes enplanements, deplanements, and connecting passengers.

Sources: Logan Airport 1996 Annual Update, September 1997.

Statistics Canada

Air Freight Traffic

A competitive global economy relies on timely and efficient delivery of goods. This role is increasingly assumed by air cargo carriers. In New England, Logan Airport serves as the hub for international air freight movements, handling about 450,000 tons of cargo per year.⁴ Of the Canadian airports in the study area (including Ontario), Toronto International Airport and Mirabel Airport handle the bulk of cargo shipments. Toronto handles about 340,000 tons annually and Mirabel about 80,000 tons annually.⁵

In the past decade, the growth of service-based industries in Maine has resulted in dependence on air freight to move time sensitive goods, which are typically small, lightweight, and high-value. Air freight is a relatively small (tonnage wise) but economically important part of freight transportation within the state of Maine, especially for the transport of perishable commodities such as marine resources (lobsters) and time-sensitive goods such as overnight packages and mail. Air freight in Maine is handled primarily at the Portland International Jetport and the Bangor International Airport.⁶

Ferry Services

This section describes the ferry services that are provided in the study area. Figure 2 depicts these major ferry routes.

Maine ferry service

Passenger transportation via ferry is provided by the Maine State Ferry Service. The system is owned by the State of Maine, and provides year round service. Scheduled service is provided to Islesboro, North Haven, Vinalhaven, Swan's Island, Manticus, and Frenchboro, as follows:

- Vinalhaven Ferry -between Vinalhaven and Rockland, operating year-round on weekdays and weekends;
- North Haven Ferry -between North Haven and Rockland, operating year-round on weekdays and weekends;
- Maticus Island Ferry -between Rockland and Maticus Island, operating on select days of the year (about 24 days/year);
- Swans Island Ferry -between Swans Island and Bass Harbor, operating year-round on weekdays (except Thursdays) and weekends;
- Islesboro Ferry -between Islesboro and Lincolnville, operating year-round on weekdays and weekends;
- Frenchboro Ferry -between Bass Harbor and Frenchboro, operating year-round, limited weekday and weekend service.

⁴ Logan Airport 1996 Annual Update; September 1997.

⁵ Source: Statistics Canada

⁶ Integrated Freight Plan, Maine Department of Transportation Office of Freight Transportation, May 1998.

Ridership on the ferry service has increased by 38 percent from 1987 to 1997. In 1997, ridership totaled over 460,000 passengers. Issues facing Maine's ferry service include vessel replacement needs, pier and bridge improvements, parking shortage, demand approaching capacity for the Vinalhaven service, transportation of wastes and fuels, and increased demand to island destinations.

Long-distance luxury cruises to Yarmouth, Nova Scotia are also provided on a reservation basis, from Portland and Bar Harbor. This service is privately run, and not affiliated with the Maine State Ferry Service.

Other Study Area Ferry Services

Year-round ferry service is also operated out of the Metropolitan Boston area and is primarily commuter oriented. Recreational ferry services operating on a seasonal basis are provided from Boston to the Boston Harbor Islands, Nantucket Island, Martha's Vineyard Island, and to Provincetown, on the tip of Cape Cod.

In Connecticut, commuter oriented ferry service links southern Connecticut with Long Island, New York. Like Maine, Rhode Island ferry service is recreational-oriented, from Providence to Block Island and from Point Judith to Block Island.

Regional Transportation Planning

This section overviews regional short and long-term transportation plans for the State of Maine and for Maritime Canada and Quebec. The following plans were reviewed:

- The Maine Department of Transportation Six Year Plan
- The Maine Department of Transportation Twenty Year Plan
- Transportation in Canada Annual Report

MDOT Twenty Year Transportation Plan

In addition to this East-West Highway study, several other major feasibility studies in Maine are currently underway. Some of these studies identified in the Twenty Year Transportation Plan include:

- Bath Westerly Access - feasibility of strategies to improve Bath area access to and from points west;
- Eastport Freight Access - feasibility of highway/rail strategies to improve inland access to the port of Eastport;
- Gorham-Portland Corridor - preliminary engineering and environmental studies of bypass alternatives around Gorham village;
- Houlton-Ft. Kent Corridor - feasibility of strategies to improve north-south interstate access in Aroostook County;
- Rockland Waterfront Corridor - feasibility of strategies to improve Route 1 access to the Rockland waterfront;
- Route 9/Interstate Access - feasibility of strategies to improve access between Route 9 in Eddington and the Interstate Highway System;

- Skowhegan Transportation Study - feasibility of strategies to relieve congestion and improve safety in the Skowhegan area; and
- Wiscasset Bypass Study - preliminary engineering and environmental studies of bypass alternatives and other Route 1 improvements.

MDOT Six Year Transportation Plan

The Six-Year Transportation Plan proposes the initiation of the following major new feasibility studies:

- Bangor Area Interstate Corridor Study - to determine an appropriate capital investment strategy that maintains the structural integrity of I-95 bridges in the Bangor area;
- Calais-St. Stephen Border Crossing Study - to conduct a location and environmental assessment for a proposed new border crossing in the Calais/St. Stephen area.
- Ellsworth Corridor Study - to identify feasible long-term solutions to growing traffic congestion in Ellsworth and on roadways approaching this urban area (Route 1, 1A, and Route 3);
- Newport Interstate Access Study - to find a feasible means of improving access to I-95 from industrial park land in the Newport area;
- Portland Area Interstate Corridor - to find a cost-effective means of minimizing traffic congestion on the I-295 corridor in Portland and South Portland;
- Portland-Brunswick Interstate Corridor - to develop a long-term strategy for mitigating growth in traffic congestion on I-95 between Portland and Brunswick.

Transportation in Canada Annual Report

The Transportation in Canada 1997 Annual Report provides a summary of multimodal financial and operating statistics for the year focusing on trends in Canada's freight transportation. The report states that:

- Over the past 16 years, freight transportation has shifted to the trucking mode - from a 21 percent share of the gross domestic product in 1981 to a 35 percent share in 1997, attributable to factors such as "just in time" delivery and more competitive trucking costs versus other modes.
- Since 1988, Canada's exports of goods to the United States have increased by 114 percent, while exports to the rest of the world have increased by 33 percent.
- In 1988, Canada's export business to the United States represented 15 percent of all goods moved in Canada. In 1997, this increased to 23 percent.
- In 1997, over two thirds of Canada's imported goods came from the United States.
- Canada's roadway infrastructure plays an important role in freight transport. Almost half of Canada's exports in 1997 were shipped by road. For imports, road is by far the most used method of shipping, at 62 percent.

Summary Conclusions

While interstates and principal arterial roadways comprise only about 12 percent of Maine's total state system mileage, they serve over 60 percent of the estimated 13 billion vehicle-miles of travel (VMT) on the state's highway system. In addition, travel in Maine is expected to grow by approximately 18 percent over the next 20 years, adding another 2.3 billion vehicle miles to the existing system. These projections indicate that Maine residents will continue to travel more frequently and over increasing distances in the future. In addition to providing potential economic development benefits to the state, the proposed east-west highway may also play a role in accommodating future in-state travel demand. Both functions will be evaluated in later phases of this study.

According to 1997 border crossing data, approximately 4.3 million passenger vehicles and 450,000 heavy vehicles entered the State of Maine at 11 Canadian border crossing locations. This translated to an average of roughly 11,900 incoming passenger vehicles and 1,230 incoming trucks per day at all locations. Approximately 35% of all incoming Canadian traffic entered Maine through Calais. Calais and Madawaska accounted for about 60 percent of incoming passenger vehicles, while Calais, Houlton, and Jackman together account for about 75 percent of total incoming trucks.

Consistent with the above border crossing counts, average daily traffic volumes along most of the major roadways located at Maine's borders with Canada are light. Average annual daily two-way traffic counts taken at points near the state's major border crossings are generally below 2,500 vehicles per day with the exception of Route 9 in Calais, which carries 7,600 vpd. Planning is under way to improve the border crossing at Calais/St. Stephen, but no other infrastructure investments appear to be under consideration for the state's remaining border crossings.

Available traffic volume data suggest that the daily number of inter-provincial trips along the Trans-Canada Highway from the Atlantic Provinces to points west of Quebec City, is also modest. This observation is based upon the steadily declining traffic counts along major segments of the Trans-Canada moving eastward from Montreal. In particular traffic counts along most sections of the Trans-Canada from Riviere du-Loup to Route 1 in New Brunswick are in the 5,000 vpd range. In addition, the estimated number of daily truck trips between all of the Atlantic Provinces and Ontario/Quebec are of an order of magnitude of a few hundred per day. Origin-destination pairs also indicate that only a percentage of these trips would be potential candidates for diversion to an east-west highway through Maine.

Other components of Maine's freight transportation system, including rail/intermodal facilities, ports and airports, are experiencing growing demand. The potential of an east-west highway to enhance the operations of these facilities should also be examined as the study progresses.

IV

Commodity Flows

Introduction and Methodology

The purpose of this section is to analyze and describe the existing flow of commodities into and out of the State of Maine and the Atlantic Provinces. Although previous sections of this report have discussed trends in US/Canada trade, cross border truck traffic and similar issues, the following analysis greatly expands the level of detail provided. The analysis addresses the types of commodities moved through these regions, the origins and destinations of shipments and the modes of transportation used to move various types of commodities. Data presented for the State of Maine includes commodity flows to and from other US markets, in addition to imports and exports to/from Canadian markets. Similar information is also provided for the Atlantic Provinces.

All values discussed in this section are measured in tons rather than dollars, in order to provide a basis for eventually converting the data to numbers of shipments and/or vehicle trips. Commodity flows are estimated for calendar year 1997. Forecasts of future originations and attractions of commodities by Maine's Counties will be addressed in Phase II.

The methodology used to generate the commodity flow estimates is described in the following paragraphs.

Commodity Compass Freight Database

Standard & Poor's DRI has developed a comprehensive forecast database of freight flows, with identification of origins, destinations, commodities, and primary shipment mode. The database covers all counties of the United States, and also includes overland trade between U.S. counties and Canadian provinces and Mexican states. Commodities are specified to the four-digit STCC level. Modes are distinguished as air, inland water, rail carload, rail intermodal, private truck, truckload, and less than truckload.

The database was designed to support flexible, diverse, and varied custom aggregations. The forecasts presented and discussed in this section were developed through geographic, commodity, and modal aggregation of the more detailed forecasts in the Commodity Compass Freight Database. Consequently, the following discussion of the methodology supporting the Freight Database provides an understanding of how the estimates were constructed.

Forecasting Process

Commodity Compass Freight Database identifies historical patterns of freight flows by origin, destination, commodity, and mode. These flows are then attributed to production and demand by commodity and county, and to imports and exports for counties with ports. From the perspective of domestic transportation, the volume of freight originating in a county is the sum of what is produced in the county plus what enters the United States through the county's ports. Similarly, the total domestic freight terminating in a county includes both what is used there and what goes there to leave the nation through the county's ports.

Crucial resources supporting the historical picture included production and demand data from DRI's Regional Economic Service, international shipping volumes for DRI's World Sea Trade Service, domestic freight volumes from Reebie Associates' Transearch database, and import and export volumes from the Port Import/Export Reporting Service (PIERS).

Central to the development of the Commodity Compass Freight Database and particularly the forecasts to be developed in Phase II, is a set of mode- and commodity-specific gravity models. These gravity models mathematically formalized the historical patterns among the geographies of freight origination (production plus imports), termination (domestic demand plus exports), and commodity movements. A separate gravity model was developed for each commodity/mode combination. A fundamental premise of the gravity model is that, other things being equal, demands for a commodity are more likely to be served by nearby rather than distant sources.

Data Limitations

While the database provides extensive modal and commodity coverage, there are omissions. These gaps appear in the historical portrait and are perpetuated in the forecasts. Most of the omissions arise in the truck modes. We have neither private truck nor truckload data for commodities with the following two-digit Standard Transportation Commodity Codes (STCC):

08	Forest Products
09	Fresh Fish or Marine Products
10	Metallic Ores
11	Coal
13	Crude Petroleum or Natural Gas
14	Nonmetallic Minerals
19	Ordnance or Accessories
40	Waste or Scrap Materials
41	Miscellaneous Freight Shipments
42	Shipping Containers
43	Mail or Contract Traffic
44	Freight Forwarder Traffic
45	Shipper Association Traffic
46	Miscellaneous Mixed Shipments
47	Small Packaged Freight Shipments

The pattern of omissions for less-than-truckload is similar, except that we lack data for farm products (STCC 01), but have it for ordnance (STCC 19). There are some minor omissions for other modes, with rail the most complete and water and air slightly less so.

The omissions are primarily in commodities for which the missing modes account for small shares of total tons and smaller shares of ton-miles. While we believe the omissions are of minimal importance to the broad picture of freight flows, there will inevitably be potential applications in which they are burdensome. For example, some of the above two-digit STCCs, particularly STCCs 08 and 09, are obviously important to Maine. According to the Census of Transportation, 1992 Truck Use Survey, "logs and other forest products" and "farm products" were both among the top ten Maine commodities shipped by truck, accounting for 6% and 10% of total truck movements, respectively.¹

Therefore, the reader should note that the following tonnage estimates of commodity movements by truck may be modestly understated by the omissions of the above commodity groups. However, these omissions will not result in similarly understated estimates of truck trips and resulting truck traffic forecasts for the East-West Highway. The truck traffic estimates/projections developed by MDOT capture all truck movements, including those which may be omitted in this analysis.

Another omission is the absence of pipeline data. The significance of this is somewhat different, in that pipeline is a very significant mode for some of few commodities moving by it. Excluding pipeline means that our coverage of those commodities is severely restricted.

A second class of limitation arises out of our treatment of modal split. Modal choice is not treated as sensitive to price or service characteristics of individual modes. Modal shares evolve over time in response to relative growth or contractions of commodities for which individual modes have advantages. For example, if the commodities in which rail intermodal has a large share grow more quickly than do other commodities, the total rail intermodal share will grow in the forecasts

Regional Definitions

The movement of freight between Maine and the rest of the US and Canada depends on a complex set of economic and trade relationships between both rural bulk commodity production regions and manufacturing centers located in the Northeastern and Mid-Western US and Atlantic Canada. A significant amount of truck, rail and waterborne freight traffic also moves between Maine and other regions of the US and Canada, especially the Southeast and Mid-Atlantic states.

The objective behind designating trading regions in this study is to provide a basis for understanding the flow of commodities to and from Maine and to establish a quantitative basis for evaluating the effects of constructing a major East-West highway through the state.

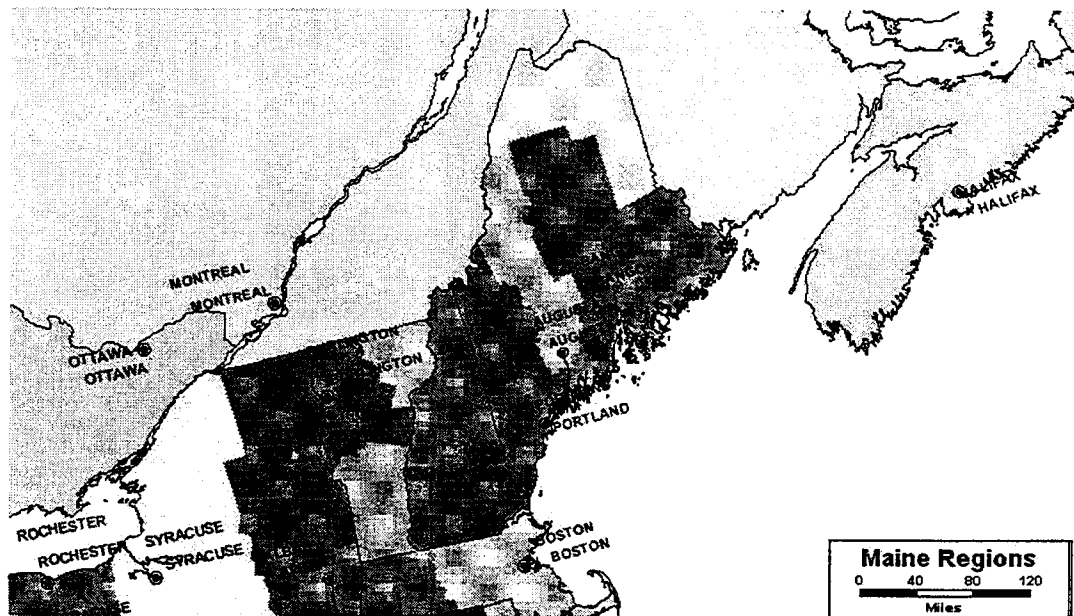
The three figures below show in progressively larger scale, the geographic detail used to develop estimates of current freight volume and forecasts of future commodity flow. Within the State of Maine, individual counties and aggregations of two to three of the

¹ MDOT Office of Freight Transportation, Integrated Freight Plan, May 1998, prepared by Cambridge Systematics, page 3-4.

more sparsely populated counties were used to define a detailed set of regions (see Figure 4-1). These county-based regions correspond to the geography used in the economic policy simulations developed in other parts of the studies developed to analyze the effects of the proposed highway and alternatives on the economy of Maine. The configuration of primary roadways in New Hampshire, Vermont, Massachusetts and Eastern New York were used in conjunction with the location of major metropolitan hubs to establish groups of counties in those states that were economically linked to each other. These regions were generally smaller than economic regions designated by the Bureau of Economic Analysis (so-called BEA regions). They, too, are shown in Figure 4-1, as are some of the major metropolitan areas around which these multi-county regions are centered.

Figure 4-1

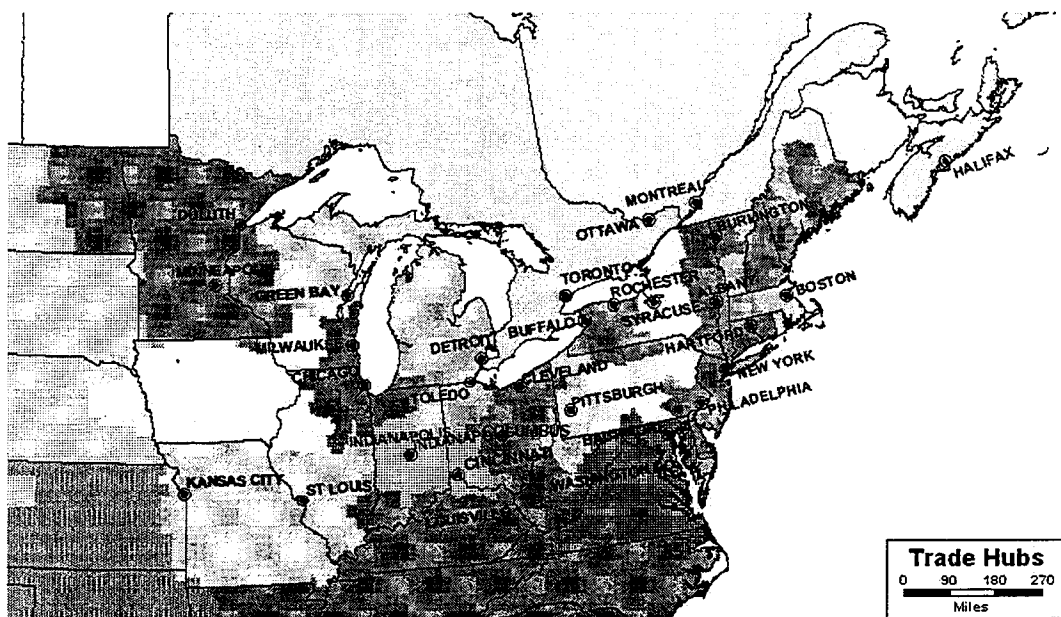
Maine Regions



Special attention was focused on a number of significant trading regions in the US and Canada located outside of the immediate New England region. These areas, located primarily in central and western New York, the Great Lakes and mid-Atlantic regions, and Ohio River Valley consist of BEA regions or aggregations of these regions as defined by the Bureau of Economic Analysis in 1995. Figure 4-2 shows the configuration of these regions, and identifies several of the metropolitan areas that serve as hubs for commerce within them. Commodity flows between Maine and these regions, including the Provinces in central Canada are probably the most important to understand with regard to planning for a major East-West highway in the State of Maine. Estimates of current freight flow presented in the body of this section show how flows between Maine and these regions varies with respect to inbound and outbound flow as well as with respect to the kinds of commodities moved.

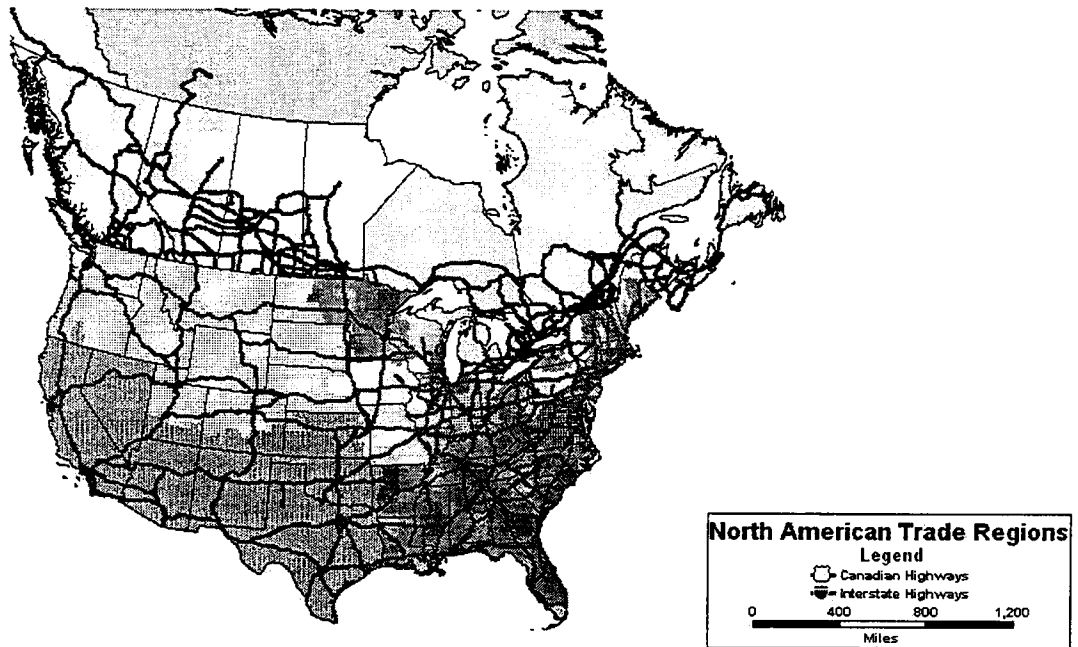
Figure 4-2

Trade Hubs



Accounting for all of the freight flow to, from and through the State of Maine requires an examination of the remainder of the US and Western Canada. We have assumed, based on a preliminary analysis of the commodity flow estimates developed for this study, that the areas outside of those shown in Figure 4-2 can be characterized as multi-state regions roughly corresponding to the Southeastern, Southwestern and Northwestern US. Most of these large-scale regions are served by either north-south long-haul trucking, which would not involve significant East-West movements through Maine, or the movement of commodities by rail or water over distances not usually considered economically feasible for truck traffic. The breakdown of these remaining three regions and the configuration of all major highways that serve them and the other sub-state regions designated in the previous figures are shown in Figure 4-3.

Figure 4-3 North American Trade Regions



Overview

Maine

In 1997, 11.2 million tons of cargo left the state of Maine by rail, truck, or water. Tonnage leaving the state travels primarily by truck, which accounted for 95.2% of tonnage in 1997. Rail accounted for 3.8% while shipments by water accounted for only 1% of total outbound tonnage in 1997.²

**Table 4-1 Maine Inbound-Outbound Tonnage Summary
1997**

	Outbound		Inbound	
	Tons	Percent	Tons	Percent
Truck	10,674,541	95.2%	3,696,490	52.6%
Rail	430,882	3.8%	409,386	5.8%
Water	113,141	1.0%	2,916,968	41.5%
Total	11,218,564	100.0%	7,022,844	100.0%

Inbound tonnage totaled 7.0 million tons in 1997. Trucks are the most popular mode of transportation to move cargo into the state, with 52.6% of total tonnage entering the state by truck. Much more tonnage enters the state via water transport than leaves the state by the same mode; 41.5% of 1997 tonnage entered Maine by boat. Rail accounted for only 5.8% of tonnage entering the state in 1997.

² All tonnage estimates presented in the following tables exclude certain commodities moved by truck. Please refer to pages IV-2 and IV-3 for an explanation of data limitations.

Atlantic Canada

In 1997, 8.3 million tons of freight left Atlantic Canada, 54.1% by truck, and 45.9% by rail. Inbound freight is only slightly higher than outbound at 8.5 million tons in 1997. The tendency is slightly more toward rail freight, however, which accounts for 55% of total inbound tonnage.

**Table 4-2 Atlantic Canada Inbound-Outbound Tonnage Summary
1997**

	Outbound		Inbound	
	Tons	Percent	Tons	Percent
Truck	4,505,951	54.1%	3,841,426	45.0%
Rail	3,818,004	45.9%	4,688,521	55.0%
<i>Total</i>	<i>8,323,955</i>	<i>100.0%</i>	<i>8,529,947</i>	<i>100.0%</i>

Outbound - From Maine

By Commodity: US Destinations

The top three commodities (by tonnage) leaving Maine are paper, converted paper or paperboard products, and field crops. Together, these three commodities accounted for over half of all tonnage leaving the state, with paper alone accounting for 30% of outbound tonnage. The top three exports move primarily by truck, with small percentages of each moving by rail, and none by water.

After the top three commodities, 16 other commodities had over 100,000 tons exported in 1997. These 16 commodities account for an additional 33% of outbound tonnage, leaving the balance of outbound cargo widely dispersed among the remaining commodity categories.

Nine commodity groups shipped more than 100,000 tons to any single destination. The single largest commodity-destination pair was shipments of canned or preserved food to the Chicago region, with 554,494 tons shipped in 1997, all by truck.

Table 4-3 Outbound Maine Tonnage by Commodity and Mode
1997

	Truck	Rail	Water	Total
Paper	3,297,801	71,623	0	3,369,424
Converted Paper or Ppbd. Products	1,547,544	0	0	1,547,544
Field Crops	1,006,315	4,080	0	1,010,395
Top 3 Subtotal	5,851,660	75,703	0	5,927,363
% Total	54.8%	17.6%	0.0%	52.8%
Canned Food	989,031	0	0	989,031
Grain Mill Products	516,221	1,852	0	518,073
Household Appliances	280,095	1,089	0	281,184
Concrete, Gypsum, Plaster	244,225	0	0	244,225
Meat or Poultry, fresh or chilled	194,447	0	0	194,447
Misc. Textile Products	157,736	0	0	157,736
Beverages or Flavor Extracts	147,176	3,351	0	150,527
Paving or Roofing Materials	144,494	0	0	144,494
Ships or Boats	136,037	0	0	136,037
Leather Footwear	134,591	0	0	134,591
Waste or Scrap	0	37,788	94,574	132,362
Misc. Food Preparations	127,504	0	0	127,504
Bakery Products	124,236	0	0	124,236
Dairy Products	120,699	0	0	120,699
Industrial Chemicals	67,990	50,743	0	118,733
Containers or Boxes, Paper	101,326	0	0	101,326
Total (all commod. >100,000 tons)	9,337,468	170,526	94,574	9,602,568
% Total	87.5%	39.6%	83.6%	85.6%
Total	10,674,541	430,882	113,141	11,218,565

By Mode: US Destinations

The vast majority of cargo leaving Maine leaves by truck. Truck cargo accounts for 95% of outbound cargo, with rail and water accounting for only 4% and 1% respectively. The top three exports overall (paper, converted paper/paperboard products, and field crops) are the top commodities moved by truck. The top exports by rail in 1997 were paper (71.6 thousand tons), pulp or pulp mill products (62.6 thousand tons), and waste/scrap (37.8 thousand tons). Waste/scrap is the top commodity moved by water, with 94.6 thousand tons exported in 1997, over 83% of tonnage exported via water routes.

By US Destination

The Southeast US is the largest destination for cargo leaving the state of Maine. With 1.9 million tons of cargo leaving the state for Southeast US destinations, the region accounted for 17.3% of total tonnage exports in 1997. The Chicago and New York City/New Jersey areas are the second and third largest destinations for goods leaving the state with 1.4 million tons moving from Maine to each of the two areas. The Southwest, Washington D.C., and Boston follow the top 3 destinations closely, with each receiving between 790,000 (Boston) and 894,000 (Southwest) tons of cargo in 1997.

Table 4-4 Outbound Maine Freight: By Mode and Destination
1997

	Truck		Rail		Water		Total	
	Tons	% Truck	Tons	% Rail	Tons	% Water	Tons	% Total
SE USA	1,840,928	17.25%	95,949	22.27%	0	0.00%	1,936,877	17.26%
Chicago	1,320,531	12.37%	70,748	16.42%	0	0.00%	1,391,279	12.40%
NY/NJ	1,347,853	12.63%	25,786	5.98%	0	0.00%	1,373,639	12.24%
SW USA	854,523	8.01%	39,483	9.16%	0	0.00%	894,006	7.97%
Washington, DC	821,707	7.70%	8,712	2.02%	0	0.00%	830,419	7.40%
Boston	765,162	7.17%	24,583	5.71%	814	0.72%	790,559	7.05%
Philadelphia	321,205	3.01%	8,146	1.89%	87,194	77.07%	416,545	3.71%
Subtotal	7,271,909	68.12%	273,407	63.45%	88,008	77.79%	7,633,324	68.04%
Total	10,674,541	100.00%	430,882	100.00%	113,141	100.00%	11,218,564	100.00%

Outbound commodity-destination pairings are very concentrated. Despite the high volume of cargo that is sent to the Southeast USA, only a small number of commodities make up that volume. The same is true for all of the top destinations of Maine commodities.

Outbound Freight to Canada

Table 4-5 Truck Freight from Maine to Canada by Commodity
1997

	Tons	% Total
Sawmill or Planing Mill Products	90,874	20.4%
Paper	81,627	18.3%
Waste or Scrap	75,417	16.9%
Primary Forest Products	72,994	16.4%
Subtotal (commod. >100,000 tons)	320,912	71.9%
Total	446,343	

Commodities shipped from Maine to all of Canada account for just 4% of all outbound truck traffic. Tonnage moving by truck from Maine to Canada is highly concentrated, with just over 70% of total truck tonnage accounted for by four commodities. The volumes moved by commodity type, while concentrated in a few groups, is still relatively small compared with shipments to other parts of the US by truck. After the top four commodities, the balance of the tonnage is widely dispersed among the remaining commodity groups.

Table 4-6 Truck Freight from Maine to Canada by Destination
1997

	Tons	% Total
Quebec	227,055	50.9%
Ontario	76,291	17.1%
New Brunswick	72,556	16.3%
Nova Scotia	57,864	13.0%
Subtotal (origins >100,000 tons)	433,766	97.2%
Total	446,343	

Quebec alone accounts for over 50% of truck freight leaving Maine for Canadian destinations. No other destination comes close to the tonnage travelling from Maine to Quebec. Compared with US destinations, Quebec is relatively important, with a truck volume less than that of southbound shipments to the Philadelphia region and on the same order of magnitude as shipments to the Louisville and Cleveland regions in the US. The top four Canadian destinations account for nearly all of the freight leaving Maine for Canada.

Quebec is the only Canadian destination that receives more than 50,000 tons of a single commodity. Sawmill or planing mill products (79,412 tons) and primary forest products (69,072 tons) are the only two commodities shipped to any Canadian destination that account for more than 50,000 tons.

Inbound - To Maine

By Commodity: US Origins

Over 7.0 million tons of commodities were shipped to Maine in 1997. Products of petroleum refining account for 2.5 million tons or 35% of the total, and almost all of this arrives by water. After petroleum products, the top three imports in terms of tonnage are bituminous coal or lignite, concrete, gypsum, and plaster, and paving or roofing materials. All inbound commodities greater than 100,000 tons account for less than half of total tonnage imports into the state indicating that imports are much more evenly distributed among the commodity categories than exports.

Table 4-7 Inbound Maine Tonnage by Commodity and Mode

1997

	Truck	Rail	Water	Total
Products of Petroleum Refining	20,970	20,030	2,446,743	2,487,743
Bituminous Coal or Lignite	0	0	292,766	292,766
Concrete, Gypsum, Plaster	283,930	0	0	283,930
Top 3 Sub Total	304,900	20,030	2,739,509	3,064,439
% Total	8.2	4.9	93.9	43.6
Paving or Roofing Materials	161,110	0	112,396	273,506
Industrial Chemicals	184,484	48,492	0	232,976
Primary Forest Materials	201,565	5,552	0	207,117
Misc. Coal or Petroleum Products	126,326	0	43,937	170,263
Agricultural Chemicals	125,485	12,045	0	137,530
Motor Vehicles or Equipment	71,106	64,397	0	135,503
Misc. Chemical Products	108,538	10,485	0	119,023
Paper	106,910	10,905	0	117,815
Plastic Materials or Synthetic Fibers	101,331	11,589	0	112,920
Grain Mill Products	81,801	24,615	0	106,416
Fresh Vegetables	104,586	0	0	104,586
Total (all commod. >100,000 tons)	1,678,142	208,110	2,895,842	4,782,094
% Total	45.4%	50.8%	99.3%	68.1%
Total	3,696,490	409,386	2,916,968	7,022,845

By Mode: US Origins

While on the outbound side, truck shipments clearly dominated, inbound cargo is almost as likely to arrive by boat as it is by truck with 41.5% and 52.6% of tonnage imports respectively. This picture changes drastically when petroleum products are removed from the commodity mix. When petroleum products are subtracted from total imports, the share of cargo moved by truck increases to 81%.

Table 4-8 Inbound Maine Freight: Influence of Petroleum Products

1997

	Including Petroleum		Excluding Petroleum	
	Tons	Percent	Tons	Percent
Truck	3,696,490	52.6%	3,675,520	81.0%
Rail	409,386	5.8%	389,356	5.6%
Water	2,916,968	41.5%	470,225	10.4%
Total	7,022,845	100.0%	2,635,102	100.0%

Top commodities moved by rail include motor vehicles or equipment, miscellaneous food preparations, and industrial chemicals. By water, as mentioned, the top commodity is petroleum products, which account for 83.8% of total imports by water. Bituminous coal or lignite follows petroleum products, with 292,766 tons imported via water. The

main commodities shipped by truck include concrete, gypsum, or plaster (283,930 tons), primary forest materials (201,865 tons), and industrial chemicals (184,484 tons).

By US Origin

The inbound commodity mix is dominated by petroleum entering the state via water routes. The remainder of the inbound analysis will focus on inbound shipments net of petroleum products (STCC 291). This will present a more realistic picture of inbound freight.

The majority of the non-petroleum freight (80%) entering Maine from origins shipping more than 100,000 tons to the state in 1997 traveled by truck. Net of petroleum products, the Southeast USA is the largest origin of freight entering the state of Maine.

**Table 4-9 Inbound Maine Freight: By Mode and Origin
Net of Petroleum Products (STCC 291)
1997**

	Truck		Rail		Water		Total	
	Tons	% Truck	Tons	% Rail	Tons	% Water	Tons	% Total
Southeast USA	525,498	14.3%	65,847	16.9%	4,342	0.9%	595,687	13.1%
Boston	520,209	14.2%	17,970	4.6%	1,422	0.3%	539,601	11.9%
New York City / New Jersey	327,300	8.9%	27,930	7.2%	125,891	26.8%	481,121	10.6%
Southeastern New Hampshire	384,638	10.5%	0	0.0%	0	0.0%	384,638	8.5%
Southern New Hampshire	384,514	10.5%	0	0.0%	0	0.0%	384,514	8.5%
Washington DC	49,846	1.4%	10,604	2.7%	301,486	64.1%	361,936	8.0%
Southwest USA	201,600	5.5%	19,067	4.9%	15,802	3.4%	236,469	5.2%
Detroit	91,757	2.5%	83,934	21.6%	0	0.0%	175,691	3.9%
Cleveland	114,989	3.1%	6,999	1.8%	0	0.0%	121,988	2.7%
Northern New Hampshire	120,063	3.3%	0	0.0%	0	0.0%	120,063	2.6%
Philadelphia	89,459	2.4%	1,434	0.4%	20,368	4.3%	111,261	2.5%
Louisville	95,698	2.6%	11,666	3.0%	0	0.0%	107,364	2.4%
Total (all origins >100,000 tons)	2,905,571	79.1%	245,451	63.0%	469,311	99.8%	3,620,333	79.8%
Total	3,675,520		389,356		470,225		4,535,102	

Inbound freight commodity-origin pairings are very different from outbound. The commodity mix is much broader with a wider range of commodities entering the state from a larger number of origins.

