

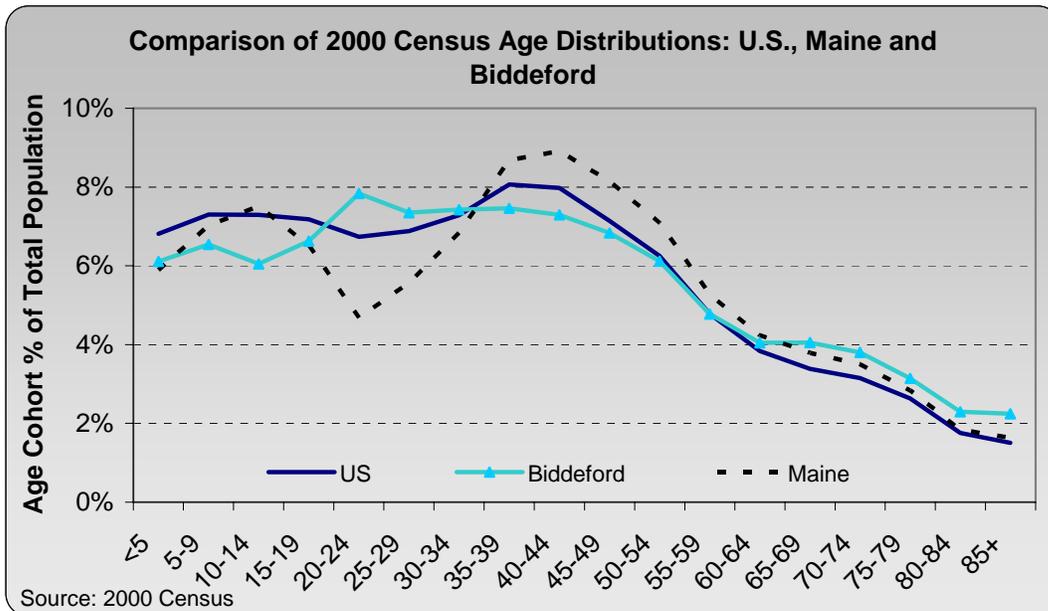
Executive Summary of the Biddeford Redevelopment Market Study

November 26, 2008

This summary is designed to highlight the central findings of the Biddeford market study, a component of the *Biddeford Mill Redevelopment Master Plan*. The market study includes a review of key economic and demographic trends, an assessment of recent developments in owner housing and rental housing markets, a review of recent retail sales, and the identification and assessment key regional¹ industries--including tourism.

Demographics

Biddeford has a much different age distribution than the rest of Maine. The chart below shows the age distribution of the resident population in Biddeford, the State of Maine, and the U.S. as a whole. The chart indicates that the state's population distribution by age has two spikes; one in the aged 35-50 years and 5-19 years age categories. These spikes roughly correspond to the so-called "Baby Boom" generation and the children of those "Baby Boomers." In 2000, Biddeford had a much higher share of its population in the 20-35 years age category, likely due to the relatively more affordable housing price situation in comparison to the rest of the York County.



Housing

Biddeford has a much lower rate of home ownership than York County or Maine. It is unclear as to whether this is

Table 1: Percentages of Owner vs. Renter

	Owner	Renter
Biddeford	48.59%	51.41%
York County	72.65%	27.35%
Maine	71.58%	28.42%

¹ With the region being defined as York County.

a cause or result of Biddeford's age distribution, as the home ownership rate for individuals in their 20s are lower than homeownership rates in the older age groups. Table 1 shows the renting and owning percentages. What housing affordability problems there are in the City appear to be due to relatively lower median household incomes in the City as opposed to high median home prices. This suggests there is an opportunity for the construction of housing units at price points and rent levels that are "affordable" to lower- and medium levels of household income.

Retail Sales Activity

Relative to the U.S., the state has a significantly higher level of income-adjusted sales per household. At the state level, this typically is indicative of tourist activity—including expenditures and income generated from out-of-state visitors. Biddeford also has a high level of sales, which recently has grown to eclipse both the state and national averages. Although this is ordinarily a sign of significant levels of visitor spending, the City's higher than average level of retail spending appears tied to the presence of national retail stores within the City that is attracting regional residents for acquisition of household staples rather than visitor-based retail activity. With a vibrant tourism industry all around the City, visitor-based retailing is an opportunity for the downtown area, provided an attractive destination can be built that will bring visitors into the City's downtown.

Key Industries

Industries primarily engaged in serving final demand from outside the region are key to the economic health and performance of regional economies as "base industries." Base (or basic) industries serve to import dollars into a region and thereby expand the size of the regional economic pie. These key industries also tend to have higher paying job opportunities and stronger linkages to local businesses due to well-developed supplier or customer relationships. In that way, healthy key industries contribute to a strong region by improving the quality of life through higher incomes and the well being of the region's citizens, and through the provision of public resources to have good schools, a high quality environment and high quality public services.

A region's key industries are those basic industries present in the region with significant employment levels and concentration. They typically exhibit high multiplier effects. Key industry sectors or clusters may be located in the region by historical factors, proximity to production requirements such as natural resources or to markets by transportation corridors, or other competitive advantages that favor the industry's development in the region relative to elsewhere.

By understanding the competitive circumstances of the County's key industries or clusters of employers in those key industries, strategies can be developed to help the *Biddeford Mill Redevelopment Master Plan* to direct economic and community development resources and efforts of the City and other stakeholders in the region to achieve the highest valued return to the City's and region's

overall quality of life. The data indicate that the key industries for York County and the City include: 1. Wood Product Manufacturing, 2. Fabricated Metal Manufacturing, 3. Food Manufacturing, 4. Textile Product Mills, 5. Plastics and Rubber Products Manufacturing, and 6. Tourism (which includes lodging, restaurants and bars, and other establishments that serve the visitor market). Although the data pertaining to these industries are published only for York County (instead of the City), it should be noted that industries that are competitive and successful in York County are also highly likely to be successful in City since Biddeford has many of the same competitive characteristics as the county overall .

The study shows that while manufacturing has been losing employment share in the United States for many years now, it is important to recognize the opportunities for certain types of manufacturers. Clearly, the U.S., the county and the City's manufacturers cannot compete in the global market manufacturing commodity items that compete primarily on price. They can, however, effectively compete in the manufacture specialized and/or high-value added niches. Regional fabricated metal manufacturing and plastics and rubber manufacturing industries produce products that serve niche markets and compete in the global market based on their quality and specialization as opposed to competing mostly on price. Future business development in the City can learn from what makes current regional businesses successfully compete and apply those understandings across a wide range of sub-industries that utilize those same competitive characteristics or features. The City could focus its efforts on that approach as it seeks to re-develop the downtown mill district. To accomplish this, further research and dialogue with existing City export-industry employers is needed to determine what elements—particularly those which can be affected by the local/regional forces--can be influenced to support and grow these key industries. Examples of targeted key industry sectors for this effort include: (1) Wood Product Manufacturing, (2) Fabricated Metal Product Manufacturing, (3) Food Manufacturing, (4) Textile Product Mills, and (5) Plastics and Rubber Products Manufacturing. Examples of strategies that could be further refined and implemented to help nurture and cultivate these key export-based industries include: (1) policies to support competitive electricity prices, (2) steps to support the cost-effective transporting of goods, and (3) other initiatives to strengthen local supplier and customer chains and relationships,

Tourism

A sixth key regional export-based industry that does not appear to be proportionally represented in the City is the tourism industry. Biddeford does not show up anywhere in the top 20 tourist destinations in Maine. The state economy has a demonstrated comparative advantage in tourism, with 16.7% of employment in the tourism sector. This concentration is significantly higher than the states of New Hampshire (9.5%), Vermont (9.4%) and Florida (12.5%). In addition to higher employment, 20.8% of state output can be attributed to the tourism sector in calendar year 2006. Tourism also generates significant tax

revenues for the state. About $\frac{1}{5}$ of all sales tax revenues are directly or indirectly produced by visitor spending. In 2006, this tax revenue totaled an estimated \$429 million.

Calendar year 2006 (the latest year for which visitor counts are available), saw approximately 10.1 million overnight trips and 31.7 million day trips to Maine. Maine's Southern Coast accounts for nearly 40% of all trips to Maine. In 2006, this translates to 16.7 million trips to the Southern Coast. A total of 77% of travelers to Maine use their own automobile as their primary mode of transportation. With its location right off of Interstate 95, Biddeford is positioned to capture both destination demand, that is, individuals traveling to Biddeford, as well as dollars from travelers passing through to other Maine destinations.

In addition to not being a destination for visitors, the City also appears to lack an appropriate venue for displaying/selling the work of the City's artisans which currently populate the mill area. The point is that there are significant levels of tourism activity happening all around the City, and the City is not capturing its fair share of an already very competitive key industry where the state has a significant comparative advantage. Tourism does appear to be an area for further evaluation as a development opportunity for the downtown and mill district as long as an attractive destination can be developed to attract out-of-the region visitors—including both visitors from the northeastern U.S. and, potentially, international visitors.

Land Use

Given Biddeford's position as a significant regional employment center and the economic forces at play in the York County region, this study indicates that the mix of use types at the Biddeford Mill Complex lean toward residential and industrial use. It is important to keep in mind that, while anticipating market demand for different use types is helpful, flexibility in the proportions will result in the best use of the site. The best approach may be making space available to tenants at market clearing prices which will go a long way towards full utilization over time.

All else being equal, attracting retail and commercial users to the site will enhance the desirability of the residential units as workers will value the convenience of walking to work and shopping sites. The most difficult part of this effort is to find what mix of residential, retail and commercial uses will work over time—as the specific mix of uses will change over time. As mentioned above, flexibility will be key so that the site can adjust to changes in market conditions and demand. With this in mind, the study indicates that reasonable proportions among these classes of uses would at least initially be 45% residential, 30% light industry, 10% retail, and 15% commercial.

As these proportions are not set in stone, the order of these uses appears to be more important than the exact initial proportions indicated above. Although it is

impossible to predict the interaction of all factors that will influence the viability of the Biddeford Mills 20 years into the future, two decades of actual experience will provide enough market-feedback to help determine the evolution of market clearing prices for the district's use alternatives. The largest obstacle will likely be the sheer size of the complex within the context of Biddeford's modest size and the underlying slow-growth, and in some cases declining population trends within the state overall.