Inbound Freight from Canada**Table 4- 10 Truck Freight from Canada to Maine by Commodity
1997**

	Tons	% Total
Sawmill or Planing Mill Products	473,483	25.0%
Misc. Wood Products	447,405	23.7%
Primary Forest Materials	217,037	11.5%
Waste or Scrap	161,014	8.5%
Motor Vehicles or Equipment	141,408	7.5%
Abrasives, Asbestos Products, etc.	141,393	7.5%
Subtotal (commod. >100,000 tons)	1,581,740	83.7%
Total	1,890,801	

The composition of Maine imports from the US and those from Canada are very different. While imports from US origins vary widely across commodities and origins, inbound freight from Canada is very focussed on a small number of both commodities and origins. In 1997, 1,890,801 tons of cargo entered Maine by truck from Canada. Of this tonnage, only six products account for almost 84% of the total inbound truck tonnage whereas 14 commodities accounted for only 68% of total (truck, rail, water) tonnage arriving from US origins.

Table 4- 11 Truck Freight from Canada to Maine by Origin

	Tons	% Total
New Brunswick	966,798	51.1%
Quebec	639,133	33.8%
Ontario	209,876	11.1%
Subtotal (origins >100,000 tons)	1,815,807	96.0%
Total	1,890,801	

As with the concentrated number of commodities shipped from Canada to Maine, there is also a high concentration in the number of origins within Canada that ship significant tonnage to the state. The top three origins account for nearly all of the truck freight shipped from Canada to Maine, with 1,815,807 tons shipped in 1997. Both Quebec and New Brunswick ship more volume of materials to Maine than the top three US originating regions. Eastbound truck volumes shipped from Quebec to Maine form a significant amount of all inbound volume - the 639,133 tons amounting to over 11% of all inbound volume from both the US and Canada.

Table 4-12 Truck Freight from Canada to Maine by Origin by Commodity

Origin	Commodity	Tons	% Total
Quebec	Primary Forest Materials	199,506	10.6%
	Sawmill or Planing Mill Products	131,270	6.9%
	Abrasives, Asbestos Products, etc.	104,759	5.5%
New Brunswick	Sawmill or Planing Mill Products	332,383	17.6%
	Misc. Wood Products	410,979	21.7%
	Waste or Scrap	126,869	6.7%
Ontario	Motor Vehicles or Equipment	139,134	7.4%
		1,444,900	76.4%

Outbound - From Atlantic Canada

By Commodity

In 1997, 8.3 million tons of freight left Atlantic Canada by either rail or truck. Sawmill and planing mill products accounted for 1.2 million tons of freight. The second and third most-shipped commodities are not classifiable as individual commodities; they are mixed loads and miscellaneous freight shipments. The next largest commodities shipped include paper, miscellaneous wood products, and miscellaneous food preparations. All commodities shipping greater than 100,000 tons of freight accounted for 82.3% of tonnage leaving Atlantic Canada in 1997.

Table 4-13 Outbound Atlantic Canada Tonnage by Commodity and Mode 1997

	Truck	Rail	Total
Sawmill & Planing Mill Products	886,662	274,969	1,161,631
Mixed Loads	0	996,086	996,086
Misc. Freight	163,627	758,262	921,889
Paper	363,734	540,683	904,417
Misc. Wood Products	598,793	286,479	885,272
Misc. Food Preparations	412,611	17,174	429,785
Fresh Vegetables	193,409	0	193,409
Misc. Forest Products	199,242	0	199,242
Lead or Zinc Ores	0	150,495	150,495
Misc. Nonmetallic Minerals	63,940	68,064	132,004
Canned or Preserved Food	209,579	249	209,828
Primary Forest Materials	34,557	77,822	112,379
Paper or Building Board	47,450	163,981	211,431
Industrial Chemicals	22,910	195,075	217,985
Tires or Inner Tubes	125,326	0	125,326
Subtotal (all commod. >100,000 tons)	3,321,840	3,529,339	6,851,179
% Total	73.7%	92.4%	82.3%
Total	4,505,951	3,818,004	8,323,955

By Mode

In 1997, 54.1% of outbound Atlantic Canada tonnage was shipped by truck. The top three commodities leaving Atlantic Canada by truck are sawmill or planing mill products, miscellaneous wood products, and miscellaneous food preparations. Together, these three commodities account for 42.1% of total outbound freight by truck.

Rail freight accounts for nearly half of all tonnage leaving Atlantic Canada at 3.8 tons in 1997. The top rail commodities include mixed loads, miscellaneous freight shipments, paper, sawmill and planing mill products, and miscellaneous wood products. After mixed loads (996,086 tons) and miscellaneous shipments (758,262), paper had the highest tonnage at 540,683 tons in 1997. These three groups accounted for 60% of outbound rail tonnage in 1997.

By Destination

Quebec, Ontario, and Maine are the three largest destinations, by a large margin, for freight leaving Atlantic Canada by either truck or rail, accounting for 61.7% of tonnage leaving Atlantic Canada. In terms of freight traveling by truck, Quebec is the largest destination for freight leaving Atlantic Canada with just over one million tons in 1997. The province is followed closely by Maine, also with just over one million tons of truck freight from Atlantic Canada. After these two destinations, Ontario and the US South are the biggest destinations for Atlantic Canada truck freight. The top three destinations account for 65.1% of truck tonnage leaving the region. The remaining US regions (South and North) account for very little truck freight.

Table 4-14 Outbound Atlantic Canada Freight by Mode and Destination 1997

	Truck	Rail	Total
Ontario	863,730	1,138,695	2,002,425
Quebec	1,047,936	1,060,717	2,108,653
Northeast US	2,085,672	654,939	2,740,611
Maine	1,023,345		
Massachusetts	322,507		
New York	214,998		
Pennsylvania	200,616		
New Jersey	169,942		
Southern US	329,339	320,004	649,343
Northern US	146,207	491,877	638,084
Subtotal (destinations >100,000 tons)	4,472,884	3,666,232	8,139,116
% Total	99.3%	96.0%	97.8%
Total	4,505,951	3,818,004	8,323,955

Rail freight travels primarily to Ontario, Quebec, and the US Northeast (state-level rail data is not available at this time, but will be part of the history and forecasts developed in the next part of this study). Freight travelling to these three regions accounts for just under 75% of freight tonnage leaving Atlantic Canada by rail. The remaining US regions (South and North) account for very little rail traffic. The balance of rail freight is destined for other Canadian provinces.

Table 4-15 Distribution of Outbound Tonnage by Destination

	Truck	Rail	Total
Ontario	19.2%	29.8%	24.1%
Quebec	23.3%	27.8%	25.3%
Northeast US*	46.3%	17.2%	32.9%
Maine	22.7%		
Southern US	7.3%	8.4%	7.8%
Northern US	3.2%	12.9%	7.7%

Table 4-16 Outbound Commodity-Destination Pairings

Destination	Commodity	Truck		Rail		Total
		Tons	%	Tons	%	Tons
Quebec	Lead or Zinc Ores	0	0.0%	150,495	100.0%	150,495
	Misc. Food Preparations	118,032	93.1%	8,790	6.9%	126,822
	Sawmill or Planing Mill Products	198,195	93.2%	14,370	6.8%	212,565
	Misc. Wood Products	57,609	54.2%	48,663	45.8%	106,272
	Paper	67,687	58.8%	47,416	41.2%	115,103
Ontario	Misc. Food Preparations	113,552	96.7%	3,874	3.3%	117,426
	Sawmill or Planing Mill Products	110,073	63.6%	62,949	36.4%	173,022
	Paper	9,995	9.6%	93,903	90.4%	103,898
Maine	Sawmill or Planing Mill Products	338,621	100.0%		0.0%	338,621
	Misc. Wood Products	424,763	100.0%		0.0%	424,763
Southern US	Sawmill or Planing Mill Products	38,262	26.5%	106,249	73.5%	144,511
	Paper	36,686	26.3%	102,600	73.7%	139,286
Northeast US	Misc. Wood Products			146,890	100.0%	146,890
	Paper			214,020	100.0%	214,020

Inbound - To Atlantic Canada

By Commodity

Mixed loads and miscellaneous freight shipments, which account for 31.7% of total inbound tonnage—the majority of that freight entering the region by rail—dominate inbound freight. Miscellaneous food preparations, products of petroleum refining, industrial chemicals, and sawmill or planing mill products follow mixed and miscellaneous shipments, adding another 1.9 million tons of inbound cargo. Those commodities with greater than 100,000 tons shipped to Atlantic Canada in 1997 account for a total of 6.9 million tons of freight, or 81% of total inbound tonnage.

Table 4-17 Inbound Atlantic Canada Tonnage by Commodity and Mode
1997

	Truck	Rail	Total
Mixed Loads	0	1,435,304	1,435,304
Misc. Freight Shipments	512,087	760,819	1,272,906
Misc. Food Preparations	421,229	142,352	563,581
Products of Petroleum Refining	162,522	373,511	536,033
Industrial Chemicals	74,249	371,763	446,012
Sawmill or Planing Mill Products	291,051	24,386	315,437
Paper	185,457	101,734	287,191
Misc. Wood Products	11,596	237,588	249,184
Fabricated Structural Metal Products	182,603	39,983	222,586
Field Crops	13,389	173,400	186,789
Paper or Building Board	91,885	86,712	178,597
Waste or Scrap	134,734	43,494	178,228
Abrasives, Asbestos Products, Etc.	142,665	0	142,665
Portland Cement	0	129,221	129,221
Clay, Ceramic, or Refrac. Minerals	1,186	117,270	118,456
Motor Vehicles or Equipment	51,072	62,501	113,573
Misc. Coal or Petroleum Products	23,608	88,756	112,364
Fresh Vegetables	111,606	0	111,606
Misc. Transportation Equipment	3,566	102,707	106,273
Canned or Preserved Food	99,942	2,653	102,595
Meat or Poultry, Fresh or Chilled	102,340	0	102,340
Subtotal	2,616,787	4,294,154	6,910,941
% Total	68.1%	91.6%	81.0%
Total	3,841,426	4,688,521	8,529,947

By Mode

Inbound tonnage is dominated by rail which accounts for 55% of total cargo destined for Atlantic Canada. Inbound truck freight amounted to 3.8 million tons in 1997, or 45% total inbound tonnage. Miscellaneous freight shipments, miscellaneous food preparations, and sawmill or planing mill products dominate inbound truck freight. The top three commodities in terms of tonnage accounted for 31.9% of total inbound truck cargo in 1997. Inbound rail freight is dominated by miscellaneous freight shipments, products of petroleum refining, and industrial chemicals, with the top three commodities accounting for 46.5% of total inbound rail tonnage.

By Origin

Quebec and Ontario are by far the largest origins of Atlantic Canada imports, accounting for 82% of inbound truck freight, and 75.5% of inbound rail freight. Each of these regions ships over three million tons of freight to Atlantic Canada. The next largest origin in terms of tonnage is the US South which shipped 484,416 thousand tons of cargo to Atlantic Canada in 1997. Most of this freight arrived by rail, with only 36% arriving by truck.

Table 4- 18 Inbound Atlantic Canada Freight by Mode and Origin
1997

	Truck		Rail		Total
	Tons	%	Tons	%	Tons
Quebec	1,381,795	36.0%	1,617,724	34.5%	2,999,519
Ontario	143,123	3.7%	1,923,492	41.0%	2,066,615
Saskatchewan	1,785,655	46.5%	116,741	2.5%	1,902,396
US South	175,931	4.6%	308,485	6.6%	484,416
US Northeast	350,544	9.1%	113,774	2.4%	464,318
Maine	142,132	3.7%	N/A	0.0%	
US North	94,458	2.5%	277,651	5.9%	372,109

Table 4- 19 Inbound Commodity—Origin Pairings

Origin	Commodity	Truck		Rail	
		Tons	%	Tons	%
US South	Clay, Ceramic, or Refrac. Materials	1152	1.1%	100588	98.9%
Ontario	Misc. Food Preparations	261630	78.9%	70033	21.1%
	Industrial Chemicals	22820	14.1%	139011	85.9%
	Misc. Coal or Petroleum Products	9397	3.1%	290040	96.9%
	Fabricated Structural Metal Products	63935	62.4%	38543	37.6%
	Misc. Freight Shipments	214644	52.7%	192850	47.3%
	Mixed Loads	0	0.0%	633505	100.0%
Quebec	Misc. Food Preparations	140595	80.2%	34763	19.8%
	Sawmill or Plane Mill Products	264201	97.0%	8118	3.0%
	Misc. Wood Products	5388	4.3%	120553	95.7%
	Paper	103386	57.0%	78139	43.0%
	Industrial Chemicals	42442	20.1%	168421	79.9%
	Misc. Coal or Petroleum Products	146412	94.2%	8956	5.8%
	Portland Cement	0	0.0%	127863	100.0%
	Misc. Freight Shipments	231917	46.4%	267736	53.6%
	Mixed Loads	0	0.0%	603859	100.0%

Conclusion

The following summary conclusions are drawn from the analysis of 1997 commodity flows in Maine and Atlantic Canada:

Mode of Transportation

Trucks are by far the dominant mode of commodity transport in Maine. In 1997, trucks carried 95.2% of Maine's total outbound tonnage and 52.6% of the state's inbound tonnage. The lower percentage of inbound tonnage carried by truck is due to the fact that Maine imports large volumes of petroleum products by water. When this influence is removed, trucks also carry the vast majority of remaining inbound commodities to Maine.

Only a small percentage of total tonnage transported into and out of Maine is carried by rail. Rail accounted for only 3.8% of outbound and 5.8% of inbound tonnage in 1997. However, over-land freight movements into and out the Atlantic Provinces are more

likely to be carried by rail. For out-bound shipments, 54.1% were transported by truck, and 45.9% by rail. Totals for inbound freight were essentially reversed, with 55% carried by rail and 45% by truck.

Because the flow of east-west commodity traffic through the Atlantic Provinces is heavily influenced by rail, the overall volume of commodities currently moved by truck, into and out of the Atlantic Provinces combined, is less than the State of Maine. In 1997, the total weight of over-land freight moved into and out of the Atlantic Provinces, combined, was 16.8 million tons, slightly higher than the 15.2 million tons shipped into and out of Maine. However, total tonnage carried by truck was only 8.3 million tons, much lower than Maine's volume of 14.3 million tons. The data suggest that overall volumes of truck freight available for diversion to an east-west highway may be more limited than first thought. Similarly, the diversion of some portion of rail shipments through the Atlantic Provinces may be a more important source of user demand for the proposed highway.

Outbound Flows

Maine's top three exported products overall (paper, converted paper/paperboard products, and field crops) are also the top commodities moved by truck. Of a total of 9.3 million tons of outbound freight carried by truck, nearly 55% consisted of these three commodity groups.

The Southeast US is the largest destination for cargo leaving the state of Maine, receiving 1.9 million tons of cargo in 1977. The Southeast accounted for 17.3% of the total tonnage exported from Maine to other US destinations in 1997. The Chicago and New York City/New Jersey areas are the second and third largest destinations for goods leaving the state. The Southwest, Washington D.C., and Boston follow the top 3 destinations closely. The significant volumes of goods transported to the Chicago area suggest a potential source of demand for an improved westward highway connection through Maine.

Commodities shipped to all of Canada account for just 4% of total outbound truck freight from Maine. Tonnage moving by truck from Maine to Canada is highly concentrated, with just over 70% of total truck tonnage accounted for by four commodities; sawmill or planing mill products, paper, waste or scrap and primary forest products. Together these four groups accounted for nearly 72% of the 446,000 tons of outbound truck freight shipped from Maine to all of Canada. Nearly 51% of Maine's outbound Canadian shipments were delivered to Quebec and nearly 70 percent of total Canada-bound tonnage was shipped to points to the west of the state.

Products exported from Atlantic Canada by truck are somewhat comparable to Maine, with a high composition of sawmill, wood, forest products and foodstuffs. These several commodity groups account for more than 2.9 million or 65% of the total outbound truck freight from the region. Approximately 1.9 million tons of this outbound truck freight was destined for Ontario and Quebec, roughly double the tonnage shipped to Maine. An additional 1.2 million tons of truck freight were likely to have been carried through Maine to destinations in Southern New England, the Mid-Atlantic and Southeastern U.S. Comparatively low volumes of truck freight appear to be shipped from the Atlantic Provinces to points west of Ontario, to either Canadian or US destinations.

Inbound Flows

The largest commodity groups (by weight) that are shipped into Maine by truck from the US, tend to fall under the categories of building and paving materials (445,000 tons), agricultural and industrial chemical products (310,000 tons), paper and forest products

(301,000 tons) and a variety of food products and consumer goods, including automobiles. From the US, the majority of product is shipped from Southern New England, the Middle Atlantic and Southeastern US States (about 2.3 million tons). Roughly 327,000 tons arrive from US locations to the west of Maine, such as Detroit and Cleveland), which may represent potential users of an east-west highway.

Of the nearly 1.9 million tons of Canadian freight shipped into Maine by truck, more than 60% consisted of sawmill, wood products or primary forest materials. Maine's also received a significant volume of motor vehicles and equipment (141,000 tons) from Canadian points of origin. Nearly 52% of the total tonnage was received from New Brunswick and another 34% from Quebec. Ontario also accounted for 11% of the total inbound product, or slightly less than 210,000 tons.

Of the 3.8 million tons of inbound truck freight to Atlantic Canada, roughly 1.5 million tons (40%) were shipped from Quebec and Ontario. An additional large volume of truck shipments (1.7 million tons) was also received from the province of Saskatchewan. By contrast, truck shipments into the Atlantic Provinces from the US were limited, with Maine accounting for less than 4% of the total.

V Appendices

Appendix A: Detailed Population and Employment Tables Eastern Canada Provinces and CMA's

Table C-1
Employment Characteristics by major group industry

Eastern Provinces (in thousands) Newfoundland	1992						1993						1994						1995						1996						1997						Change: 1992-97						1997 Emp. Dist.																																																																																																																																									
	1992		1993		1994		1995		1996		1997		1992		1993		1994		1995		1996		1997		Number		Percent		Rate		1997 Emp. Dist.																																																																																																																																																					
Total	193.9	193.2	194.6	197.3	189.7	191.9	(2,000)	-1.0%	-0.2%	100%	47.2	47.1	46.1	44.5	44.5	46.2	(1,000)	-2.1%	-0.4%	24%	146.7	146.1	148.5	152.8	145.2	145.7	(1,000)	-0.7%	-0.1%	76%	1.5	1.1	1.1	1	0.9	0.8	(700)	-46.7%	-11.8%	0%	15.4	16.2	18.3	17.4	16.5	16.7	1,300	8.4%	1.6%	9%	16.4	17.2	13.2	13	14.3	17.4	1,000	6.1%	1.2%	9%	10.5	9.4	11.1	10.7	9.8	8.8	(1,700)	-16.2%	-3.5%	5%	3.4	3.2	2.5	2.3	3.1	2.5	(900)	-26.5%	-6.0%	1%	14	13.7	14	15.6	14.2	12.6	(1,400)	-10.0%	-2.1%	7%	36.9	37.2	36.2	35.4	35.1	35.8	(1,100)	-3.0%	-0.6%	19%	7.2	6.4	6.9	7.3	5.8	6.9	(300)	-4.2%	-0.8%	4%	71.3	70.5	73.6	76.7	71.8	73.4	2,100	2.9%	0.6%	38%	5.8	6	6.9	6.7	5.6	6.2	400	6.9%	1.3%	3%	18.9	18.1	17.9	18.1	17.2	18.3	(600)	-3.2%	-0.6%	10%	23.9	24	26.3	28.4	26.8	26.6	2,700	11.3%	2.2%	14%	11.1	10	10.6	10.7	10.6	9.9	(1,200)	-10.8%	-2.3%	5%	11.7	12.4	11.9	12.8	11.7	12.6	900	7.7%	1.5%	7%	17.3	18.3	17.8	17.9	18.4	17	(300)	-1.7%	-0.3%	9%
Prince Edward Island																																																																																																																																																																																				
Total	54.1	54.4	56.1	58.7	60.1	60.5	6,400	11.8%	2.3%	100%	14.8	13.9	15.9	16.5	17.4	17.4	2,600	17.6%	3.3%	29%	39.4	40.5	40.2	42.2	42.8	43.1	3,700	9.4%	1.8%	71%	4	3.6	4	4.1	4.2	4.6	600	15.0%	2.8%	8%	2.9	3	3.2	2.9	2.7	3	100	3.4%	0.7%	5%	4.2	3.9	4.7	5	5.8	5.7	1,500	35.7%	6.3%	9%	3.3	3	3.5	4.1	4.4	3.8	500	15.2%	2.9%	6%	0.4	0.4	0.5	0.4	0.3	0.2	(200)	-50.0%	-12.9%	0%	3.7	3.5	3.1	3.2	3.4	2.6	(1,100)	-29.7%	-6.8%	4%	9	9.1	9.3	9.8	10.2	11	2,000	22.2%	4.1%	18%	2	2	1.9	2.3	2.2	2.1	100	5.0%	1.0%	3%	19.2	20.6	20.1	21	21	21.7	2,500	13.0%	2.5%	36%	1.5	1.5	1.5	2	2.1	2.2	700	46.7%	8.0%	4%	4.2	4.7	4.4	4.2	3.8	4.1	(100)	-2.4%	-0.5%	7%	5.9	6.2	5.6	6.3	6.3	6.7	800	13.6%	2.6%	11%	3.8	4.2	4.4	4.4	4.3	4	200	5.3%	1.0%	7%	3.8	4	4.2	4.2	4.6	4.7	900	23.7%	4.3%	8%	5.4	5.3	5.8	5.8	5.9	5.7	300	5.6%	1.1%	9%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-1 (Continued)
Employment Characteristics by major group industry
Eastern Provinces
(in thousands)
Nova Scotia

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Dist.	
								Rate		
Total	371.2	368.2	379.7	384.3	385	391.9	20,700	5.6%	1.1%	100%
Goods-producing	89.6	83	87.1	88.2	84.6	92	2,400	2.7%	0.5%	23%
Service-producing	281.6	285.2	292.6	296.1	300.4	299.9	18,300	6.5%	1.3%	77%
Agriculture	7.7	6	7.4	7.7	7.1	7.7	0	0.0%	0.0%	2%
Other primary	16.9	15.8	15.8	15	15.1	15	(1,900)	-11.2%	-2.4%	4%
Manufacturing	42.2	38.9	41	43.3	38.6	44.9	2,700	6.4%	1.2%	11%
Construction	18.5	18.6	19.9	19.4	20.6	21.7	3,200	17.3%	3.2%	6%
Utilities	4.2	3.6	2.9	2.8	3.2	2.7	(1,500)	-35.7%	-8.5%	1%
Transportation, storage, communications	26	23.8	24.9	27.2	25.8	24.3	(1,700)	-6.5%	-1.3%	6%
Trade	70.6	69.5	71.5	70.2	73.3	72.5	1,900	2.7%	0.5%	18%
Finance, insurance and real estate	20.6	17.4	19.1	20.3	19.6	18.8	(1,800)	-8.7%	-1.8%	5%
Community, business and personal service	130.5	142.9	141.8	144.7	151.9	153.8	23,300	17.9%	3.3%	39%
Business services	14.2	16.9	17.8	16.4	17.7	19.3	5,100	35.9%	6.3%	5%
Educational services	29.7	28.4	29.7	27.3	29.3	30.8	1,100	3.7%	0.7%	8%
Health & Social services	41.4	46.2	43.7	46.9	46.2	47.9	6,500	15.7%	3.0%	12%
Accommodation & food services	20	23.1	22	24.3	26.5	25.2	5,200	26.0%	4.7%	6%
Other services	25.2	28.3	28.6	29.8	32.2	30.6	5,400	21.4%	4.0%	8%
Public Administration	33.8	31.6	35.3	33.7	29.8	30.5	(3,300)	-9.8%	-2.0%	8%

New Brunswick

Total	302.2	305.2	307.3	313.6	312.8	316.1	13,900	4.6%	0.9%	100%
Goods-producing	78.9	78.5	74.7	80.9	80	80.8	1,900	2.4%	0.5%	26%
Service-producing	223.3	226.7	232.6	232.7	232.8	235.2	11,900	5.3%	1.0%	74%
Agriculture	6.9	4.6	5.4	6.1	6.2	6	(900)	-13.0%	-2.8%	2%
Other primary	11.6	13.5	14.3	13.4	12.9	14.2	2,600	22.4%	4.1%	4%
Manufacturing	38	38.2	33.6	39.7	38.9	38.7	700	1.8%	0.4%	12%
Construction	16.8	17.3	17	17.1	18.2	17.5	700	4.2%	0.8%	6%
Utilities	5.5	4.9	4.4	4.6	3.7	4.3	(1,200)	-21.8%	-4.8%	1%
Transportation, storage, communications	21	21.4	23.1	22.2	22.7	24.5	3,500	16.7%	3.1%	8%
Trade	59.4	57.6	57.1	57.4	59.1	59.4	0	0.0%	0.0%	19%
Finance, insurance and real estate	13.2	13.7	14.1	13.3	13.4	14	800	6.1%	1.2%	4%
Community, business and personal service	104.1	109.6	112	116.8	115	113.6	9,500	9.1%	1.8%	36%
Business services	9.6	10.7	10.8	11.7	13.8	14	4,400	45.8%	7.8%	4%
Educational services	21.7	23.7	24.1	23.9	21.9	22.8	1,100	5.1%	1.0%	7%
Health & Social services	37	36.4	35.9	38.8	36.4	37.3	300	0.8%	0.2%	12%
Accommodation & food services	17.8	17.6	19.1	21	19.8	18.2	400	2.2%	0.4%	6%
Other services	18	21.2	22	21.4	23.1	21.3	3,300	18.3%	3.4%	7%
Public Administration	25.5	24.3	26.3	23	22.7	23.6	(1,900)	-7.5%	-1.5%	7%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-1 (Continued)
Employment Characteristics by major group industry
Eastern Provinces

(in thousands)	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.
Québec							Number	Percent	Dist.
Total	3067.2	3079.5	3156.2	3204.1	3212.6	3260.3	193,100	6.3%	100%
Goods-producing	827.6	827.7	860.8	886.1	865.3	890.4	62,800	7.6%	27%
Service-producing	2239.6	2251.8	2295.4	2318	2347.3	2369.9	130,300	5.8%	73%
Agriculture	65.6	71.5	72.1	67.6	78.3	68.3	2,700	4.1%	2%
Other primary	36.9	37.4	43.2	44.3	37.2	40.1	3,200	8.7%	1%
Manufacturing	535.2	540.7	569.2	593	577	617	81,800	15.3%	19%
Construction	152	139.2	140.1	144.3	136.2	128.4	(23,600)	-15.5%	4%
Utilities	37.8	38.9	36.2	37	36.7	36.6	(1,200)	-3.2%	1%
Transportation, storage, communications	193.2	193.3	188.4	203.4	187.4	201.9	8,700	4.5%	6%
Trade	547	510.6	545.6	555	551.5	540.3	(6,700)	-1.2%	17%
Finance, insurance and real estate	176.3	187.1	174.5	186.3	191.9	180.1	3,800	2.2%	6%
Community, business and personal services	1105.2	1127.3	1174.6	1170.6	1208.4	1243.6	138,400	12.5%	38%
Business services	161.6	169.4	185.5	185.2	199.4	223.7	62,100	38.4%	7%
Educational services	228.3	212.7	225.6	224.8	229.4	235.1	6,800	3.0%	7%
Health & Social services	339.8	348	358.8	361.7	361.9	362.2	22,400	6.6%	11%
Accommodation & food services	180.4	188.9	190.4	185.9	204	199.9	19,500	10.8%	6%
Other services	195.1	208.3	214.4	212.9	213.6	222.7	27,600	14.1%	7%
Public Administration	217.9	233.5	212.2	202.7	208.1	204	(13,900)	-6.4%	6%

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.
							Number	Percent	Dist.
Total	5000.8	5088.6	5160	5231.3	5310.7	5412.9	412,100	8.2%	100%
Goods-producing	1388.2	1372.5	1398.7	1450.5	1479.6	1510.6	122,400	8.8%	28%
Service-producing	3612.6	3716.2	3761.2	3780.8	3831.1	3902.3	289,700	8.0%	72%
Agriculture	118.2	125.4	117.6	108.9	117.1	110.6	(7,600)	-6.4%	2%
Other primary	43.9	36.1	37.3	46.8	42.7	39.4	(4,500)	-10.3%	1%
Manufacturing	888.7	885.8	900.6	972.4	988.3	1010	121,300	13.6%	19%
Construction	269.7	267	283.9	263.9	267.4	293.7	24,000	8.9%	5%
Utilities	67.7	58.2	59.3	58.5	64.2	56.8	(10,900)	-16.1%	1%
Transportation, storage, communications	282.7	285.9	299.9	322.9	319.1	327.2	44,500	15.7%	6%
Trade	852.2	861.8	883.1	864.5	908.2	927	74,800	8.8%	17%
Finance, insurance and real estate	356.1	362.6	339.5	353.1	337.3	348.6	(7,500)	-2.1%	6%
Community, business and personal services	1787.1	1868.6	1913	1946.8	1976.6	2012.8	225,700	12.6%	37%
Business services	318.7	325.2	370	391.1	399.8	442.8	124,100	38.9%	8%
Educational services	356.5	360.1	376.3	355.7	343.1	353.3	(3,200)	-0.9%	7%
Health & Social services	497.3	520.9	519.9	516.3	528.4	498.2	900	0.2%	9%
Accommodation & food services	294	299.8	298.7	315.8	330.2	324	30,000	10.2%	6%
Other services	320.6	362.5	348.1	367.9	375.2	394.5	73,900	23.1%	7%
Public Administration	334.4	337.2	325.7	293.4	289.8	286.6	(47,800)	-14.3%	5%

Source Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
(In thousands)

	1992-1996					1997		Change: 1992-97		1997 Emp.	
	1992	1993	1994	1995	1996	1997	Number	Percent	Rate	Dist.	
St. John's, Newfoundland											
Total	74.4	77.6	80.4	81.9	78.3	79.8	5,400	7.3%	1.4%	100%	
Goods-producing	9.6	9.1	9.9	10.2	9.7	11.6	2,000	20.8%	3.9%	15%	
Service-producing	64.8	68.5	70.5	71.7	68.6	68.2	3,400	5.2%	1.0%	85%	
Agriculture	0.9	0	0.5	0	0	0.5	(400)	-44.4%	-11.1%	1%	
Other primary	0.6	0.9	1.3	1.7	1	2.1	1,500	250.0%	28.5%	3%	
Manufacturing	3	3.2	3.5	3.7	3.9	4.8	1,800	60.0%	9.9%	6%	
Construction	3.6	3	3.4	3.7	3.3	3	(600)	-16.7%	-3.6%	4%	
Utilities	1.6	1.6	1.2	0.8	1.4	1.3	(300)	-18.8%	-4.1%	2%	
Transportation, storage, communications	6.1	5.4	6.9	7.3	7.6	5.6	(500)	-8.2%	-1.7%	7%	
Trade	14	14.5	14.6	15.1	12.9	15.4	1,400	10.0%	1.9%	19%	
Finance, insurance and real estate	4.1	3.8	3.9	4.6	3.3	3.8	(300)	-7.3%	-1.5%	5%	
Community, business and personal services	32.5	34.3	36.3	36	34.4	34.5	2,000	6.2%	1.2%	43%	
Business services	3.9	4.2	5.1	4.7	3.8	4	100	2.6%	0.5%	5%	
Educational services	8	8	8.4	7.4	7.1	7.9	(100)	-1.2%	-0.3%	10%	
Health & Social services	11.5	12.2	12.9	13.2	13.3	12.6	1,100	9.6%	1.8%	16%	
Accommodation & food services	4.9	4.7	5.1	5	4.8	4	(900)	-18.4%	-4.0%	5%	
Other services	4.2	5.3	4.9	5.7	5.5	5.9	1,700	40.5%	7.0%	7%	
Public Administration	8	10.5	8.8	8.7	10.4	9	1,000	12.5%	2.4%	11%	

	1992-1996					1997		Change: 1992-97		1997 Emp.	
	1992	1993	1994	1995	1996	1997	Number	Percent	Rate	Dist.	
Halifax, N.S.											
Total	155.8	158.9	164.6	166.1	168.4	169.7	13,900	8.9%	1.7%	100%	
Goods-producing	22.6	19.5	19.3	19.9	20.7	21.8	(800)	-3.5%	-0.7%	13%	
Service-producing	133.2	139.5	145.4	146.2	147.6	147.8	14,600	11.0%	2.1%	87%	
Agriculture	0	0	0	0	0	0	0	na	na	0%	
Other primary	1.8	1.5	0.8	0.8	0.8	1.2	(600)	-33.3%	-7.8%	1%	
Manufacturing	13.6	10	9.7	11.1	9.5	10.4	(3,200)	-23.5%	-5.2%	6%	
Construction	5.3	6.5	7.3	6.9	8.8	8.6	3,300	62.3%	10.2%	5%	
Utilities	1.6	1.3	1.1	1.1	1.3	1.3	(300)	-18.8%	-4.1%	1%	
Transportation, storage, communications	13	13	13.2	15	13.2	11.5	(1,500)	-11.5%	-2.4%	7%	
Trade	27.6	28.9	31.6	29.7	31.8	30.8	3,200	11.6%	2.2%	18%	
Finance, insurance and real estate	13.1	11.4	12.3	12.4	12	11.3	(1,800)	-13.7%	-2.9%	7%	
Community, business and personal services	59.2	68.8	68.5	69.5	73.5	75.9	16,700	28.2%	5.1%	45%	
Business services	9.3	11.9	12.5	11	11.7	13.3	4,000	43.0%	7.4%	8%	
Educational services	12.7	11.5	12.9	12.6	13.5	14	1,300	10.2%	2.0%	8%	
Health & Social services	17.5	21.2	20.2	21.3	21.1	22.3	4,800	27.4%	5.0%	13%	
Accommodation & food services	9	11.1	10.3	11	11.9	12.3	3,300	36.7%	6.4%	7%	
Other services	10.7	13.1	12.6	13.7	15.3	14.1	3,400	31.8%	5.7%	8%	
Public Administration	20.3	17.2	19.8	19.5	17.2	18.3	(2,000)	-9.9%	-2.1%	11%	

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
(In thousands)
Saint John N.B.

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	
									Dist.	
Total	59.5	61	58.7	59.1	56.1	57.1	(2,400)	-4.0%	-0.8%	100%
Goods-producing	14	14	12.8	14.2	11.7	12.6	(1,400)	-10.0%	-2.1%	22%
Service-producing	45.4	47	45.8	45	44.4	44.5	(900)	-2.0%	-0.4%	78%
Agriculture	0	0	0	0	0	0.6	600	na	na	1%
Other primary	0	1	0.5	0.9	0.9	1.1	1,100	ERR	ERR	2%
Manufacturing	9.3	7.8	7.1	8	6.9	6.6	(2,700)	-29.0%	-6.6%	12%
Construction	2.6	3.6	3.8	3.4	2.8	3.1	500	19.2%	3.6%	5%
Utilities	1.5	1.5	1.3	1.5	0.8	1.1	(400)	-26.7%	-6.0%	2%
Transportation, storage, communications	5.2	5.3	5.4	4.8	4.6	5.9	700	13.5%	2.6%	10%
Trade	12.2	11.5	10.9	10.4	10.9	10.5	(1,700)	-13.9%	-3.0%	18%
Finance, insurance and real estate	3.5	4.1	3.6	3	3.4	2.9	(600)	-17.1%	-3.7%	5%
Community, business and personal services	21.5	22.9	22.7	23.7	22.3	22.2	700	3.3%	0.6%	39%
Business services	3	2.9	2.8	3.1	3.4	3.1	100	3.3%	0.7%	5%
Educational services	3.2	4.5	4.5	4.2	4	3.3	100	3.1%	0.6%	6%
Health & Social services	9	7.9	7.1	8.2	7.4	7.4	(1,600)	-17.8%	-3.8%	13%
Accommodation & food services	2.7	2.9	3.6	3.9	3.3	4	1,300	48.1%	8.2%	7%
Other services	3.6	4.7	4.7	4.2	4.2	4.3	700	19.4%	3.6%	8%
Public Administration	3.1	3.1	3.1	3.2	3.3	2.9	(200)	-6.5%	-1.3%	5%

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	
									Dist.	
Total	310.2	308.2	323.4	316.3	324.8	319.4	9,200	3.0%	0.6%	100%
Goods-producing	46.4	41.3	47.5	51.9	48.8	49.1	2,700	5.8%	1.1%	15%
Service-producing	263.8	266.9	275.8	264.5	276	270.3	6,500	2.5%	0.5%	85%
Agriculture	1.9	0	1.9	1.8	3.5	1.7	(200)	-10.5%	-2.2%	1%
Other primary	0	0	0	1.7	0	1.9	1,900	na	na	1%
Manufacturing	23.4	21.8	28.6	31.5	27.9	29.7	6,300	26.9%	4.9%	9%
Construction	16.5	13.4	13.7	12.6	13.5	13.6	(2,900)	-17.6%	-3.8%	4%
Utilities	3.5	3.8	2.4	4.2	2.9	2.3	(1,200)	-34.3%	-8.1%	1%
Transportation, storage, communications	17.3	15	11.3	16.4	16	16	(1,300)	-7.5%	-1.6%	5%
Trade	54.9	54.7	53.5	55.5	59.1	50.7	(4,200)	-7.7%	-1.6%	16%
Finance, insurance and real estate	22.5	27.3	22.2	23.1	27.6	25.8	3,300	14.7%	2.8%	8%
Community, business and personal services	129.5	129	138.6	132.1	131.5	137.2	7,700	5.9%	1.2%	43%
Business services	19.2	21.3	22.7	21.6	18.5	23.1	3,900	20.3%	3.8%	7%
Educational services	25.3	24.4	27.7	21.8	29.9	29.7	4,400	17.4%	3.3%	9%
Health & Social services	39.9	41.7	43.1	44.7	41	40.6	700	1.8%	0.3%	13%
Accommodation & food services	23	21.7	21.5	21	20.3	22	(1,000)	-4.3%	-0.9%	7%
Other services	22.2	20	23.8	22.9	21.8	21.9	(300)	-1.4%	-0.3%	7%
Public Administration	39.6	40.9	50.2	37.5	41.8	40.6	1,000	2.5%	0.5%	13%

Source Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
 (in thousands)

	1992-1997						1997 Number	1992-97 Percent	Annual Rate	1997 Emp. Dist.
	1992	1993	1994	1995	1996	1997				
Trois-Rivières										
Total	58.2	63	63.8	62.7	62.8	61	2,800	4.8%	0.9%	100%
Goods-producing	15.7	15	16.6	16.8	17.2	16.6	900	5.7%	1.1%	27%
Service-producing	42.5	48	47.2	46	45.7	44.4	1,900	4.5%	0.9%	73%
Agriculture	0	0	0	0	0	0	0	na	na	0%
Other primary	0	0	0	0	0	0	0	na	na	0%
Manufacturing	10.8	9.6	11.6	11.3	11.6	11.7	900	8.3%	1.6%	19%
Construction	2.3	1.8	2.5	2.7	2.9	2.2	(100)	-4.3%	-0.9%	4%
Utilities	2	3	2.3	2.1	1.9	1.5	(500)	-25.0%	-5.6%	2%
Transportation, storage, communications	3	3.3	2.5	3.4	3.1	3.1	100	3.3%	0.7%	5%
Trade	11.1	12.1	11.9	10.8	12.2	11.5	400	3.6%	0.7%	19%
Finance, insurance and real estate	2.9	3.3	3.9	2.8	2.6	2.7	(200)	-6.9%	-1.4%	4%
Community, business and personal services	21.9	25	25.3	25.5	24.6	23.5	1,600	7.3%	1.4%	39%
Business services	2.1	3.4	2.3	2.7	2.8	2.7	600	28.6%	5.2%	4%
Educational services	4.5	6	6.8	6.3	6.6	5.2	700	15.6%	2.9%	9%
Health & Social services	8.2	8.7	9.5	8	8.1	7.3	(900)	-11.0%	-2.3%	12%
Accommodation & food services	3.5	2.7	4	4.1	4.2	4.7	1,200	34.3%	6.1%	8%
Other services	3.6	4.1	2.6	4.4	2.8	3.7	100	2.8%	0.5%	6%
Public Administration	3.7	4.3	3.5	3.5	3.1	3.5	(200)	-5.4%	-1.1%	6%

	1992-1997						1997 Number	1992-97 Percent	Annual Rate	1997 Emp. Dist.
	1992	1993	1994	1995	1996	1997				
Sherbrooke										
Total	61.2	64.5	67.1	65.5	66.6	65.6	4,400	7.2%	1.4%	100%
Goods-producing	13.5	13.7	17.1	16.4	17.4	18.3	4,800	35.6%	6.3%	28%
Service-producing	47.7	50.8	49.9	49.1	49.1	47.3	(400)	-0.8%	-0.2%	72%
Agriculture	0	0	1.5	0	0	0	0	ERR	ERR	0%
Other primary	0	0	0	0	0	0	0	ERR	ERR	0%
Manufacturing	9.4	9.8	11.9	12.3	13.8	13.5	4,100	43.6%	7.5%	21%
Construction	2.8	2.5	2.8	2.7	2.1	3.1	300	10.7%	2.1%	5%
Utilities	0	0	0	0	0	0	0	ERR	ERR	0%
Transportation, storage, communications	2.4	2.2	2.3	2.9	2.1	2.1	(300)	-12.5%	-2.6%	3%
Trade	10	11.3	9.9	10.2	10.6	10.1	100	1.0%	0.2%	15%
Finance, insurance and real estate	3	3.4	3.3	2.8	2.8	2.7	(300)	-10.0%	-2.1%	4%
Community, business and personal services	28.4	29.7	30.7	29.9	29.8	29.2	800	2.8%	0.6%	45%
Business services	3	3.5	3.4	3.9	3.9	4	1,000	33.3%	5.9%	6%
Educational services	7.2	7.8	8	7.1	7.9	7	(200)	-2.8%	-0.6%	11%
Health & Social services	10.5	10.4	10.6	10.6	10	10.2	(300)	-2.9%	-0.6%	16%
Accommodation & food services	4.3	4.1	4.8	4.3	4	4	(300)	-7.0%	-1.4%	6%
Other services	3.4	4	3.8	4	4	3.9	500	14.7%	2.8%	6%
Public Administration	3.9	4.2	3.8	3.3	3.8	3.2	(700)	-17.9%	-3.9%	5%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
(In thousands)

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	Dist.
Montréal										
Total	1492.7	1488.1	1523	1543.9	1557.5	1590.6	97,900	6.6%	1.3%	100%
Goods-producing	374.8	372.3	375.8	392.1	377.5	389	14,200	3.8%	0.7%	24%
Service-producing	1117.9	1115.7	1147.2	1151.8	1180.1	1201.5	83,600	7.5%	1.5%	76%
Agriculture	5.5	7.2	8.1	6.4	8.8	5.7	200	3.6%	0.7%	0%
Other primary	0	0	2.5	2.9	2.2	2.2	2,200	ERR	ERR	0%
Manufacturing	281.5	283.1	290.2	300.8	287.7	307.8	26,300	9.3%	1.8%	19%
Construction	70	63.7	60.3	65.2	61.2	54.1	(15,900)	-22.7%	-5.0%	3%
Utilities	17.5	17.2	14.7	16.8	17.6	19.2	1,700	9.7%	1.9%	1%
Transportation, storage, communications	110.4	110.1	108.1	120.5	106.5	113.7	3,300	3.0%	0.6%	7%
Trade	271.9	246.8	271.1	280.5	270.6	273.9	2,000	0.7%	0.1%	17%
Finance, insurance and real estate	100.3	106.2	97.5	108.1	109.9	98	(2,300)	-2.3%	-0.5%	6%
Community, business and personal services	551	555.5	596.6	569.6	610.9	634.9	83,900	15.2%	2.9%	40%
Business services	104.9	105.7	122.3	115.9	129.5	148.9	44,000	41.9%	7.3%	9%
Educational services	108.1	97	106.8	105.7	103.2	112.8	4,700	4.3%	0.9%	7%
Health & Social services	160	163.6	167.2	160.8	176.5	172.7	12,700	7.9%	1.5%	11%
Accommodation & food services	78.5	82.8	86.7	79.3	96	88.9	10,400	13.2%	2.5%	6%
Other services	99.6	106.4	113.7	107.8	105.6	111.5	11,900	11.9%	2.3%	7%
Public Administration	84.3	97.1	73.9	73.2	82.1	81	(3,300)	-3.9%	-0.8%	5%
Ottawa-Hull										
Total	497.8	504.3	520.9	509.7	524.8	531.8	34,000	6.8%	1.3%	100%
Goods-producing	57.1	62.8	64.2	61.8	59	66.6	9,500	16.6%	3.1%	13%
Service-producing	440.7	441.5	456.7	447.9	465.8	465.2	24,500	5.6%	1.1%	87%
Agriculture	1.9	2	1.9	3.3	6.1	5.7	3,800	200.0%	24.6%	1%
Other primary	0	0	0	0	0	0	0	na	na	0%
Manufacturing	29.5	30.9	28.8	34.4	29	38.6	9,100	30.8%	5.5%	7%
Construction	22	27	29.1	20.1	20.9	20	(2,000)	-9.1%	-1.9%	4%
Utilities	2.7	2.7	3.9	2.9	2.1	1.7	(1,000)	-37.0%	-8.8%	0%
Transportation, storage, communications	32.7	30	31.2	35.7	34.8	34.1	1,400	4.3%	0.8%	6%
Trade	67.2	67.6	75	67.1	75.3	75.7	8,500	12.6%	2.4%	14%
Finance, insurance and real estate	29	25.2	26.6	24.1	30.2	25	(4,000)	-13.8%	-2.9%	5%
Community, business and personal services	193.2	200.8	212	215.9	220.3	226.1	32,900	17.0%	3.2%	43%
Business services	40.3	44.6	50	52.7	52.3	57.6	17,300	42.9%	7.4%	11%
Educational services	40.1	36.5	39.7	41.6	44.2	42.5	2,400	6.0%	1.2%	8%
Health & Social services	49.6	50.3	50.9	50.9	52	51.4	1,800	3.6%	0.7%	10%
Accommodation & food services	27.2	27.4	30.5	31.4	32	31.1	3,900	14.3%	2.7%	6%
Other services	36	42.1	40.9	39.3	39.7	43.5	7,500	20.8%	3.9%	8%
Public Administration	118.7	117.9	111.9	105.1	105.2	104.4	(14,300)	-12.0%	-2.5%	20%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
 (in thousands)

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	
									Dist.	
Oshawa										
Total	118.8	125.2	125.7	127.6	129.6	136	17,200	14.5%	2.7%	100%
Goods-producing	43.5	41.1	40.6	38.9	40.7	42.3	(1,200)	-2.8%	-0.6%	31%
Service-producing	75.3	84.1	85.2	88.7	89	93.7	18,400	24.4%	4.5%	69%
Agriculture	2.3	1.6	0	0	0	1.5	(800)	-34.8%	-8.2%	1%
Other primary	0	0	0	0	0	0	0	ERR	ERR	0%
Manufacturing	31.1	29.8	30.3	28.3	28.9	29.6	(1,500)	-4.8%	-1.0%	22%
Construction	5.8	5.7	5.5	5.2	5.7	7.1	1,300	22.4%	4.1%	5%
Utilities	4.3	4	3.2	4.5	4.9	3.8	(500)	-11.6%	-2.4%	3%
Transportation, storage, communications	5.5	7.4	7.1	7.9	7.5	7.8	2,300	41.8%	7.2%	6%
Trade	19.4	20	21.6	22.1	23.7	25.3	5,900	30.4%	5.5%	19%
Finance, insurance and real estate	7.7	7.8	8.1	8.2	6.7	8.1	400	5.2%	1.0%	6%
Community, business and personal services	34.3	39.7	40.6	43.2	44	44.7	10,400	30.3%	5.4%	33%
Business services	6.1	5.4	5.9	8.1	8.9	9.9	3,800	62.3%	10.2%	7%
Educational services	7.1	6.4	8.3	9.8	8	8.7	1,600	22.5%	4.1%	6%
Health & Social services	9.8	13.8	12.7	12.7	12.5	12.3	2,500	25.5%	4.6%	9%
Accommodation & food services	5.6	5.9	6.5	6.4	6.7	7	1,400	25.0%	4.6%	5%
Other services	5.8	8.4	7.2	6.2	8	6.8	1,000	17.2%	3.2%	5%
Public Administration	8.3	9.2	7.7	7.3	7	7.9	(400)	-4.8%	-1.0%	6%
Toronto										
Total	2020.8	2052.6	2043.2	2122.9	2158.5	2246.5	225,700	11.2%	2.1%	100%
Goods-producing	516.1	502.4	488.6	528.5	558.6	576.7	60,600	11.7%	2.2%	26%
Service-producing	1504.7	1550.3	1554.6	1594.4	1599.9	1669.8	165,100	11.0%	2.1%	74%
Agriculture	10.7	12.2	10.3	8.2	10.2	8	(2,700)	-25.2%	-5.7%	0%
Other primary	5.3	2.8	3.8	3.9	2.5	3	(2,300)	-43.4%	-10.8%	0%
Manufacturing	368.7	366.4	347.5	396.2	426.8	431.5	62,800	17.0%	3.2%	19%
Construction	102.4	100.5	105.5	98.8	96.7	116.4	14,000	13.7%	2.6%	5%
Utilities	29	20.5	21.5	21.4	22.5	17.8	(11,200)	-38.6%	-9.3%	1%
Transportation, storage, communications	123	123.5	135.5	144.8	144	154.5	31,500	25.6%	4.7%	7%
Trade	344.8	350.6	371.6	359.3	366.2	384.2	39,400	11.4%	2.2%	17%
Finance, insurance and real estate	199.6	200.8	182.7	200.1	181.1	196.4	(3,200)	-1.6%	-0.3%	9%
Community, business and personal services	734	769.2	769.1	803.6	823.2	850.8	116,800	15.9%	3.0%	38%
Business services	179.8	176.9	209.9	216.5	224.7	251.5	71,700	39.9%	6.9%	11%
Educational services	130.1	129.5	140.5	129.4	123.5	142.1	12,000	9.2%	1.8%	6%
Health & Social services	172.4	179.4	168.7	169.1	188	165.2	(7,200)	-4.2%	-0.8%	7%
Accommodation & food services	112.1	113.3	99.5	127.2	127	125.5	13,400	12.0%	2.3%	6%
Other services	139.5	170	150.5	161.4	160	166.5	27,000	19.4%	3.6%	7%
Public Administration	103.2	106.1	95.7	86.6	85.4	83.9	(19,300)	-18.7%	-4.1%	4%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
 (in thousands)

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	
									Dist.	
Hamilton										
Total	295.3	295.5	311.2	311.7	308.5	315.2	19,900	6.7%	1.3%	100%
Goods-producing	88.9	84.2	92	94.2	93.3	96.6	7,700	8.7%	1.7%	31%
Service-producing	206.4	211.3	219.3	217.5	215.1	218.6	12,200	5.9%	1.2%	69%
Agriculture	6.6	4.2	4.8	4.5	5.3	3	(3,600)	-54.5%	-14.6%	1%
Other primary	0	0	0	0	0	0	0	ERR	ERR	0%
Manufacturing	63.8	63	66.9	69.9	68.9	69	5,200	8.2%	1.6%	22%
Construction	15.1	14.2	16.8	15.6	15.9	20.8	5,700	37.7%	6.6%	7%
Utilities	2.6	2.3	3.2	3.3	2.4	2.6	0	0.0%	0.0%	1%
Transportation, storage, communications	14.4	12.7	12.5	16.1	17.8	15.3	900	6.3%	1.2%	5%
Trade	59.8	53.9	51.7	53.4	56.2	59	(800)	-1.3%	-0.3%	19%
Finance, insurance and real estate	15.2	20.5	19.4	20.6	19.9	20	4,800	31.6%	5.6%	6%
Community, business and personal services	104.8	110.4	119.6	112.3	108.9	113.3	8,500	8.1%	1.6%	36%
Business services	15.5	16	19.4	20.2	19.2	20	4,500	29.0%	5.2%	6%
Educational services	22.8	24.4	26	21.9	19.5	20.6	(2,200)	-9.6%	-2.0%	7%
Health & Social services	34.9	37.2	37.9	33.2	31.6	34.8	(100)	-0.3%	-0.1%	11%
Accommodation & food services	13.7	16.8	18.4	14.3	18	15.4	1,700	12.4%	2.4%	5%
Other services	18	16.1	17.9	22.8	20.7	22.4	4,400	24.4%	4.5%	7%
Public Administration	12.2	13.7	16	15	12.4	11	(1,200)	-9.8%	-2.0%	3%

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Rate	
									Dist.	
St. Catharines - Niagara										
Total	153	146.7	153.1	158.7	164.8	161.9	8,900	5.8%	1.1%	100%
Goods-producing	49.4	45	46.8	47	50.1	44.8	(4,600)	-9.3%	-1.9%	28%
Service-producing	103.6	101.7	106.4	111.7	114.8	117.1	13,500	13.0%	2.5%	72%
Agriculture	4.6	2.9	3	3.8	4	3.9	(700)	-15.2%	-3.2%	2%
Other primary	0	0	0	0	0	0	0	ERR	ERR	0%
Manufacturing	35.6	33.2	34.7	33.4	34.3	31.5	(4,100)	-11.5%	-2.4%	19%
Construction	6.9	7.3	7.2	8.2	9.5	7.7	800	11.6%	2.2%	5%
Utilities	1.8	0	0	0	1.9	0	(1,800)	-100.0%	-100.0%	0%
Transportation, storage, communications	6.3	6.3	7.1	7	7.2	6.8	500	7.9%	1.5%	4%
Trade	24.4	26.5	28.4	26.6	30.8	29.1	4,700	19.3%	3.6%	18%
Finance, insurance and real estate	8	6.5	7.2	7.8	6.9	7.4	(600)	-7.5%	-1.5%	5%
Community, business and personal services	57.5	55.6	56	62.1	63	65.4	7,900	13.7%	2.6%	40%
Business services	5.9	6.3	6.8	8	8.1	9.2	3,300	55.9%	9.3%	6%
Educational services	11.8	11.4	10	11	11.3	9.7	(2,100)	-17.8%	-3.8%	6%
Health & Social services	16.8	15.1	15.9	17.6	16.8	15.3	(1,500)	-8.9%	-1.9%	9%
Accommodation & food services	12.9	12.4	13.5	13.6	15.2	16.3	3,400	26.4%	4.8%	10%
Other services	10.1	10.3	9.8	11.9	11.6	14.9	4,800	47.5%	8.1%	9%
Public Administration	7.3	6.9	7.7	8.1	6.8	8.4	1,100	15.1%	2.8%	5%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
 (in thousands)

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.
							Number	Rate	Dist.
London									
Total	198.2	207	211.5	207.9	203.8	210.4	12,200	6.2%	100%
Goods-producing	46.7	48.8	50.6	53.5	46	49.7	3,000	6.4%	24%
Service-producing	151.5	158.2	160.9	154.4	157.8	160.8	9,300	6.1%	76%
Agriculture	3.3	4.1	4	4.7	3.2	3.3	0	0.0%	2%
Other primary	0	0	0	0	0	0	0	ERR	0%
Manufacturing	31.4	30.6	33.7	36.8	32.4	33.8	2,400	7.6%	16%
Construction	9.8	11.4	11.2	10.4	8.8	10.8	1,000	10.2%	5%
Utilities	1.8	2.4	1.5	0	0	0	(1,800)	-100.0%	0%
Transportation, storage, communications	10.4	11.3	12.5	8.3	11.1	11.5	1,100	10.6%	5%
Trade	36	34.7	37.4	35.2	36.5	36.8	800	2.2%	17%
Finance, insurance and real estate	17.2	15.3	15	16	15.2	14.2	(3,000)	-17.4%	7%
Community, business and personal services	79.4	88.7	85.5	87	87.2	91	11,600	14.6%	43%
Business services	9.9	11.7	11.3	11	12.9	15.6	5,700	57.6%	7%
Educational services	18.6	21	18.3	20.4	19.3	16.6	(2,000)	-10.8%	8%
Health & Social services	26	31	32.9	30.6	27.7	31.1	5,100	19.6%	15%
Accommodation & food services	13.5	10.9	10.3	11.7	12.4	12.1	(1,400)	-10.4%	6%
Other services	11.4	14	12.6	13.4	14.9	15.8	4,400	38.6%	8%
Public Administration	8.5	8.3	10.6	7.9	7.8	7.3	(1,200)	-14.1%	3%
Windsor									
Total	119.1	121.4	127.4	126.8	134	133.9	14,800	12.4%	100%
Goods-producing	42.7	44.9	46.2	45.8	45.9	48	5,300	12.4%	36%
Service-producing	76.4	76.6	81.2	80.9	88.1	85.9	9,500	12.4%	64%
Agriculture	0	0	0	0	0	0	0	ERR	0%
Other primary	0	0	0	0	0	0	0	ERR	0%
Manufacturing	34.4	37.3	38.1	37.1	35.6	39.4	5,000	14.5%	29%
Construction	6.4	5.5	6.6	7.1	8.4	7.2	800	12.5%	5%
Utilities	0	0	0	0	0	0	0	ERR	0%
Transportation, storage, communications	5.9	5.2	4.6	5.8	6.5	5.8	(100)	-1.7%	4%
Trade	18.1	19.2	19.5	21.2	22.3	22.2	4,100	22.7%	17%
Finance, insurance and real estate	6.5	6.6	4.8	5.8	5.2	5.3	(1,200)	-18.5%	4%
Community, business and personal services	41	40.7	47.7	44.6	50.2	47.6	6,600	16.1%	36%
Business services	5.1	5.3	5.1	5.5	5.3	5.5	400	7.8%	4%
Educational services	7.7	7.6	8.1	7.7	6.7	8.4	700	9.1%	6%
Health & Social services	12.8	12.4	14	13.4	15	12.9	100	0.8%	10%
Accommodation & food services	7.5	9	10.1	8.3	10.6	9.1	1,600	21.3%	7%
Other services	7.9	6.4	10.3	9.6	12.7	11.7	3,800	48.1%	9%
Public Administration	4.9	4.9	4.5	3.6	3.8	5	100	2.0%	4%

Source: Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Table C-2 (Continued)
Employment Characteristics by major group industry
Selected Eastern Province Census Metropolitan Areas
(in thousands)
Kitchener - Waterloo

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Dist.	
								Rate		
Total	194.3	195.7	203.3	204.6	203.5	204.9	10,600	5.5%	1.1%	100%
Goods-producing	66.5	66.2	67.2	74.6	73.1	72.4	5,900	8.9%	1.7%	35%
Service-producing	127.7	129.4	136	130	130.4	132.6	4,900	3.8%	0.8%	65%
Agriculture	2.7	3.2	2.3	2.8	3	3.3	600	22.2%	4.1%	2%
Other primary	0	0	0	0	0	0	0	ERR	ERR	0%
Manufacturing	50.2	51.7	53.4	61.3	57.9	57.6	7,400	14.7%	2.8%	28%
Construction	12.4	10	9.9	9	10.7	9.9	(2,500)	-20.2%	-4.4%	5%
Utilities	0	0	0	0	0	1.5	1,500	ERR	ERR	1%
Transportation, storage, communications	7.8	7.8	8.9	10.3	7.2	10.1	2,300	29.5%	5.3%	5%
Trade	35.3	33.8	34	33.1	34	35.2	(100)	-0.3%	-0.1%	17%
Finance, insurance and real estate	13.2	14.6	16.4	12.9	14.2	13.4	200	1.5%	0.3%	7%
Community, business and personal services	64.2	64.7	69	66.1	67.8	67	2,800	4.4%	0.9%	33%
Business services	9.9	12	12.3	11.4	13.9	12.3	2,400	24.2%	4.4%	6%
Educational services	18.9	17.1	17.5	15.5	15.3	13.2	(5,700)	-30.2%	-6.9%	6%
Health & Social services	14.1	15.6	15.9	15.4	14.5	16.9	2,800	19.9%	3.7%	8%
Accommodation & food services	10.4	9.2	9.6	11.1	11.3	11.3	900	8.7%	1.7%	6%
Other services	10.9	10.7	13.7	12.6	12.8	13.2	2,300	21.1%	3.9%	6%
Public Administration	7.3	8.6	7.7	7.6	7.2	6.8	(500)	-6.8%	-1.4%	3%

	1992	1993	1994	1995	1996	1997	Change: 1992-97	Annual	1997 Emp.	
							Number	Percent	Dist.	
								Rate		
Total	59	59.7	60.9	63.8	61.6	61.2	2,200	3.7%	0.7%	100%
Goods-producing	11.5	12.2	13.5	15.1	13.7	14.4	2,900	25.2%	4.6%	24%
Service-producing	47.5	47.5	47.5	48.8	47.9	46.8	(700)	-1.5%	-0.3%	76%
Agriculture	0	0	0	0	0	0	0	ERR	ERR	0%
Other primary	0	0	0	0	1.6	1.7	1,700	ERR	ERR	3%
Manufacturing	6.2	6.5	7.5	8.7	7.1	7.9	1,700	27.4%	5.0%	13%
Construction	3	3.5	3.4	3.7	3.6	3.3	300	10.0%	1.9%	5%
Utilities	0	0	0	0	0	0	0	ERR	ERR	0%
Transportation, storage, communications	5.5	5.6	5.8	6	5.4	5.6	100	1.8%	0.4%	9%
Trade	9.9	9.4	10.6	10.1	9.5	10.4	500	5.1%	1.0%	17%
Finance, insurance and real estate	3	3.2	2.1	2.4	2.2	2.7	(300)	-10.0%	-2.1%	4%
Community, business and personal services	23.7	23.7	24.1	25.7	25.8	23.7	0	0.0%	0.0%	39%
Business services	2.6	2.2	2.5	3.1	2.7	3.2	600	23.1%	4.2%	5%
Educational services	5.2	4.8	5.7	5.2	5.7	4	(1,200)	-23.1%	-5.1%	7%
Health & Social services	8	8.5	8.1	9	9.3	8.2	200	2.5%	0.5%	13%
Accommodation & food services	4.8	4.7	3.9	4.9	4.7	4.3	(500)	-10.4%	-2.2%	7%
Other services	3.2	3.5	4	3.5	3.5	4	800	25.0%	4.6%	7%
Public Administration	5.5	5.5	4.9	4.5	4.9	4.4	(1,100)	-20.0%	-4.4%	7%

Source Labour Force Survey, Statistics Canada / L'enquête sur la population active, Statistique Canada

Maine East-West Highway: Economic Impact Analysis

Table C-3
 Provincial Population Trends and Projections: 1995-2016 Medium Growth Scenario
 Eastern Provinces

	1995	1996	1997	1998	1999	2000	2001	2006	2011	2016
Newfoundland	577,472	571,657	563,641	581,200	580,200	578,900	577,300	566,200	550,900	533,300
Prince Edward Island	135,366	136,743	137,244	135,800	136,600	137,300	138,100	141,200	143,700	145,700
Nova Scotia	938,453	943,219	947,917	943,600	946,900	949,900	952,800	964,100	971,500	975,600
New Brunswick	759,893	762,031	762,049	763,600	765,300	766,800	768,000	771,300	771,200	770,100
Quebec	7,341,259	7,388,028	7,419,890	7,453,600	7,606,300	7,667,600	7,727,000	8,004,200	8,275,500	8,491,100
Ontario	11,098,109	11,258,391	11,407,691	11,699,400	11,891,400	12,083,100	12,274,000	13,220,500	14,164,900	15,106,800
Eastern Provinces	20,850,552	21,060,069	21,238,432	21,577,200	21,926,700	22,183,600	22,437,200	23,667,500	24,877,700	26,022,600
Canada	29,963,700	30,358,400	30,747,000	31,129,300	31,505,900	31,877,300	33,677,500	35,420,300	37,119,800	

	Numeric Change						Annual Percent Change					
	1996-01	2001-06	2006-11	2011-16	1996-16	1996-01	2001-06	2006-11	2011-16	1996-16		
Newfoundland	5,643	(11,100)	(15,300)	(17,600)	(38,357)	0.2%	-0.4%	-0.5%	-0.6%	-0.3%		
Prince Edward Island	1,357	3,100	2,500	2,000	8,957	0.2%	0.4%	0.4%	0.3%	0.3%		
Nova Scotia	9,581	11,300	7,400	4,100	32,381	0.2%	0.2%	0.2%	0.1%	0.2%		
New Brunswick	5,969	3,300	(100)	(1,100)	8,069	0.2%	0.1%	-0.0%	-0.0%	0.1%		
Quebec	338,972	277,200	271,300	215,600	1,103,072	0.9%	0.7%	0.7%	0.5%	0.7%		
Ontario	1,015,609	946,500	944,400	941,900	3,848,409	1.7%	1.5%	1.4%	1.3%	1.5%		
Eastern Provinces	1,377,131	1,230,300	1,210,200	1,144,900	4,962,531	1.3%	1.1%	1.0%	0.9%	1.1%		
Canada	1,913,600	1,800,200	1,742,800	1,699,500	7,156,100	1.2%	1.1%	1.0%	0.9%	1.1%		

Source: Statistics Canada, Demography Division, Population Projections Section.

Maine East-West Highway: Economic Impact Analysis

Table C-4
Range of Provincial Population Projections: 1996-2016
Low, Medium & High Growth Scenarios
Canada and the Eastern Provinces

	1996 Estimate	2016 Low	2016 Medium	2016 High
Newfoundland	571,657	509,900	533,300	606,100
Prince Edward Island	136,743	138,900	145,700	160,700
Novia Scotia	943,219	927,600	975,600	1,067,400
New Brunswick	762,031	736,900	770,100	850,700
Quebec	7,388,028	7,891,500	8,491,100	8,924,900
Ontario	11,258,391	13,735,900	15,106,800	16,055,600
Eastern Provinces	21,060,069	23,940,700	26,022,600	27,665,400
Canada	29,963,700	34,237,600	37,119,800	39,883,400

	Total Population Change: 1996-2016		
	Low	Medium	High
Newfoundland	(61,757)	(38,357)	34,443
Prince Edward Island	2,157	8,957	23,957
Novia Scotia	(15,619)	32,381	124,181
New Brunswick	(25,131)	8,069	88,669
Quebec	503,472	1,103,072	1,536,872
Ontario	2,477,509	3,848,409	4,797,209
Eastern Provinces	2,880,631	4,962,531	6,605,331
Canada	4,273,900	7,156,100	9,919,700

	Annual Growth Rate: 1996-2016		
	Low	Medium	High
Newfoundland	-0.6%	-0.3%	0.3%
Prince Edward Island	0.1%	0.3%	0.8%
Novia Scotia	-0.1%	0.2%	0.6%
New Brunswick	-0.2%	0.1%	0.6%
Quebec	0.3%	0.7%	0.9%
Ontario	1.0%	1.5%	1.8%
Eastern Provinces	0.6%	1.1%	1.4%
Canada	0.7%	1.1%	1.4%

Source: Statistics Canada, Demography Division, Population Projections Section.