Review of Other Mill Revitalization Plans

As part of the market study, a review of other successful mill redevelopment projects was conducted in order to understand the essential ingredients of successful plans. From this review, it was clear that each mill district is different with respect to existing infrastructure, market conditions, and building conditions. Revitalization strategies and efforts were specifically tailored to each district and there is little doubt that that will be true for the Biddeford district. However, these revitalization efforts likewise also have some common features or threads that can be instructive for the Biddeford revitalization/re-development effort. Looking at the above New England examples, it seems apparent that there are several threads that are common to each successful mill redevelopment project.

First, nearly every successful mill redevelopment utilized the concept of mixed uses/spaces to gain benefits such as increased pedestrian activity and the creation of a 24-hour activity in the redeveloped area. Second, most plans stress that mill redevelopment is a long term strategy and often does not produce instant results. The third similarity across other New England mill redevelopment efforts is their emphasis on creating an "attractive sense of destination." The goal of destination building is to create a mixed area of retail, office, and restaurant space that attracts both the local resident and visitor demand to that area. In short, the goal is to put as many pairs of feet on the ground that is needed to draw a critical mass of consistent patronage to support district businesses across the entire 24 hour period. Such a critical mass of patronage traffic is crucial to having a diverse mix of small service and retail oriented businesses succeed.

Many recommendations for mill district revitalizations overlap with "normal" downtown area development plans. The central idea of most downtown plans is the creation of "vibrancy", with more businesses open later and a population that works and lives in close proximity to the subject area. In addition, the zoning provisions for mixed use buildings were also used in the Lowell redevelopment plan as a tool to help create this vibrancy. Usually this entails businesses locating on the first floor of buildings and residential uses in the floors above. This creates a true a living/working atmosphere and helps to avoid one of the downsides to commercial only zoning—an essentially deserted downtown after business hours.

This document is designed to summarize the major findings of the *Biddeford Mill Redevelopment Master Plan*. It is hoped that the conclusions above will help fulfill the vision of a renewed Biddeford Mill District.

Demographic and Economic Trends

Building a strategic economic development and community re-development plan requires a thorough assessment of the past and current economy. This includes everything from an overview of global macro economic trends with an understanding of how they might impact the town and region, to an assessment of the City's/region's economic and demographic trends. The overview of macro trends is done in order to build an understanding of the overall context within which this strategic plan is being developed. The assessment of recent economic and demographic trends is needed to match up local factors, strengths, and weaknesses to those overriding developments. Demographic trends are important because they give insight into the broad directions of change and character of a municipality's greatest economic-community development asset—its resident population—which corresponds to the human capital base of the City.

The evolving structures of the local and regional economy are examined in order to identify areas of comparative advantage. Regional/local comparisons are made to understand the City's role and competitive strengths and weaknesses in the regional economy. This understanding is essential for the designing and implementing strategic economic and community development policies for Biddeford.

The report focuses on both economic development and community development because the revitalization of the City's downtown is likely to reflect a mix of strategies that fall into both categories. Strategic economic development is all about identifying export or export-like sectors that have the effect of importing dollars into the City and region which makes the size of the City's/region's economic pie larger. However, increasing the vibrancy of the downtown area will not likely be successful if it relies on economic development alone. Increasing foot traffic, increasing the sales of local businesses, and filling parking places in the downtown area involve strategies that are not necessarily economic development-oriented. Community development is all about creating livable communities bustling with economically viable enterprises, even if those enterprises are circulating and re-circulating dollars that are already here in the pockets of local residents and visitors in the surrounding region.

In effect, the revitalization of the downtown area can simultaneously be the result of and a facilitator for future business and economic development. A strong and vital downtown tells new and existing employers that the City is a good place to invest and grow their businesses. As existing business grow and new ones are created or move in from elsewhere, local business continues to improve, and the self-reinforcing vitality-increasing process continues. While there is no "silver bullet" strategy for re-vitalizing downtown economies, studies-action plans such

as these can act as an important catalyst to build the type of consensus among the residents of a community to implement what a planning process such as this starts.

I. Overview of Key Macro Trends

Before delving into the data and trends, it is important to start with a review of some key overriding macro forces or drivers that have changed the way companies in the City, region, state and country have conducted their businesses over the last decade and a half. These macro trends have been changing the way employers, the City's government, and the state and federal governments have been conducting themselves. They have fundamentally changed the competitive landscape for strategic economic and community development and the way the major players operate/conduct themselves. These forces have far-reaching impacts on the City even though they are largely outside the realm of the City's control. Most are even outside of state and federal control.

As the players in the City's revitalization develop strategic approaches for bringing a renewed sense of energy and vibrancy to the downtown area, strategies must remember that these "macro drivers" are both opportunities and threats that require full consideration and vetting as part of this planning process. The City is not alone in having to understand and effectively deal with—perhaps even take advantage of—the local impacts of these largely external forces. Many are impacting economic and community development initiatives from the City, to other municipalities and regions throughout New England and the nation. The following section discusses these key drivers.

Driver #1: Accelerating globalization

Growing levels of international trade² and the rise of China, India, and Brazil as global economic powers illustrate how the world is becoming increasingly interdependent. Each year the international movement of raw materials, finished goods, capital, and work effort reaches new heights. As a result, previously independent economies are becoming integrated. Along with this increasing globalization comes its own set of opportunities and threats. State and regional economies are becoming less and less isolated (protected) from national and global economic events. Economic development policies in today's world must now consider the impact of globalization on the region's key employers. Policies designed to assist them and to help them prosper cannot be developed and implemented in a vacuum.

Driver #2: The rapidly expanding impact of technology

New technologies in a wide range of applications—for medicine, energy, and information exchange—are arriving on the commercial scene at increasing rates. Such technological innovation is making workers and companies more

² The recent breakdown of the so-called Doha round of talks under the umbrella of the World Trade Organization notwithstanding.

productive, allowing both labor and capital to make more with less. But this “new economy” also is changing the way goods and services are made. It is changing traditional paradigms regarding the importance and relevance of proximity or place in economic development. At the same time, it is also challenging companies in the region to continuously improve their ability to apply knowledge and technology to the production process better than their competitors in other parts of the New England region, the country, and even the rest of the world. Encouraging continued growth in regional productivity—including finding ways to encourage new capital investment and improving regional work force preparedness—will be on-going keys to the regional and town economies’ continuing ability to compete in the fast-changing marketplace.

Driver #3: The Changing Demands for Company Location

The factors of significance impacting company location decisions for newer, leading edge companies have changed during the 2000s. Location decisions tend to be less influenced by traditional factors such as proximity to raw materials and markets and the costs of transportation. Companies today are interested in different factors such as proximity to other similar companies and the availability of support networks (see cluster strategies below) for raw materials, labor supply, and marketing. They also tend to be responsive to the more subjective lifestyle desires of their owners, managers, and key workers. Many of today’s companies, even manufacturers, are less tied to regions by necessity than they have been in the past. Many companies today can be where the owners-managers want to live, recreate, and raise a family. All other things being equal, these decision-makers want to be in a place with a “desirable” quality of life.

Driver #4: Changing Demographics

The population of the U.S., the New England region, the state, and the town are aging, and the population of the state and the New England region are aging at a rate that is faster than the nation as a whole. Although all areas within the U.S are aging, New England and especially Maine are doing so at a faster rate. Currently, Maine is reported to have the oldest population (by median age) of any state in the country. This trend of increasing median ages is typical for most developed western economies, while many developing countries are experiencing either declining or at least a steady median age.

The aging of the population is transforming our society. One impact has been concern about the adequacy of the labor force across New England as aging “Baby-Boomers” begin to reach retirement age (currently 67 years of age). In addition, it also is recognized that “Baby-Boomers” are more mobile (energy costs notwithstanding) and have come to demand more and better leisure-time activities, recreational facilities, and safe communities that contribute to a high quality-of-life. This increasing demand of “Baby Boomers” for a higher quality-of-life, dovetails with current trends in work force recruitment and retention. These trends indicate that a high quality of life is increasingly being recognized as a key

strategic economic development asset—enhancing the ability of a region to attract and retain a skilled and dedicated work force.

Driver #5: Persistently high energy prices

Just two years ago, industry analysts scoffed at a published report that predicted \$100 per barrel crude oil, and many of these same analysts rejected the idea of \$4.00 per gallon gasoline prices. Recently, as the price of a barrel of oil approached \$150 and the price of a regular gallon of gasoline broke through the \$4.10 per gallon level, projections of \$200 per barrel crude oil and \$5.00 per gallon gas—even if they still seem pessimistic—are no longer rejected out of hand. These prices, which recently rose to all-time record highs, are now forcing changes in household and business consumption behaviors. Recent news stories and data indicate that Americans are now driving less (as confirmed by the recent reductions in vehicle miles traveled), and energy prices are beginning to influence changes in vehicle preferences (from less fuel efficient and bigger vehicles to smaller more fuel efficient vehicles). Persistently high fuel prices³ reduce disposable household income, increase the costs of travel, drive up business costs for companies, and make it harder for regional businesses to access global markets in traditional ways. On the other side, persistently high fuel prices encourage closer to home activity and travel, more compact and centralized development, reduce incentives for off-shoring activities on the part of some businesses, and encourage innovation to reduce fossil fuel consumption, which—eventually—will reduce our high dependency on fossil fuels.

Driver #6: The “greening” of economic development and other public policies

The reality of persistently high energy prices has encouraged a recent “greening” in governmental policies across many parts of the world. This “greening” has generated new ideas and approaches to economic development policies around the country. New opportunities to develop and commercialize technologies that were previously price-cost prohibitive are now emerging. The growth of interest in alternative energy sources-products has increased significantly as a part of that emergence, opening the door to a number of new business opportunities in natural resources development and potential cost saving technologies that were previously not feasible in the world with lower prices for fossil fuels.

³ Even though oil and gasoline prices have fallen significantly off their early July peaks, each remain well above prices experienced at this time last calendar year at roughly \$100 per barrel.