TABLE C-5
Economic Outlook for Prince Edward Island (1995-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	58,700	60,100	60,500	61,469	61,801	62,260	63,018	63,631	64,174	64,862	65,335	66,104	66,762	67,371
Manufacturing	5,000	5,800	5,700	5,936	5,963	6,014	6,204	6,375	6,502	6,598	6,826	7,126	7,402	7,574
Non-manufacturing	53,700	54,300	54,800	55,534	55,838	56,246	56,814	57,256	57,672	58,064	58,509	58,978	59,361	59,797
Transp., Comm., & Util.	3,699	3,699	3,699	2,774	2,754	2,714	2,690	2,661	2,637	2,606	2,581	2,566	2,546	2,523
Trade	9,900	10,200	11,000	11,400	11,483	11,251	11,403	11,471	11,518	11,565	11,622	11,713	11,770	11,805
Fin., Ins., & Real Estate	2,289	2,189	2,000	2,027	2,042	2,045	2,068	2,076	2,089	2,096	2,104	2,117	2,129	2,129
Services	20,800	21,102	21,701	22,190	22,501	22,825	23,151	23,484	23,827	24,227	24,586	24,913	25,235	25,572
Govt.	5,801	5,900	5,799	5,819	5,835	5,876	5,926	5,975	6,050	6,132	6,202	6,268	6,340	6,421
Construction	4,099	4,400	3,800	3,868	3,950	4,045	4,055	4,110	4,133	4,175	4,212	4,221	4,252	4,287
Primary	7,008	6,899	7,700	7,714	7,572	7,489	7,521	7,479	7,383	7,263	7,201	7,181	7,094	7,059
Population	133,610	134,575	135,736	136,866	137,976	139,066	140,150	141,231	142,304	143,363	144,413	145,409	146,410	147,411
Age Groups														
0 - 14	29,140	29,085	28,926	28,700	28,532	28,294	27,991	27,792	27,669	27,506	27,265	27,093	26,935	26,905
15 - 24	19,401	19,395	19,614	20,005	20,245	20,484	20,634	20,824	20,971	21,092	21,140	21,224	21,292	21,180
25 - 34	20,511	19,370	19,297	18,965	18,811	18,723	18,895	19,281	19,680	20,112	20,433	20,688	20,887	21,258
35 - 44	20,511	20,755	21,068	21,471	21,664	21,841	21,662	21,417	21,114	20,903	20,668	20,411	20,324	19,974
45 - 54	16,175	16,950	17,513	18,119	18,649	19,278	19,874	20,036	20,241	20,377	20,597	20,889	21,290	21,683
55 - 64	11,380	11,550	11,651	11,743	12,087	12,869	12,896	13,450	14,184	14,909	15,563	16,107	16,633	17,198
65 +	17,390	17,470	17,667	17,863	17,990	18,084	18,229	18,366	18,465	18,587	18,747	18,897	19,049	19,213
Labour Market Measures														
Source Population	104,900	106,400	107,300	108,662	109,948	111,280	112,674	113,959	115,161	116,389	117,685	118,959	120,023	121,059
Labour Force	68,800	70,400	71,100	71,500	72,220	72,940	73,713	74,408	75,044	75,682	76,344	76,906	77,451	77,923
Participation Rate (%)	65.60	66.20	66.30	65.80	65.70	65.80	65.40	65.50	65.20	65.00	64.90	64.70	64.50	64.40
Unemployment Rate (%)	14.70	14.50	14.90	14.00	14.40	14.60	14.50	14.50	14.50	14.60	14.60	14.00	13.80	13.50
Income (Thousands)														
Personal Income	\$2,537	\$2,608	\$2,569	\$2,648	\$2,729	\$2,829	\$2,938	\$3,058	\$3,195	\$3,346	\$3,524	\$3,715	\$3,915	\$4,132
Labour Income	\$1,362	\$1,407	\$1,350	\$1,384	\$1,413	\$1,455	\$1,505	\$1,557	\$1,615	\$1,676	\$1,752	\$1,838	\$1,934	\$2,036
Other Income	\$1,175	\$1,201	\$1,219	\$1,265	\$1,315	\$1,373	\$1,432	\$1,501	\$1,579	\$1,670	\$1,772	\$1,876	\$1,982	\$2,096
Disposable Income	\$2,050	\$2,092	\$2,021	\$2,108	\$2,174	\$2,255	\$2,342	\$2,439	\$2,550	\$2,673	\$2,816	\$2,970	\$3,131	\$3,304
Income per Household	\$53,072	\$53,629	\$52,110	\$53,039	\$53,929	\$55,187	\$56,624	\$58,209	\$60,079	\$62,167	\$64,707	\$67,421	\$70,269	\$73,347
Housing Starts	450	600	400	642	679	662	612	675	670	679	661	661	663	664
Households	47,803	48,630	49,300	49,932	50,601	51,253	51,878	52,536	53,174	53,824	54,463	55,100	55,721	56,332
Change	65	42	(71)	87	65	81	88	97	110	123	144	154	161	174

Summary Table
Economic Outlook for Prince Edward Island (1995-2008)

	Numeric Change		Percent Change		Annual Growth: 95-08	
	98-03	03-08	98-03	03-08	95-08	Number Percent
Employment						
Total	2,705	3,197	8,671	4.4%	14.8%	667 1.1%
Manufacturing	566	1,072	2,574	9.5%	15.5%	198 3.2%
Non-manufacturing	2,140	2,125	6,097	3.9%	11.4%	469 0.8%
Transp., Comm., & Util.	(137)	(114)	(1,176)	-4.9%	-3.8%	(90) -2.9%
Trade	378	287	1,905	3.4%	19.2%	147 1.4%
Fin., Ins., & Real Estate	62	40	(170)	3.1%	-7.4%	(13) -0.6%
Services	1,672	1,710	4,672	7.5%	22.4%	359 1.6%
Govt.	231	371	620	4.0%	10.7%	48 0.8%
Construction	265	154	188	6.9%	3.7%	14 0.3%
Primary	(331)	(324)	51	-4.3%	0.7%	4 0.1%
Population	5,438	5,107	13,801	4.0%	10.3%	1,062 0.8%
Age Groups						
0 - 14	(1,031)	(764)	(2,235)	-3.6%	-7.7%	(172) -0.6%
15 - 24	966	209	1,779	4.8%	9.2%	137 0.7%
25 - 34	695	1,598	1,645	3.7%	8.4%	127 0.6%
35 - 44	(357)	(1,140)	(937)	-1.7%	-2.6%	(41) -0.2%
45 - 54	2,122	1,442	5,508	11.7%	34.1%	424 2.3%
55 - 64	2,441	3,014	5,818	20.8%	51.1%	448 3.2%
65 +	602	748	1,823	3.4%	10.5%	140 0.8%
Labour Market Measures						
Source Population	6,499	5,888	16,159	6.0%	15.4%	1,243 1.1%
Labour Force	3,544	2,879	9,123	5.0%	13.3%	702 1.0%
Participation Rate (%)	14.40	14.13	14.35			
Average Unemployment Rate						
Income (Thousands)						
Personal Income	\$547	\$937	\$1,595	20.7%	62.9%	\$123 3.8%
Labour Income	\$231	\$421	\$674	16.7%	49.5%	\$52 3.1%
Other Income	\$314	\$517	\$921	24.8%	78.4%	\$71 4.6%
Disposable Income	\$442	\$754	\$1,254	21.0%	29.6%	\$96 3.7%
Income per Household	\$7,040	\$13,268	\$20,275	13.3%	38.2%	\$1,560 2.5%
Housing Starts	28	(6)	214	4.4%	47.6%	16 3.0%
Households	3,242	3,158	8,529	6.5%	17.8%	656 1.3%

**TABLE C-6
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Halifax (1998-2008)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment	166,100	168,300	169,700	176,127	179,424	182,588	186,040	189,061	191,750	194,288	196,735	199,101	201,419	203,726
Manufacturing	11,100	9,500	11,028	11,337	11,496	11,612	11,856	12,041	12,152	12,223	12,379	12,567	12,735	12,838
Non-manufacturing	155,000	158,900	158,672	164,790	167,928	170,976	174,183	177,020	179,598	182,066	184,356	186,535	188,684	190,887
Transp., Comm., & Util.	16,200	14,500	13,470	14,129	14,418	14,687	15,007	15,258	15,500	15,732	15,936	16,135	16,316	16,502
Trade	29,700	31,800	31,392	32,625	33,069	33,511	34,163	34,886	35,500	35,175	35,460	35,814	36,097	36,331
Fin., Ins., & Real Estate	12,400	12,000	11,488	11,966	12,074	12,074	12,247	12,365	12,474	12,560	12,638	12,727	12,802	12,875
Services	69,500	73,500	74,278	77,489	79,168	80,788	82,441	84,003	85,551	86,995	88,346	89,599	90,860	92,178
Govt.	19,600	17,200	17,565	17,821	18,045	18,283	18,448	18,783	19,030	19,280	19,482	19,697	19,913	20,146
Construction	6,900	8,600	9,252	9,650	9,984	10,347	10,774	11,192	11,605	11,996	12,367	12,727	13,075	13,412
Primary	800	1,200	1,225	1,286	1,288	1,286	1,305	1,314	1,303	1,290	1,287	1,290	1,279	1,280
Population	330,155	332,970	337,111	341,278	345,420	349,159	352,789	356,321	359,871	363,314	366,674	369,858	372,900	375,868
Age Groups														
0 - 14	65,773	66,245	67,106	67,635	68,082	68,231	68,251	68,157	68,039	67,689	67,056	66,232	65,592	65,022
15 - 24	46,331	46,555	44,472	43,682	43,287	43,322	43,400	44,015	44,733	45,593	46,578	47,708	48,534	49,193
25 - 34	61,141	59,810	59,139	59,350	59,263	59,362	59,208	54,120	52,965	52,005	50,988	49,566	48,320	47,264
35 - 44	57,472	58,570	60,754	62,575	64,134	65,373	65,763	65,790	65,775	65,551	65,209	64,292	63,480	62,802
45 - 54	41,429	43,430	45,194	46,782	48,817	50,563	52,461	53,712	54,901	56,423	58,235	59,927	62,059	64,032
55 - 64	25,073	25,385	26,217	27,319	28,517	29,794	31,272	33,510	35,890	37,802	39,738	41,736	43,369	44,895
65 +	32,936	33,575	34,228	34,806	35,341	35,916	36,454	37,017	37,548	38,268	38,969	39,717	40,734	41,982
Labour Market Measures														
Source Population	267,800	270,700	274,100	277,794	281,347	284,856	288,381	292,025	295,749	299,612	303,639	307,701	311,433	315,017
Labour Force	182,300	184,200	186,600	190,562	193,884	196,858	199,585	202,313	204,936	207,476	210,076	212,560	214,741	216,764
Participation Rate (%)	68.10	68.90	68.10	68.60	68.90	69.10	69.20	69.30	69.30	69.20	69.20	69.20	69.10	68.90
Unemployment Rate (%)	8.80	8.60	8.60	7.60	7.50	7.20	6.80	6.60	6.40	6.40	6.40	6.30	6.20	6.00
Income (Thousands)														
Personal Income	\$7,776	\$7,906	\$8,096	\$8,533	\$8,904	\$9,309	\$9,708	\$10,145	\$10,619	\$11,134	\$11,715	\$12,319	\$12,980	\$13,702
Labour Income	\$5,078	\$5,228	\$5,389	\$5,936	\$6,205	\$6,520	\$6,876	\$7,272	\$7,702	\$8,169	\$8,682	\$9,257	\$9,807	\$10,331
Other Income	\$2,698	\$2,678	\$2,707	\$2,808	\$2,968	\$3,109	\$3,232	\$3,383	\$3,548	\$3,735	\$3,958	\$4,173	\$4,393	\$4,631
Disposable Income	\$5,869	\$5,911	\$6,056	\$6,395	\$6,672	\$6,949	\$7,271	\$7,528	\$7,875	\$8,269	\$8,728	\$9,218	\$9,723	\$10,264
Income per Household	\$61,444	\$61,472	\$61,761	\$63,967	\$65,617	\$67,593	\$69,471	\$71,617	\$73,941	\$76,476	\$79,377	\$82,344	\$85,626	\$89,247
Housing Starts	2,080	2,022	2,065	2,319	2,449	2,670	1,847	1,940	2,100	2,167	2,205	2,346	2,463	2,563
Households	126,556	128,618	131,090	133,394	135,656	137,720	139,739	141,650	143,618	145,585	147,587	149,603	151,596	153,527
Change	83	42	145	339	277	277	273	307	347	413	439	480	505	540

Employment	Numeric Change		Percent Change		Annual Growth: 95-08	
	98-03	03-08	98-03	03-08	95-08	Percent
Total	15,823	11,976	8.9%	6.2%	22.7%	1.6%
Manufacturing	815	686	7.2%	5.6%	15.7%	1.1%
Non-manufacturing	14,008	11,289	8.0%	6.3%	23.2%	1.6%
Transp., Comm., & Util.	1,371	1,002	9.0%	6.5%	1.9%	2.3
Trade	2,261	1,445	6.6%	4.1%	22.3%	0.1%
Fin., Ins., & Real Estate	684	401	5.8%	3.2%	3.9%	0.3%
Services	8,062	6,627	10.4%	7.7%	32.6%	2.2%
Govt.	1,209	1,116	6.8%	5.9%	2.8%	0.2%
Construction	1,203	722	12.5%	6.7%	67.8%	4.1%
Primary	17	(23)	1.3%	-1.6%	60.9%	3.7%
Population	18,592	15,997	5.4%	4.8%	13.8%	1.0%
Age Groups						
0 - 14	404	(3,017)	0.6%	-4.4%	-1.1%	-0.1%
15 - 24	1,091	4,440	2.5%	9.9%	6.2%	0.5%
25 - 34	(5,385)	(5,701)	-9.2%	-10.8%	-22.7%	-2.0%
35 - 44	3,950	(2,985)	4.9%	-3.5%	10.5%	0.8%
45 - 54	8,119	9,131	17.4%	16.6%	54.6%	3.4%
55 - 64	8,571	9,005	31.4%	25.1%	79.1%	4.4%
65 +	2,142	4,434	7.9%	11.8%	27.5%	1.6%
Labour Market Measures						
Source Population	17,955	19,268	6.5%	6.5%	17.6%	1.3%
Labour Force	14,374	11,828	7.5%	5.8%	18.9%	1.3%
Participation Rate (%)	7.14	6.28	7.14			
Unemployment Rate (%)						
Income (Thousands)	\$2,086	\$3,083	24.4%	29.0%	76.2%	4.5%
Labour Income	\$1,367	\$1,999	24.0%	28.3%	78.6%	4.6%
Other Income	\$720	\$1,083	25.5%	30.5%	71.6%	4.2%
Disposable Income	\$1,480	\$2,389	23.1%	30.3%	74.9%	4.4%
Income per Household	\$9,974	\$15,306	15.6%	20.7%	45.2%	2.9%
Housing Starts	(219)	463	-8.4%	22.0%	23.2%	1.6%
Households	10,224	9,509	26.971	7.7%	6.9%	1.5%

Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998

TABLE C-6 (Continued)
 Economic Outlook for Selected Eastern Canada CMAs
 Outlook for Saint John, NB (1998-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	59,100	56,100	57,100	58,470	58,957	59,401	59,665	59,983	60,319	60,651	60,983	61,325	61,771	62,249
Manufacturing	8,000	6,900	6,910	7,149	7,244	7,293	7,374	7,442	7,536	7,650	7,783	7,962	8,172	8,384
Nonmanufacturing	51,100	49,200	50,190	51,321	51,713	52,107	52,290	52,541	52,781	53,001	53,170	53,363	53,600	53,865
Transp., Comm., & Util.	6,300	5,400	5,929	6,104	6,176	6,236	6,308	6,356	6,415	6,464	6,505	6,556	6,601	6,645
Trade	10,400	10,900	11,029	11,215	11,241	11,263	11,216	11,208	11,207	11,201	11,183	11,168	11,174	11,186
Fin., Ins., & Real Estate	3,000	3,400	3,602	3,680	3,673	3,685	3,690	3,698	3,701	3,701	3,701	3,706	3,712	3,718
Services	23,700	22,300	22,177	22,715	22,918	23,127	23,260	23,411	23,572	23,714	23,833	23,967	24,116	24,273
Govt.	3,200	3,300	3,452	3,507	3,519	3,535	3,544	3,555	3,569	3,583	3,592	3,605	3,621	3,639
Construction	3,400	2,800	2,711	2,805	2,878	2,984	2,971	3,019	3,039	3,074	3,102	3,112	3,141	3,174
Primary	1,200	1,200	1,230	1,261	1,292	1,288	1,301	1,292	1,282	1,264	1,253	1,249	1,234	1,229
Population	124,708	125,685	125,999	126,314	126,514	126,441	126,555	126,656	126,732	126,782	126,808	126,795	126,770	126,733
Age Groups														
0 - 14	26,044	25,695	25,430	25,084	24,663	24,195	23,742	23,354	22,908	22,471	22,049	21,578	21,123	20,720
15 - 24	16,188	17,790	17,713	17,692	17,732	17,636	17,567	17,502	17,402	17,190	17,117	17,040	17,109	17,105
25 - 34	19,492	19,085	18,547	17,918	17,429	17,103	16,919	17,025	17,089	17,296	17,331	17,407	17,333	17,296
35 - 44	15,975	16,165	16,442	16,629	16,815	16,999	17,181	17,361	17,538	17,713	17,888	18,063	18,238	18,413
45 - 54	15,100	15,165	15,230	15,295	15,360	15,425	15,490	15,555	15,620	15,685	15,750	15,815	15,880	15,945
55 - 64	10,174	10,275	10,376	10,477	10,578	10,679	10,780	10,881	10,982	11,083	11,184	11,285	11,386	11,487
65 +	15,735	15,855	16,136	16,340	16,433	16,575	16,693	16,730	16,841	17,001	17,123	17,370	17,628	17,945
Labour Market Measures														
Source Population	105,900	105,900	105,800	106,255	106,930	107,465	108,050	108,565	109,114	109,626	110,096	110,577	111,030	111,413
Labour Force	65,900	63,900	65,500	65,684	66,062	66,465	66,844	67,170	67,516	67,828	68,098	68,368	68,594	68,787
Participation Rate (%)	62.20	60.30	61.90	61.80	61.80	61.80	61.80	61.80	61.80	61.80	61.80	61.80	61.80	61.70
Unemployment Rate (%)	10.30	12.20	12.70	11.00	10.80	10.60	10.70	10.70	10.70	10.60	10.50	10.30	9.90	9.50
Income (Thousands)														
Personal Income	\$2,982	\$2,595	\$2,873	\$2,738	\$2,797	\$2,869	\$2,938	\$3,017	\$3,114	\$3,226	\$3,359	\$3,498	\$3,650	\$3,817
Labour Income	\$1,689	\$1,592	\$1,689	\$1,741	\$1,785	\$1,838	\$1,879	\$1,931	\$1,995	\$2,064	\$2,141	\$2,228	\$2,334	\$2,463
Other Income	\$893	\$1,003	\$984	\$997	\$1,012	\$1,032	\$1,057	\$1,086	\$1,119	\$1,162	\$1,218	\$1,271	\$1,316	\$1,384
Disposable Income	\$1,974	\$1,968	\$2,028	\$2,018	\$2,126	\$2,172	\$2,215	\$2,271	\$2,342	\$2,436	\$2,538	\$2,657	\$2,773	\$2,900
Income per Household	\$55,079	\$54,882	\$55,965	\$56,814	\$57,584	\$58,576	\$59,483	\$60,569	\$62,208	\$64,029	\$66,283	\$69,055	\$71,798	\$74,081
Housing Starts	267	306	334	366	329	363	378	324	314	297	282	270	252	263
Households	46,870	47,284	47,771	48,187	48,571	48,988	49,380	49,722	50,056	50,382	50,701	51,012	51,268	51,523
Change	18	(6)	60	53	45	47	43	56	71	93	103	117	118	127

Employment	95-08		95-08		95-08		95-08	
	Numeric Change	Percent Change	Number	Percent	Annual Growth	Number	Percent	Annual Growth
Total	1,849	3.3%	3,149	5.3%	242	0.4%		
Manufacturing	389	4.6%	384	4.8%	30	0.4%		
Nonmanufacturing	1,460	2.6%	2,765	5.4%	213	0.4%		
Transp., Comm., & Util.	311	5.1%	345	5.5%	27	0.4%		
Trade	(8)	(0.1%)	786	7.6%	60	0.6%		
Fin., Ins., & Real Estate	38	1.0%	718	7.6%	55	1.7%		
Services	857	3.6%	573	3.0%	44	0.2%		
Govt.	62	1.8%	439	2.4%	34	1.0%		
Construction	234	8.3%	(228)	(4.4%)	(17)	(0.5%)		
Primary	(34)	(5.3%)	(71)	(4.1%)	(5)	(0.1%)		
Population	544	0.4%	2,024	1.6%	156	0.1%		
Age Groups								
0 - 14	(2,176)	(8.7%)	(5,324)	(20.4%)	(410)	(1.7%)		
15 - 24	(390)	(2.2%)	(1,083)	(6.0%)	(63)	(0.5%)		
25 - 34	(828)	(4.6%)	(2,196)	(11.3%)	(169)	(0.9%)		
35 - 44	(1,550)	(7.4%)	(2,422)	(14.4%)	(221)	(1.2%)		
45 - 54	2,215	7.3%	5,127	12.8%	394	2.3%		
55 - 64	2,774	2.7%	6,168	6.0%	474	3.7%		
65 +	501	1.1%	2,210	14.0%	170	1.0%		
Labour Market Measures								
Source Population	2,859	2.9%	5,513	5.2%	424	0.4%		
Labour Force	1,832	1.2%	2,887	2.8%	222	0.3%		
Participation Rate (%)	10.76	10.25	10.75					
Income (Thousands)								
Personal Income	\$376	\$703	\$1,235	13.7%	22.6%	\$95	3.1%	
Labour Income	\$254	\$458	\$764	14.6%	23.0%	\$59	2.9%	
Other Income	\$122	\$245	\$471	12.2%	21.8%	\$36	3.3%	
Disposable Income	\$251	\$558	\$926	12.5%	23.8%	\$71	3.0%	
Income per Household	\$5,394	\$11,873	\$19,002	9.5%	19.1%	\$1,462	2.3%	
Housing Starts	(52)	(51)	(4)	(14.2%)	(1.5%)	(0)	(0.1%)	
Households	1,869	1,467	4,653	3.9%	2.9%	358	0.7%	

Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMA's
Outlook for St. John's, Newfoundland (1996-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	81,800	78,300	79,800	81,896	83,517	83,711	83,254	83,064	82,722	82,196	81,830	81,497	81,211	80,974
Manufacturing	3,700	3,900	4,815	5,002	5,080	5,107	5,219	5,328	5,328	5,340	5,407	5,508	5,592	5,640
Nonmanufacturing	78,200	74,400	74,985	76,894	78,438	78,605	78,036	77,736	77,394	76,855	76,423	75,989	75,619	75,334
Transp., Comm., & Util.	8,100	9,000	8,021	8,574	8,842	8,988	9,034	9,027	9,029	8,989	8,865	8,975	8,961	8,938
Trade	15,100	12,900	13,351	13,729	14,071	13,944	13,257	13,063	12,965	12,833	12,669	12,361	12,216	12,173
Fin., Ins., & Real Estate	4,600	3,300	3,983	4,161	4,290	4,295	4,283	4,244	4,223	4,164	4,095	4,037	3,998	3,968
Services	36,000	34,400	35,637	36,080	36,570	36,700	36,723	36,689	36,488	36,272	36,137	36,058	35,940	35,791
Govt.	8,700	10,400	9,747	9,861	9,770	9,909	9,930	9,844	9,911	9,865	9,838	9,823	9,797	9,763
Construction	3,700	3,300	3,007	3,262	3,461	3,445	3,464	3,459	3,460	3,452	3,446	3,458	3,457	3,463
Primary	2,000	1,200	1,238	1,318	1,342	1,324	1,344	1,352	1,318	1,282	1,273	1,276	1,250	1,246
Population	173,592	174,025	173,373	172,941	172,529	172,027	171,450	170,817	170,114	169,343	168,493	167,575	166,594	165,444
Age Groups														
0 - 14	34,805	34,285	33,369	32,530	31,578	30,662	29,744	28,857	28,029	27,222	26,236	25,242	24,374	23,587
15 - 24	28,501	28,060	27,020	26,264	25,709	25,072	24,531	23,985	23,550	23,116	22,735	22,436	21,979	21,407
25 - 34	30,121	29,700	29,287	28,807	28,156	27,526	26,922	26,290	25,764	25,125	24,599	23,886	23,099	22,352
35 - 44	28,852	29,235	29,330	29,318	29,376	29,418	29,383	29,093	28,688	28,188	27,696	27,310	26,843	26,481
45 - 54	21,469	22,430	23,452	24,234	24,053	23,822	23,582	23,331	23,077	22,827	22,571	22,316	21,947	21,587
55 - 64	12,730	12,930	13,250	13,822	14,307	15,145	16,133	17,134	18,169	19,135	20,033	20,901	21,894	22,772
65 +	17,114	17,365	17,665	17,933	18,150	18,352	18,559	18,787	19,006	19,311	19,622	19,985	20,358	20,859
Labour Market Measures														
Source Population	144,600	144,100	144,000	144,297	144,852	145,277	145,627	145,888	146,017	146,055	146,194	146,273	146,156	145,783
Labour Force	93,700	91,300	92,600	93,154	93,398	93,515	93,608	93,636	93,579	93,445	93,349	93,188	92,894	92,458
Participation Rate (%)	64.80	63.40	64.30	64.60	64.50	64.40	64.30	64.20	64.10	64.00	63.90	63.70	63.60	63.40
Unemployment Rate (%)	12.80	14.20	13.80	12.10	10.60	10.50	11.10	11.30	11.60	12.00	12.30	12.50	12.60	12.40
Income (Thousands)														
Personal Income	\$3,887	\$3,866	\$3,779	\$3,918	\$4,062	\$4,153	\$4,205	\$4,296	\$4,396	\$4,505	\$4,646	\$4,794	\$4,965	\$5,157
Labour Income	\$2,571	\$2,528	\$2,620	\$2,739	\$2,855	\$2,913	\$2,936	\$2,984	\$3,037	\$3,087	\$3,157	\$3,238	\$3,338	\$3,454
Other Income	\$1,316	\$1,348	\$1,159	\$1,179	\$1,207	\$1,240	\$1,369	\$1,312	\$1,359	\$1,418	\$1,489	\$1,556	\$1,627	\$1,703
Disposable Income	\$2,991	\$2,928	\$2,865	\$2,976	\$3,083	\$3,141	\$3,189	\$3,229	\$3,302	\$3,395	\$3,504	\$3,631	\$3,764	\$3,910
Income per Household	\$64,804	\$63,220	\$61,124	\$62,723	\$64,391	\$65,214	\$65,500	\$66,435	\$67,571	\$68,866	\$70,634	\$72,846	\$74,807	\$77,455
Housing Starts	745	1,001	932	984	783	986	921	789	701	709	728	747	771	886
Households	59,975	61,156	61,827	62,485	63,083	63,684	64,198	64,661	65,064	65,421	65,721	66,080	66,373	66,582
Change	13	-83	-63	111	107	58	28	60	73	94	109	127	133	146

Summary Table
Outlook for St. John's, Newfoundland (1996-2008)

Employment	98-03	03-08	95-08	95-08	Annual Growth: 95-08
	Numeric Change	Percent Change	Number	Percent	Number
Total	826 (1,748) (926)	1.0%	-2.1%	-1.1%	(71) -0.1%
Manufacturing	326 312 (1,940)	6.5%	5.9%	52.4%	149 3.3%
Nonmanufacturing	500 (2,060) (2,866)	0.7%	-2.7%	-3.7%	(220) -0.3%
Transp., Comm., & Util.	455 (91) 838	5.3%	-1.0%	10.3%	64 0.8%
Trade	(764) (792) (2,927)	-5.6%	-6.1%	-19.4%	(225) -1.6%
Fin., Ins., & Real Estate	62 (255) (632)	1.5%	-1.9%	-0.6%	(49) -1.1%
Services	408 (697) (209)	1.1%	-1.5%	12.2%	(16) -0.0%
Govt.	141 (148) 1,063	1.4%	-1.5%	12.2%	82 0.8%
Construction	198 (7) (247)	6.1%	-0.2%	-6.7%	(19) -0.5%
Primary	0 (70) (752)	0.0%	-5.3%	-37.6%	(68) -3.6%
Population	(2,827) (4,670) (8,146)	-1.6%	-2.7%	-4.7%	(627) -0.4%
Age Groups					
0 - 14	(4,501) (4,442) (11,218)	-13.8%	-15.8%	-32.2%	(863) -2.9%
15 - 24	(2,714) (2,143) (7,094)	-10.3%	-9.1%	-24.9%	(546) -2.2%
25 - 34	(3,043) (3,412) (7,769)	-10.6%	-13.2%	-25.8%	(586) -2.3%
35 - 44	(663) (2,207) (2,371)	-2.3%	-7.7%	-8.2%	(182) -0.7%
45 - 54	2,673 1,080 6,518	11.0%	4.0%	30.4%	501 2.1%
55 - 64	4,347 4,603 10,042	31.4%	25.3%	76.9%	772 4.6%
65 +	1,073 1,853 3,745	6.0%	9.7%	21.9%	288 1.5%
Labour Market Measures					
Source Population	1,720 (234) 1,183	1.2%	-0.2%	0.8%	91 0.1%
Labour Force	425 (1,121) (1,242)	0.5%	-1.2%	-1.3%	(66) -0.1%
Participation Rate (%)	11.12 12.23 12.11				
Unemployment Rate (%)					
Income (Thousands)					
Personal Income	\$478 \$761 \$1,270	12.2%	17.3%	32.7%	\$98 2.2%
Labour Income	\$298 \$417 \$683	10.9%	13.7%	34.3%	\$68 2.3%
Other Income	\$179 \$345 \$587	15.2%	25.4%	29.4%	\$30 2.0%
Disposable Income	\$326 \$608 \$919	11.0%	18.4%	30.7%	\$71 2.1%
Income per Household	\$4,848 \$9,887 \$12,654	7.7%	14.6%	19.5%	\$973 1.4%
Housing Starts	(693) 87 (351)	-69.7%	28.9%	-47.9%	(27) -4.9%
Households	2,589 1,528 6,607	4.1%	2.3%	11.0%	508 0.8%

Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Sherbrooke, Quebec (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	65,500	66,600	65,600	67,676	68,840	69,541	70,113	70,624	71,080	71,548	71,984	72,476	72,953	73,419
Manufacturing	12,300	13,800	14,247	14,778	14,931	14,986	15,062	15,089	15,084	15,082	15,097	15,143	15,178	15,198
Nonmanufacturing	53,200	52,800	51,353	52,898	53,909	54,555	55,051	55,535	56,006	56,466	56,887	57,333	57,775	58,221
Transp., Comm., & Util.	3,400	2,600	2,671	2,752	2,808	2,843	2,880	2,910	2,941	2,972	2,996	3,023	3,047	3,073
Trade	10,200	10,600	10,226	10,172	10,218	10,280	10,325	10,338	10,329	10,329	10,337	10,357	10,375	10,387
Fin., Ins., & Real Estate	2,800	2,800	2,536	2,592	2,610	2,617	2,632	2,638	2,646	2,648	2,650	2,660	2,664	2,668
Services	29,900	29,800	29,625	30,790	31,559	32,023	32,411	32,788	33,183	33,579	33,944	34,317	34,679	35,043
Govt.	3,300	3,800	3,587	3,625	3,652	3,670	3,681	3,692	3,710	3,727	3,740	3,756	3,774	3,795
Construction	2,700	2,100	1,911	1,837	2,039	2,119	2,125	2,171	2,187	2,216	2,245	2,251	2,276	2,305
Primary	900	1,100	987	1,030	1,024	1,023	1,024	1,011	1,005	992	979	970	959	949
Population	145,805	147,455	148,760	150,024	151,212	152,328	153,404	154,433	155,389	156,310	157,173	157,979	158,712	159,351
Age Groups														
0-14	27,706	27,655	27,502	27,501	27,563	27,643	27,836	28,014	28,239	28,362	28,451	28,510	28,562	28,612
15-24	22,198	22,550	22,568	22,857	23,169	23,319	23,590	23,890	24,210	24,540	24,870	25,200	25,530	25,860
25-34	22,551	22,120	21,999	21,849	21,892	22,136	22,362	22,600	22,810	23,008	23,155	23,315	23,480	23,645
35-44	24,445	24,810	24,908	25,020	25,039	24,943	24,894	24,825	24,786	24,720	24,631	24,566	24,499	24,432
45-54	19,287	20,140	20,974	21,858	22,264	22,883	23,306	23,727	24,187	24,381	24,531	24,680	24,829	24,969
55-64	11,995	12,155	12,408	12,972	13,617	14,317	15,145	16,088	16,913	17,862	18,740	19,436	20,210	20,917
65+	17,623	18,025	18,400	18,868	19,418	19,887	20,360	20,838	21,320	21,806	22,297	22,792	23,282	23,767
Labour Market Measures														
Source Population	119,500	120,800	122,400	123,677	124,813	125,860	126,752	127,610	128,358	129,153	129,935	130,890	131,760	132,476
Labour Force	73,700	75,000	74,400	75,587	76,453	77,148	77,750	78,325	78,793	79,281	79,713	80,263	80,751	81,114
Participation Rate (%)	61.70	62.10	60.80	61.10	61.30	61.30	61.30	61.40	61.40	61.40	61.30	61.30	61.30	61.20
Unemployment Rate (%)	11.10	11.30	11.80	10.50	10.00	9.80	9.80	9.80	9.80	9.70	9.70	9.70	9.70	9.50
Income (Thousands)														
Personal Income	\$3,233	\$3,303	\$3,235	\$3,371	\$3,501	\$3,640	\$3,770	\$3,917	\$4,082	\$4,262	\$4,466	\$4,675	\$4,904	\$5,153
Labour Income	\$1,762	\$1,831	\$1,809	\$1,894	\$1,967	\$2,034	\$2,091	\$2,155	\$2,228	\$2,307	\$2,396	\$2,495	\$2,611	\$2,738
Other Income	\$1,471	\$1,472	\$1,426	\$1,477	\$1,534	\$1,605	\$1,678	\$1,762	\$1,854	\$1,955	\$2,070	\$2,180	\$2,293	\$2,415
Disposable Income	\$2,416	\$2,447	\$2,396	\$2,505	\$2,601	\$2,692	\$2,779	\$2,874	\$2,997	\$3,144	\$3,299	\$3,471	\$3,646	\$3,831
Income per Household	\$52,984	\$52,915	\$51,043	\$52,432	\$53,738	\$55,121	\$56,418	\$57,962	\$59,847	\$61,980	\$64,324	\$66,987	\$69,812	\$72,954
Housing Starts	582	767	756	910	921	906	861	822	746	683	620	615	570	562
Households	61,917	62,416	63,382	64,393	65,145	66,028	66,816	67,573	68,202	68,784	69,316	69,791	70,248	70,631
Change	88	31	-31	110	95	91	85	101	118	147	155	172	175	185

Employment	Numeric Change		Percent Change		Annual Growth: 95-08		
	98-03	03-08	98-03	03-08	95-08	Percent	
Total	3,414	2,329	7,919	5.0%	12.1%	609	0.9%
Manufacturing	308	114	2,898	2.1%	23.6%	223	1.6%
Nonmanufacturing	3,106	2,215	5,021	5.9%	9.4%	386	0.7%
Transp., Comm., & Util.	189	132	(327)	6.9%	-9.6%	(25)	-0.8%
Trade	153	62	187	1.5%	0.6%	14	0.1%
Fin., Ins., & Real Estate	54	22	(132)	2.1%	-4.7%	(10)	-0.4%
Services	2,403	1,850	5,143	7.8%	17.2%	396	1.2%
Govt.	85	85	495	2.3%	15.0%	38	1.1%
Construction	250	118	(395)	12.9%	-14.6%	(30)	-1.2%
Primary	(25)	(56)	49	-2.4%	-5.5%	4	0.4%
Population	5,375	3,952	13,546	3.6%	9.3%	1,042	0.7%
Age Groups							
0-14	738	(127)	406	2.7%	-0.4%	31	0.1%
15-24	(2,566)	(885)	(3,292)	-11.5%	-14.8%	(253)	-1.2%
25-34	1,061	115	474	4.9%	2.1%	36	0.2%
35-44	(1,234)	(1,543)	(2,202)	-4.9%	-5.0%	(169)	-0.7%
45-54	2,529	802	5,702	3.3%	29.6%	439	2.0%
55-64	3,941	4,004	8,922	30.4%	74.4%	666	4.4%
65+	908	1,586	3,537	4.9%	20.1%	272	1.4%
Labour Market Measures							
Source Population	4,681	4,118	12,976	3.8%	10.9%	998	0.8%
Labour Force	3,206	2,321	7,414	4.2%	10.1%	570	0.7%
Participation Rate (%)	10.00	9.68	10.16				
Unemployment Rate (%)							
Income (Thousands)	\$711	\$1,071	\$1,920	21.1%	59.4%	\$148	3.7%
Personal Income	\$334	\$510	\$976	17.6%	55.4%	\$75	3.4%
Labour Income	\$377	\$561	\$944	25.5%	64.2%	\$73	3.9%
Other Income	\$492	\$834	\$1,415	19.6%	58.6%	\$109	3.6%
Income per Household	\$7,415	\$13,107	\$19,970	14.1%	37.7%	\$1,536	2.5%
Housing Starts	(164)	(184)	(20)	-18.0%	-24.7%	(2)	-0.3%
Households	3,909	2,429	9,614	6.1%	15.8%	740	1.1%

Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998

Summary Table

Outlook for Sherbrooke, Quebec (1998-2008)	
Total Employment (1997)	65,600
Total Employment (2008)	73,419
Projected Annual Average Change (1998-2008)	1.0%
Projected Annual Average Job Growth	11.8
1997 Average Unemployment Rate (Percent)	11.8
Population (1997)	148,760
Population (2008)	159,351
Ann Avg Population Growth (1997-08)	0.6%
Households (1997)	63,382
Households (2008)	70,631
Ann Avg Household Growth (1997-08)	1.0%
Average Hthold Income: 1997 (Current Can\$)	\$51,043
Average Hthold Income: 20087 (Current Can\$)	\$72,954
Projected Average Income Growth (1998-08)	3.3%
Average Annual Housing Starts: (1997-2008)	748

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Québec City (1998-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	316,300	324,800	319,400	324,150	329,108	331,708	333,956	335,844	337,990	340,170	342,595	345,100	347,646	350,204
Manufacturing	31,500	27,900	29,154	29,851	30,114	30,150	30,267	30,377	30,239	30,226	30,285	30,394	30,486	30,549
Nonmanufacturing	284,800	296,900	290,246	294,299	298,994	301,558	303,689	305,667	307,751	309,944	312,309	314,706	317,160	319,654
Transp., Comm., & Util.	20,600	19,800	19,546	19,883	20,236	20,455	20,701	20,882	21,069	21,300	21,489	21,700	21,868	22,086
Trade	55,500	59,100	56,981	56,965	56,931	56,928	57,064	57,082	57,085	57,088	57,161	57,325	57,470	57,581
Fin., Ins., & Real Estate	23,100	27,600	25,302	26,521	25,670	25,670	25,790	25,805	25,859	25,875	25,919	26,024	26,088	26,147
Services	132,100	131,500	132,317	135,747	138,919	140,618	142,153	143,638	145,242	146,884	148,621	150,339	152,037	153,745
Govt.	37,500	41,800	39,934	39,831	40,079	40,166	40,238	40,308	40,460	40,640	40,816	41,014	41,244	41,500
Construction	12,600	13,500	12,437	12,442	13,079	13,559	13,844	13,940	13,940	14,135	14,322	14,507	14,537	14,734
Primary	3,500	4,500	4,130	4,211	4,179	4,162	4,162	4,162	4,077	4,022	3,972	3,937	3,895	3,861
Population	686,618	671,885	676,402	680,844	684,948	689,058	692,929	696,710	700,340	703,822	707,139	710,379	713,448	716,473
Age Groups														
0 - 14	118,307	117,845	117,614	118,030	118,342	118,502	119,497	120,349	121,145	121,648	121,512	120,686	120,066	119,737
15 - 24	93,458	93,935	93,469	92,133	90,670	89,738	88,738	86,971	84,845	83,052	80,138	80,441	80,053	80,553
25 - 34	106,370	103,805	101,429	99,107	97,237	95,992	95,274	95,351	95,373	95,722	95,812	95,697	95,296	94,777
35 - 44	118,277	119,610	120,075	120,700	120,280	119,563	118,039	116,466	112,554	109,703	107,258	105,154	102,989	100,444
45 - 54	95,101	99,101	102,280	104,704	107,584	110,288	112,197	113,867	115,852	117,031	118,112	118,648	119,262	119,990
55 - 64	58,787	59,320	61,145	63,758	66,909	70,244	74,016	78,647	82,933	87,157	91,174	94,855	97,793	100,403
65 +	76,316	78,180	80,410	82,411	83,915	85,432	86,935	88,185	89,451	91,133	92,913	95,290	98,001	101,169
Labour Market Measures														
Source Population	564,900	572,900	578,600	582,769	588,695	590,372	593,764	596,786	599,731	602,824	605,391	610,591	614,422	617,894
Labour Force	352,700	364,300	356,800	357,719	360,938	363,457	366,131	368,511	370,825	372,981	375,106	377,267	379,076	380,919
Participation Rate (%)	62.40	63.60	61.70	61.40	61.50	61.60	61.70	61.70	61.60	61.90	61.90	61.90	61.70	61.60
Unemployment Rate (%)	10.30	10.80	10.50	9.40	8.90	8.70	8.80	8.80	8.90	8.80	8.70	8.50	8.30	8.10
Income (Thousands)														
Personal Income	\$16,200	\$16,455	\$16,073	\$16,603	\$17,240	\$17,869	\$18,461	\$19,134	\$19,903	\$20,730	\$21,739	\$22,749	\$23,850	\$25,048
Labour Income	\$9,750	\$10,290	\$10,132	\$10,414	\$10,780	\$11,103	\$11,391	\$11,715	\$12,101	\$12,530	\$13,025	\$13,569	\$14,208	\$14,909
Other Income	\$6,446	\$6,165	\$5,941	\$6,189	\$6,461	\$6,766	\$7,070	\$7,419	\$7,802	\$8,240	\$8,714	\$9,180	\$9,642	\$10,140
Disposable Income	\$11,763	\$11,844	\$11,582	\$12,444	\$12,985	\$13,238	\$13,209	\$13,658	\$14,190	\$14,882	\$15,595	\$16,406	\$17,225	\$18,091
Income per Household	\$39,079	\$58,886	\$56,807	\$57,970	\$59,489	\$60,954	\$62,318	\$63,957	\$65,963	\$68,269	\$70,897	\$73,635	\$76,690	\$80,056
Housing Starts	2,405	2,208	2,233	2,263	2,257	2,238	2,247	2,288	2,246	2,140	2,040	1,987	1,967	1,913
Households	274,217	279,431	282,942	286,406	289,759	293,157	296,244	299,166	301,735	304,241	306,633	308,940	310,992	312,885
Change	356	81	(282)	423	460	394	371	447	534	692	713	810	819	866

Employment	Numeric Change		Percent Change		Annual Growth: 95-08	
	98-03	95-08	98-03	03-08	95-08	Percent
Total	13,840	12,214	33,904	4.3%	3.6%	10.7%
Manufacturing	388	310	(951)	1.3%	1.0%	-3.0%
Nonmanufacturing	13,452	11,903	34,854	12.2%	3.9%	0.9%
Transp., Comm., & Util.	1,206	987	1,466	6.1%	4.7%	7.2%
Trade	420	486	2,081	0.7%	0.9%	3.7%
Fin., Ins., & Real Estate	338	286	3,047	1.3%	1.1%	13.2%
Services	9,495	8,503	21,645	7.0%	5.9%	16.4%
Govt.	629	1,040	4,000	1.6%	2.6%	10.7%
Construction	1,498	794	2,134	12.0%	5.7%	16.9%
Primary	(134)	(216)	361	-3.2%	-5.3%	10.3%
Population	19,496	16,133	48,857	2.9%	2.3%	7.5%
Age Groups						
0 - 14	3,115	(1,408)	1,430	2.6%	-1.2%	1.2%
15 - 24	(8,081)	(2,999)	(13,405)	-9.9%	-3.6%	-14.3%
25 - 34	(3,734)	(596)	(11,593)	-3.7%	-0.6%	-10.9%
35 - 44	(8,146)	(12,110)	(17,833)	-6.8%	-10.8%	-15.1%
45 - 54	11,128	4,058	24,789	10.6%	3.5%	26.1%
55 - 64	19,175	17,470	41,616	30.1%	21.1%	70.8%
65 +	7,040	11,718	24,853	8.5%	13.1%	32.6%
Labour Market Measures						
Source Population	16,962	16,163	52,994	2.9%	3.0%	9.4%
Labour Force	13,106	10,094	28,219	3.7%	2.7%	8.0%
Participation Rate (%)	78.0	62.0	53.0			
Unemployment Rate (%)	8.90	8.55	9.10			
Income (Thousands)						
Personal Income	\$3,300	\$5,145	\$8,848	19.9%	25.9%	54.6%
Labour Income	\$1,687	\$2,808	\$5,155	16.2%	23.2%	52.9%
Other Income	\$1,613	\$2,338	\$3,694	26.1%	30.0%	57.3%
Disposable Income	\$2,205	\$3,901	\$6,328	18.4%	27.5%	53.8%
Income per Household	\$7,993	\$14,093	\$20,977	13.8%	21.4%	35.5%
Housing Starts	(317)	(333)	(492)	-12.4%	-14.8%	-20.5%
Households	15,329	11,150	38,668	5.4%	3.7%	14.1%

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Montréal (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	1,543,900	1,557,500	1,590,600	1,619,264	1,638,503	1,656,991	1,673,156	1,688,713	1,698,538	1,710,039	1,723,798	1,737,028	1,750,790	1,764,391
Manufacturing	300,900	287,700	308,691	316,931	317,981	319,464	321,573	322,387	322,415	322,482	323,445	324,737	325,945	328,844
Nonmanufacturing	1,243,000	1,269,800	1,281,909	1,302,932	1,320,522	1,337,527	1,351,583	1,364,326	1,378,123	1,387,557	1,400,353	1,412,291	1,424,845	1,437,547
Transp., Comm., & Util.	137,400	124,100	132,484	134,873	136,785	138,741	140,800	142,343	143,935	145,473	146,988	148,415	149,805	151,272
Trade	280,500	270,600	268,007	266,625	266,450	267,833	269,206	269,890	270,255	270,439	271,063	271,950	272,828	273,539
Fin., Ins., & Real Estate	108,100	109,900	103,449	104,432	104,684	105,030	105,809	106,106	106,465	106,596	106,893	107,368	107,705	108,023
Services	569,600	610,900	631,173	648,068	660,841	671,247	680,423	689,058	697,658	705,994	715,086	723,641	732,312	741,048
Govt.	73,200	82,100	80,538	80,395	80,608	81,062	81,431	81,752	82,168	82,585	83,028	83,464	83,891	84,572
Construction	66,200	61,200	57,891	57,960	60,716	63,160	63,432	64,808	65,339	66,296	67,241	67,464	68,332	69,306
Primary	9,300	11,000	10,367	10,579	10,460	10,455	10,483	10,369	10,303	10,173	10,055	9,971	9,872	9,911
Population	3,286,510	3,326,450	3,355,874	3,379,373	3,404,728	3,427,981	3,450,032	3,470,846	3,480,661	3,509,937	3,528,568	3,546,345	3,563,814	3,581,110
Age Groups														
0-14	617,179	625,795	629,782	633,985	636,863	639,376	641,067	642,768	643,259	641,014	634,813	628,598	618,143	611,348
15-24	429,347	430,480	426,354	423,109	420,265	415,728	412,543	409,021	407,307	408,231	412,053	417,312	424,724	432,502
25-34	563,762	545,590	531,029	513,546	496,986	482,792	471,753	463,655	457,445	452,024	447,185	443,382	440,326	438,204
35-44	560,401	572,925	583,158	593,788	601,246	606,180	606,925	601,703	592,270	581,290	569,884	557,145	543,763	528,496
45-54	432,998	447,955	462,153	474,320	487,699	501,591	513,466	523,882	535,862	546,526	562,070	575,069	585,839	596,817
55-64	302,214	303,580	309,806	317,539	328,414	340,224	353,973	372,095	388,925	404,648	419,540	433,666	447,351	459,506
65+	390,708	400,125	412,593	423,686	433,254	442,071	450,305	457,721	465,492	474,206	482,955	493,194	503,668	516,277
Labour Market Measures														
Source Population	2,734,900	2,765,500	2,788,200	2,810,611	2,833,003	2,854,210	2,875,069	2,894,643	2,914,411	2,936,438	2,961,887	2,988,459	3,014,993	3,039,651
Labour Force	1,740,500	1,768,300	1,785,900	1,805,019	1,823,491	1,838,442	1,854,396	1,869,147	1,883,672	1,898,228	1,914,207	1,929,148	1,943,415	1,956,429
Participation Rate (%)	63.60	63.90	64.10	64.20	64.40	64.40	64.50	64.60	64.60	64.60	64.60	64.60	64.50	64.40
Unemployment Rate (%)	11.30	11.80	10.90	10.30	10.10	9.80	9.80	9.80	9.80	9.90	9.90	10.00	10.00	9.80
Income (Thousands)	\$77,643	\$78,662	\$78,598	\$81,146	\$83,872	\$86,927	\$89,809	\$92,988	\$96,622	\$100,627	\$105,159	\$109,933	\$115,118	\$120,752
Labour Income	\$46,967	\$48,251	\$49,272	\$50,775	\$52,359	\$54,104	\$55,676	\$57,401	\$59,393	\$61,576	\$64,142	\$66,904	\$70,164	\$73,736
Other Income	\$30,676	\$30,411	\$29,325	\$30,371	\$31,513	\$32,823	\$34,133	\$35,587	\$37,229	\$39,051	\$41,017	\$43,029	\$44,954	\$47,016
Disposable Income	\$56,738	\$56,986	\$56,905	\$58,928	\$60,928	\$62,858	\$64,873	\$66,801	\$69,336	\$72,569	\$75,930	\$79,789	\$83,877	\$87,773
Income per Household	\$58,480	\$58,239	\$57,445	\$59,864	\$61,335	\$62,692	\$64,279	\$66,185	\$68,326	\$70,782	\$73,371	\$76,240	\$79,369	\$82,773
Housing Starts	7,468	7,656	7,508	7,638	7,825	8,077	8,362	8,719	9,013	9,262	9,705	9,828	10,351	10,879
Households	1,327,687	1,350,976	1,368,220	1,384,714	1,401,034	1,417,241	1,432,539	1,446,687	1,459,982	1,472,757	1,485,675	1,498,312	1,509,850	1,520,823
Change	1,582	248	(81)	2,049	1,975	1,930	1,815	2,127	2,535	3,233	3,361	3,859	3,888	4,095

	Summary Table Outlook for Montréal (1998-2008)														
	98-03	03-08	95-08	98-03	03-08	95-08	98-03	03-08	95-08	98-03	03-08	95-08	98-03	03-08	95-08
Employment															
Total	79,274	65,853	220,491	4.9%	3.9%	14.3%	16,961	10.0%	\$92,988	\$100,627	\$105,159	\$109,933	\$115,118	\$120,752	
Manufacturing	6,084	4,429	25,944	1.9%	1.4%	8.6%	1,986	0.6%	\$57,401	\$59,393	\$64,142	\$66,904	\$70,164	\$73,736	
Nonmanufacturing	73,191	61,424	194,547	5.6%	4.5%	16.7%	14,965	1.1%	\$37,229	\$39,051	\$41,017	\$43,029	\$44,954	\$47,016	
Transp., Comm., & Util.	9,062	7,337	13,872	6.7%	5.1%	10.1%	1,067	0.7%	\$69,336	\$72,569	\$75,930	\$79,789	\$83,877		
Trade	3,630	3,284	(6,961)	1.4%	1.2%	-2.5%	(635)	-0.2%	\$66,801	\$69,336	\$72,569	\$75,930	\$79,789		
Fin., Ins., & Real Estate	2,033	1,558	(77)	1.9%	1.5%	-0.1%	(6)	-0.0%	\$68,326	\$70,782	\$73,371	\$76,240	\$79,369		
Services	49,590	43,388	171,446	7.7%	6.2%	30.1%	13,188	2.0%	\$8,913	\$9,262	\$9,705	\$10,351	\$10,879		
Govt.	1,773	2,404	11,372	2.2%	2.9%	15.5%	875	1.1%	\$8,428	\$8,862	\$9,262	\$9,705	\$10,351		
Construction	7,379	3,967	4,106	12.7%	6.1%	6.3%	316	0.8%	2,535	3,233	3,859	3,888	4,095		
Primary	(275)	(512)	491	-2.6%	-5.0%	5.3%	38	0.4%	3,859	3,233	3,361	3,859	3,888		
Population	11,288	90,449	284,500	3.3%	2.6%	9.0%	22,654	0.7%	1,485,675	1,509,850	1,520,823	1,534,814	1,549,809		
Age Groups															
0-14	9,874	(31,911)	(5,831)	1.6%	-5.0%	-0.9%	(449)	-0.1%	\$96,622	\$100,627	\$105,159	\$109,933	\$115,118		
15-24	(15,802)	25,185	3,155	6.2%	0.7%	0.7%	243	0.1%	\$59,393	\$61,576	\$64,142	\$66,904	\$70,164		
25-34	(56,101)	(21,941)	(117,558)	-10.9%	-4.6%	-21.2%	(9,043)	-1.8%	\$37,229	\$39,051	\$41,017	\$43,029	\$44,954		
35-44	(1,518)	(63,814)	(31,945)	-0.3%	-10.8%	-5.7%	(2,457)	-0.5%	\$72,569	\$75,930	\$79,789	\$83,877			
45-54	61,642	60,885	163,818	13.0%	11.4%	37.8%	12,601	2.5%	\$8,913	\$9,262	\$9,705	\$10,351			
55-64	71,386	70,881	157,282	22.5%	18.1%	52.0%	12,099	3.3%	\$9,262	\$9,705	\$10,351	\$10,879			
65+	41,806	50,785	125,569	9.9%	10.9%	32.1%	9,659	2.2%	1,485,675	1,509,850	1,520,823	1,534,814			
Labour Market Measures															
Source Population	103,800	125,240	304,751	3.7%	4.3%	11.1%	23,442	0.8%	\$100,627	\$105,159	\$109,933	\$115,118			
Labour Force	78,653	72,757	215,929	4.4%	3.9%	12.4%	16,610	0.9%	\$72,569	\$75,930	\$79,789	\$83,877			
Participation Rate (%)	9.98	9.88	10.24												
Unemployment Rate (%)	11.30	11.80	10.90												
Income (Thousands)	\$15,476	\$24,130	\$43,109	19.1%	25.0%	55.5%	\$3,316	3.5%	\$96,622	\$100,627	\$105,159	\$109,933			
Labour Income	\$8,618	\$14,343	\$26,769	17.0%	24.1%	57.0%	\$2,059	3.5%	\$37,229	\$39,051	\$41,017	\$43,029			
Other Income	\$6,858	\$9,787	\$16,340	22.6%	26.3%	53.3%	\$1,257	3.3%	\$69,336	\$72,569	\$75,930	\$79,789			
Disposable Income	\$10,393	\$18,437	\$31,035	17.6%	20.6%	54.7%	\$2,387	3.4%	\$72,569	\$75,930	\$79,789	\$83,877			
Income per Household	\$7,584	\$13,214	\$20,919	12.9%	20.0%	35.8%	\$1,609	2.4%	\$8,913	\$9,262	\$9,705	\$10,351			
Housing Starts	(75)	(234)	1,211	-7.5%	-2.6%	16.2%	93	1.2%	3,859	3,233	3,361	3,859			
Households	75,168	60,941	193,136	5.4%	4.2%	14.5%	14,857	1.1%	1,485,675	1,509,850	1,520,823	1,534,814			

TABLE C-6 (Continued) Economic Outlook for Selected Eastern Canada CMAs Outlook for Trois-Rivières, Quebec (1998-2008)

Table with 12 columns representing years from 1995 to 2008. Rows include Employment (Total, Manufacturing, Non-manufacturing, etc.), Labour Market Measures (Source Population, Labour Force, etc.), Personal Income, and Disposable Income.

Summary Table with 5 columns: 1997, 1998, 1999, 2000, 2001. Rows include Employment (Total, Manufacturing, etc.), Labour Market Measures (Source Population, Labour Force, etc.), Personal Income, and Disposable Income. Includes a 'Percent Change' column and 'Annual Growth' sub-section.

Standard & Poor's DRI Canadian Market Outlook: Metro Focus Summer 1998. Table with 5 columns: 1997, 1998, 1999, 2000, 2001. Rows include Employment (Total, Manufacturing, etc.), Labour Market Measures (Source Population, Labour Force, etc.), Personal Income, and Disposable Income.

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Ottawa-Hull, Ontario-Quebec (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	509,700	524,800	531,800	548,156	557,269	571,569	583,515	594,936	608,393	617,938	629,302	640,228	650,757	660,586
Manufacturing	34,400	29,000	29,600	30,885	31,225	31,654	32,181	32,550	32,777	32,953	33,244	33,566	33,795	33,866
Nonmanufacturing	475,300	495,800	502,192	517,271	526,044	539,915	551,324	562,386	573,617	584,985	596,058	606,662	616,962	626,730
Transp., Comm., & Util.	38,600	36,900	36,930	37,980	39,027	39,919	40,721	41,403	42,068	42,752	43,378	43,965	44,494	44,981
Trade	67,100	70,000	71,750	73,800	75,400	76,749	77,912	78,910	79,858	80,758	81,607	82,407	83,157	83,857
Fin., Ins., & Real Estate	24,100	23,000	22,700	23,350	24,000	24,650	25,300	25,950	26,600	27,250	27,900	28,550	29,200	29,850
Services	215,900	220,000	224,239	231,820	237,215	244,969	251,820	258,621	265,728	272,807	279,839	286,558	292,888	299,148
Govt.	105,100	105,200	103,548	103,204	102,923	105,764	107,391	108,990	111,172	113,507	115,538	117,530	119,637	121,823
Construction	20,100	20,800	22,933	24,974	27,283	28,919	29,127	30,035	30,416	31,062	31,656	32,332	32,857	33,287
Primary	4,400	7,000	1,025,892	1,033,904	1,053,904	1,068,109	1,082,301	1,096,216	1,110,139	1,123,961	1,137,628	1,150,665	1,163,344	1,175,202
Population	982,580	1,010,520	1,025,892	1,033,904	1,053,904	1,068,109	1,082,301	1,096,216	1,110,139	1,123,961	1,137,628	1,150,665	1,163,344	1,175,202
Age Groups														
0-14	203,069	207,895	210,669	212,479	214,153	215,261	215,817	216,382	216,870	217,320	217,732	218,106	218,451	218,763
15-24	132,227	132,200	131,604	131,875	132,536	133,569	134,670	135,857	137,073	138,320	139,597	140,904	142,242	143,611
25-34	174,327	172,575	169,910	168,965	168,995	168,995	169,033	169,083	169,142	169,210	169,287	169,374	169,470	169,576
35-44	178,345	180,675	184,679	188,930	192,476	195,239	197,149	198,149	199,149	200,149	201,149	202,149	203,149	204,149
45-54	129,067	135,475	141,577	146,988	152,704	157,951	162,681	166,938	170,772	174,142	177,098	180,608	183,737	186,456
55-64	77,577	79,020	81,965	85,496	89,833	94,251	98,115	101,449	104,172	106,344	107,919	109,000	110,541	112,594
65+	99,868	102,680	105,488	108,057	110,366	112,637	114,815	116,881	118,815	120,637	122,351	123,961	125,470	126,887
Labour Market Measures														
Source Population	836,900	853,400	865,700	878,568	891,747	905,655	920,136	934,311	948,578	963,403	978,053	994,405	1,009,440	1,023,401
Labour Force	565,000	573,100	584,200	593,788	601,163	612,570	623,707	634,412	645,149	655,790	666,280	676,368	685,970	694,676
Participation Rate (%)	67.50	67.20	67.50	67.10	67.40	67.60	67.80	67.90	68.00	68.10	68.10	68.00	68.00	67.90
Unemployment Rate (%)	9.80	8.40	9.00	7.40	7.30	6.70	6.40	6.20	6.00	5.80	5.50	5.30	5.10	4.90
Income (Thousands)														
Personal Income	\$26,015	\$28,589	\$27,560	\$28,838	\$30,102	\$31,649	\$33,054	\$34,619	\$36,401	\$38,395	\$40,560	\$42,884	\$45,383	\$48,092
Labour Income	\$17,644	\$18,566	\$18,706	\$19,559	\$20,386	\$21,456	\$22,428	\$23,478	\$24,660	\$25,944	\$27,351	\$28,861	\$30,539	\$32,351
Other Income	\$8,371	\$9,823	\$8,855	\$9,279	\$9,716	\$10,193	\$10,626	\$11,141	\$11,741	\$12,422	\$13,209	\$14,013	\$14,843	\$15,741
Disposable Income	\$19,426	\$19,566	\$20,514	\$21,682	\$22,788	\$23,976	\$25,254	\$26,634	\$28,120	\$29,789	\$30,424	\$32,250	\$34,121	\$36,158
Income per Household	\$88,275	\$69,355	\$69,515	\$71,466	\$73,367	\$75,796	\$77,827	\$80,194	\$82,970	\$86,057	\$89,514	\$93,104	\$97,092	\$101,436
Housing Starts	3,998	4,110	4,747	5,111	5,673	5,451	5,681	5,723	5,880	5,908	6,005	5,922	5,903	5,775
Households	381,033	388,976	396,468	403,318	410,297	417,551	424,708	431,684	438,725	445,811	453,116	460,390	467,419	474,113
Change	741	140	748	1,167	1,116	1,078	959	1,102	1,284	1,559	1,635	1,826	1,870	2,037

Summary Table
 Outlook for Ottawa-Hull, Ontario-Quebec (1998-2008)

Employment	Numeric Change			Percent Change			Annual Growth: 95-08	
	98-03	03-08	95-08	98-03	03-08	95-08	Number	Percent
Total	60,237	54,203	150,896	11.0%	8.9%	29.6%	11,607	2.0%
Manufacturing	1,892	1,089	(634)	6.1%	3.3%	(-1.6%)	(41)	(0.1%)
Nonmanufacturing	58,346	53,113	151,430	11.3%	9.3%	31.9%	11,648	2.2%
Transp., Comm., & Util.	4,088	2,923	6,391	10.8%	6.9%	16.6%	482	1.2%
Trade	4,693	2,875	19,206	6.0%	3.4%	28.6%	1,477	2.0%
Fin., Ins., & Real Estate	2,044	1,143	11,029	6.4%	4.5%	48.8%	848	2.9%
Services	33,846	33,420	83,248	14.6%	12.6%	38.6%	6,404	2.5%
Govt.	7,968	10,651	16,723	7.7%	9.6%	15.9%	1,288	1.1%
Construction	5,442	2,441	12,757	21.8%	8.0%	63.5%	981	3.9%
Primary	268	(340)	2,077	4.1%	(5.0%)	47.2%	160	3.0%
Population	70,319	65,063	182,822	6.8%	5.9%	18.4%	14,048	1.3%
Age Groups								
0-14	4,391	(5,397)	8,404	2.1%	(2.5%)	4.1%	648	0.3%
15-24	8,928	15,094	23,570	6.7%	10.7%	17.8%	1,813	1.3%
25-34	(14,392)	(4,538)	(27,262)	(-8.7%)	(-3.0%)	(-15.6%)	(2,097)	(-1.3%)
35-44	5,126	(11,919)	5,792	2.7%	(-6.1%)	3.3%	446	0.2%
45-54	25,384	22,707	66,012	17.3%	13.2%	51.1%	5,078	3.2%
55-64	28,704	31,249	67,772	33.6%	27.4%	87.2%	5,213	4.9%
65+	12,278	17,867	38,334	11.4%	14.8%	38.4%	2,949	2.5%
Labour Market Measures								
Source Population	70,010	74,823	186,501	8.0%	7.9%	22.3%	14,346	1.6%
Labour Force	55,363	49,527	129,676	9.4%	7.7%	23.0%	9,975	1.6%
Participation Rate (%)	6.80	5.43	6.70					
Unemployment Rate (%)								
Income (Thousands)								
Personal Income	\$7,565	\$11,691	\$22,077	26.2%	32.1%	84.9%	\$1,698	4.8%
Labour Income	\$5,101	\$7,691	\$14,707	26.1%	31.2%	83.4%	\$1,131	4.8%
Other Income	\$2,464	\$4,000	\$7,370	26.6%	34.1%	88.0%	\$567	5.0%
Disposable Income	\$5,548	\$8,928	\$16,732	25.6%	32.6%	86.1%	\$1,287	4.9%
Income per Household	\$11,474	\$18,466	\$33,161	16.0%	22.3%	48.6%	\$2,551	3.1%
Housing Starts	769	(105)	2,377	15.0%	(1.8%)	70.0%	183	4.2%
Households	35,409	35,388	93,080	8.8%	8.1%	24.4%	7,160	1.7%

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Oshawa, Ontario (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment	127,600	129,600	136,000	140,142	144,510	149,258	153,712	157,955	161,778	165,713	169,837	173,431	177,006	180,526
Total	28,300	28,900	30,384	31,592	32,275	32,999	33,875	34,579	35,100	35,594	36,182	36,786	37,282	37,660
Manufacturing	98,300	100,700	105,616	108,550	112,235	116,259	119,836	123,376	126,679	130,119	133,455	136,645	139,724	142,866
Nonmanufacturing	12,400	12,500	12,883	13,205	13,712	14,146	14,567	14,951	15,313	15,697	16,049	16,379	16,686	17,007
Transp., Comm., & Util.	23,100	23,700	24,887	25,436	25,922	26,587	27,260	27,800	28,317	28,824	29,048	29,540	29,951	30,311
Trade	8,300	8,700	7,127	7,273	7,484	7,613	7,814	7,955	8,102	8,220	8,340	8,469	8,594	8,696
Fin., Ins., & Real Estate	43,200	44,000	46,121	47,537	49,141	51,183	53,109	55,062	57,032	59,058	61,041	62,942	64,779	66,671
Services	7,300	7,000	7,095	7,049	7,172	7,362	7,545	7,731	7,949	8,188	8,396	8,600	8,813	9,046
Govt.	5,200	5,700	6,440	6,992	7,720	8,251	8,388	8,732	8,913	9,182	9,429	9,547	9,762	10,000
Construction	900	1,100	1,062	1,057	1,084	1,116	1,133	1,146	1,151	1,163	1,153	1,148	1,140	1,135
Primary	263,068	268,810	275,302	281,505	287,666	293,557	299,356	304,997	310,481	315,832	321,051	326,155	331,157	336,197
Population	61,901	63,675	64,588	65,209	65,638	65,780	65,802	65,800	65,715	65,266	64,551	63,784	62,937	62,189
Age Groups	15-24	33,924	34,045	35,305	36,454	37,854	39,189	40,722	42,002	43,398	44,836	46,421	47,950	49,544
	25-34	44,864	44,400	43,306	42,281	40,990	40,220	39,791	39,883	40,185	40,888	41,845	42,583	43,614
	35-44	45,447	47,010	49,330	51,274	53,132	54,611	55,654	55,723	55,028	54,276	53,075	51,750	50,267
	45-54	31,525	33,015	36,652	38,348	40,120	41,874	43,207	44,687	46,734	48,834	50,936	53,094	55,262
	55-64	19,939	20,210	20,853	21,650	22,926	24,003	25,150	26,020	26,557	27,012	27,418	27,780	28,094
	65+	25,469	26,425	27,298	28,087	28,882	29,624	30,364	31,083	31,746	32,327	32,813	33,214	33,542
Labour Market Measures	202,600	207,900	213,200	218,423	224,212	230,018	235,852	241,550	247,175	253,031	259,024	264,952	270,859	276,703
Source Population	139,700	143,800	148,100	151,403	155,767	160,013	164,176	168,226	172,195	176,312	180,394	184,254	188,002	191,692
Labour Force	69,000	69,200	69,500	69,300	69,500	69,600	69,600	69,600	69,700	69,700	69,600	69,500	69,400	69,300
Participation Rate (%)	8.70	9.90	8.20	7.40	7.20	6.70	6.60	6.10	6.00	6.00	6.00	5.90	5.80	5.80
Unemployment Rate (%)	6.783	6.873	6.749	6.829	6.788	6.768	6.824	6.813	6.802	6.788	6.785	6.785	6.785	6.785
Income (Thousands)	\$4,604	\$4,746	\$4,986	\$5,286	\$5,587	\$5,960	\$6,317	\$6,698	\$7,105	\$7,553	\$8,043	\$8,564	\$9,143	\$9,774
Personal Income	\$2,189	\$2,227	\$2,453	\$2,561	\$2,880	\$2,902	\$2,947	\$3,115	\$3,287	\$3,505	\$3,742	\$3,984	\$4,233	\$4,503
Labour Income	\$5,140	\$5,200	\$5,611	\$5,965	\$6,343	\$6,702	\$7,053	\$7,415	\$7,885	\$8,408	\$8,957	\$9,566	\$10,189	\$10,875
Disposable Income	\$74,099	\$74,297	\$77,092	\$79,005	\$81,242	\$83,993	\$86,608	\$89,591	\$92,859	\$96,523	\$100,629	\$104,875	\$109,322	\$114,538
Income per Household	1,330	1,563	2,064	2,445	2,721	2,516	2,613	2,624	2,677	2,647	2,659	2,663	2,640	2,663
Housing Starts	91,671	93,856	96,492	99,097	101,760	104,395	106,964	109,527	112,016	114,561	117,112	119,653	122,131	124,642
Households	220	60	411	353	378	359	351	397	435	523	549	609	623	686
Change														

Employment	Numeric Change		Percent Change		Annual Growth: 95-08		
	98-03	03-08	98-03	03-08	95-08	95-08	
Total	21,638	18,748	52,926	15.4%	11.6%	41.5%	4.0%
Manufacturing	3,508	2,560	9,360	11.1%	7.3%	33.1%	2.2%
Nonmanufacturing	18,129	16,187	43,566	16.7%	12.8%	43.8%	2.8%
Transp., Comm., & Util.	2,108	1,694	4,607	16.0%	11.1%	37.2%	2.5%
Trade	2,781	2,094	8,211	10.9%	7.4%	37.2%	2.5%
Fin., Ins., & Real Estate	829	594	396	11.4%	7.3%	4.8%	0.4%
Services	9,495	9,639	23,471	20.0%	16.9%	54.3%	3.4%
Govt.	900	1,097	1,746	12.8%	13.8%	23.9%	1.7%
Construction	1,921	1,087	4,800	27.5%	12.2%	92.3%	5.2%
Primary	94	(16)	235	8.9%	-1.4%	26.1%	1.8%
Population	28,976	25,716	73,128	10.3%	8.3%	27.8%	1.9%
Age Groups	506	(3,528)	288	0.8%	-5.4%	0.5%	0.0%
0-14	6,942	7,553	17,025	19.0%	17.4%	50.2%	3.2%
15-24	(2,096)	4,629	(50)	-5.0%	11.5%	-0.1%	-0.0%
25-34	4,449	(5,456)	4,820	8.7%	-9.8%	10.6%	0.8%
35-44	6,349	10,565	23,737	23.0%	23.6%	75.3%	4.4%
45-54	7,170	7,522	16,603	32.8%	23.0%	83.3%	4.8%
55-64	3,659	4,428	10,705	13.0%	13.9%	42.0%	2.7%
65+	28,752	29,528	74,103	13.2%	11.9%	36.6%	2.4%
Labour Market Measures	20,792	19,497	51,992	13.7%	11.3%	37.2%	2.5%
Labour Force	6.76	5.92	6.86				
Participation Rate (%)	\$2,573	\$3,874	\$7,483	32.9%	37.2%	110.2%	5.9%
Income (Thousands)	\$1,837	\$2,669	\$5,170	34.9%	37.6%	112.3%	6.0%
Personal Income	\$736	\$1,206	\$2,314	28.7%	36.6%	105.7%	5.7%
Labour Income	\$1,920	\$2,890	\$5,735	32.2%	37.9%	111.6%	5.9%
Disposable Income	\$13,854	\$21,679	\$40,439	17.5%	23.9%	54.6%	3.4%
Income per Household	232	(14)	1,333	9.5%	-0.5%	100.2%	5.9%
Housing Starts	12,918	12,626	32,971	13.0%	11.3%	36.0%	2.4%
Households							

Summary Table
 Outlook for Oshawa, Ontario (1998-2008)

Total Employment (1987)	136,000
Total Employment (2008)	180,526
Projected Employment Change (1987-2008)	44,526
1997 Average Job Growth	2.6%
1987 Average Unemployment Rate (Percent)	8.2
Population (1987)	275,302
Population (2008)	336,197
Ann Avg Population Growth (1987-08)	1.8%
Households (1987)	96,482
Households (2008)	124,642
Ann Avg Household Growth (1987-08)	2.4%
Average Hthold Income: 1997 (Current Cans)	\$77,092
Average Hthold Income: 20087 (Current Cans)	\$114,538
Projected Average Income Growth (1998-08)	3.7%
Average Annual Housing Starts: (1987-2008)	2,578

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Kitchener (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	204,600	203,500	204,900	207,431	212,001	216,876	221,330	225,321	229,045	232,800	236,317	239,700	242,929	245,929
Manufacturing	61,300	57,900	58,317	59,489	60,210	60,995	62,073	62,793	63,312	63,763	64,311	64,907	65,362	65,587
Nonmanufacturing	143,300	145,600	146,583	147,942	151,791	155,881	159,256	162,528	165,733	169,037	172,006	174,793	177,571	180,342
Transp., Comm., & Util.	11,800	8,400	8,284	8,560	8,770	8,770	8,953	9,107	9,265	9,432	9,568	9,693	9,812	9,935
Trade	33,100	34,000	34,203	34,298	34,794	35,189	35,749	36,149	36,448	36,718	36,972	37,222	37,600	37,801
Fin., Ins., & Real Estate	12,900	14,200	14,470	14,484	14,771	14,887	15,148	15,281	15,480	15,678	15,844	16,011	16,222	16,307
Services	66,100	67,600	68,063	68,823	70,500	72,763	74,849	76,905	79,120	81,371	83,445	85,417	87,350	89,307
Govt.	7,000	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Construction	9,000	10,700	11,583	12,331	13,495	14,280	14,401	14,858	15,065	15,412	15,703	16,035	16,317	16,317
Primary	3,000	3,200	2,960	2,888	2,938	2,998	3,013	3,022	3,015	2,997	2,976	2,942	2,902	2,871
Population	377,637	382,945	389,028	394,790	400,375	405,852	411,162	416,310	421,311	426,173	430,906	435,540	440,076	444,482
Age Groups														
0-14	82,029	83,130	83,869	84,471	84,766	84,879	84,910	84,870	84,937	84,925	84,309	83,885	83,233	82,694
15-24	53,944	53,805	53,887	53,967	54,231	54,766	55,401	56,193	56,957	57,743	58,661	59,741	60,822	61,636
25-34	65,452	65,020	64,585	63,912	63,036	62,203	61,579	61,144	60,990	60,547	60,277	59,919	59,873	60,027
35-44	61,515	62,935	64,795	66,479	68,379	69,830	71,022	71,564	71,472	71,610	71,357	71,007	70,452	69,635
45-54	44,779	46,845	48,854	50,899	52,832	54,975	57,092	58,456	59,706	61,458	63,228	65,165	66,912	68,616
55-64	29,290	29,540	30,340	31,464	32,839	34,163	35,324	36,342	37,146	37,742	38,165	38,465	38,678	38,819
65+	40,628	41,670	42,718	43,612	44,293	45,038	45,834	46,542	47,192	47,792	48,351	48,874	49,359	49,819
Labour Market Measures														
Source Population	307,000	312,400	318,300	323,682	329,200	334,794	340,301	345,713	350,859	356,048	361,522	366,798	372,210	377,367
Labour Force	222,100	222,000	221,300	222,792	227,103	231,085	235,229	239,235	243,070	246,776	250,339	253,603	256,854	259,916
Participation Rate (%)	72.30	71.10	69.50	68.80	69.00	69.00	69.10	69.20	69.30	69.30	69.20	69.10	69.00	68.90
Unemployment Rate (%)	7.80	8.30	7.40	6.90	6.90	6.10	5.90	5.80	5.80	5.70	5.60	5.50	5.40	5.40
Income (Thousands)														
Personal Income	\$9,540	\$9,733	\$10,037	\$10,401	\$10,870	\$11,395	\$11,914	\$12,485	\$13,129	\$13,857	\$14,651	\$15,491	\$16,401	\$17,382
Labour Income	\$6,786	\$6,784	\$6,809	\$7,032	\$7,359	\$7,743	\$8,099	\$8,472	\$8,878	\$9,318	\$9,795	\$10,303	\$10,881	\$11,502
Other Income	\$2,744	\$2,949	\$3,228	\$3,369	\$3,511	\$3,652	\$3,815	\$4,012	\$4,251	\$4,539	\$4,856	\$5,188	\$5,520	\$5,880
Disposable Income	\$7,349	\$7,399	\$7,704	\$8,064	\$8,485	\$8,961	\$9,229	\$9,645	\$10,127	\$10,721	\$11,331	\$12,017	\$12,713	\$13,474
Income per Household	\$68,629	\$68,667	\$69,344	\$70,469	\$72,241	\$74,349	\$76,378	\$78,706	\$81,461	\$84,613	\$88,071	\$91,583	\$95,622	\$99,879
Housing Starts	1,105	1,968	2,171	2,839	3,023	2,835	2,857	2,842	2,861	2,818	2,836	2,854	2,841	2,858
Households	198,014	141,739	144,739	147,604	150,485	153,262	155,993	158,627	161,167	163,765	166,357	168,965	171,519	174,026
Change	267	43	315	359	421	377	367	416	482	593	611	685	697	760