II. *Why Analyze Economic Performance Structure?*

The first step in building a strategic economic and community re-development plan is a thorough and objective analysis of the historical performance and structure of the region's and City's economies—frequently referred to as an economic situation assessment.

The objectives of this economic assessment of the City of Biddeford and the York County regional economy are four-fold:

1. To increase the understanding of the regional economy and the opportunities for the economy of the City,
2. To identify and understand the sources and factors underlying the economic performance of the region and those within the City,
3. To highlight trends that will drive economic growth in the region over the next 5 to 10 years and describe the City's economic foundations.
4. To identify where to focus economic development and competitiveness-building efforts over the next several years for the purpose of maximizing the potential for revitalizing and growing the City's economy.

This effort is intended to focus the current and future efforts for the region's and City's economic development. This gives policy makers the most promising strategies for enhancing the City's economic potential. This section is the first step in the strategy development process, and corresponds to the first two objectives listed above. It provides objective facts to help understand the region's and the City's economic development climate and to provide insight into the long-term economic development challenges and opportunities.

The assessment of the City's potential opportunities begins with an assessment of the demographic and economic performance and structure of the City. This is completed for the City within the context of trends, developments and recent changes in the structure of the York County regional economy and the state as a whole.

III. Overview of Key Demographic Trends, 1990-2006

A. General Population Trends

According to U.S. Census Bureau, from 1990-2000 Biddeford's population was effectively stable as it grew by only 232 residents or just above a tenth of one percentage point per year. This was slightly lower than rates of population growth for the State (0.38% per year) and the County (1.27% per year). The most recent data report showed that population growth has picked up, increasing by 652 residents from 2000-07 (or a rate of .44% per year). That rate of growth was roughly in line with the population growth rate at the state level but somewhat below the population growth rate over the same period for the county. This record indicates that Biddeford is perhaps best described as having a stable population, and barring a significant change in economic opportunity, population growth is likely to remain restrained for at least the near-term future.

Table 1: Total Population Growth, 1990-2007

	1990	2000	2007	Change, '90-'00	Change, '00-'06	Annual % Change '90-'00	Annual % Change '00-'07
Biddeford	20,710	20,942	21,594	232	652	0.11%	0.44%
York County	164,587	186,742	201,341	22,155	14,599	1.27%	1.08%
Maine	1,227,928	1,274,923	1,317,207	46,995	42,284	0.38%	0.47%

Source: U.S. Census Bureau

B. Age-Specific Population Trends

Analyzing population changes by age category shows that the number of young adults (those aged 20-34 years old) and the number of children under the age of 5 years declined significantly during the 1990s for

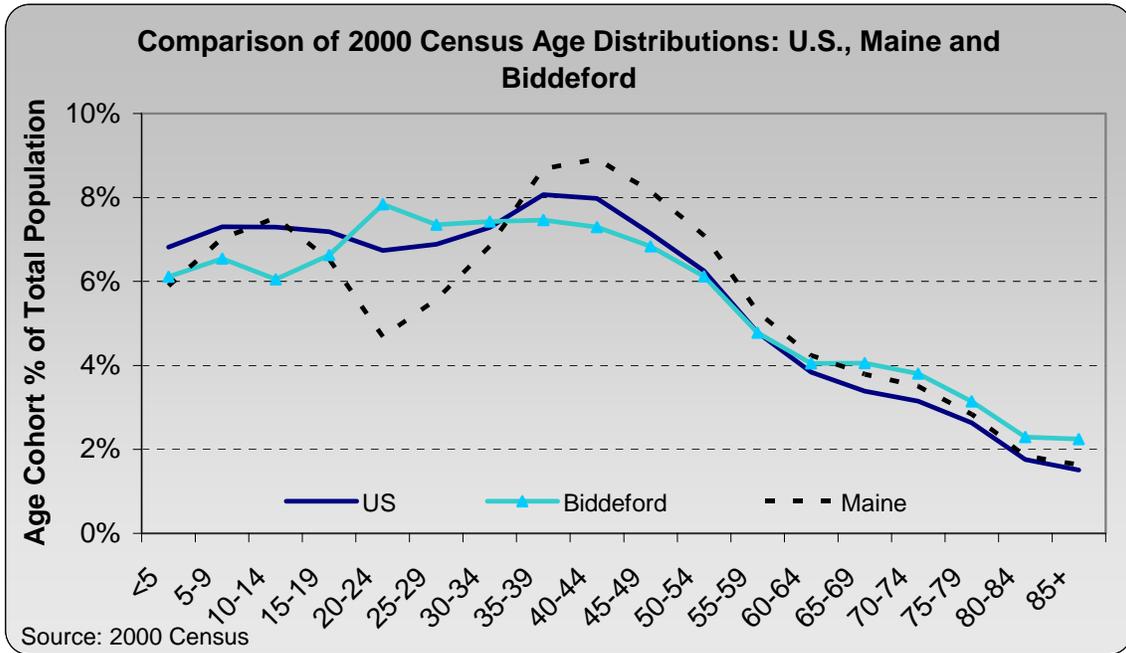
Table 2: Population Growth by Age, 1990-2000

	Change 1990-2000			Annual % Change		
	Maine	York County	Biddeford	Maine	York County	Biddeford
< 5 yrs	-14,996	-1,169	-207	-1.90%	-1.00%	-1.49%
5 - 14	2,189	3,157	128	0.13%	1.24%	0.50%
15 - 19	1,558	1,167	-156	0.18%	1.01%	-1.06%
20 - 34	-64,002	-7,316	-820	-2.45%	-2.04%	-1.58%
35 - 44	19,635	5,866	455	0.97%	1.99%	1.61%
45 - 54	67,845	12,006	801	4.44%	5.63%	3.56%
55 - 64	14,737	3,823	-26	1.28%	2.46%	-0.14%
65 - 74	4,596	1,693	-98	0.49%	1.34%	-0.58%
75 +	15,433	2,928	155	1.97%	2.89%	1.02%

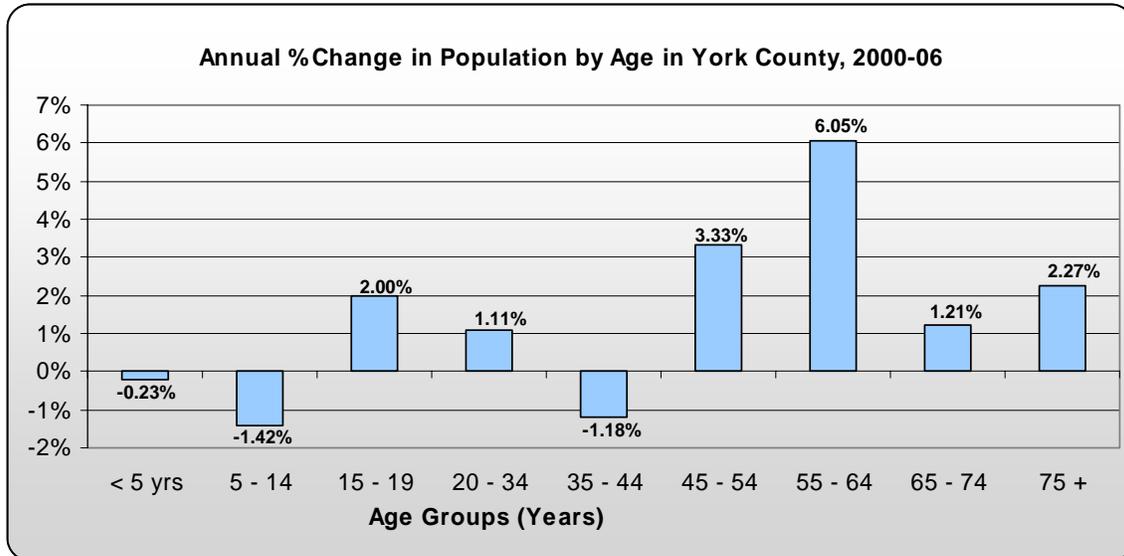
Source: U.S. Census Bureau

the state, York County, and the City. The age category of residents aged 20-34 years showed the largest decline over the period, and is likely due to both the well documented aging trend and economic factors. The data show that the number of young adults aged 20-34 declined in the City during the 1990s, though not at the same rate as was experienced at the state level. Conversely, the resident population aged 35 years and over grew strongly for the state, the county and the City, with the notable exception of the 55-64 years and 65-74 years age categories in the City which actually declined in population versus small increases for the state and county. The biggest increases at the state and

county levels occurred in the 45-54 and 75+ aged cohorts, while in Biddeford, these groups grew more slowly than at the county or the state age groups.



The chart above compares the population distributions by age from the 2000 Census for the national, state and City. The City's age distribution more closely mirrors the national age distribution versus the state's. The City has a slightly higher percentage of 20-24 year olds and relatively fewer residents in their 40s than their U.S. counterpart. In fact, the biggest single age group in Biddeford, residents aged 20 to 24 years, was dramatically different than the state, suggesting the City is more attractive to 20-24 year olds than the state overall. Population data by age is available only at the county level beyond 2000, these county level numbers suggest that Biddeford's retirement and near retirement age population likely grew strongly during the years following the last Census in calendar year 2000.