Employment	Numeric Change		Percent Change		Annual Growth: 95-08	
	99-03	03-08	98-03	03-08	95-08	Percent
Total	21,614	16,884	10.4%	7.4%	20.2%	1.4%
Manufacturing	3,843	2,275	6.5%	3.6%	7.0%	0.5%
Nonmanufacturing	17,771	14,609	12.0%	8.8%	25.8%	1.8%
Transp., Comm., & Util.	927	670	11.1%	7.2%	-15.8%	-1.3%
Trade	2,160	1,355	6.3%	3.7%	14.2%	1.0%
Fin., Ins., & Real Estate	976	582	6.7%	3.6%	24.2%	1.7%
Services	10,297	10,187	15.0%	12.9%	55.1%	2.3%
Govt.	549	728	8.1%	9.9%	6.4%	0.5%
Construction	2,734	1,252	22.2%	8.3%	81.3%	4.7%
Primary	127	(144)	4.4%	-4.8%	-4.3%	-0.3%
Population	26,521	23,171	6.7%	5.5%	17.7%	1.3%
Age Groups						
0-14	466	(2,243)	0.6%	-2.6%	0.8%	0.1%
15-24	2,980	4,678	5.5%	8.2%	14.3%	1.0%
25-34	(2,922)	(963)	-4.6%	-1.6%	-8.3%	-0.7%
35-44	5,007	(1,837)	7.5%	-2.6%	13.2%	1.0%
45-54	8,807	8,910	17.3%	14.9%	53.2%	3.3%
55-64	8,482	9,732	27.0%	24.4%	69.6%	4.1%
65+	3,690	4,894	8.5%	10.3%	28.5%	1.9%
Labour Market Measures						
Source Population	27,177	26,508	8.4%	7.6%	22.9%	1.6%
Labour Force	20,278	16,846	9.1%	6.9%	17.0%	1.2%
Participation Rate (%)	6.26	5.57				
Average Unemployment Rate	6.30					
Income (Thousands)						
Personal Income	\$2,728	\$4,253	26.2%	32.4%	82.2%	4.7%
Labour Income	\$1,846	\$2,624	26.3%	29.6%	68.2%	4.1%
Other Income	\$882	\$1,629	26.2%	38.3%	114.3%	6.0%
Disposable Income	\$2,063	\$3,347	25.6%	33.1%	83.4%	4.8%
Income per Household	\$10,992	\$18,418	15.6%	22.6%	45.5%	2.9%
Housing Starts	22	(3)	0.8%	-0.1%	168.6%	7.6%
Households	13,563	12,859	9.2%	8.0%	25.2%	1.7%

Summary Table
 Outlook for Kitchener (1998-2008)

Total Employment (1997)	204,900
Projected Employment (2008)	245,929
Projected Annual Average Job Growth	1.7%
1997 Average Unemployment Rate (Percent)	7.4%
Population (1997)	389,028
Population (2008)	444,482
Ann Avg Population Growth (1997-08)	1.2%
Households (1997)	144,739
Households (2008)	174,026
Ann Avg Household Growth (1997-08)	1.7%
Average H/Hold Income: 1997 (Current Cans\$)	\$69,344
Average H/Hold Income: 2008 (Current Cans\$)	\$99,879
Projected Average Income Growth (1998-08)	3.4%
Average Annual Housing Starts: (1997-2008)	2,803

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Toronto (1998-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	2,122,800	2,158,500	2,246,500	2,308,416	2,358,898	2,406,127	2,456,572	2,501,940	2,545,275	2,589,083	2,632,396	2,674,918	2,714,227	2,752,453
Age Groups														
0 - 14	396,200	426,500	444,379	460,601	466,049	470,428	478,555	483,920	487,604	490,773	495,268	500,231	503,816	505,781
15 - 24	1,726,700	1,731,700	1,802,121	1,847,815	1,892,849	1,935,700	1,978,018	2,018,020	2,057,671	2,098,310	2,137,128	2,174,687	2,210,411	2,246,672
25 - 34	166,200	166,500	169,939	173,654	178,594	181,888	185,597	188,716	191,873	195,214	198,129	200,881	203,371	206,012
35 - 44	359,300	366,200	380,913	388,018	391,632	396,548	403,214	407,055	410,130	412,944	416,028	420,277	423,481	425,942
45 - 54	200,100	191,100	190,769	198,555	197,803	198,658	202,042	203,750	206,006	207,449	208,932	211,270	212,568	213,770
55 - 64	803,600	823,200	854,233	878,020	898,952	924,355	950,475	976,208	1,003,689	1,031,600	1,059,497	1,084,304	1,109,029	1,134,390
65 +	86,800	85,400	85,724	84,895	85,558	86,699	88,058	89,374	91,223	93,247	94,942	96,613	98,300	100,358
Construction	98,800	96,700	108,210	117,091	128,069	135,115	136,122	140,378	142,248	145,436	148,263	149,138	151,536	154,277
Primary	12,100	12,700	12,144	12,043	12,442	12,440	12,509	12,539	12,501	12,420	12,337	12,205	12,045	11,924
Labour Market Measures														
Labour Force	4,189,837	4,263,765	4,347,239	4,428,120	4,506,553	4,582,817	4,656,417	4,728,063	4,797,739	4,865,623	4,931,935	4,996,538	5,060,115	5,122,874
Unemployment Rate (%)	67.30	67.50	68.10	67.70	67.90	67.90	68.00	68.10	68.20	68.20	68.20	68.10	67.90	67.80
Income (Thousands)	111,715	111,630	123,044	129,303	135,672	142,666	149,736	157,391	166,014	175,485	186,065	197,124	209,058	222,011
Personal Income	87,428	87,356	98,164	104,042	109,789	116,340	123,516	131,280	139,712	148,812	158,566	168,983	179,972	191,537
Other Income	24,287	24,274	24,880	25,261	25,883	26,326	26,220	26,111	26,302	26,673	27,499	28,141	29,086	30,474
Disposable Income	38,769	38,274	42,860	44,777	46,777	49,580	52,580	56,000	59,580	63,143	67,067	71,442	75,288	79,063
Income per Household	\$7,413	\$7,371	\$8,407	\$8,514	\$8,845	\$9,390	\$9,925	\$10,417	\$10,891	\$11,430	\$12,017	\$12,650	\$13,238	\$13,881
Housing Starts	16,325	19,998	25,574	32,019	34,178	31,602	32,019	32,077	32,120	31,579	31,423	31,394	31,031	31,215
Households	1,468,937	1,484,499	1,530,267	1,565,155	1,599,047	1,632,516	1,665,123	1,696,489	1,727,518	1,758,077	1,788,784	1,819,546	1,849,254	1,878,795
Change	193	6,574	5,700	5,588	4,946	4,946	4,947	5,487	6,357	7,588	8,859	9,984	10,969	11,875

Employment	Numeric Change			Percent Change			Annual Growth: 95-08		
	98-03	03-08	95-08	98-03	03-08	95-08	Number	Percent	Percent
Total	236,859	207,178	629,553	10.3%	8.1%	29.7%	48,427	2.0%	2.0%
Age Groups									
0 - 14	54,647	7,667	117,526	6.1%	0.8%	14.0%	9,040	1.0%	1.0%
15 - 24	38,275	59,951	100,962	6.9%	10.1%	16.2%	7,768	1.3%	1.3%
25 - 34	(9,576)	(19,894)	(99,895)	-8.1%	-2.8%	-13.3%	(7,680)	-1.1%	-1.1%
35 - 44	75,784	(20,663)	123,517	9.8%	-2.4%	17.5%	9,501	1.2%	1.2%
45 - 54	105,049	115,492	288,801	17.7%	16.5%	55.3%	22,292	3.4%	3.4%
55 - 64	93,161	114,403	230,330	24.4%	24.1%	64.1%	17,718	3.9%	3.9%
65 +	62,271	67,270	170,917	12.6%	12.1%	37.6%	13,147	2.5%	2.5%
Labour Market Measures									
Labour Force	235,638	328,117	858,827	8.9%	8.2%	24.9%	66,064	1.7%	1.7%
Unemployment Rate (%)	6.48	6.02	6.72	9.6%	7.6%	25.9%	46,189	1.9%	1.9%
Income (Thousands)	\$36,711	\$55,997	\$108,296	28.4%	33.7%	95.2%	\$8,330	5.3%	5.3%
Personal Income	\$21,987	\$32,964	\$64,067	26.2%	31.1%	85.5%	\$4,928	4.9%	4.9%
Other Income	\$14,724	\$23,034	\$44,230	32.5%	38.4%	114.0%	\$3,402	6.0%	6.0%
Disposable Income	\$13,486	\$22,067	\$40,754	16.3%	23.0%	52.6%	\$3,135	3.3%	3.3%
Income per Household	\$23	(905)	14,890	0.1%	-2.6%	91.2%	1,145	5.1%	5.1%
Housing Starts	23	151,277	409,858	10.4%	6.8%	27.9%	31,528	1.9%	1.9%

Summary Table
 Outlook for Toronto (1998-2008)

Total Employment (1997) 2,246,500
 Total Employment (2008) 2,752,453
 Projected Employment Change (1998-2008) 505,953
 Projected Annual Average Job Growth 1.9%
 1997 Average Unemployment Rate (Percent) 8
 Population (1997) 4,347,239
 Ann Avg Population Growth (1997-08) 1.5%
 Households (1997) 1,530,267
 Households (2008) 1,878,795
 Ann Avg Household Growth (1997-08) 1.9%
 Average Hthold Income: 1997 (Current Cans) \$80,407
 Average Hthold Income: 2008 (Current Cans) \$118,167
 Projected Average Income Growth (1998-08) 3.6%
 Average Annual Housing Starts: (1997-2008) 31,359

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for Hamilton (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	311,700	308,500	315,200	323,885	328,294	332,655	337,490	341,367	344,360	347,360	350,541	353,389	356,069	358,529
Manufacturing	69,900	68,900	70,447	72,999	73,267	73,469	74,310	74,659	74,656	74,668	74,737	74,943	74,997	74,807
Nonmanufacturing	241,800	239,600	244,753	250,886	255,028	259,186	263,180	266,708	269,704	272,701	275,804	278,445	281,071	283,722
Transp., Comm., & Util.	19,400	20,200	20,247	20,683	21,100	21,348	21,658	21,881	22,078	22,291	22,469	22,617	22,751	22,899
Trade	53,500	58,200	57,391	58,461	59,522	59,675	59,701	59,696	59,686	59,647	59,681	59,858	59,928	59,889
Fin., Ins., & Real Estate	20,800	20,980	20,980	20,938	21,167	21,118	21,355	21,397	21,468	21,454	21,460	21,545	21,538	21,521
Services	112,300	108,900	111,011	114,030	115,808	118,298	120,945	123,418	125,928	128,443	130,891	133,120	135,283	137,487
Govt.	15,000	12,400	12,224	12,102	12,102	12,178	12,298	12,402	12,562	12,743	12,886	13,019	13,173	13,352
Construction	15,600	15,900	17,472	18,901	20,507	21,493	21,529	22,059	22,183	22,507	22,787	22,757	22,978	23,242
Primary	5,300	6,200	5,822	5,772	5,820	5,875	5,874	5,850	5,788	5,707	5,630	5,630	5,423	5,333
Population	619,453	624,370	630,079	635,576	640,870	645,976	650,911	655,678	660,304	664,804	669,181	673,453	677,623	681,667
Age Groups														
0-14	123,473	124,805	125,570	125,794	125,760	125,344	124,811	124,341	123,945	123,244	122,031	121,095	119,902	118,887
15-24	60,112	79,255	79,384	79,584	80,272	80,969	82,057	83,048	84,000	85,165	86,814	88,814	89,405	90,562
25-34	97,531	93,868	93,868	92,051	89,898	88,439	87,194	86,542	86,099	85,919	85,568	85,293	85,539	86,084
35-44	98,748	100,450	102,434	104,467	106,185	106,946	107,179	106,709	105,641	104,310	102,930	101,418	99,572	97,400
45-54	77,385	80,015	82,372	84,271	86,693	89,790	92,414	94,986	96,950	98,333	101,823	103,816	105,721	107,721
55-64	57,540	57,405	57,948	59,371	60,687	61,922	63,591	67,205	70,064	72,641	74,983	77,471	79,700	81,738
65+	84,664	86,590	88,503	90,028	91,375	92,566	93,665	94,621	95,568	96,575	97,522	98,490	99,689	101,275
Labour Market Measures														
Source Population	510,000	514,000	520,500	525,940	531,437	537,134	542,775	548,178	553,360	558,725	564,493	569,866	575,401	580,618
Labour Force	333,700	333,200	337,200	343,483	347,859	351,776	356,028	360,043	363,918	367,639	371,239	374,198	377,112	380,103
Participation Rate (%)	65.40	64.70	64.80	65.30	65.50	65.50	65.60	65.70	65.80	65.80	65.80	65.70	65.50	65.50
Unemployment Rate (%)	6.50	7.40	6.50	6.70	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Income (Thousands)														
Personal Income	\$15,200	\$15,353	\$16,033	\$16,698	\$17,261	\$17,912	\$18,551	\$19,261	\$20,095	\$21,002	\$22,034	\$23,107	\$24,251	\$25,484
Labour Income	\$9,717	\$9,635	\$9,780	\$10,185	\$10,526	\$10,826	\$11,330	\$11,741	\$12,175	\$12,646	\$13,184	\$13,748	\$14,388	\$15,100
Other Income	\$5,483	\$5,718	\$6,253	\$6,503	\$6,735	\$7,086	\$7,221	\$7,519	\$7,909	\$8,356	\$8,850	\$9,359	\$9,863	\$10,384
Disposable Income	\$11,650	\$12,620	\$13,412	\$13,894	\$14,312	\$14,812	\$15,303	\$15,811	\$16,421	\$17,075	\$17,862	\$18,742	\$19,662	\$20,622
Income per Household	\$65,143	\$64,981	\$66,989	\$68,859	\$70,381	\$72,188	\$74,395	\$76,985	\$79,437	\$81,205	\$84,354	\$87,574	\$91,064	\$94,830
Housing Starts	2,001	2,642	3,698	3,668	3,941	3,811	3,629	3,597	3,597	3,551	3,571	3,519	3,429	3,400
Households	233,334	236,341	239,335	242,355	245,246	248,123	250,871	253,477	256,065	258,631	261,212	263,861	266,308	268,734
Change	307	(46)	649	627	535	453	438	507	610	754	788	880	869	951

Employment	Numeric Change		Percent Change		Annual Growth: 95-08	
	98-03	95-08	98-03	03-08	95-08	95-08
Total	20,475	14,169	6.3%	4.1%	15.0%	1.1%
Manufacturing	1,857	151	2.3%	0.2%	7.0%	0.5%
Nonmanufacturing	18,618	14,018	7.5%	5.2%	17.3%	1.2%
Transp., Comm., & Util.	1,235	821	2.1%	3.7%	18.0%	1.3%
Trade	531	52	2.5%	0.3%	11.9%	0.9%
Fin., Ins., & Real Estate	11,998	11,559	10.4%	9.2%	4.5%	0.3%
Services	460	790	3.8%	6.3%	-11.0%	-0.9%
Govt.	3,282	1,059	17.4%	4.8%	49.0%	3.1%
Primary	16	(455)	0.3%	-7.9%	0.6%	0.0%
Population	24,728	21,363	3.9%	3.2%	10.0%	0.7%
Age Groups						
0-14	(1,848)	(5,058)	-1.5%	-4.1%	-3.7%	-0.3%
15-24	4,406	6,362	5.5%	7.8%	13.0%	0.9%
25-34	(5,952)	(15)	-6.5%	-0.0%	-11.7%	-1.0%
35-44	1,174	(6,241)	1.1%	-7.8%	-1.4%	-0.1%
45-54	10,715	28,336	12.7%	11.3%	36.6%	2.4%
55-64	10,693	11,674	18.0%	16.7%	42.1%	2.7%
65+	5,641	16,611	6.2%	6.0%	19.6%	1.4%
Labour Market Measures						
Source Population	27,420	27,258	5.2%	4.9%	13.8%	1.0%
Labour Force	20,435	16,185	5.9%	4.4%	13.9%	1.0%
Participation Rate (%)	5.42	5.57				
Average Unemployment Rate						
Income (Thousands)	\$3,397	\$5,399	20.4%	26.9%	67.7%	4.1%
Labour Income	\$1,990	\$2,925	19.5%	24.0%	55.4%	3.4%
Other Income	\$1,406	\$2,475	21.6%	31.3%	89.4%	5.0%
Disposable Income	\$2,544	\$4,241	19.8%	27.5%	68.8%	4.1%
Income per Household	\$9,578	\$16,393	13.9%	20.9%	45.6%	2.9%
Housing Starts	(71)	(197)	-1.9%	-5.5%	69.9%	4.2%
Households	13,710	12,669	5.7%	4.9%	15.2%	1.1%

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for St. Catharines-Niagara (1998-2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Employment														
Total	158,700	164,800	181,900	168,134	170,808	172,942	174,816	176,492	178,019	179,495	180,825	181,973	182,989	183,989
Manufacturing	33,400	34,300	33,742	35,328	35,518	35,554	35,824	35,905	35,985	35,807	35,809	35,937	35,777	35,618
Nonmanufacturing	125,300	130,500	128,158	132,806	135,291	137,388	138,992	140,587	142,134	143,688	145,016	146,136	147,212	148,371
Transp., Comm., & Util.	8,400	9,100	8,775	9,059	9,296	9,349	9,449	9,523	9,603	9,687	9,743	9,787	9,821	9,866
Trade	26,600	30,600	30,281	31,147	31,236	31,365	31,590	31,588	31,532	31,480	31,511	31,473	31,473	31,393
Fin., Ins., & Real Estate	7,900	6,900	6,867	7,058	7,146	7,118	7,171	7,167	7,188	7,176	7,162	7,175	7,156	7,137
Services	62,100	63,000	61,787	64,131	65,239	66,528	67,757	68,976	70,340	71,675	72,880	73,974	74,997	76,072
Govt.	8,100	6,800	6,449	6,452	6,460	6,492	6,531	6,570	6,652	6,740	6,801	6,858	6,922	7,001
Construction	8,200	9,500	10,044	10,878	11,831	12,483	12,457	12,732	12,797	12,971	13,105	13,061	13,155	13,281
Primary	4,100	4,400	3,975	3,982	4,022	4,053	4,037	4,011	3,966	3,907	3,770	3,688	3,688	3,620
Population	370,800	372,360	374,282	376,061	377,759	379,386	380,942	382,431	383,871	385,263	386,602	387,843	389,075	390,268
Age Groups														
0 - 14	71,594	71,850	71,672	71,330	71,078	70,555	69,889	69,205	68,615	68,189	67,473	66,774	66,043	65,421
15 - 24	47,677	47,095	47,352	47,774	47,980	48,264	48,696	49,185	49,307	49,717	50,013	50,429	50,887	51,120
25 - 34	53,001	51,810	50,763	49,432	48,579	47,867	47,513	47,658	48,120	48,625	49,119	49,278	49,623	50,152
35 - 44	58,293	56,915	57,608	58,278	58,448	58,626	58,440	57,649	56,562	55,421	54,604	53,721	52,787	51,686
45 - 54	46,203	47,680	48,786	49,862	51,054	52,416	53,688	53,824	54,448	55,247	55,985	56,983	57,705	58,366
55 - 64	36,599	36,385	36,502	36,976	37,595	38,077	38,834	40,746	42,288	44,714	45,749	46,768	47,662	48,442
65 +	59,433	60,645	61,631	62,409	63,015	63,581	63,984	64,166	64,331	64,546	64,694	64,909	65,262	65,861
Labour Market Measures														
Source Population	289,900	291,600	293,100	295,154	297,043	299,125	301,278	303,382	305,155	307,109	309,100	310,979	312,880	314,639
Labour Force	174,700	181,900	179,600	184,569	186,171	187,576	189,144	190,658	191,960	193,231	194,361	195,264	196,083	196,808
Participation Rate (%)	60.30	62.40	61.30	62.50	62.70	62.70	62.80	62.90	62.90	62.90	62.90	62.80	62.70	62.60
Unemployment Rate (%)	9.20	9.40	9.90	8.90	8.30	7.80	7.60	7.40	7.30	7.10	7.00	6.80	6.70	6.50
Income (Thousands)														
Personal Income	\$8,581	\$8,660	\$8,772	\$9,142	\$9,431	\$9,752	\$10,043	\$10,375	\$10,767	\$11,192	\$11,680	\$12,179	\$12,728	\$13,322
Labour Income	\$5,531	\$5,381	\$5,381	\$5,669	\$5,881	\$6,067	\$6,256	\$6,462	\$6,693	\$6,945	\$7,218	\$7,505	\$7,833	\$8,192
Other Income	\$3,391	\$3,129	\$3,391	\$3,472	\$3,570	\$3,684	\$3,788	\$3,913	\$4,074	\$4,248	\$4,462	\$4,674	\$4,884	\$5,130
Disposable Income	\$6,697	\$6,665	\$6,825	\$7,182	\$7,460	\$7,685	\$7,884	\$8,123	\$8,416	\$8,776	\$9,155	\$9,574	\$9,998	\$10,465
Income per Household	\$59,640	\$59,456	\$59,718	\$61,732	\$63,201	\$64,825	\$66,280	\$68,009	\$70,116	\$72,448	\$75,115	\$77,842	\$80,658	\$84,124
Housing Starts	898	995	1,462	1,045	1,130	1,038	1,043	1,006	974	959	955	934	942	980
Households	143,863	146,655	146,865	148,063	149,225	150,434	151,528	152,555	153,560	154,488	155,495	156,463	157,409	158,359
Change	171	(32)	160	356	278	225	189	239	295	358	379	419	424	467

Summary Table
 Outlook for St. Catharines-Niagara (1998-2008)

Total Employment (1997)	181,900
Total Employment (2008)	183,989
Projected Employment Change (1998-2008)	22,089
Projected Annual Average Job Growth	1.2%
1997 Average Unemployment Rate (Percent)	9.9
Population (1997)	374,282
Population (2008)	390,268
Ann Avg Population Growth (1997-08)	0.4%
Ann Avg Household Growth (1997)	146,865
Households (2008)	158,359
Ann Avg Household Growth (1997-08)	0.7%
Average H/hold Income: 1997 (Current Can\$)	\$59,718
Average H/hold Income: 2008 (Current Can\$)	\$84,124
Projected Average Income Growth (1998-08)	3.2%
Average Annual Housing Starts: (1997-2008)	1,039

Employment	Numeric Change		Percent Change		Annual Growth: 95-08	
	99-03	03-08	98-03	03-08	95-08	Percent
Total	9,885	5,970	25,289	15,945	15.9%	1.1%
Manufacturing	557	(267)	2,218	1,711	6.6%	0.5%
Nonmanufacturing	9,328	6,237	23,071	17,750	18.4%	1.3%
Transp., Comm., & Util.	544	263	1,466	1,113	17.5%	1.2%
Trade	441	(195)	4,783	369	18.0%	1.3%
Fin., Ins., & Real Estate	130	(91)	(763)	(59)	-9.7%	-0.8%
Services	6,208	5,732	13,972	10,750	22.5%	1.6%
Govt.	200	349	(1,099)	(85)	-13.6%	-1.1%
Construction	1,819	484	5,081	391	62.0%	3.8%
Primary	(16)	(346)	(480)	(37)	-11.7%	-1.0%
Population	7,810	6,397	19,468	1,498	5.3%	0.4%
Age Groups						
0 - 14	(2,515)	(3,394)	(6,173)	(475)	-8.6%	-0.7%
15 - 24	1,533	1,813	3,443	265	3.7%	0.5%
25 - 34	(1,312)	2,032	(2,849)	(219)	-5.4%	-0.4%
35 - 44	(1,716)	(4,876)	(4,607)	(354)	-8.2%	-0.7%
45 - 54	4,586	3,918	12,163	936	7.2%	1.8%
55 - 64	5,312	5,374	11,063	851	14.4%	2.1%
65 +	1,922	1,530	6,428	494	10.8%	0.8%
Labour Market Measures						
Source Population	10,001	9,484	24,739	1,903	8.5%	0.6%
Labour Force	7,391	8,448	22,108	1,701	12.7%	0.9%
Participation Rate (%)	8.00	6.90	7.85			
Unemployment Rate (%)	\$1,625	\$2,555	\$4,741	\$365	55.2%	3.4%
Personal Income	\$1,024	\$1,489	\$3,002	\$231	57.8%	3.6%
Labour Income	\$602	\$1,056	\$1,739	\$134	25.9%	3.2%
Other Income	\$1,236	\$2,047	\$3,768	\$290	66.3%	3.5%
Disposable Income	\$5,384	\$14,008	\$24,484	\$1,883	27.9%	2.7%
Income per Household	(7)	6	82	6	-6.8%	0.7%
Housing Starts	5,477	4,769	14,476	1,114	10.1%	0.7%
Households						

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CMAs
Outlook for London (1998-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	207,900	203,800	210,400	208,785	212,227	215,635	218,887	221,643	224,012	226,389	228,703	231,057	233,295	235,440
Total	36,800	32,400	33,495	33,550	33,763	33,922	34,297	34,463	34,715	34,483	34,527	34,657	34,717	34,664
Manufacturing	171,100	171,400	176,905	175,236	178,464	181,714	184,580	187,180	189,537	191,936	194,176	196,401	198,578	200,776
Transp., Comm., & Util.	9,600	12,400	12,567	12,409	12,693	13,049	13,310	13,310	13,444	13,444	13,551	13,654	13,748	13,851
Trade	35,200	36,500	37,688	37,108	37,252	37,544	38,061	38,073	38,073	38,080	38,230	38,314	38,328	38,328
Fin., Ins., & Real Estate	16,000	15,200	15,899	15,844	15,844	16,009	16,042	16,042	16,104	16,101	16,104	16,183	16,195	16,198
Services	87,000	87,200	89,877	89,239	90,875	93,007	95,049	97,000	99,023	101,051	102,966	104,824	106,635	108,483
Govt.	7,900	8,000	8,114	8,114	8,114	8,114	8,114	8,114	8,114	8,114	8,114	8,114	8,114	8,114
Construction	10,400	8,800	9,778	10,224	11,123	11,680	11,995	12,057	12,057	12,057	12,380	12,386	12,518	12,675
Primary	5,100	3,500	3,323	3,185	3,220	3,257	3,257	3,242	3,209	3,165	3,122	3,070	3,013	2,965
Population	395,227	398,655	402,405	405,845	409,328	412,870	416,290	419,607	422,816	425,940	429,076	432,212	435,348	438,484
Age Groups														
0-14	81,168	82,090	82,590	82,987	83,331	83,626	83,871	84,066	84,211	84,306	84,351	84,396	84,441	84,486
15-24	54,709	53,764	53,306	53,270	53,270	53,306	53,306	53,306	53,306	53,306	53,306	53,306	53,306	53,306
25-34	65,818	64,700	63,822	62,637	61,470	60,354	59,200	58,000	56,844	55,739	54,684	53,629	52,574	51,519
35-44	63,836	64,970	66,564	67,799	69,028	70,257	71,486	72,715	73,944	75,173	76,402	77,631	78,860	80,089
45-54	47,695	49,665	51,548	53,317	55,086	56,855	58,624	60,393	62,162	63,931	65,700	67,469	69,238	71,007
55-64	32,513	32,610	33,152	34,140	35,273	36,523	37,892	39,381	40,890	42,419	43,968	45,537	47,126	48,735
65+	49,488	50,320	51,165	51,780	52,259	52,735	53,193	53,620	54,016	54,383	54,729	55,056	55,363	55,650
Labour Market Measures														
Source Population	331,600	335,300	339,100	342,454	346,078	349,957	353,739	357,350	360,762	364,066	367,274	370,393	373,429	376,374
Labour Force	226,000	223,600	228,100	223,520	228,849	230,155	233,240	236,118	238,845	241,351	243,818	246,244	248,634	251,014
Participation Rate (%)	88.20	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00
Unemployment Rate (%)	8.00	8.90	7.70	6.60	6.40	6.30	6.20	6.10	6.20	6.20	6.20	6.10	6.00	5.90
Income (Thousands)	\$9,762	\$9,876	\$10,322	\$10,488	\$10,851	\$11,260	\$11,673	\$12,124	\$12,640	\$13,223	\$13,874	\$14,560	\$15,309	\$16,120
Labour Income	\$6,887	\$6,703	\$6,871	\$6,936	\$7,197	\$7,500	\$7,849	\$8,234	\$8,653	\$9,107	\$9,597	\$10,123	\$10,685	\$11,274
Other Income	\$2,875	\$3,173	\$3,451	\$3,552	\$3,654	\$3,760	\$3,824	\$3,890	\$3,987	\$4,116	\$4,277	\$4,437	\$4,624	\$4,846
Disposable Income	\$7,522	\$7,503	\$7,929	\$8,135	\$8,476	\$8,760	\$9,048	\$9,372	\$9,757	\$10,193	\$10,681	\$11,201	\$11,709	\$12,200
Income per Household	\$62,752	\$62,609	\$64,500	\$64,829	\$66,279	\$67,939	\$69,800	\$71,829	\$73,787	\$75,832	\$77,960	\$80,173	\$82,473	\$84,865
Housing Starts	1,016	1,394	1,807	1,762	1,937	1,861	1,856	1,834	1,840	1,845	1,877	1,881	1,864	1,879
Households	155,570	157,739	159,833	161,775	163,743	165,744	167,698	169,600	171,278	173,123	174,987	176,881	178,699	180,485
Change	210	(19)	426	206	341	286	288	324	364	481	499	564	573	629

Employment	Numeric Change			Percent Change			Annual Growth: 95-08	
	98-03	03-08	95-08	98-03	03-08	95-08	Number	Percent
Total	15,227	11,428	27,540	7.3%	5.1%	13.2%	2,118	1.0%
Manufacturing	925	189	(2,136)	2.8%	0.6%	-5.8%	(164)	-0.5%
Transp., Comm., & Util.	14,301	11,239	29,676	8.2%	5.9%	17.3%	2,282	1.2%
Trade	965	285	3,128	7.3%	4.1%	14.3%	327	2.9%
Fin., Ins., & Real Estate	473	94	198	2.6%	0.7%	6.9%	241	0.7%
Services	9,784	9,460	21,483	11.0%	9.6%	24.7%	1,653	1.7%
Govt.	321	514	375	4.3%	6.6%	4.7%	29	0.4%
Construction	1,833	818	2,275	17.9%	5.1%	21.9%	175	1.5%
Primary	24	(244)	(2,135)	0.8%	-7.6%	-41.9%	(164)	-1.1%
Population	16,971	14,864	42,453	4.2%	3.5%	10.7%	3,286	0.8%
Age Groups								
0-14	(284)	(2,860)	(1,455)	-0.4%	-3.5%	-1.8%	(112)	-0.1%
15-24	1,191	3,819	3,607	2.2%	7.0%	6.6%	277	0.5%
25-34	(3,437)	(2,527)	(9,145)	-5.5%	-4.3%	-13.9%	(703)	-1.1%
35-44	1,359	(3,861)	1,461	2.0%	-5.6%	2.3%	112	0.2%
45-54	7,654	7,623	20,898	14.4%	12.5%	43.8%	1,608	2.8%
55-64	8,217	9,062	18,908	24.1%	21.4%	58.1%	1,454	3.6%
65+	2,281	3,607	8,180	4.4%	6.7%	16.5%	629	1.2%
Labour Market Measures								
Source Population	18,308	18,791	47,953	5.3%	5.2%	14.5%	3,689	1.0%
Labour Force	15,325	11,296	24,141	6.9%	4.7%	10.7%	1,857	0.8%
Participation Rate (%)	6.32	6.08	6.62					
Unemployment Rate (%)								
Income (Thousands)	\$2,152	\$3,480	\$6,358	20.5%	27.5%	65.1%	\$489	3.9%
Labour Income	\$1,454	\$2,138	\$3,671	21.0%	25.5%	53.5%	\$282	3.4%
Other Income	\$698	\$1,342	\$2,687	19.9%	31.6%	82.5%	\$383	4.0%
Disposable Income	\$1,622	\$2,746	\$4,981	13.8%	21.0%	66.2%	\$204	2.8%
Income per Household	\$8,968	\$15,519	\$26,564	4.3%	2.1%	16.0%	66	1.1%
Housing Starts	76	39	863	4.4%	2.1%	84.9%	66	4.8%
Households	9,503	9,207	24,915	5.9%	5.4%	16.0%	1,917	1.1%

Summary Table
Outlook for London (1998-2008)

Total Employment (1997)
Total Employment (2008)
Projected Annual Average Job Growth (1998-2008)
1987 Average Unemployment Rate (%)
Population (1997)
Ann Avg Population Growth (1997-08)
Households (1997)
Households (2008)
Ann Avg Household Growth (1997-08)
Average H'hold Income: 1997 (Current Can\$)
Average H'hold Income: 2008 (Current Can\$)
Projected Average Income Growth (1998-08)
Average Annual Housing Starts: (1997-2008)

Total Employment (1997): 210,400
Total Employment (2008): 235,440
Projected Annual Average Job Growth: 1.0%
1987 Average Unemployment Rate (%): 7.7
Population (1997): 402,405
Ann Avg Population Growth (1997-08): 0.8%
Households (1997): 437,680
Households (2008): 159,633
Ann Avg Household Growth (1997-08): 1.1%
Average H'hold Income: 1997 (Current Can\$): \$64,580
Average H'hold Income: 2008 (Current Can\$): \$89,316
Projected Average Income Growth (1998-08): 3.0%
Average Annual Housing Starts: (1997-2008): 1,854

TABLE C-6 (Continued)
Economic Outlook for Selected Eastern Canada CIMAs
Outlook for Windsor (1998-2008)