IV. Employment Structure and Performance

A. Changes in Job Structure, Calendar Years 2001-2006

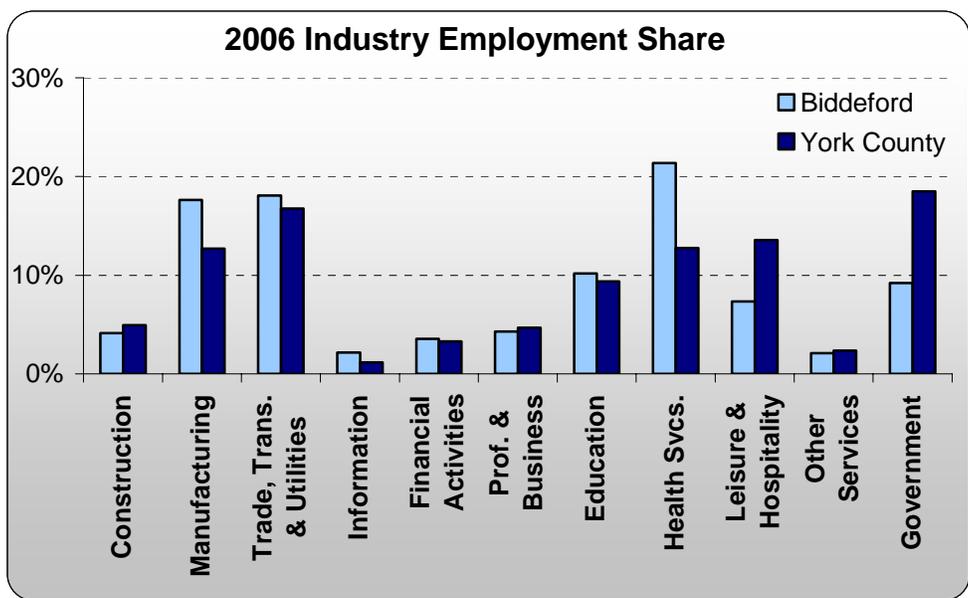
Data from the Maine Department of Labor show that three NAICS super sectors⁴ are responsible for over two thirds of employment in Biddeford. In 2006, the most prominent sectors—the *Education, Health Services sector*, the *Manufacturing sector*, and the *Trade, Transportation and Utilities sector*—accounted for 65.67% of total employment in the City, down just slightly from 67.37% of the total in 2001 at roughly the start of the current economic expansion.⁵ Among these super sectors, Manufacturing saw the largest decline in job share, falling 6.20 percentage points from calendar year 2001 to 2006.

Super sectors with less standing also showed significant changes during the 2001-2006 timeframe; Professional and Business Services lost 2.09 percentage points of its share, while Leisure and Hospitality gained 2.51 percentage points. The job share of other super sectors was largely unchanged as total employment in Biddeford rose 6.23% over the five year period. As is the case for most of the country, employment in the City appears to be shifting away from goods producing and towards service providing.

⁴ The North American Industry Classification System is the standard for classifying economic data by industry category. The system works such that the more digits within an industry code the more specific the reference. Super sectors are a Bureau of Labor Statistics concept and combine some two digit NAICS sectors to show a macroscopic view of industries.

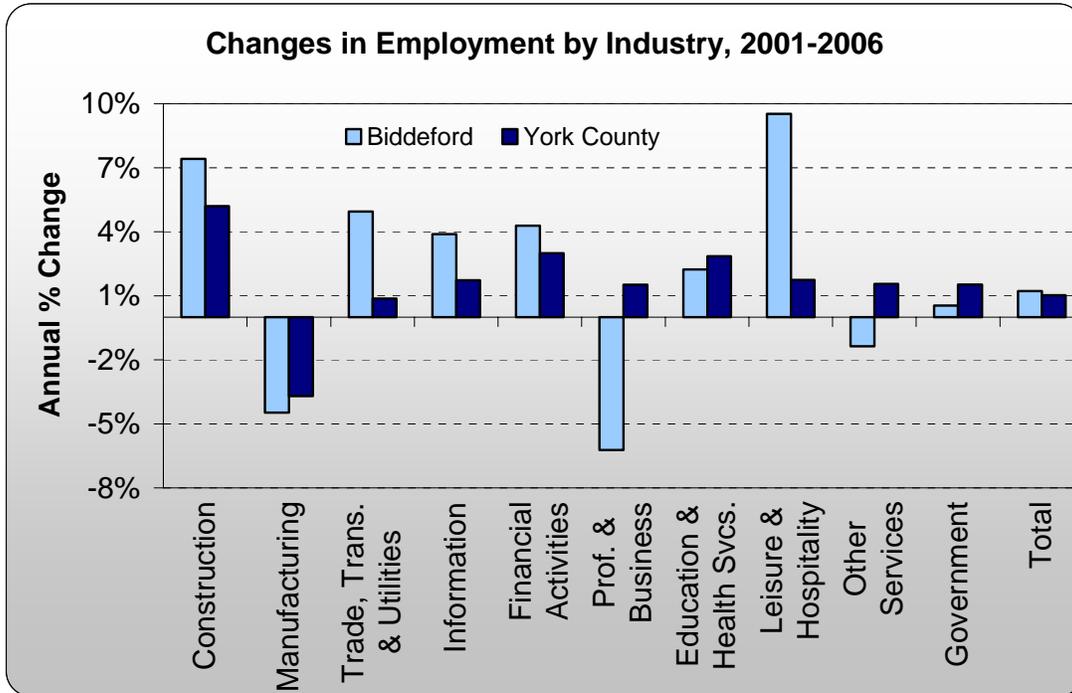
⁵ As this study was begun before the publication of 2007 or 2008 statistics the analysis is not able to consider the recent economic slowdown and must treat the period 2001-present as a single economic expansion. The National Bureau of Economic Research considers the last recession, which began in March of 2001, to have ended in November of 2001.

The chart below shows the relative job share by NAICS super sector (except for Natural Resources and Mining, which due to its small size is suppressed to ensure firm privacy) for Biddeford and York County in 2006. In general, Biddeford's industries are more concentrated than at the county level, with higher proportions in Manufacturing and especially Health Services.



B. Changes in Employment Structure, Calendar Years 1991-2006

The chart below shows that Biddeford increased its employment in five of the ten included NAICS super sectors from 2001 to 2006. These heavy job growth industries include (with associated average annual rate of employment change): *Construction* at 7.41%, *Trade, Transport and Utilities* at 4.94%, *Information* at 3.89%, *Finance* at 4.29%, and *Leisure and Hospitality* leading the way with a 9.52% increase in employment per year over the five year period. The City also showed significant decreases in employment in two of the super sectors – *Manufacturing* at 4.48% and *Professional and Business Services* at 6.23%. The County saw a notable growth in *Construction*, *Finance*, and *Education* and *Health Services* employment with average annual increases of 5.20%, 2.98%, and 15.06%, respectively. *Manufacturing* employment continued its steady decline with a 3.70% average annual decrease. The City's employment figures as a share of York County's job base has been effectively unchanged, rising by only 0.17 percentage points from 2001 to 2006.



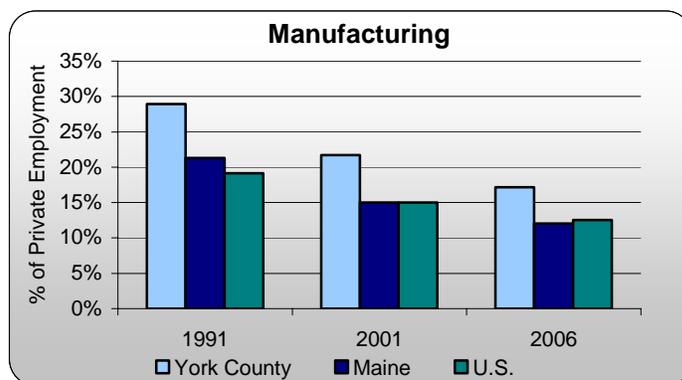
At the county level employment growth by industry was not dissimilar from that in the City; three industries – *Information, Trade, Transport and Utilities*, and *Leisure and Hospitality* all grew more slowly outside of the City than within it, while the Professional and Business Services sector declined within Biddeford total employment grew steadily at the county level. Table 3 gives a detailed view of employment by industry over the 2001-2006 time frame.

Table 3: Overview of Job Structure Change: Biddeford and York County, 2001-2006

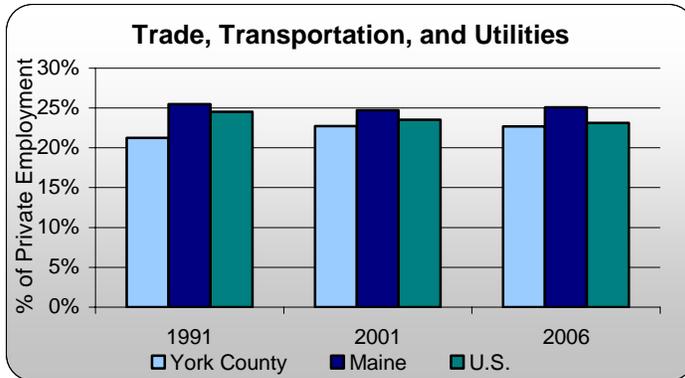
City of Biddeford	Average Employment		Job Distribution		Changes	
	2001	2006	% Total '01	% Total '06	# Change	Ann. % Chg
Construction	349	499	3.22%	4.14%	150	7.41%
Manufacturing	2,673	2,126	24.65%	17.62%	-547	-4.48%
Trade, Trans. & Utilities	1,714	2,181	15.81%	18.08%	467	4.94%
Information	214	259	1.97%	2.15%	45	3.89%
Financial Activities	347	428	3.20%	3.55%	81	4.29%
Prof. & Business Svcs.	713	517	6.58%	4.28%	-196	-6.23%
Education & Health Svcs.	2,918	1,227	26.91%	10.17%	-1,691	-15.91%
Leisure & Hospitality	563	887	5.19%	7.35%	324	9.52%
Other Services	271	253	2.50%	2.10%	-18	-1.37%
Government	1,081	1,111	9.97%	9.21%	30	0.55%
Total	10,843	12,066	100.00%	100.00%	1,223	2.16%
York County	Average Employment		Job Distribution		Changes	
	2001	2006	% Total '01	% Total '06	# Change	Ann. % Chg
Construction	2,796	3,602	4.36%	4.91%	806	5.20%
Manufacturing	11,237	9,307	17.52%	12.70%	-1,930	-3.70%
Trade, Trans. & Utilities	11,765	12,287	18.34%	16.76%	522	0.87%
Information	782	852	1.22%	1.16%	70	1.73%
Financial Activities	2,073	2,401	3.23%	3.28%	328	2.98%
Prof. & Business Svcs.	3,169	3,415	4.94%	4.66%	246	1.51%
Education & Health Svcs.	9,051	6,876	14.11%	9.38%	-2,175	-5.35%
Leisure & Hospitality	9,113	9,935	14.21%	13.55%	822	1.74%
Other Services	1,588	1,715	2.48%	2.34%	127	1.55%
Government	12,569	13,554	19.60%	18.49%	985	1.52%
Total	64,143	73,298	100.00%	100.00%	9,155	2.70%

Source: Maine Department of Labor

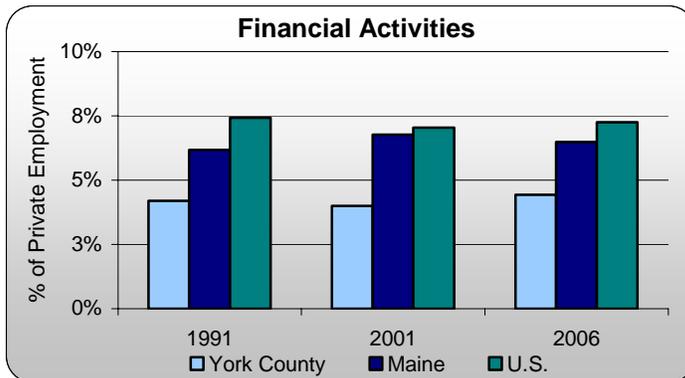
Since Quarterly Census of Employment and Wages (QCEW) data is not available below the county level in Maine before 2001, this change in share analysis focuses on York County shares and changes relative to the state and country in examining the difference between the 1991-2001 business cycle and the current one, 2001-2006. The following graphs and accompanying table show the share of each industry's employment relative to the total for private ownership establishments:



Manufacturing as a share of total employment has been falling for decades across the county. As the chart shows, this has certainly been the case in York County though the disproportionately higher share for the County in all three periods suggests manufacturing firms favor the region.

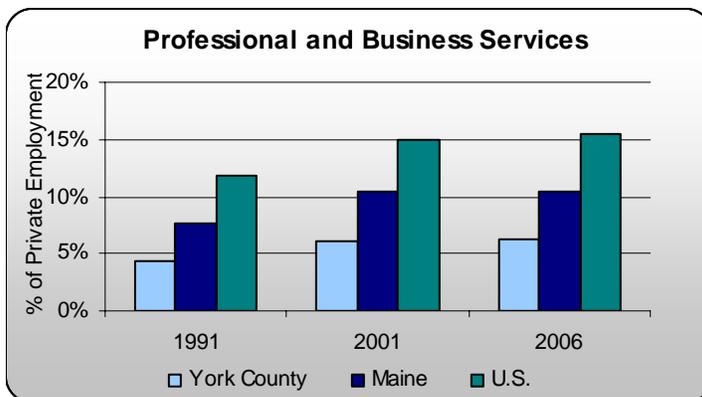


Proportional employment in Trade Transportation and Utilities super sector has changed little over the 15 year reference period, both in terms of the ratio of employment shares across geographical levels and the levels within geographies.



The chart shows that York County has long had a lower share of employment in Financial Activities compared to the state and U.S. averages. In 1991, the job share in York was 4.20%, while the industry held a 6.18% and 7.43% share at the state and national levels.

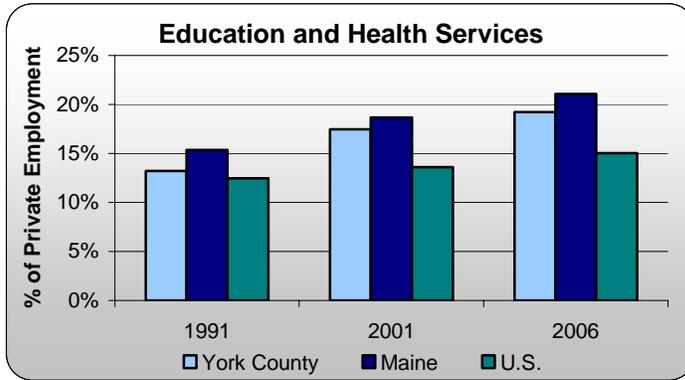
This is an interesting result and would require specific research to adequately explain, though the employment share difference may in part be explained by York County firms relocating to New Hampshire for tax reasons yet continuing to serve clients within the County. Another possibility is that these firms prefer to agglomerate and have chosen other Maine locations in which to concentrate themselves.



Professional and Business Services showed the largest discrepancy between county and national figures. In 1991, the job share in York County was 4.41% of total private employment-54.43% lower than the national share. The 2006 gap is even bigger with the York County employment share standing

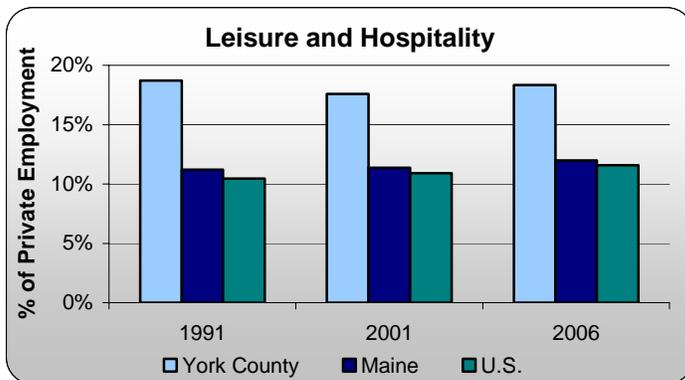
at 6.31% versus 5.53% nationally. These differences combined with a similar gap in the financial activities industry suggest that some combination of factors causes York County to have a disproportionately low share of financial and professional services employment. It is true that Maine's lower income compared to the nation explains some of the discrepancy between the state and U.S. proportions, however, as will be shown, York County has more income per capita

than the state as a whole. All else being equal, this should correspond to a higher employment proportion in these industries. This is an area ripe for further research.



Education and Health Services has been among the fastest growing industries as measured by share of employment. On the education side this stems from the children of the baby boomers passing through the K-12 education system throughout the 90s as well as an increasing demand for

higher education, itself a result of baby boomer children and a long term trend in increasing propensity for college enrollment. Demand for health care has increased as the population has grown both in terms of people and median age.



The chart to the left shows empirically what most are already aware of; York County is a tourist destination. Since much of this tourism occurs along the coast, York County has an understandably larger job share in this industry compared to the state.

Table 4: Comparison of Employment Share by NAICS Super Sector

	York County			Maine			U.S.		
	1991	2001	2006	1991	2001	2006	1991	2001	2006
Natural Resources and Mining	0.41%	0.40%	0.43%	1.55%	1.20%	1.17%	1.93%	1.56%	1.58%
Construction	4.56%	5.40%	6.65%	5.36%	6.00%	6.28%	5.25%	6.21%	6.76%
Manufacturing	28.93%	21.70%	17.18%	21.28%	15.02%	12.05%	19.12%	15.03%	12.55%
Trade, Transportation, and Utilities	21.27%	22.72%	22.69%	25.50%	24.74%	25.08%	24.54%	23.52%	23.12%
Information	1.33%	1.51%	1.57%	2.38%	2.44%	2.26%	3.05%	3.29%	2.70%
Financial Activities	4.20%	4.00%	4.43%	6.18%	6.77%	6.48%	7.43%	7.04%	7.26%
Professional and Business Services	4.41%	6.12%	6.31%	7.61%	10.44%	10.40%	11.84%	14.97%	15.53%
Education and Health Services	13.23%	17.48%	19.23%	15.35%	18.67%	21.08%	12.46%	13.62%	15.04%
Leisure and Hospitality	18.70%	17.60%	18.34%	11.21%	11.38%	11.97%	10.46%	10.90%	11.58%
Other Services	2.97%	3.07%	3.17%	3.56%	3.33%	3.24%	3.84%	3.86%	3.88%

Source: U.S. Bureau of Labor Statistics

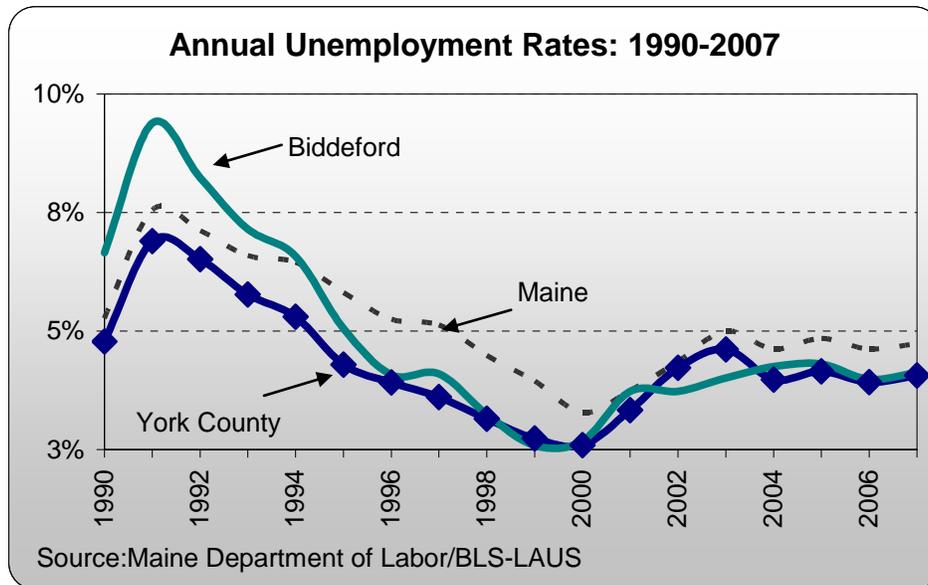
Table 5: Comparison of Employment Average Annual Growth Rates by NAICS Super Sector

	York County		Maine		U.S.	
	1991-01	2001-06	1991-01	2001-06	1991-01	2001-06
Total, all industries	1.35%	1.02%	1.63%	0.19%	1.93%	0.64%
Natural Resources and Mining	1.76%	2.32%	-0.73%	-0.35%	-0.05%	0.82%
Construction	3.80%	5.20%	3.01%	1.03%	3.79%	2.34%
Manufacturing	-0.84%	-3.70%	-1.62%	-4.22%	-0.37%	-2.95%
Trade, Transportation, and Utilities	2.73%	0.87%	1.56%	0.38%	1.63%	0.28%
Information	3.32%	1.73%	2.14%	-1.45%	2.84%	-3.28%
Financial Activities	1.57%	2.98%	2.81%	-0.77%	1.52%	1.23%
Professional and Business Services	5.46%	1.51%	5.14%	0.03%	4.48%	1.36%
Education and Health Services	4.94%	2.85%	3.88%	2.57%	2.97%	2.64%
Leisure and Hospitality	1.43%	1.74%	2.02%	1.13%	2.47%	1.85%
Other Services	2.37%	1.55%	1.20%	-0.48%	2.10%	0.74%
Government	-1.08%	1.52%	0.52%	0.61%	1.30%	0.76%

Source: U.S. Bureau of Labor Statistics

C. Labor Force and Unemployment, 1990-2006

According to the Maine Department of Labor, the unemployment rate of the City, York County, and the state as a whole have remained within one percentage point of each other since 2000. Each of the three geographic levels has historically shown roughly the same trend in unemployment. Biddeford had the highest unemployment rate from 1990 until 1995, when Maine averaged a higher unemployment rate than both the City and County until 2000. This trend has continued, although the rates have been much closer in recent years.