Employment	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	128,800	134,000	133,900	136,117	138,816	141,133	143,478	145,691	147,662	149,557	151,323	152,996	154,548	155,884
Manufacturing	37,100	35,600	35,535	36,345	36,669	36,864	37,354	37,651	37,817	37,909	38,073	38,278	38,386	38,341
Nonmanufacturing	89,700	98,400	98,365	99,771	102,148	104,270	106,123	108,040	109,845	111,648	113,250	114,717	116,162	117,543
Transp., Comm., & Util.	6,500	7,500	7,339	7,400	7,588	7,687	7,823	7,929	8,036	8,143	8,225	8,301	8,368	8,434
Trade	21,200	22,300	22,332	22,353	22,498	22,667	22,978	23,121	23,221	23,286	23,348	23,479	23,555	23,572
Fin., Ins., & Real Estate	5,800	5,200	5,252	5,272	5,358	5,428	5,428	5,457	5,500	5,516	5,529	5,565	5,575	5,579
Services	44,600	50,200	49,957	50,653	51,711	52,957	54,240	55,528	56,910	58,255	59,490	60,661	61,774	62,867
Govt.	3,600	3,800	3,657	3,574	3,591	3,625	3,667	3,710	3,774	3,843	3,893	3,944	3,989	4,058
Construction	7,100	8,400	9,011	9,622	10,494	11,026	11,065	11,374	11,489	11,699	11,869	11,885	12,033	12,178
Primary	900	1,000	917	887	910	920	922	921	915	906	895	882	867	854
Population	275,334	278,645	281,942	285,213	288,467	291,723	295,001	297,977	300,990	303,990	306,990	309,718	312,478	315,158
Age Groups														
0 - 14	55,327	55,900	56,460	56,801	57,139	57,318	57,598	57,888	58,081	58,278	58,310	58,284	58,302	58,406
15 - 24	39,479	39,520	38,810	38,588	38,455	38,390	38,360	38,444	38,716	38,967	39,287	39,877	40,373	40,694
25 - 34	44,376	44,455	44,843	44,750	44,525	44,609	44,409	44,393	44,480	44,381	43,941	43,258	42,568	42,017
35 - 44	42,822	43,635	44,435	45,449	46,385	46,984	47,874	47,665	47,508	47,601	47,885	48,139	48,519	48,703
45 - 54	33,562	34,880	36,082	37,082	38,178	39,424	40,625	41,228	41,991	42,835	43,764	44,810	45,607	46,365
55 - 64	24,222	24,180	24,455	25,088	25,845	26,573	27,325	28,923	30,313	31,590	32,824	33,953	35,120	36,220
65 +	35,546	36,075	36,856	37,458	37,938	38,446	38,981	39,437	39,900	40,337	40,870	41,396	41,989	42,753
Labour Market Measures														
Source Population	218,600	222,100	226,300	229,242	232,168	235,256	238,265	240,961	243,781	246,604	249,482	252,347	255,089	257,684
Labour Force	138,600	146,600	147,300	147,742	149,966	152,042	154,228	156,178	158,184	160,083	161,717	163,323	164,789	166,141
Participation Rate (%)	63.40	66.00	65.10	64.40	64.60	64.60	64.70	64.80	64.90	64.90	64.80	64.70	64.60	64.50
Unemployment Rate (%)	8.50	8.50	8.50	7.90	7.40	7.20	7.00	6.70	6.70	6.60	6.40	6.30	6.20	6.20
Income (Thousands)														
Personal Income	\$6,526	\$6,642	\$6,835	\$7,102	\$7,411	\$7,741	\$8,063	\$8,424	\$8,823	\$9,266	\$9,769	\$10,276	\$10,835	\$11,433
Labour Income	\$4,186	\$4,580	\$4,903	\$4,702	\$4,703	\$5,114	\$5,318	\$5,539	\$5,781	\$6,039	\$6,318	\$6,616	\$6,953	\$7,310
Other Income	\$2,340	\$2,062	\$2,285	\$2,394	\$2,508	\$2,627	\$2,745	\$2,885	\$3,042	\$3,228	\$3,451	\$3,660	\$3,882	\$4,123
Disposable Income	\$5,075	\$5,093	\$5,289	\$5,560	\$5,842	\$6,080	\$6,307	\$6,572	\$6,873	\$7,240	\$7,630	\$8,050	\$8,482	\$8,950
Income per Household	\$62,262	\$62,245	\$62,951	\$64,362	\$66,117	\$67,968	\$69,775	\$71,940	\$74,368	\$77,093	\$80,202	\$83,338	\$86,631	\$90,575
Housing Starts	1,495	2,300	2,102	2,980	3,185	2,968	3,038	2,821	2,888	2,934	2,967	2,936	2,773	2,788
Households	104,820	106,701	108,568	110,342	112,088	113,865	115,560	117,094	118,633	120,194	121,804	123,308	124,782	126,233
Change	171	18	206	261	282	238	227	265	301	367	390	420	432	468

Summary Table

Employment	98-03	Numeric Change	03-08	95-08	98-03	Percent Change	03-08	95-08	Annual Growth: 95-08	Number	Percent
Total	11,545	8,222	29,084	28,084	8.5%	5.6%	22.9%	2,237	1.6%		
Manufacturing	1,472	524	1,241	95	4.1%	1.4%	3.3%	95	0.3%		
Nonmanufacturing	10,074	7,698	27,843	27,843	10.1%	7.0%	31.0%	2,142	2.1%		
Transp., Comm., & Util.	636	398	1,934	1,934	8.6%	5.0%	29.6%	149	2.0%		
Trade	868	351	2,372	2,372	3.9%	1.5%	11.2%	182	0.8%		
Fin., Ins., & Real Estate	228	79	(221)	(221)	4.3%	1.4%	-3.6%	(17)	-0.3%		
Services	6,257	5,957	16,267	16,267	12.4%	10.5%	41.0%	1,405	2.7%		
Govt.	200	284	458	458	5.6%	7.5%	12.7%	35	0.9%		
Construction	1,867	689	5,078	5,078	19.4%	6.0%	71.5%	391	4.2%		
Primary	18	(61)	(46)	(46)	2.0%	-6.7%	-5.1%	(4)	-0.4%		
Population	15,767	14,176	39,824	39,824	5.5%	4.7%	14.5%	3,063	1.0%		
Age Groups											
0 - 14	1,280	325	3,079	3,079	2.3%	0.6%	5.6%	237	0.4%		
15 - 24	128	1,978	1,215	1,215	0.3%	3.1%	3.1%	93	0.2%		
25 - 34	(270)	(2,463)	(2,359)	(2,359)	-0.6%	-5.5%	-5.3%	(181)	-0.4%		
35 - 44	2,059	1,195	5,881	5,881	4.5%	2.5%	13.7%	452	1.0%		
45 - 54	4,899	4,384	12,803	12,803	13.2%	10.4%	38.1%	985	2.5%		
55 - 64	5,227	5,907	11,968	11,968	20.8%	19.5%	49.5%	923	3.1%		
65 +	2,442	2,653	7,207	7,207	6.6%	7.2%	20.3%	554	1.4%		
Labour Market Measures											
Source Population	14,539	13,903	39,084	39,084	6.3%	5.7%	17.9%	3,006	1.3%		
Labour Force	10,442	7,957	27,541	27,541	7.1%	5.0%	19.9%	2,119	1.4%		
Participation Rate (%)	7.24	6.40	7.20	7.20							
Unemployment Rate (%)											
Income (Thousands)	\$1,721	\$2,610	\$4,907	\$4,907	24.2%	29.6%	75.2%	\$377	4.4%		
Personal Income	\$1,074	\$1,529	\$3,124	\$3,124	22.8%	26.4%	74.6%	\$240	4.4%		
Labour Income	\$648	\$1,081	\$1,783	\$1,783	27.1%	35.5%	76.3%	\$137	4.5%		
Other Income	\$1,313	\$2,077	\$3,875	\$3,875	23.6%	30.2%	76.4%	\$298	4.5%		
Disposable Income	\$1,008	\$1,620	\$28,313	\$28,313	15.5%	21.8%	45.5%	\$2,178	4.9%		
Income per Household	(92)	(100)	1,293	1,293	-3.1%	-3.9%	66.5%	99	4.9%		
Housing Starts	8,291	7,600	21,413	21,413	7.5%	6.4%	20.4%	1,847	1.4%		
Households											

Total Employment (1997) 133,900
 Total Employment (2008) 155,884
 Projected Annual Average Job Growth 1.4%
 1997 Average Unemployment Rate (Percent) 9.2
 Population (1997) 281,942
 Population (2008) 315,158
 Ann Avg Population Growth (1997-08) 1.0%
 Households (1997) 108,568
 Households (2008) 126,233
 Ann Avg Household Growth (1997-08) 1.4%
 Average Hthold Income: 1997 (Current Can\$) \$62,951
 Average Hthold Income: 2008 (Current Can\$) \$90,575
 Projected Average Income Growth (1998-08) 3.4%
 Average Annual Housing Starts: (1997-2008) 2,848

**Appendix B: Detailed Population and Employment Tables
Northeast US States and Metropolitan Statistical Areas**

**Table D-1
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Boston, MA, 1996-2003**

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
	1996	1997	1998	1999	2000	2001	2002	2003	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	2619.9	2693.3	2722.4	2797.7	2826.8	2848.5	2870.7	2893.5	152,500	121,100	273,600	5.8%	4.4%	10.4%	2.9%	0.9%	1.4%
Manufacturing	386.9	389.8	395.5	386.2	381.6	377.8	374.1	372.8	8,600	(22,700)	(14,100)	2.2%	-5.7%	-3.6%	1.1%	-1.2%	-0.5%
Durables	245.1	247.6	251.9	244.9	241.8	239.5	237.5	234.4	6,800	(14,500)	(7,700)	2.8%	-5.8%	-3.1%	1.4%	-1.2%	-0.5%
Nondurables	141.8	142.2	143.6	141.3	139.7	138.3	136.6	135.4	1,800	(8,200)	(6,400)	1.3%	-5.7%	-4.5%	0.6%	-1.2%	-0.7%
Nonmanufacturing	2233.0	2303.5	2377.0	2411.5	2445.2	2470.7	2496.6	2520.7	144,000	143,700	287,700	6.4%	6.0%	12.9%	3.2%	1.2%	1.7%
Transp., Comm., & Util.	112.6	116.7	120.9	121.3	121.9	122.2	122.1	122.3	8,300	1,400	9,700	7.4%	1.2%	8.6%	3.6%	0.2%	1.2%
Trade	586.4	600.1	622.5	627.9	631.4	632.6	632.9	636.1	36,100	13,600	49,700	6.2%	2.2%	8.5%	3.0%	0.4%	1.2%
Retail	434.1	443.5	459.0	463.2	465.7	466.7	467.2	469.8	24,900	10,800	35,700	5.7%	2.4%	8.2%	2.8%	0.5%	1.1%
Wholesale	152.3	156.6	163.5	164.7	165.7	165.9	165.7	166.3	11,200	2,800	14,000	7.4%	1.7%	9.2%	3.6%	0.3%	1.3%
Fin., Ins., & Real Estate	187.6	192.2	195.8	196.8	198.2	199.4	200.8	201.9	8,200	6,100	14,300	4.4%	3.1%	7.6%	2.2%	0.6%	1.1%
Services	934.3	972.1	1005.2	1027.8	1048.2	1068.2	1086.2	1102.5	70,900	97,300	168,200	7.6%	9.7%	18.0%	3.7%	1.9%	2.4%
Business	192.0	209.5	225.8	236.7	245.8	255.0	263.5	271.7	33,800	45,900	79,700	17.6%	20.3%	41.5%	8.4%	3.8%	5.1%
Health	277.4	281.6	285.6	289.7	294.7	299.1	303.0	306.1	8,200	20,500	28,700	3.0%	7.2%	10.3%	1.5%	1.4%	1.7%
Other	465.0	481.1	493.8	501.3	507.6	514.1	519.6	524.7	28,800	30,900	59,700	6.2%	6.3%	12.8%	3.1%	1.2%	1.7%
Federal Govt.	46.4	46.2	45.9	45.5	44.6	44.6	44.2	43.9	(500)	(2,000)	(2,500)	-1.1%	-4.4%	-5.4%	-0.5%	-0.9%	-0.8%
State & Local Govt.	285.8	290.1	293.6	296.9	300.0	305.3	311.1	314.5	7,800	20,900	28,700	2.7%	7.1%	10.0%	1.4%	1.4%	1.4%
Construction	79.2	85.1	92.1	94.4	96.9	97.4	98.4	98.7	12,900	6,600	19,500	16.3%	7.2%	24.6%	7.8%	1.4%	3.2%
Mining	0.9	1.0	1.0	1.0	0.9	0.9	0.9	0.9	100	(100)	0	11.1%	-10.0%	0.0%	5.4%	-2.1%	0.0%
Population and Labor Market Measures																	
Population (Millions)	5.069	5.097	5.122	5.151	5.180	5.210	5.239	5.266	53	144	197	1.0%	2.8%	3.9%	0.5%	0.6%	0.5%
Labor Force (Millions)	2.685	2.743	2.753	2.780	2.803	2.825	2.846	2.868	68	115	183	2.5%	4.2%	6.8%	1.3%	0.8%	0.9%
Unemployment Rate (%)	4.3	3.9	3.1	3.2	3.3	3.6	3.8	3.9	3.8	3.5	3.6						
Income (Billions, annual rates)																	
Personal Income	\$156.00	\$166.00	\$176.00	\$182.90	\$190.60	\$198.10	\$206.00	\$214.60	\$20,000	\$38,600	\$58,600	12.8%	21.9%	37.6%	6.2%	4.0%	4.7%
Wages & Salaries	\$94.80	\$102.20	\$110.00	\$114.50	\$119.30	\$123.90	\$128.50	\$133.60	\$15,200	\$23,600	\$38,800	16.0%	21.5%	40.9%	7.7%	4.0%	5.0%
Nonwage Income	\$61.30	\$63.80	\$66.10	\$68.40	\$71.30	\$74.20	\$77.40	\$80.90	\$4,800	\$14,800	\$19,600	7.8%	22.4%	32.0%	3.8%	4.1%	4.0%
Residence Adjustment	-4.4	-4.7	-5.0	-5.1	-5.2	-5.2	-5.3	-5.4									
Other Income Measures (Annual rate of change)																	
Real Personal Income (92\$)	3.1	4.3	4.6	4.6	3.2	3.0	3.0	3.2									
Average Annual Wage	4.7	4.9	4.6	4.6	3.2	3.0	3.0	3.2									
Housing Permits Authorized (000's, annual rates)																	
Total Permits	13.3	13.9	14.5	15.4	16.0	16.3	16.6	16.6	1,200	2,100	3,300	9.0%	14.5%	24.8%	4.4%	2.7%	3.2%
Single-Family	11.7	11.8	12.7	13.2	13.5	13.7	13.8	13.9	1,000	1,200	2,200	8.5%	9.4%	18.8%	4.2%	1.8%	2.5%
Multi-Family	1.6	2.1	1.8	2.2	2.4	2.6	2.7	2.8	200	1,000	1,200	12.5%	55.6%	75.0%	6.1%	9.2%	8.3%

DRI McGraw Hill-US Markets Regional Review: Metro Focus, Third Quarter 1998

**Table D-1
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Albany-Schenectady-Troy, NY; 1996-2003**

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
									96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	425.3	430.6	433.2	436.5	439.3	440.8	442.7	444.6	7,900	11,400	19,300	1.9%	2.6%	4.5%	0.9%	0.5%	0.6%
Manufacturing	39.4	38.8	39.0	38.1	37.5	36.9	36.4	36.0	(400)	(3,000)	(3,400)	(1.0%)	(7.7%)	(8.6%)	(0.5%)	(1.6%)	(1.3%)
Durables	18.9	18.0	17.9	17.4	17.1	16.9	16.7	16.6	(1,000)	(1,300)	(2,300)	(5.3%)	(7.3%)	(12.2%)	(2.7%)	(1.5%)	(1.8%)
Nondurables	20.5	20.8	21.1	20.7	20.4	20.1	19.7	19.5	600	(1,600)	(1,000)	2.9%	(7.6%)	(4.9%)	1.5%	(1.6%)	(0.7%)
Nonmanufacturing	385.9	391.8	394.2	398.4	401.8	403.9	406.3	408.6	8,300	14,400	22,700	2.2%	3.7%	5.9%	1.1%	0.7%	0.8%
Transp., Comm., & Util.	16.3	17.1	17.0	17.0	17.0	16.9	16.9	16.8	700	(200)	500	4.3%	(1.2%)	3.1%	2.1%	(0.2%)	0.4%
Trade	81.3	82.2	83.0	83.7	84.0	83.8	83.4	83.5	1,700	500	2,200	1.9%	0.5%	2.4%	0.9%	0.1%	0.3%
Retail	71.9	72.7	73.3	74.1	74.3	74.2	74.0	74.1	1,400	800	2,200	1.9%	1.1%	3.1%	1.0%	0.2%	0.4%
Wholesale	19.4	19.5	19.6	19.7	19.7	19.6	19.4	19.4	200	(200)	0	1.0%	(1.0%)	0.0%	0.5%	(0.2%)	0.0%
Fin., Ins., & Real Estate	25.5	25.4	25.7	25.9	26.1	26.2	26.3	26.4	200	700	900	0.8%	2.7%	3.5%	0.4%	0.5%	0.5%
Services	129.5	133.2	135.1	137.4	139.1	140.8	142.2	143.7	5,600	8,600	14,200	4.3%	6.4%	11.0%	2.1%	1.2%	1.5%
Business	18.7	19.7	20.0	20.7	21.2	21.7	22.2	22.7	1,300	2,700	4,000	7.0%	13.5%	21.4%	2.7%	2.6%	2.8%
Health	37.7	37.7	37.6	38.1	38.5	38.9	39.2	39.5	(100)	1,900	1,800	(0.3%)	5.1%	4.8%	(0.1%)	1.0%	0.7%
Other	73.1	75.8	77.5	78.6	79.4	80.1	80.8	81.6	4,400	4,100	8,500	6.0%	5.3%	11.6%	3.0%	1.0%	1.6%
Federal Govt.	8.7	8.9	8.6	8.5	8.9	8.3	8.2	8.1	(100)	(500)	(600)	(1.1%)	(5.8%)	(6.9%)	(0.8%)	(1.2%)	(1.0%)
State & Local Govt.	100.0	99.7	99.5	100.3	101.0	102.4	103.9	104.7	(500)	5,200	4,700	(0.5%)	5.2%	4.7%	(0.3%)	1.0%	0.7%
Construction	14.1	14.8	14.9	15.1	15.2	15.0	15.0	14.9	800	0	800	5.7%	0.0%	5.7%	2.8%	0.0%	0.8%
Mining	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0	(100)	(100)	0.0%	(20.0%)	(20.0%)	0.0%	(4.4%)	(3.1%)
Population and Labor Market Measures																	
Population (Millions)	0.879	0.876	0.877	0.880	0.883	0.886	0.889	0.892	(2)	15	13	(0.2%)	1.7%	1.5%	(0.1%)	0.3%	0.2%
Labor Force (Millions)	0.447	0.450	0.454	0.457	0.460	0.463	0.466	0.469	7	15	22	1.6%	3.3%	4.9%	0.8%	0.7%	0.7%
Unemployment Rate (%)	4.5	4.1	4.5	4.8	4.9	5.3	5.5	5.7	4.4	5.1	4.9						
Income (Billions, annual rates)																	
Personal Income	\$21.70	\$22.70	\$23.60	\$24.40	\$25.30	\$26.10	\$27.00	\$28.00	\$1,900	\$4,400	\$6,300	8.9%	18.6%	29.0%	4.3%	3.5%	3.7%
Wages & Salaries	\$12.60	\$13.20	\$13.80	\$14.20	\$14.70	\$15.10	\$15.60	\$16.10	\$1,200	\$2,300	\$3,500	9.5%	16.7%	27.8%	4.7%	3.1%	3.6%
Nonwage Income	\$9.10	\$9.50	\$9.80	\$10.20	\$10.60	\$11.00	\$11.40	\$11.90	\$700	\$2,100	\$2,800	7.7%	21.4%	30.8%	3.8%	4.0%	3.9%
Residence Adjustment	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5									
Other Income Measures (Annual rate of change)																	
Real Personal Income (92\$)	0.9	2.4	2.8	1.0	0.8	0.8	1.0	1.1									
Average Annual Wage	3.4	3.5	4.3	2.4	2.6	2.6	2.7	2.8									
Housing Permits Authorized (000's, annual rates)																	
Total Permits	2.6	2.1	2.3	2.4	2.6	2.6	2.6	2.7	(300)	400	100	(11.5%)	17.4%	3.8%	(5.9%)	3.3%	0.5%
Single-Family	1.6	1.4	1.7	1.8	1.8	1.9	1.9	1.9	(100)	200	100	(5.6%)	11.8%	5.6%	(2.8%)	2.2%	0.8%
Multi-Family	0.9	0.7	0.6	0.7	0.7	0.7	0.8	0.8	(300)	200	(100)	(33.3%)	33.3%	(11.1%)	(18.4%)	5.9%	(1.7%)

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Buffalo-Niagara Falls, NY: 1996-2003

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
	539.2	543.7	546.2	547.3	548.6	547.9	547.5	547.8	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	539.2	543.7	546.2	547.3	548.6	547.9	547.5	547.8	7,000	1,600	8,600	1.3%	0.3%	1.6%	0.6%	0.1%	0.2%
Manufacturing	89.8	89.6	89.5	87.4	86.1	84.8	83.7	83.0	(300)	(6,500)	(6,800)	-0.3%	-7.3%	-7.6%	-0.2%	-1.5%	-1.1%
Durables	54.1	54.7	54.6	53.1	52.3	51.5	50.9	50.7	500	(3,900)	(3,400)	0.9%	-7.1%	-6.3%	0.5%	-1.5%	-0.9%
Nondurables	35.7	34.9	34.9	34.3	33.8	33.3	32.8	32.4	(800)	(2,500)	(3,300)	-2.2%	-7.2%	-9.2%	-1.1%	-1.5%	-1.4%
Nonmanufacturing	449.4	454.1	456.8	459.9	462.5	463.0	463.8	464.8	7,400	8,000	15,400	1.2%	1.8%	3.4%	0.8%	0.3%	0.5%
Transp., Comm., & Util.	25.8	25.4	25.3	25.1	25.1	25.0	24.8	24.7	(500)	(600)	(1,100)	-1.9%	-2.4%	-4.3%	-1.0%	-0.5%	-0.6%
Trade	129.5	130.4	130.8	131.1	130.9	130.2	129.2	128.9	1,300	(1,900)	(600)	1.0%	-1.5%	-0.9%	0.5%	-0.3%	-0.1%
Retail	102.1	102.1	102.3	102.7	102.6	102.1	101.4	101.2	200	(1,100)	(900)	0.2%	-1.1%	-0.9%	0.1%	-0.2%	0.1%
Wholesale	27.4	28.2	28.5	28.4	28.3	28.1	27.8	27.6	1,100	(900)	200	4.0%	-3.2%	0.7%	2.0%	-0.6%	0.1%
Fin., Ins., & Real Estate	28.1	29.1	29.5	29.6	29.7	29.7	29.7	29.7	1,400	200	1,600	5.0%	0.7%	5.7%	2.5%	0.1%	0.8%
Services	158.2	162.5	164.2	166.5	168.3	169.9	171.2	172.6	6,000	8,400	14,400	3.8%	5.1%	9.1%	1.9%	1.0%	1.3%
Business	20.4	22.5	23.9	24.8	25.4	25.9	26.4	26.9	3,500	3,000	6,500	17.2%	12.6%	31.9%	8.2%	2.4%	4.0%
Health	83.5	82.2	87.7	88.8	89.4	90.1	90.7	91.4	(900)	1,600	700	-1.7%	3.0%	1.3%	-0.8%	0.6%	0.2%
Other	10.3	10.5	10.4	10.2	10.6	9.8	9.7	9.5	3,400	3,700	7,100	4.0%	4.2%	8.4%	2.0%	0.8%	1.2%
Federal Govt.	76.8	76.1	76.4	76.9	77.3	78.0	79.0	79.3	100	(900)	(800)	1.0%	-8.7%	-7.8%	0.5%	-1.8%	-1.1%
State & Local Govt.	20.3	19.9	20.0	20.2	20.4	20.2	20.2	20.0	(400)	2,900	2,500	-0.5%	3.8%	3.3%	-0.3%	0.7%	0.5%
Construction	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	(300)	0	(300)	-1.5%	0.0%	-1.5%	-0.7%	0.0%	-0.2%
Mining	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	(100)	0	(100)	-33.3%	0.0%	-33.3%	-18.4%	0.0%	-5.6%
Population and Labor Market Measures																	
Population (Millions)	1.172	1.164	1.159	1.157	1.155	1.153	1.151	1.149	(13)	(10)	(23)	-1.1%	-0.9%	-2.0%	-0.6%	-0.2%	-0.3%
Labor Force (Millions)	0.572	0.578	0.583	0.584	0.585	0.586	0.587	0.587	11	4	15	1.9%	0.7%	2.6%	1.0%	0.1%	0.4%
Unemployment Rate (%)	5.1	5.2	5.6	6	6	6.4	6.7	6.8	5.3	6.3	6.0						
Income (Billions, annual rates)																	
Personal Income	\$27.70	\$28.80	\$30.00	\$30.90	\$31.90	\$32.80	\$33.80	\$35.00	\$2,300	\$5,000	\$7,300	8.3%	16.7%	26.4%	4.1%	3.1%	3.4%
Wages & Salaries	\$15.30	\$16.00	\$16.80	\$17.30	\$17.80	\$18.30	\$18.80	\$19.30	\$1,500	\$2,500	\$4,000	9.8%	14.9%	26.1%	4.8%	2.8%	3.4%
Nonwage Income	\$12.40	\$12.90	\$13.20	\$13.60	\$14.10	\$14.50	\$15.10	\$15.60	\$800	\$2,400	\$3,200	6.5%	18.2%	25.8%	3.2%	3.4%	3.3%
Residence Adjustment	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2									
Other Income Measures (Annual rate of change)																	
Real Personal Income (92\$)	1.0	2.1	2.8	0.6	0.5	0.5	0.6	0.8									
Average Annual Wage	3.1	3.6	4.7	2.7	2.8	2.8	2.8	2.9									
Housing Permits Authorized (000's, annual rates)																	
Total Permits	3.0	2.2	2.3	2.4	2.5	2.5	2.5	2.5	(700)	200	(500)	-23.3%	8.7%	-16.7%	-12.4%	1.7%	-2.6%
Single-Family	1.9	1.2	1.6	1.7	1.7	1.7	1.7	1.7	(300)	100	(200)	-15.8%	6.2%	-10.5%	-8.2%	1.2%	-1.6%
Multi-Family	1.0	0.9	0.7	0.7	0.8	0.8	0.8	0.8	(300)	100	(200)	-30.0%	14.3%	-20.0%	-16.3%	2.7%	-3.1%

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Rochester, NY: 1996-2003

	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
	(Thousands, seas. adj.)								96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	526.6	528.8	528.9	529.3	531.3	532.8	534.4	536.8	2,300	7,900	10,200	0.4%	1.5%	1.9%	0.2%	0.3%	0.3%
Manufacturing	127.8	127.3	123.5	118.6	116.2	114.5	112.9	111.8	(4,300)	(11,700)	(16,000)	-3.4%	-9.5%	-12.5%	-1.7%	-2.0%	-1.9%
Durables	99.2	99.0	95.7	91.1	88.8	87.3	86.0	85.3	(3,500)	(10,400)	(13,900)	-3.5%	-10.9%	-14.0%	-1.8%	-2.3%	-2.1%
Nondurables	28.5	28.3	27.8	27.5	27.4	27.2	26.9	26.5	(700)	(1,300)	(2,000)	-2.5%	-4.7%	-7.0%	-1.2%	-1.0%	-1.0%
Nonmanufacturing	398.9	401.5	405.4	410.7	415.1	418.3	421.6	425.0	6,500	19,600	26,100	1.6%	4.8%	6.5%	0.8%	0.9%	0.9%
Transp., Comm., & Util.	17.7	16.6	16.8	16.7	16.7	16.7	16.6	16.6	(800)	(200)	(1,100)	-5.1%	-1.2%	-6.2%	-2.6%	-0.2%	-0.9%
Trade	110.3	111.8	113.1	114.0	114.3	114.1	113.8	114.1	2,800	1,000	3,800	2.5%	0.9%	3.4%	1.3%	0.2%	0.5%
Retail	88.8	90.2	91.3	92.1	92.4	92.4	92.2	92.5	2,500	1,200	3,700	2.8%	1.3%	4.2%	1.4%	0.3%	0.6%
Wholesale	21.5	21.5	21.8	21.9	21.9	21.8	21.6	21.6	300	(200)	100	1.4%	-0.9%	0.5%	0.7%	-0.2%	0.1%
Fin., Ins., & Real Estate	22.9	21.4	21.3	21.4	21.5	21.6	21.7	21.8	(1,600)	500	(1,100)	-7.0%	2.3%	4.8%	-3.6%	0.5%	-0.7%
Services	153.4	157.2	160.1	163.6	166.6	169.4	171.9	174.5	6,700	14,400	21,100	4.4%	9.0%	13.8%	2.2%	1.7%	1.9%
Business	27.9	29.3	30.5	31.9	33.0	34.0	35.0	36.0	2,600	5,500	8,100	9.3%	18.0%	29.0%	4.6%	3.4%	3.7%
Health	47.4	47.1	47.2	47.8	48.6	49.1	49.6	50.0	(200)	2,800	2,600	-0.4%	5.9%	5.5%	-0.2%	1.2%	0.8%
Other	78.1	80.7	82.3	83.9	85.0	86.2	87.3	88.5	4,200	6,200	10,400	5.4%	7.5%	13.3%	2.7%	1.5%	1.8%
Federal Govt.	5.8	5.7	5.4	5.3	5.6	5.2	5.1	5.1	(400)	(300)	(700)	-6.9%	-5.6%	-12.1%	-3.5%	-1.1%	-1.8%
State & Local Govt.	71.8	71.5	71.9	72.6	73.2	74.2	75.4	76.0	100	4,100	4,200	0.1%	5.7%	5.8%	0.1%	1.1%	0.8%
Construction	16.4	17.0	16.4	16.7	16.8	16.7	16.6	16.5	0	100	100	0.0%	0.6%	0.6%	0.0%	0.1%	0.1%
Mining	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	(200)	0	(200)	-33.3%	0.0%	-33.3%	-18.4%	0.0%	-5.6%
Population and Labor Market Measures																	
Population (Millions)	1.086	1.086	1.088	1.091	1.094	1.097	1.100	1.103	2	15	17	0.2%	1.4%	1.6%	0.1%	0.3%	0.2%
Labor Force (Millions)	0.570	0.578	0.573	0.577	0.581	0.584	0.587	0.591	3	18	21	0.5%	3.1%	3.7%	0.3%	0.6%	0.5%
Unemployment Rate (%)	4	3.9	4.3	4.6	4.7	5.1	5.4	5.7	Average	Unemployment Rate							
Income (Billions, annual rates)									4.1	5.0	4.7						
Personal Income	\$27.80	\$29.00	\$30.20	\$31.10	\$32.10	\$33.20	\$34.30	\$35.60	\$2,400	\$5,400	\$7,800	8.6%	17.9%	28.1%	4.2%	3.3%	3.6%
Wages & Salaries	\$16.20	\$17.80	\$18.20	\$18.20	\$18.80	\$19.40	\$19.90	\$20.60	\$1,600	\$2,800	\$4,400	9.9%	15.7%	27.2%	4.8%	3.0%	3.5%
Nonwage Income	\$11.50	\$12.00	\$12.40	\$12.80	\$13.30	\$13.80	\$14.40	\$15.00	\$900	\$2,600	\$3,500	7.8%	21.0%	30.4%	3.8%	3.9%	3.9%
Residence Adjustment	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5									
Other Income Measures (Annual rate of change)	1.5	2.4	2.7	0.6	0.7	0.8	1.0	1.1									
Average Annual Wage	3.0	4.2	4.6	2.5	2.7	2.7	2.7	2.9									
Housing Permits Authorized (000's, annual rates)																	
Total Permits	3.1	2.0	2.2	2.2	2.3	2.4	2.4	2.4	(900)	200	(700)	-29.0%	9.1%	-22.6%	-15.8%	1.8%	-3.6%
Single-Family	2.4	1.5	1.8	1.8	1.9	1.9	1.9	1.9	(600)	100	(500)	-25.0%	5.6%	-20.8%	-13.4%	1.1%	-3.3%
Multi-Family	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.5	(200)	100	(100)	-33.3%	25.0%	-16.7%	-18.4%	4.6%	-2.6%

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Syracuse, NY; 1996-2003

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
	1996	1997	1998	1999	2000	2001	2002	2003	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	333.0	335.9	337.0	337.5	338.6	338.9	339.2	340.0	4,000	3,000	7,000	1.2%	0.9%	2.1%	0.6%	0.2%	0.3%
Manufacturing	49.1	48.9	49.0	47.6	46.7	45.9	45.2	44.8	(100)	(4,200)	(4,300)	-0.2%	-8.6%	-8.8%	-0.1%	-1.8%	-1.3%
Durables	34.1	34.2	34.3	33.2	32.5	32.0	31.6	31.3	200	(3,000)	(2,800)	0.6%	-8.7%	-8.2%	0.3%	-1.8%	-1.2%
Nondurables	15.0	14.7	14.7	14.4	14.2	13.9	13.7	13.5	(300)	(1,200)	(1,500)	-2.0%	-8.2%	-10.0%	-1.0%	-1.7%	-1.5%
Nonmanufacturing	284.0	287.0	288.0	289.9	291.9	292.9	294.0	295.2	4,000	7,200	11,200	1.4%	2.5%	3.9%	0.7%	0.5%	0.6%
Transp., Comm., & Util.	18.6	19.3	19.9	19.5	19.4	19.3	19.2	19.1	1,300	(800)	500	7.0%	-4.0%	2.7%	3.4%	-0.8%	0.4%
Trade	78.3	78.6	79.3	79.6	79.8	79.5	79.1	79.1	1,000	(200)	800	1.3%	-0.3%	1.0%	0.6%	-0.1%	0.1%
Retail	59.0	59.0	59.6	59.9	60.1	60.0	59.8	59.8	600	200	800	1.0%	0.3%	1.4%	0.5%	0.1%	0.2%
Wholesale	19.3	19.6	19.7	19.7	19.7	19.5	19.4	19.3	400	(400)	0	2.1%	-2.0%	0.0%	1.0%	-0.4%	0.0%
Fin., Ins., & Real Estate	18.1	18.0	18.1	18.1	18.2	18.2	18.3	18.3	0	200	200	0.0%	1.1%	1.1%	0.0%	0.2%	0.2%
Services	96.9	98.0	97.8	99.3	100.6	101.8	102.8	103.8	900	6,000	6,900	0.9%	6.1%	7.1%	0.5%	1.2%	1.0%
Business	13.2	14.3	15.0	15.6	16.0	16.4	16.7	17.1	1,800	2,100	3,900	13.6%	14.0%	29.5%	6.6%	2.7%	3.8%
Health	27.8	28.2	27.9	28.2	28.5	28.7	28.9	29.1	100	1,200	1,300	0.4%	4.3%	4.7%	0.2%	0.8%	0.7%
Other	55.9	55.5	54.8	55.6	56.1	56.7	57.2	57.7	(1,100)	2,900	1,800	-2.0%	5.3%	3.2%	-1.0%	1.0%	0.5%
Federal Govt.	5.0	5.0	4.9	4.9	5.1	4.7	4.6	4.6	(100)	(300)	(400)	-2.0%	-6.1%	-8.0%	-1.0%	-1.3%	-1.2%
State & Local Govt.	54.7	55.3	55.0	55.3	55.7	56.3	57.1	57.4	300	2,400	2,700	0.5%	4.4%	4.9%	0.3%	0.9%	0.7%
Construction	12.3	12.6	12.7	12.9	13.0	12.8	12.8	12.7	400	0	400	3.3%	0.0%	3.3%	1.6%	0.0%	0.5%
Mining	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Population and Labor Market Measures																	
Population (Millions)	0.745	0.740	0.737	0.737	0.737	0.737	0.737	0.737	(8)	0	(8)	-1.1%	0.0%	-1.1%	-0.5%	0.0%	-0.2%
Labor Force (Millions)	0.363	0.366	0.365	0.367	0.368	0.369	0.370	0.372	2	7	9	0.6%	1.9%	2.5%	0.3%	0.4%	0.4%
Unemployment Rate (%)																	
Average Unemployment Rate									4.7	5.3	5.2						
Income (Billions, annual rates)																	
Personal Income	16.6	17.2	17.9	18.4	19.0	19.6	20.2	20.9	\$1,300	\$3,000	\$4,300	7.8%	16.8%	25.9%	3.8%	3.1%	3.3%
Wages & Salaries	9.4	9.8	10.2	10.5	10.8	11.1	11.4	11.7	\$600	\$1,500	\$2,300	8.5%	14.7%	24.5%	4.2%	2.8%	3.2%
Nonwage Income	7.1	7.4	7.7	7.9	8.2	8.5	8.8	9.2	\$600	\$1,500	\$2,100	8.5%	19.5%	29.6%	4.1%	3.6%	3.8%
Residence Adjustment																	
Other Income Measures (Annual rate of change)																	
Real Personal Income (92\$)	0.4	1.8	2.6	0.5	0.5	0.5	0.7	0.8									
Average Annual Wage	1.2	2.8	4.4	2.5	2.5	2.5	2.5	2.7									
Housing Permits Authorized (000's, annual rates)																	
Total Permits	1.4	0.5	1.0	1.0	1.1	1.2	1.2	1.2	(400)	200	(200)	-28.6%	20.0%	-14.3%	-15.5%	3.7%	-2.2%
Single-Family	1.2	0.5	0.8	0.9	0.9	0.9	1.0	1.0	(400)	200	(200)	-33.3%	25.0%	-16.7%	-18.4%	4.6%	-2.6%
Multi-Family	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	(100)	0	(100)	-33.3%	0.0%	-33.3%	-18.4%	0.0%	-5.6%