D. City's Commuting Patterns – Job Flow, 2000

The commuting pattern data from the 2000 Census show that Biddeford has a larger proportion of its employed residents working within the City than most area municipalities. Outside of the City, the biggest employment locations for City residents are Saco and the Portland-South Portland-Scarborough area. Barring

big changes in employment locations in the southern Maine area, it is reasonable to anticipate that the trend shown in Tables 6 and 7 has remained mostly unchanged. Table 6 shows where employees work relative to where they live.

Table 6: Percentage of Town Workers Residing in the Towns of York and Cumberland Counties, 2000

Town of Work	Town of Residence													
	Biddeford	Arundel	Kennebunk	Lyman	North Berwick	Old Orchard Beach	Saco	Sanford	Waterboro	Wells	Portland	Scarborough	South Portland	All Other
Biddeford, York	38.82%	3.70%	3.87%	2.98%	0.16%	5.53%	14.34%	3.78%	2.25%	1.97%	2.96%	1.13%	0.98%	17.45%
Arundel, York	13.26%	32.23%	9.02%	1.19%	2.65%	3.05%	6.76%	3.32%	2.12%	3.32%	0.00%	1.33%	0.93%	20.82%
Kennebunk, York	8.66%	6.06%	33.24%	3.17%	1.39%	2.64%	5.71%	7.21%	1.84%	6.23%	3.07%	0.37%	0.23%	20.17%
Lyman, York	4.40%	0.00%	1.85%	45.60%	1.39%	0.00%	0.00%	9.95%	5.09%	2.78%	3.01%	0.00%	0.00%	25.93%
North Berwick, York	8.90%	1.90%	2.55%	2.66%	16.42%	0.33%	2.12%	17.37%	4.93%	5.07%	0.22%	0.62%	0.00%	36.92%
Old Orchard Beach, York	12.96%	0.90%	1.72%	4.96%	0.28%	44.38%	12.61%	2.07%	0.55%	1.24%	2.96%	4.69%	0.48%	10.20%
Saco, York	14.35%	2.07%	1.25%	2.27%	0.73%	7.00%	28.42%	11.63%	2.75%	2.30%	3.15%	2.74%	1.30%	19.24%
Sanford, York	4.02%	1.00%	3.18%	1.83%	2.16%	0.93%	2.10%	48.89%	4.23%	3.24%	0.59%	0.55%	0.00%	27.28%
Waterboro, York	7.61%	0.81%	3.34%	5.42%	0.69%	0.00%	2.65%	8.07%	44.64%	0.92%	1.61%	0.00%	0.00%	24.22%
Wells, York	5.37%	1.08%	8.89%	0.92%	3.52%	0.95%	2.41%	12.17%	1.57%	33.13%	1.57%	0.65%	0.65%	27.09%
Portland, Cumberland	1.81%	0.19%	0.93%	0.26%	0.08%	1.85%	2.55%	0.50%	0.71%	0.32%	33.01%	4.17%	8.03%	45.59%
Scarborough, Cumberland	4.60%	0.35%	1.29%	0.62%	0.14%	4.25%	5.39%	0.66%	1.17%	0.40%	10.90%	24.52%	6.67%	39.02%
South Portland, Cumberland	2.44%	0.33%	1.19%	0.44%	0.07%	2.45%	2.94%	0.62%	1.17%	0.42%	18.98%	6.46%	18.95%	43.55%

Source: U.S. Census Bureau

Table 7: Percentage of Town Employed Residents Working in the Towns of York and Cumberland Counties, 2000

Town of Residence	Town of Work													
	Biddeford	Arundel	Kennebunk	Lyman	North Berwick	Old Orchard Beach	Saco	Sanford	Waterboro	Wells	Portland	Scarborough	South Portland	All Other
Biddeford, York	38.62%	0.98%	4.14%	0.19%	2.39%	1.84%	11.28%	3.13%	0.65%	1.94%	11.49%	4.39%	5.22%	13.73%
Arundel, York	19.59%	12.66%	15.42%	0.00%	2.71%	0.68%	8.65%	4.17%	0.36%	2.08%	6.31%	1.77%	3.75%	21.83%
Kennebunk, York	7.95%	1.38%	32.83%	0.16%	1.42%	0.51%	2.02%	5.12%	0.59%	6.64%	12.26%	2.55%	5.24%	21.34%
Lyman, York	14.90%	0.44%	7.62%	9.69%	3.59%	3.54%	8.95%	7.18%	2.31%	1.67%	8.21%	2.95%	4.72%	24.20%
North Berwick, York	0.73%	0.91%	3.10%	0.27%	20.52%	0.18%	2.69%	7.84%	0.27%	5.93%	2.23%	0.64%	0.73%	53.94%
Old Orchard Beach, York	11.53%	0.47%	2.62%	0.00%	0.18%	13.08%	11.41%	1.50%	0.00%	0.71%	24.37%	8.41%	10.84%	14.88%
Saco, York	16.43%	0.57%	3.15%	0.00%	0.65%	2.06%	25.73%	1.88%	0.26%	1.00%	18.68%	5.92%	7.25%	16.41%
Sanford, York	4.03%	0.26%	3.69%	0.45%	5.00%	0.31%	9.80%	40.85%	0.73%	4.71%	3.41%	0.67%	1.42%	24.65%
Waterboro, York	7.75%	0.54%	3.05%	0.75%	4.57%	0.27%	7.48%	11.41%	13.11%	1.96%	15.58%	3.86%	8.67%	21.00%
Wells, York	4.27%	0.53%	6.49%	0.26%	2.97%	0.38%	3.95%	5.51%	0.17%	26.08%	4.50%	0.83%	1.96%	42.10%
Portland, Cumberland	0.87%	0.00%	0.43%	0.04%	0.02%	0.12%	0.73%	0.14%	0.04%	0.17%	61.92%	3.06%	11.97%	20.50%
Scarborough, Cumberland	1.32%	0.11%	0.21%	0.00%	0.19%	0.78%	2.52%	0.50%	0.00%	0.28%	31.05%	27.36%	16.16%	19.51%
South Portland, Cumberland	0.80%	0.06%	0.09%	0.00%	0.00%	0.06%	0.83%	0.00%	0.00%	0.19%	41.55%	5.17%	32.96%	18.31%

Source: U.S. Census Bureau

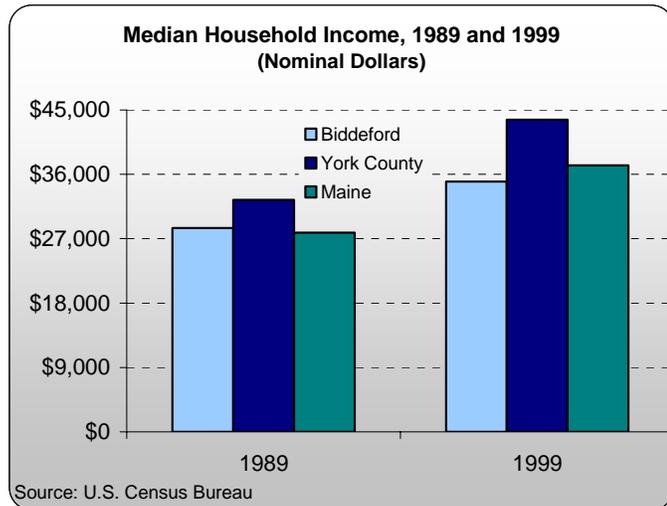
E. The City's and County's Job Import and Export, 2001-2007

The map below shows the difference between each area municipality's Quarterly Census of Employment and Wages (QCEW) and Local Area Unemployment Statistics (LAUS) data sets. The QCEW is a quarterly survey of roughly 98% of employers and provides data on employment levels, wages, and establishment counts by NAICS industry categories. Unlike QCEW which measures employment within a geography regardless of the employees' area of residence, LAUS measures the number of employed residents residing within a given geographical definition. By comparing the QCEW and LAUS, it is possible to see the differences in where employees live and where they work.

As can be seen in the map, most municipalities in York County are "commuter towns", that is they have more employed residents than jobs and rely on employment centers in Cumberland County; specifically the Cities of Portland and South Portland. The ratio of jobs to employed residents for Biddeford is roughly 1:1, meaning that the City is neither a net importer nor exporter of jobs/employees.

F. Trends in Household Income, 1990-2000

Inflation averaged 3.04% per year in the Northeast region of the United States from 1989 to 1999 (the years of '90 and '00 Census financial statistics) according to the U.S. Department of Labor. During this time, the median household income in Biddeford grew below the general rise in prices or by only 2.07% per year. Median income in the York County and Maine State study regions fared better but were still not quite able to keep up with inflation,



both growing at roughly the same rate at an average of 2.98% per year. It should also be noted that while the median household income for Biddeford was \$642 more than the State median in 1989, it was \$2,264 below the State value in 1999 (and Biddeford was below the County median in both years).

Inflation adjusted median household income within both Maine and the U.S. has declined since the all time peak in 1999 at the height of the credit fueled stock market bubble. It should be stressed that in adjusting currency for inflation over time is fraught with challenges as the quality and nature of goods changes over time (imagine all of the goods available today which did not exist in 1989). Despite these challenges, inflation is certainly a reality, and using the Bureau of Labor Statistics' Urban Consumer Price Index (the most widely used measure of inflation) to adjust median household income shows that this measure of prosperity likely declined in Biddeford. There are a number of interpretations for the nationwide decline in median household income, many dealing with the changing demographics of U.S. households, and they are beyond the scope of this study. Instead, emphasis is given to the causes of the decline in Maine as these changes have the most immediate impact on Biddeford.

Table 8: Change in Median Household Income

	1989	1999	2005 ^[1]
Biddeford	\$28,496	\$34,976	--
York County	32,432	43,630	50,943
Maine	27,854	37,240	43,439
CPI ^[2]	128.6	173.5	207.5

Notes:

[1] Census estimates for 2005 are not available below the County level.

[2] 1989-1999 Inflation from Consumer Price Index, Northeast urban, all items.

Source: U.S. Census Bureau

The rather abrupt decline in real median household income at the state level since 1999 runs counter to expectation given the state's demographics. Although Maine may face long term demographic decline, as shown in the demographics section the fastest growing age groups in Maine since the last census were 45-54 and 55-64 years of age. Workers in these age groups are usually in their prime earning years, thus a shift in the center of gravity of the population toward middle age should result in strong upward pressure on income. The fact that inflation adjusted income declined by some 14% since its peak suggests that the state suffers from broad economic challenges which have kept income growth from keeping pace with the rising price level. In per capita terms, income has remained roughly flat at about \$23,000 of personal income per head in both 2000 and 2006 according the Census Bureau's American Community Survey. This fact combined with the observation that median household size has remained nearly unchanged from 2.39 to 2.34 over the same period (i.e. there was little change in the number of potential workers in households) suggests that a comparatively small number of workers were able to increase their income over the reference period and kept the per capita figure roughly constant. The median household income is a robust statistic, not easily shifted by extreme values on either end of the income spectrum, and it declined over the post-1999 period.

Another part of this analysis is examining the relative shares of both total population and the number of households in the context of a larger region. This simple step can reveal subtle clues with wider implications about the local demographics. In the cases of Biddeford (in the context of York County) and York (in the context of Maine), the share of population and households are virtually identical, although they do change from 1990 to 2000.

Table 9: Relative Share of Population and Households

	York Share of Maine		Biddeford Share of York	
	1990	2000	1990	2000
Population	13.40%	14.65%	12.58%	11.21%
Households	13.29%	14.39%	12.86%	11.58%

Source: U.S. Census Bureau

The data in the table above shows that the difference between York County's share of Maine's population and households was no more than 0.26 percentage points for either Census year, and the average share for the two categories by 1.17 percentage points. Similarly, the difference between Biddeford's share of York County's population and households was no more than 0.37 percentage points for either year – but unlike the county, Biddeford's share fell by 1.33 percentage points from 1990 to 2000.

This analysis also examines the income sources for households in Biddeford, York County, and Maine, as this can sometimes offer valuable insight on the local demographics. However, no notable trends were present, either by

comparing the three geographic regions to one another, or looking at them individually over time.

G. Income by Source

Table 10 shows the percentage of income earning households with income from selected sources, allowing for a comparison of income sources for households in different regions. The proportion of social security income and public assistance income in the City and state is markedly higher than at the national level, this gives some explanation for the differing household income figures presented in the previous section. As households receiving social security and public assistance should be expected to earn considerably less than typical incomes, communities with a comparatively high proportion of households receiving public assistance should likewise be expected to have comparatively lower household income figures.

Table 10: 2000 Percent of Income Earning Households with Income from Selected Sources

Source	Biddeford	Maine	U.S.
Wage/Salary Income	97.2%	95.2%	96.5%
Self-Employment Income	13.4%	20.1%	14.8%
Interest, Dividend, Rental Income	48.3%	48.1%	44.6%
Social Security Income	37.2%	36.8%	31.9%
Supplemental Security Income	4.2%	4.6%	4.4%
Retirement Income	19.2%	22.1%	20.8%
Public Assistance Income	7.5%	6.1%	4.3%

Source: 2000 Census

V. Trends in Housing Growth, Costs, and Sales Activity

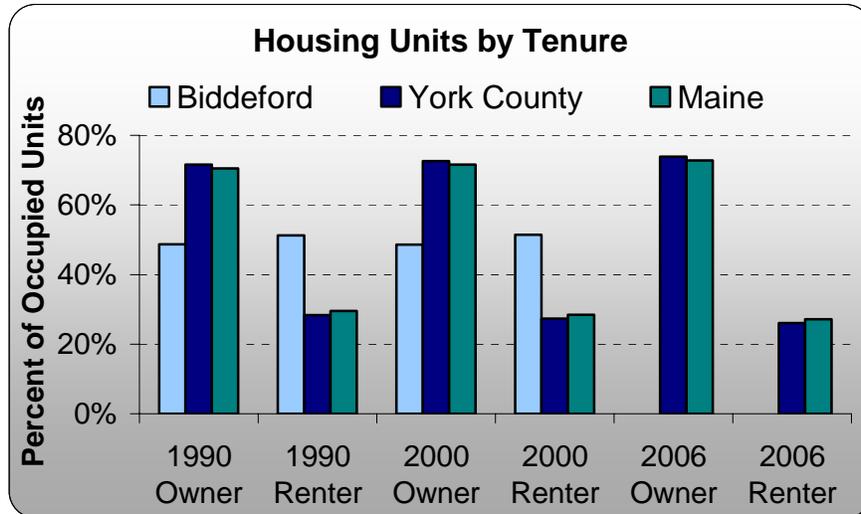
A. Housing Unit Growth

According to data from the U.S. Census Bureau and the Maine Housing Authority seen in Table 11, the number of housing units in all three geographic study regions has increased. The housing stock within the city has grown more slowly than at the county or state level.

Table 11: Change in Total Housing Units

	Yearly % Change				
	1990	2000	2006	90-'00	00-'06
Biddeford	9,051	9,631	9,983	0.62%	0.60%
York County	79,941	94,234	102,650	1.66%	1.44%
Maine	587,045	651,901	691,164	1.05%	0.98%

Source: U.S. Census Bureau, Maine Housing Authority



The available data do not indicate a strong change in the proportion of households made up by owner or renters (tenure). In 1990 Biddeford homeowners made up 48.76% of all housing units, this was essentially unchanged in 2000 at 48.59%. The county and state show much higher homeownership rates, at 72.65% in the county and 71.58% for the whole state, these rates changed little by 2006.

Table 12: Biddeford Housing Share by Age & Tenure

	Renters		Owners	
	1990	2000	1990	2000
15 to 24 years	14.69%	12.97%	1.68%	0.29%
25 to 34 years	32.18%	24.89%	16.34%	8.17%
35 to 44 years	15.26%	20.38%	20.52%	19.69%
45 to 54 years	8.83%	13.78%	19.13%	26.19%
55 to 64 years	10.01%	9.93%	17.12%	18.37%
65 to 74 years	10.08%	7.45%	17.48%	15.32%
75 years and over	8.95%	10.59%	7.73%	11.96%

Source: U.S. Census Bureau

Biddeford's percentage of renter occupied housing units also fell overall (from 23.25% in 1990 to 21.77% in 2000), but this trend was mostly due to growth of the older age categories which are more likely to own homes. As can be seen in Table 12, the share of those householders aged 15-44 were more likely to rent in 2000 compared to 1990. Renter share has always been higher than owner share in Biddeford.

Table 13: Biddeford Renter Household Share of Total Housing by Age

	1990	2000
15 to 24 years	90.21%	97.96%
25 to 34 years	67.42%	76.31%
35 to 44 years	43.86%	52.28%
45 to 54 years	32.67%	35.77%
55 to 64 years	38.06%	36.39%
65 to 74 years	37.74%	66.02%
75 years and over	54.89%	48.35%

Source: U.S. Census Bureau

The owner and renter occupied housing units are the usual place of residence of their occupants. Those occupied by persons with a usual home elsewhere are classified as vacant for seasonal, recreational, or occasional use.⁶ These seasonally vacant units include beach cottages, lake houses and ski cabins, and are usually occupied by out of state tourists. As a percent of total housing units, occupied and vacant, the following chart indicates a large number of these occasional use homes in York County and throughout the state. Biddeford also contains some of these housing units but to a much lesser extent. For comparison, the U.S. rate of housing units vacant for seasonal, recreational, or occasional use was 3.09% of the total – and all three geographic levels were significantly above this while showing growth from 1990 to 2000. This is due to a faster growth rate of seasonal homes than for total housing units (see Table 14 below versus Table 11 on page 21).

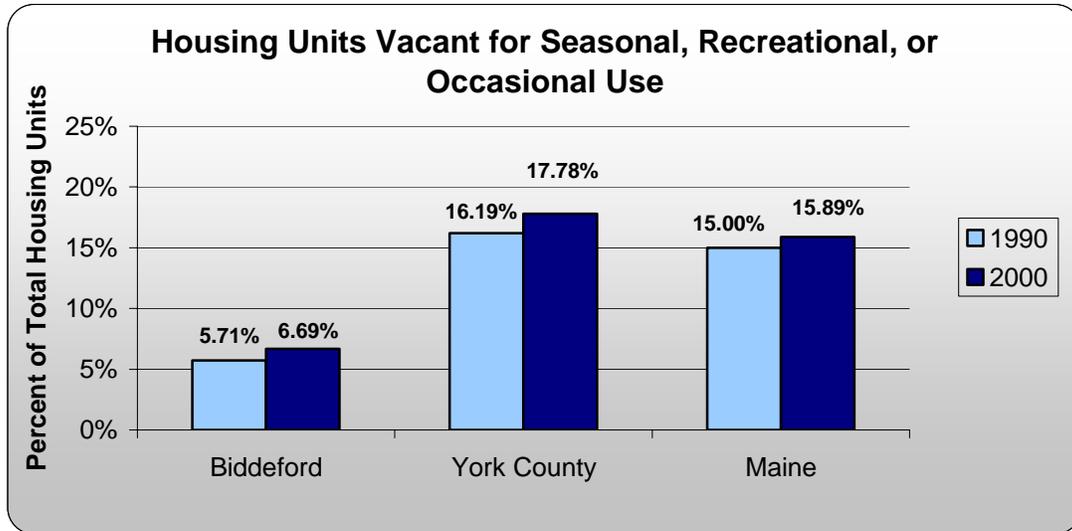
The rate of occasional use homes in Biddeford might appear disappointing next to the higher values in the rest of the state and especially in the surrounding York County, but in fact this represents a valuable opportunity. Every out of state visitor to the towns around Biddeford represents potential tourist dollars that can be drawn into the City with proper planning, marketing, and development. Even if the visitors are in the area for a few weeks out of the year, the money they spend was likely earned outside of the local economy and thus represents imported dollars.