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for New York, NY, 1996-2003

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate		
	1996	1997	1998	1999	2000	2001	2002	2003	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03
Total	3856.9	3919.3	3984.7	4007.3	4029.7	4041.9	4054.9	4071.3	127,800	86,600	214,400	3.3%	2.2%	5.6%	1.6%	0.4%	0.8%
Manufacturing	320.3	316.9	315.7	305.8	298.0	291.5	284.4	279.3	(4,600)	(36,400)	(41,000)	-1.4%	-11.5%	-12.8%	-0.7%	-2.4%	-1.9%
Durables	88.3	86.4	85.9	82.7	80.7	78.9	77.4	76.3	(2,400)	(9,600)	(12,000)	-2.7%	-11.2%	-13.6%	-1.4%	-2.3%	-2.1%
Nondurables	232.0	230.5	229.7	223.2	217.4	212.6	207.1	203.0	(2,300)	(26,700)	(29,000)	-1.0%	-11.5%	-12.5%	-0.5%	-2.4%	-1.9%
Nonmanufacturing	3536.6	3602.4	3669.0	3701.4	3731.7	3750.4	3770.5	3792.0	132,400	123,000	255,400	3.7%	3.4%	7.2%	1.9%	0.7%	1.0%
Transp., Comm., & Util.	230.8	232.6	234.0	232.5	232.4	231.6	230.1	229.6	3,200	(4,400)	(1,200)	1.4%	-1.9%	-0.5%	0.7%	-0.1%	-0.1%
Trade	676.4	690.4	705.0	708.0	708.2	705.6	702.1	702.3	28,600	(2,700)	25,900	4.2%	-0.4%	3.8%	2.1%	-0.1%	0.5%
Retail	458.7	470.3	482.4	485.3	485.7	484.7	483.1	483.9	23,700	1,500	25,200	5.2%	0.3%	5.5%	2.6%	0.1%	0.8%
Wholesale	217.7	220.0	222.6	222.7	222.5	220.9	219.1	218.5	4,900	(4,100)	800	2.3%	-1.8%	0.4%	1.1%	-0.4%	0.1%
Fin., Ins., & Real Estate	501.0	504.1	509.0	507.8	509.5	510.6	512.3	513.5	8,000	4,500	12,500	1.6%	0.9%	2.5%	0.8%	0.2%	0.4%
Services	1400.2	1450.5	1496.0	1524.0	1545.3	1565.7	1583.0	1601.7	95,800	105,700	201,500	6.8%	7.1%	14.4%	3.4%	1.4%	1.9%
Business	275.8	297.5	316.8	328.5	337.2	345.7	352.9	361.1	41,000	44,300	85,300	14.9%	14.0%	30.9%	7.2%	2.7%	3.9%
Health	361.3	363.8	367.3	371.1	378.9	381.5	385.5	383.5	6,000	16,200	22,200	1.7%	4.4%	6.1%	0.8%	0.9%	0.9%
Other	763.1	789.2	812.0	824.3	832.4	841.1	848.5	857.1	48,900	45,100	94,000	6.4%	5.6%	12.3%	3.2%	1.1%	1.7%
Federal Govt.	71.9	70.0	68.5	67.2	70.0	65.1	64.1	63.4	(3,400)	(5,100)	(8,500)	-4.7%	-7.4%	-11.8%	-2.4%	-1.5%	-1.8%
State & Local Govt.	542.3	537.5	535.4	539.4	542.8	549.5	557.1	560.7	(6,900)	25,300	18,400	-1.3%	4.7%	3.4%	-0.6%	0.9%	0.5%
Construction	113.4	116.9	120.6	122.0	123.0	121.8	121.3	120.4	7,200	(200)	7,000	6.3%	-0.2%	6.2%	3.1%	-0.0%	0.9%
Mining	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0	(100)	(100)	0.0%	-20.0%	-20.0%	0.0%	-4.4%	-3.1%
Population and Labor Market Measures																	
Population (Millions)	8.599	8.612	8.618	8.624	8.630	8.636	8.641	8.647	19	29	48	0.2%	0.3%	0.6%	0.1%	0.1%	0.1%
Labor Force (Millions)	3.923	3.974	4.007	4.028	4.045	4.062	4.075	4.089	84	82	166	2.1%	2.0%	4.2%	1.1%	0.4%	0.6%
Unemployment Rate (%)																	
Income (Billions, annual rates)	8	8.4	7.4	7.5	7.5	7.8	8	8.1	7.9	7.7	7.8						
Personal Income	\$285.20	\$300.80	\$316.40	\$326.90	\$338.80	\$350.60	\$363.20	\$377.10	\$31,200	\$60,700	\$91,900	10.9%	19.2%	32.2%	5.3%	3.6%	4.1%
Wages & Salaries	\$181.50	\$193.60	\$206.90	\$214.20	\$222.10	\$229.40	\$237.00	\$245.30	\$25,400	\$38,400	\$63,800	14.0%	18.6%	35.2%	6.8%	3.5%	4.4%
Nonwage Income	\$103.70	\$107.30	\$109.50	\$112.70	\$116.80	\$121.20	\$126.20	\$131.80	\$5,800	\$22,300	\$28,100	5.6%	20.4%	27.1%	2.8%	3.8%	3.5%
Residence Adjustment	-36.7	-39.2	-42.1	-43.7	-45.2	-46.6	-48.1	-49.7									
Other Income Measures (Annual rate of change)	3.0	3.4	3.8	1.0	1.0	1.0	1.1	1.2									
Real Personal Income (92\$)	6.5	5.0	5.1	3.0	3.1	3.0	3.0	3.1									
Average Annual Wage	11.2	12.4	12.0	12.2	12.6	12.7	12.6	12.5	800	500	1,300	7.1%	4.2%	11.6%	3.5%	0.8%	1.6%
Housing Permits Authorized (000's, annual rates)	3.0	3.0	3.5	3.5	3.6	3.6	3.5	3.5	500	0	500	16.7%	0.0%	16.7%	8.0%	0.0%	2.2%
Single- Family	8.2	9.4	8.5	8.7	9.0	9.1	9.1	9.0	300	500	800	3.7%	5.9%	9.8%	1.8%	1.1%	1.3%
Multi- Family																	

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Cleveland-Lorain-Eyria, OH; 1996-2003

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate					
	1118.6	1137.5	1160.0	1163.6	1169.2	1170.6	1173.3	1178.3	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03			
Total	225.1	223.2	222.7	218.0	215.7	213.8	212.3	212.0	(2,400)	(10,700)	(13,100)	41,400	18,300	59,700	3.7%	1.6%	5.3%	1.8%	0.3%	0.7%
Manufacturing	158.0	157.4	156.8	152.7	151.0	149.7	148.9	148.9	(1,200)	(7,900)	(9,100)	(1,200)	(7,900)	(9,100)	-1.1%	-4.8%	-5.8%	-0.5%	-1.0%	-0.9%
Durables	67.2	65.8	65.9	65.3	64.6	64.0	63.4	63.1	(1,300)	(2,800)	(4,100)	(1,300)	(2,800)	(4,100)	-0.8%	-5.0%	-5.8%	-0.4%	-1.0%	-0.8%
Nonmanufacturing	893.4	914.2	937.3	945.6	953.6	956.9	961.0	966.2	43,900	28,900	72,800	43,900	28,900	72,800	-1.9%	-4.2%	-6.1%	-1.0%	-0.9%	-0.9%
Transp., Comm., & Util.	45.5	46.0	46.0	45.7	45.6	45.3	44.9	44.7	500	(1,300)	(800)	500	(1,300)	(800)	4.9%	3.1%	8.1%	2.4%	0.6%	1.1%
Trade	265.8	270.9	276.3	277.8	278.0	277.1	275.9	276.0	10,500	(300)	10,200	10,500	(300)	10,200	1.1%	-2.8%	-1.8%	0.5%	-0.6%	-0.3%
Retail	194.8	198.3	202.6	203.7	203.9	203.3	202.5	202.6	7,800	0	7,800	7,800	0	7,800	4.0%	0.0%	3.8%	2.0%	-0.0%	0.5%
Wholesale	71.0	72.7	73.8	74.1	74.2	73.8	73.4	73.5	2,800	(300)	2,500	2,800	(300)	2,500	4.0%	0.0%	4.0%	2.0%	0.0%	0.6%
Fin., Ins., & Real Estate	71.8	74.1	75.2	75.9	77.0	77.0	77.1	77.2	3,400	2,000	5,400	3,400	2,000	5,400	3.9%	-0.4%	3.5%	2.0%	-0.1%	0.5%
Services	324.6	334.5	348.2	354.2	359.5	364.3	368.5	373.3	23,600	25,100	48,700	23,600	25,100	48,700	4.7%	2.7%	7.5%	2.3%	0.5%	1.0%
Business	65.2	70.1	75.3	77.9	80.0	82.0	83.7	85.8	10,100	10,500	20,600	10,100	10,500	20,600	7.3%	7.2%	15.0%	3.6%	1.4%	2.0%
Health	105.3	106.2	109.4	110.8	112.5	113.8	115.0	116.0	4,100	6,600	10,700	4,100	6,600	10,700	15.5%	13.9%	31.6%	7.5%	2.6%	4.0%
Other	154.1	158.2	163.5	165.5	167.0	168.5	169.9	171.5	9,400	8,000	17,400	9,400	8,000	17,400	3.9%	6.0%	10.2%	1.9%	1.2%	1.4%
Federal Govt.	22.2	21.5	21.1	21.0	21.8	20.6	20.4	20.3	(1,100)	(800)	(1,900)	(1,100)	(800)	(1,900)	6.1%	4.9%	11.3%	3.0%	1.0%	1.5%
State & Local Govt.	120.8	122.9	123.9	124.9	125.6	127.2	129.0	130.0	3,100	6,100	9,200	3,100	6,100	9,200	-5.0%	-3.8%	-8.6%	-2.5%	-0.8%	-1.3%
Construction	41.8	44.1	45.5	45.3	45.2	44.6	44.4	44.0	3,700	(1,500)	2,200	3,700	(1,500)	2,200	2.6%	4.9%	7.6%	1.3%	1.0%	1.1%
Mining	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	(100)	(100)	(200)	(100)	(100)	(200)	8.9%	-3.3%	5.3%	4.3%	-0.7%	0.7%
Population and Labor Market Measures																				
Population (Millions)	2.229	2.226	2.224	2.223	2.222	2.221	2.220	2.220	(5)	(4)	(9)	(5)	(4)	(9)	-0.2%	-0.2%	-0.4%	-0.1%	-0.0%	-0.1%
Labor Force (Millions)	1.104	1.129	1.134	1.139	1.141	1.144	1.145	1.148	30	14	44	30	14	44	2.7%	1.2%	4.0%	1.3%	0.2%	0.6%
Unemployment Rate (%)	5.2	4.8	4.3	4.8	4.9	5.4	5.7	5.8	Average	Unemployment	Rate	Average	Unemployment	Rate						
Income (Billions, annual rates)	\$59.10	\$62.10	\$65.00	\$66.80	\$69.10	\$71.30	\$73.60	\$76.20	\$5,900	\$11,200	\$17,100	\$5,900	\$11,200	\$17,100	10.0%	17.2%	28.9%	4.9%	3.2%	3.7%
Personal Income	\$34.50	\$36.50	\$38.80	\$39.90	\$41.20	\$42.40	\$43.60	\$45.10	\$4,300	\$6,300	\$10,600	\$4,300	\$6,300	\$10,600	12.5%	16.2%	30.7%	6.0%	3.1%	3.9%
Wages & Salaries	\$24.70	\$25.60	\$26.20	\$26.90	\$27.90	\$28.90	\$30.00	\$31.20	\$1,500	\$5,000	\$6,500	\$1,500	\$5,000	\$6,500	6.1%	19.1%	26.3%	3.0%	3.6%	3.4%
Nonwage Income	-1.9	-1.9	-2.0	-2.1	-2.2	-2.2	-2.3	-2.3												
Residence Adjustment																				
Other Income Measures (Annual rate of change)	1.8	2.9	3.3	0.5	0.8	0.7	0.7	1.0												
Real Personal Income (92\$)	3.2	4.1	4.2	2.5	2.8	2.8	2.6	2.8												
Average Annual Wage																				
Housing Permits Authorized (000's, annual rates)	7.4	7	7.2	6.5	6.3	6.2	6.1	6.1	(200)	(1,100)	(1,300)	(200)	(1,100)	(1,300)	-2.7%	-15.3%	-17.6%	-1.4%	-3.3%	-2.7%
Total Permits	6	5.9	5.6	5	4.8	4.7	4.6	4.5	(400)	(1,100)	(1,500)	(400)	(1,100)	(1,500)	-6.7%	-19.6%	-25.0%	-3.4%	-4.3%	-4.0%
Single-Family	1.4	1.1	1.6	1.5	1.5	1.5	1.6	1.6	200	0	200	200	0	200	14.3%	0.0%	14.3%	6.9%	0.0%	1.9%
Multi-Family																				

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Detroit, MI; 1996-2003

Employment (Thousands, seas. adj.)	1996	1997	1998	1999	2000	2001	2002	2003	Numeric Change			Percent Change			Annual Growth Rate			
	2049.9	2080.6	2133.6	2147.7	2162.8	2175.7	2188.5	2206.4	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03	
Total	446.9	443.0	445.8	435.0	428.2	423.9	418.7	416.2	83,700	72,800	155,500	4.1%	3.4%	7.6%	-0.1%	0.7%	1.1%	
Manufacturing	366.7	363.1	364.5	354.8	348.8	345.2	340.9	339.1	(1,100)	(29,600)	(30,700)	-0.2%	-6.6%	-6.9%	-0.1%	-1.4%	-1.0%	
Durables	80.3	79.9	81.2	80.2	79.5	78.7	77.8	77.1	(2,200)	(25,400)	(27,600)	-0.6%	-7.0%	-7.5%	-0.3%	-1.4%	-1.1%	
Non-durables	1602.9	1637.6	1687.9	1712.7	1734.8	1751.8	1769.8	1790.2	900	(4,100)	(3,200)	1.1%	-5.0%	-4.0%	0.6%	-1.0%	-0.6%	
Transp., Comm., & Util.	92.8	94.3	96.3	96.3	96.5	96.5	96.1	96.2	85,000	102,300	187,300	5.3%	6.1%	11.7%	2.6%	1.2%	1.6%	
Trade	481.0	486.3	500.0	504.9	507.8	508.6	508.8	511.6	3,500	(100)	3,400	3.8%	-0.1%	3.7%	1.9%	-0.0%	0.5%	
Retail	358.3	359.6	371.1	375.0	377.3	378.1	378.4	380.7	19,000	11,600	30,600	4.0%	2.3%	6.4%	2.0%	0.5%	0.9%	
Wholesale	122.7	126.7	128.8	129.9	130.6	130.5	130.3	130.9	12,800	9,600	22,400	3.6%	2.6%	6.3%	1.8%	0.5%	0.9%	
Fin., Ins., & Real Estate	618.0	637.7	662.2	679.4	694.0	708.6	722.0	736.1	6,100	2,100	8,200	5.0%	1.8%	6.7%	2.5%	0.3%	0.9%	
Business	163.2	169.6	180.0	187.5	193.3	199.4	204.7	210.6	2,700	2,100	4,800	2.4%	1.2%	4.3%	1.2%	0.4%	0.6%	
Health	185.0	189.8	193.6	197.1	200.8	204.1	207.1	209.7	44,200	73,900	118,100	7.2%	11.2%	19.1%	3.5%	2.1%	2.5%	
Other	269.8	278.4	288.7	294.8	299.9	305.2	310.2	315.8	16,800	30,600	47,400	10.3%	17.0%	29.0%	5.0%	3.2%	3.7%	
Federal Govt.	30.2	29.6	29.8	29.6	30.9	29.1	28.8	28.6	8,600	16,100	24,700	4.6%	8.3%	13.4%	2.3%	1.6%	1.8%	
State & Local Govt.	196.0	197.7	200.5	203.4	205.7	209.4	213.6	216.5	18,900	27,100	46,000	7.0%	9.4%	17.0%	3.4%	1.8%	2.3%	
Construction	72.9	78.9	84.2	84.4	84.7	84.1	84.5	84.4	(400)	(1,200)	(1,600)	-1.3%	-4.0%	-5.3%	-0.7%	-0.8%	-0.8%	
Mining	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.7	11,300	200	11,500	15.5%	0.2%	15.8%	7.5%	0.0%	2.1%	
Population and Labor Market Measures									100	(200)	(100)	12.5%	-22.2%	-12.5%	6.1%	-4.9%	-1.9%	
Population (Millions)	4.456	4.468	4.489	4.512	4.533	4.554	4.575	4.598	33	109	142	0.7%	2.4%	3.2%	0.4%	0.5%	0.4%	
Labor Force (Millions)	2.156	2.196	2.267	2.287	2.303	2.319	2.333	2.349	111	82	193	5.1%	3.6%	9.0%	2.5%	0.7%	1.2%	
Unemployment Rate (%)	4.5	3.8	3.4	3.9	4.2	4.6	4.8	5	3.9	4.3	4.3							
Income (Billions, annual rates)																		
Personal Income	\$121.50	\$126.40	\$133.00	\$137.20	\$141.90	\$146.80	\$152.10	\$158.30	\$11,500	\$25,300	\$36,800	9.5%	19.0%	30.3%	4.6%	3.5%	3.9%	
Wages & Salaries	\$74.60	\$78.20	\$83.20	\$85.80	\$88.50	\$91.40	\$94.30	\$97.80	\$8,600	\$14,600	\$23,200	11.5%	17.5%	31.1%	5.6%	3.3%	3.9%	
Nonwage Income	\$46.80	\$48.20	\$49.80	\$51.40	\$53.30	\$55.40	\$57.80	\$60.50	\$3,000	\$10,700	\$13,700	6.4%	21.5%	29.3%	3.2%	4.0%	3.7%	
Residence Adjustment	-2.4	-2.6	-2.7	-2.8	-2.9	-3.0	-3.0	-3.1										
Other Income Measures (Annual rate of change)	1.7	2.0	3.8	0.8	0.8	1.0	1.1	1.4										
Real Personal Income (92\$)	3.0	3.2	3.8	2.4	2.5	2.6	2.6	2.9										
Average Annual Wage																		
Housing Permits Authorized (000's, annual rates)	19.5	18.5	18.4	16.4	15.8	15.5	15.4	15.4	(1,100)	(3,000)	(4,100)	-5.6%	-16.3%	-21.0%	-2.9%	-3.5%	-3.3%	
Total Permits	15.8	15.1	14.8	12.7	12.0	11.6	11.3	11.3	(1,000)	(3,500)	(4,500)	-6.3%	-23.6%	-28.5%	-3.2%	-5.3%	-4.7%	
Single-Family	3.7	3.4	3.6	3.8	3.9	4.0	4.1	4.1	(100)	500	400	-2.7%	13.9%	10.8%	-1.4%	2.6%	1.5%	
Multi-Family																		

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Table D-1 (Continued)
Economic Outlook for Selected Northeast US Metropolitan Statistical Areas
Short-Term Outlook for Pittsburgh, PA; 1996-2003

	Employment (Thousands, seas. adj.)										Percent Change			Numeric Change			Annual Growth Rate			
	1996	1997	1998	1999	2000	2001	2002	2003	96-98	98-03	96-98	98-03	96-03	96-98	98-03	96-03	96-98	98-03	96-03	
Total	1059.4	1071.2	1082.8	1089.1	1095.4	1098.1	1101.6	1106.5	23,400	23,700	23,700	47,100	2.2%	2.2%	4.4%	1.1%	1.1%	0.4%	0.6%	
Manufacturing	134.4	137.1	138.4	135.0	133.0	131.4	130.0	129.3	4,000	(9,100)	(5,100)	(5,100)	3.0%	-6.6%	-3.8%	1.5%	-1.4%	-1.4%	-0.6%	
Durables	95.9	97.7	98.6	95.8	94.3	93.2	92.3	91.9	2,700	(6,700)	(4,000)	(4,000)	2.8%	-6.8%	-4.2%	1.4%	-1.4%	-1.4%	-0.6%	
Nondurables	38.5	39.4	39.7	39.2	37.4	36.2	37.4	37.4	1,200	(2,300)	(1,100)	(1,100)	3.1%	-5.8%	-2.9%	1.5%	-1.2%	-1.2%	-0.4%	
Nonmanufacturing	925.0	934.1	944.4	954.1	962.4	966.7	971.5	977.2	19,400	32,800	52,200	52,200	2.1%	3.5%	5.6%	1.0%	0.7%	0.8%	0.8%	
Transp., Comm., & Util.	66.1	65.6	65.4	64.7	64.5	64.2	63.7	63.5	(700)	(1,900)	(2,600)	(2,600)	-1.1%	-2.9%	-3.9%	-0.5%	-0.6%	-0.6%	-0.6%	
Trade	256.2	256.3	260.3	261.9	262.3	261.8	260.8	261.2	4,100	900	5,000	5,000	1.8%	0.3%	2.0%	0.8%	0.1%	0.1%	0.3%	
Retail	198.1	198.0	201.6	202.9	203.1	202.8	202.1	202.4	3,500	800	4,300	4,300	1.8%	0.4%	2.2%	0.9%	0.1%	0.1%	0.3%	
Wholesale	58.1	58.3	58.7	59.0	59.2	59.0	58.7	58.8	600	100	700	700	1.0%	0.2%	1.2%	0.5%	0.0%	0.0%	0.2%	
Fin., Ins., & Real Estate	62.1	61.9	63.7	64.5	65.2	65.6	66.1	66.5	1,600	2,800	4,400	4,400	2.6%	4.4%	7.1%	1.3%	0.9%	1.0%	1.0%	
Services	365.9	370.6	374.2	380.9	386.0	391.0	395.2	399.8	8,300	25,600	33,900	33,900	2.3%	6.8%	9.3%	1.1%	1.3%	1.3%	1.3%	
Business	57.0	60.2	61.9	64.4	66.0	67.6	69.0	70.7	4,900	8,800	13,700	13,700	8.6%	14.2%	24.0%	4.2%	2.7%	3.1%	3.1%	
Health	116.3	113.9	112.6	113.9	115.4	116.6	117.7	118.5	(3,700)	5,900	2,200	2,200	-3.2%	5.2%	1.9%	-1.6%	1.0%	0.3%	0.3%	
Other	192.6	196.6	199.6	202.6	204.6	206.7	208.5	210.6	7,000	11,000	18,000	18,000	3.6%	5.5%	9.3%	1.8%	1.1%	1.1%	1.3%	
Federal Govt.	20.2	20.5	20.4	20.1	20.9	19.4	19.2	18.9	200	(1,300)	(1,300)	(1,300)	1.0%	-7.4%	-6.4%	0.5%	-1.5%	-0.9%	-0.9%	
State & Local Govt.	103.1	105.0	105.1	106.3	107.4	109.2	111.1	112.3	2,000	7,200	9,200	9,200	1.9%	6.9%	8.9%	1.0%	1.3%	1.3%	1.2%	
Construction	47.3	48.6	50.7	51.2	51.6	51.3	51.3	51.1	3,400	400	3,800	3,800	7.2%	0.8%	8.0%	3.5%	0.2%	1.1%	1.1%	
Mining	4.1	4.5	4.7	4.5	4.4	4.2	4.1	4.0	600	(700)	(100)	(100)	14.6%	-14.9%	-2.4%	7.1%	-3.2%	-0.4%	-0.4%	
Population and Labor Market Measures																				
Population (Millions)	2,372	2,361	2,357	2,356	2,355	2,355	2,354	2,353	(15)	(4)	(19)	(19)	-0.6%	-0.2%	-0.8%	-0.3%	-0.0%	-0.0%	-0.1%	
Labor Force (Millions)	1,147	1,157	1,160	1,165	1,169	1,172	1,175	1,177	13	17	30	30	1.1%	1.5%	2.6%	0.6%	0.3%	0.3%	0.4%	
Unemployment Rate (%)	5	4.8	4.6	4.8	5	5.3	5.3	5.2	4.8	5.0	5.0	5.0								
Income (Billions, annual rates)																				
Personal Income	\$60.20	\$62.60	\$65.10	\$67.20	\$69.70	\$72.10	\$74.50	\$77.20	\$4,900	\$12,100	\$17,000	\$17,000	8.1%	18.6%	28.2%	4.0%	3.5%	3.5%	3.6%	
Wages & Salaries	\$31.60	\$33.00	\$34.60	\$35.80	\$37.20	\$38.40	\$39.60	\$40.90	\$3,000	\$6,300	\$9,300	\$9,300	9.5%	18.2%	29.4%	4.6%	3.4%	3.4%	3.8%	
Nonwage Income	\$28.60	\$29.60	\$30.50	\$31.30	\$32.50	\$33.70	\$35.00	\$36.40	\$1,900	\$5,900	\$7,800	\$7,800	6.6%	19.3%	27.3%	3.3%	3.6%	3.6%	3.5%	
Residence Adjustment	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6												
Other Income Measures (Annual rate of change)																				
Real Personal Income (92\$)	1.9	2.0	2.5	0.8	1.1	1.0	0.9	1.0												
Average Annual Wage	3.5	3.2	3.8	2.9	3.2	3.0	2.8	2.9												
Housing Permits Authorized (000's, annual rates)																				
Total Permits	5.6	5.9	5.8	5.8	5.9	5.9	5.7	5.5	200	(300)	(100)	(100)	3.6%	-5.2%	-1.8%	1.8%	-1.1%	-1.1%	-0.3%	
Single-Family	4.7	4.5	4.8	4.8	4.9	4.8	4.7	4.5	100	(300)	(200)	(200)	2.1%	-6.2%	-4.3%	1.1%	-1.3%	-1.3%	-0.6%	
Multi-Family	0.9	1.3	1.0	1.0	1.0	1.0	1.0	1.0	100	0	100	100	11.1%	0.0%	11.1%	5.4%	0.0%	0.0%	1.5%	

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**Appendix C: Detailed Population and Employment Tables
Maine, Maine Counties and Metropolitan Statistical Areas**

**Appendix Table E-1
Population Change: 1990-97 [1]
New England States, Maine and Maine Counties**

	Year		Change	Percent Change	Components of Change		
	1990	1997			Births	Deaths	Net [1] Migration
Maine	1,231,252	1,242,051	10,799	0.9%	105,679	80,876	(14,004)
New Hampshire	1,111,824	1,172,709	60,885	5.5%	108,271	62,755	15,369
Vermont	564,447	588,978	24,531	4.3%	51,746	33,831	6,616
Massachusetts	6,018,123	6,117,520	99,397	1.7%	593,033	384,699	(108,937)
Rhode Island	1,004,624	987,429	(17,195)	-1.7%	94,131	57,869	(53,457)
Connecticut	3,288,910	3,269,858	(19,052)	-0.6%	325,218	203,605	(140,665)
New England	13,219,180	13,378,545	159,365	1.2%	1,278,078	823,635	(295,078)
Maine Counties							
Androscoggin	105,353	101,045	(4,308)	-4.1%	9,188	7,111	(6,385)
Aroostook	87,045	77,094	(9,951)	-11.4%	6,831	5,505	(11,277)
Cumberland	243,641	251,438	7,797	3.2%	22,301	15,422	918
Franklin	29,123	29,015	(108)	-0.4%	2,291	1,797	(602)
Hancock	47,108	49,638	2,530	5.4%	3,766	3,694	2,458
Kennebec	116,263	115,885	(378)	-0.3%	9,588	7,733	(2,233)
Knox	36,417	37,543	1,126	3.1%	2,826	2,886	1,186
Lincoln	30,447	31,601	1,154	3.8%	2,366	2,294	1,082
Oxford	52,738	53,776	1,038	2.0%	4,301	3,843	580
Penobscot	146,993	143,300	(3,693)	-2.5%	11,639	8,872	(6,460)
Piscataquis	18,709	18,315	(394)	-2.1%	1,352	1,489	(257)
Sagadahoc	33,725	35,663	1,938	5.7%	3,104	1,885	719
Somerset	49,991	52,220	2,229	4.5%	4,325	3,442	1,346
Waldo	33,182	36,020	2,838	8.6%	2,923	2,270	2,185
Washington	35,426	35,986	560	1.6%	2,945	2,819	434
York	165,091	173,512	8,421	5.1%	15,933	9,814	2,302

NOTE: [1] Includes net domestic migration, net Federal movement, net international migration and a residual.

SOURCE: U.S. Department of Commerce, Bureau of the Census, as reported by the Maine Department of Labor.

Table E-2
Trends in Total Employment: 1969-1997
State of Maine, MSAs and Counties

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Maine MSAs																	
Bangor, ME (NECMA)	45,964	46,724	46,773	48,089	50,138	50,851	51,401	54,248	55,665	57,267	59,470	60,043	59,507	58,780	59,877	61,987	62,954
Lewiston-Auburn, ME (NECMA)	37,463	38,121	35,815	35,486	37,407	37,783	36,902	39,233	40,477	41,542	42,210	42,063	41,566	40,034	40,446	41,643	41,632
Portland, ME (NECMA)	87,835	88,295	89,107	93,016	95,690	95,968	95,027	98,095	101,956	107,156	110,292	111,576	111,753	112,253	115,953	123,802	131,242
Study Area Counties																	
Androscoggin	37,463	38,121	35,815	35,486	37,407	37,783	36,902	39,233	40,477	41,542	42,210	42,063	41,566	40,034	40,446	41,643	41,632
Aroostook	32,871	32,940	32,435	32,319	33,491	33,445	32,695	33,395	33,373	33,839	33,704	33,748	33,651	33,032	33,614	34,661	35,033
Franklin	9,418	9,139	9,168	9,013	9,447	9,419	9,298	10,880	10,869	10,983	11,242	11,373	11,284	11,773	11,562	11,257	11,018
Hancock	11,324	11,963	11,963	12,500	13,258	13,478	14,042	14,459	14,726	14,976	14,976	15,107	15,091	15,515	15,666	16,684	17,267
Kennebec	40,248	40,951	41,627	42,773	44,281	44,897	44,809	46,796	48,388	49,675	50,566	50,353	49,941	48,393	49,941	51,537	52,349
Oxford	15,245	14,926	14,181	14,544	15,616	15,804	15,059	15,714	15,965	16,387	16,142	16,142	17,041	16,157	16,111	16,422	16,182
Penobscot	45,964	46,724	46,773	48,089	50,138	50,851	51,401	54,248	55,665	57,267	59,470	60,043	59,507	58,780	59,877	61,987	62,954
Piscataquis	5,431	5,328	5,139	5,273	5,494	5,375	5,173	5,653	5,636	5,987	6,290	6,280	6,370	6,201	6,201	6,126	6,180
Somerset	14,078	13,733	13,084	13,165	13,841	13,964	12,410	13,626	13,609	13,847	14,290	14,716	15,466	15,382	15,163	15,711	16,315
Washington	8,311	8,231	8,382	8,631	8,832	9,076	8,900	9,283	9,789	10,216	10,734	10,886	10,136	9,653	9,789	9,952	10,292
Subtotal	220,353	221,655	218,467	221,793	231,785	234,092	229,984	242,870	248,230	254,469	260,815	262,511	259,857	255,920	268,390	285,980	269,222
Southern Maine Counties																	
Cumberland	87,835	88,295	89,107	93,016	95,690	95,968	95,027	99,095	101,956	107,156	110,292	111,576	111,753	112,253	115,953	123,802	131,242
Knox	9,057	9,196	9,452	9,717	10,109	10,121	10,098	10,614	11,070	11,722	11,973	11,778	11,837	11,774	11,885	12,609	13,060
Lincoln	6,720	7,581	7,653	6,084	6,099	5,951	5,682	5,852	5,972	6,084	6,335	6,442	6,711	6,844	7,068	7,474	7,919
Sagadahoc	9,656	8,803	8,609	8,772	8,874	10,026	10,069	10,126	10,865	12,127	12,581	13,387	13,921	15,006	15,244	14,270	13,181
Waldo	6,527	6,538	6,474	6,530	6,767	6,877	6,281	6,799	7,124	7,583	7,231	6,784	6,910	6,658	6,874	6,833	6,758
York	40,729	40,348	38,463	38,466	39,588	39,885	40,411	43,193	45,295	47,680	49,476	50,346	51,931	51,884	53,211	55,601	57,385
Subtotal	160,524	160,761	159,758	162,585	167,127	168,628	167,568	175,679	182,302	192,352	197,888	200,313	202,963	204,419	210,235	220,589	229,545
Maine MSAs																	
Bangor, ME (NECMA)	63,206	65,694	69,064	70,853	69,733	66,943	68,733	68,406	68,525	68,823	68,980	69,779	69,779	68,823	68,980	69,779	70,853
Lewiston-Auburn, ME (NECMA)	42,745	44,368	46,233	46,501	44,854	43,429	43,155	44,645	46,078	46,253	46,017	46,843	46,843	46,017	46,843	47,919	49,094
Portland, ME (NECMA)	139,461	147,763	155,150	158,871	155,838	148,143	149,436	151,165	156,750	159,765	163,106	170,574	170,574	163,106	163,106	170,574	179,815
Study Area Counties																	
Androscoggin	42,745	44,368	46,233	46,501	44,854	43,429	43,155	44,645	46,078	46,253	46,017	46,843	46,843	46,017	46,843	47,919	49,094
Aroostook	35,916	36,911	36,900	37,161	37,094	36,637	35,501	35,019	32,765	31,724	31,265	31,575	31,575	31,265	31,575	32,765	34,471
Franklin	11,102	11,565	12,718	13,107	12,745	12,652	12,252	12,807	12,692	12,599	12,354	12,186	12,186	12,354	12,186	12,692	13,107
Hancock	17,697	18,484	19,813	20,515	20,608	20,067	20,236	20,633	21,378	21,588	21,893	22,905	22,905	21,893	22,905	24,274	25,811
Kennebec	54,251	57,339	60,374	62,655	62,024	58,941	58,429	58,707	59,240	58,986	59,613	60,161	60,161	59,613	60,161	62,655	65,166
Oxford	16,298	17,511	18,135	18,588	17,931	17,089	17,458	17,646	17,653	17,894	18,022	18,374	18,374	18,022	18,374	19,543	20,811
Penobscot	63,206	65,694	69,064	70,853	69,733	66,943	68,733	68,406	68,525	68,823	68,980	69,779	69,779	68,823	68,980	69,779	70,853
Piscataquis	6,052	6,353	6,738	6,829	6,544	6,278	6,206	6,159	6,273	6,248	6,205	6,339	6,339	6,205	6,339	6,648	6,957
Somerset	16,832	16,783	17,115	17,804	18,331	17,497	17,696	18,176	18,664	18,714	19,330	19,437	19,437	18,714	19,330	20,104	20,979
Washington	10,533	11,115	11,880	12,382	12,344	12,410	12,432	12,419	12,329	12,482	12,450	12,569	12,569	12,450	12,569	13,311	14,186
Subtotal	274,632	286,123	298,970	306,195	302,208	291,553	290,068	294,617	295,597	295,331	296,129	299,968	299,968	296,129	299,968	315,515	332,841
Southern Maine Counties																	
Cumberland	139,461	147,763	155,150	158,871	155,838	148,143	149,436	151,165	156,750	159,765	163,106	170,574	170,574	163,106	163,106	170,574	179,815
Knox	13,480	14,103	14,900	15,219	15,039	14,627	15,008	15,647	16,674	17,587	18,219	18,369	18,369	18,219	18,369	19,274	20,189
Lincoln	8,083	9,000	9,549	9,793	9,804	9,469	9,624	10,129	10,133	10,417	10,581	10,876	10,876	10,581	10,876	11,557	12,242
Sagadahoc	14,908	16,013	17,936	19,543	19,611	18,969	17,729	16,711	17,153	16,584	16,255	15,587	15,587	16,255	15,587	16,584	17,153
Waldo	7,054	7,581	7,857	7,857	7,754	7,754	7,493	7,728	8,015	8,291	8,008	8,856	8,856	8,008	8,856	9,411	9,966
York	59,921	62,147	65,458	66,331	64,253	61,115	59,979	59,480	59,419	60,221	61,014	61,846	61,846	60,221	61,014	62,811	64,766
Subtotal	242,807	256,607	270,482	277,676	272,299	259,692	259,269	260,860	268,144	272,875	277,983	286,108	286,108	277,983	286,108	304,524	324,058

NOTE:

[1] Employment totals include civilian non-farm wage & salary employees only.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