Table 14: Housing Units Vacant for Seasonal, Recreational, or Occasional Use

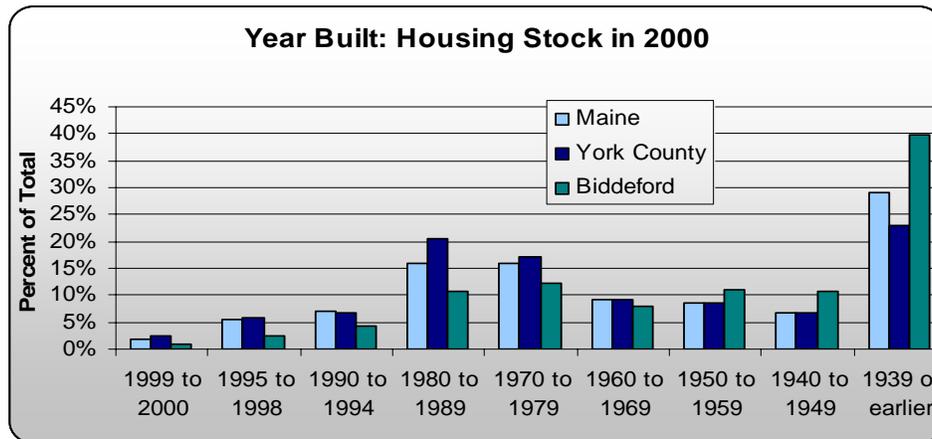
	1990	2000	# Change	Annual % Change
Biddeford	517	644	127	2.22%
York County	12,939	16,757	3,818	2.62%
Maine	88,039	103,569	15,530	1.64%

Source: U.S. Census Bureau

⁶ <http://www.census.gov/dmd/www/glossary.html#S>



Examining the comparative housing stock estimates in 2000 for the City, County and State by the year constructed the accompanying chart below shows that the City has a significantly older stock than the state overall, and is especially older than much of the housing within York County. Within Biddeford, more than half of the housing stock as of 2000 was constructed before 1950, compared to 35.77% at the state level and 29.83% in the county. On the other end of the spectrum, 38.54% of Biddeford's housing stock in 2000 was built in 1960 or later, indicating the City has relatively few newer homes than Maine (55.62%) and York County (61.55%).



Despite the age of the housing stock, the median value of owner occupied units rose slightly from 1990 to 2000, with the largest annual increase of 0.77% at the state level. As housing prices began to increase dramatically creating what some call a “bubble” early in the decade, the annual rate of change for the county and state increased by around ten percentage points, and Biddeford would presumably mirror this trend. During the time from 2000 to 2006, the median

home value in Maine nearly doubled to \$170,500, which was below the national average of \$185,200 in that year.

Table 15: Change in Median Value of Owner Occupied Housing Units

	1990	2000	2006 ^[1]	Change, '90-'00	Change, '00-'06	90-'00 Annual % Change	00-'06 Annual % Change
Biddeford	\$109,800	\$114,600	--	\$4,800	--	0.43%	--
York County	115,000	119,500	230,800	4,500	111,300	0.38%	11.59%
Maine	87,300	94,300	170,500	7,000	76,200	0.77%	10.37%

Notes:

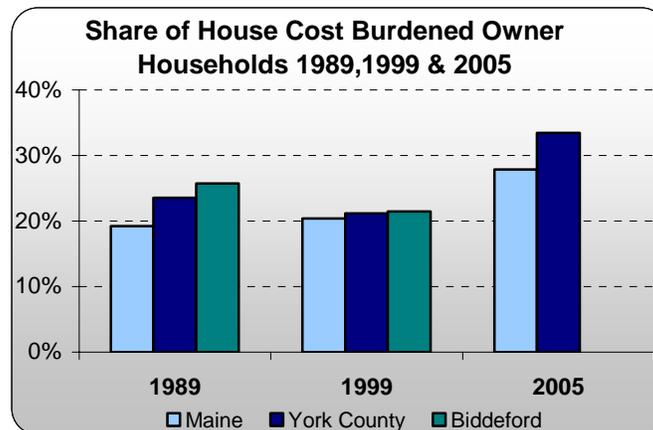
[1] Census estimates for 2006 are not available below the County level.

Source: U.S. Census Bureau

B. Housing Costs, 1989-2005

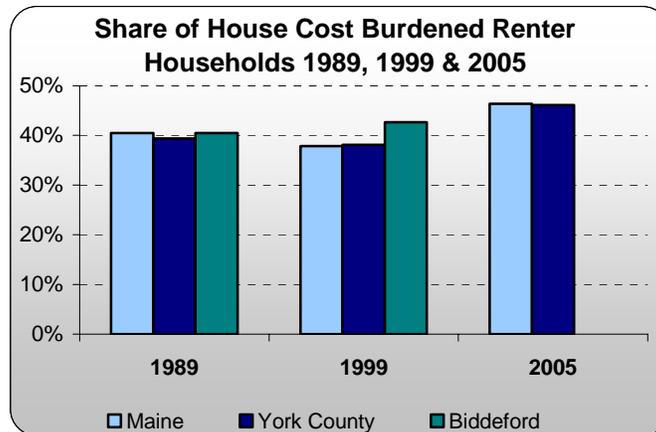
Another key area of investigation in developing this economic and demographic background is the affordability of area housing. Again data from the U.S. Census Bureau is the best data set to shed light on this subject, specifically the 1990 and 2000 Census surveys and estimates for 2006 (this data represents the income and housing cost situation in 1989, 1999, and 2005). The analysis seeks to find the number of households spending more than 30% of their income on monthly owner costs or gross rent. The 30% benchmark, interpreted as the percentage of household income spent on housing costs (e.g. rent and utilities for renters; or mortgage, utilities, taxes and insurance for owners) is used because it is considered to be a threshold of housing cost stress by both the U.S. Department of Housing and Urban Development, by many state and local housing agencies, and by housing advocacy groups in order to identify geographic areas with and quantify the level of housing cost and affordability stress.

The chart below indicates generally higher housing costs for owners in Biddeford than in York County and even relative to the State as a whole. In 1989, about one in four owner occupied units in Biddeford was under affordability stress. Housing affordability improved as of the 2000 Census but has subsequently risen to new highs at least at the state and county level where data are available.



The housing price bubble that began shortly after the stock market correction in 2001 led to drastically increased home values and drove up the monthly ownership costs for householders nationwide. Census estimates are not released below the county level, however as York County's proportion of housing burdened households increased by 11.98 percentage points (to 33.45%) and Maine's by 6.69 percentage points (to 27.84%) It is reasonable to think the City's proportion increased in a similar way.

The rate of renter occupied units under affordability stress in 1989 across all three geographic regions was roughly equal, although in York County the percentage of households was just over a percentage point below Biddeford and the state. In 1999, after a decline in this percentage for York and Maine and an increase for Biddeford, the rate of renter households under stress in the City was 4.55 percentage points above the County and 4.84 percentage points above the State. As expected, a greater portion of lower income households struggle with affordability, just as they did in owner occupied units. However, most renter households (about two out of every three) fall into income groups below the \$35,000 mark. In 1999, Biddeford led in the less than \$10,000 and \$10,000 to \$19,999 income groups with affordability issues in 81.44% and 69.82% of households, respectively; the City was a close second to York County in the \$20,000 to \$34,999 group with stress in 30.31% of renter homes (the County had 33.56% in this group).



Overall, Biddeford renter households have had the most affordability trouble out of the two tenure classes and three geographies. Since 1989, the average renter in the state and county had better affordability prospects than their counterparts in Biddeford. Interestingly, York County renter households seemed to have experienced less of an increase on affordability from the housing bubble than owner households, while in the state in general the opposite is true – the rate of affected owner households rose more than those occupied by renting householders.

C. Recent Housing Sales Activity 1998-2007

Since 1998, housing sale volume within the City has trended downward while prices rose faster than rate of inflation (the Consumer Price Index averaged 2.7% yearly increases during the period). This is likely a result of the housing stock growing slower than the population’s demand for housing. While the price of homes grew above the rate of inflation, the City did not see home price increases in a manner consistent with a housing bubble. As a result, Biddeford appears to have dodged the worst of the ongoing housing correction and the economic turmoil it brought to affected areas.

Table 16: House Sale Trends

Category	1998	2001	Yearly Percent Change '98-'01	2007	Yearly Percent Change '01-'07
Single Family Median Sale Price	\$ 114,000	\$137,000	6.3%	\$ 215,000	7.8%
Single Family Sales	161	150	-2.3%	119	-3.8%
Condominium Median Sale Price	\$ 62,500	\$101,750	17.6%	\$ 139,200	5.4%
Condominium Sales	11	10	-3.1%	20	12.2%

Source: City of Biddeford

VI. Assessment of Economic Development and Retail Market Trends and Potential

A. Overview of Retail Trends – Opportunities for Retail Development

The following table shows comparative sales statistics for Biddeford, York County, Maine, and the U.S.; values are estimates based on data from Claritas and the U.S. Census Bureau. The Economic Census reports information on sales, establishments, and employees every five years but only as recently as 2002 – the 2007 data will not be available until 2009 and 2010 - so more current estimates are given below using data from the mentioned sources as well as local news information, such as the construction of a new shopping center on Route 111 in Biddeford.⁷

⁷ http://www.biddefordmaine.org/index.asp?Type=B_BASIC&SEC={12F4C910-1189-426F-81FF-69C83A8F08AF}&DE={BEA49258-78AC-4773-B4FD-39EF5C9B4B68}

Table 17: Retail Sales Statistics			
Total Sales, Thou. 2007\$			
	1997	2002	2007
Biddeford	\$237,574	\$343,277	\$426,427
York County	1,664,455	2,114,935	2,488,240
Maine	16,758,237	18,809,738	22,567,783
US	3,237,797,710	3,581,178,148	4,346,011,569
Income Adjusted Sales per Household, 2007\$			
	1997	2002	2007
Biddeford	\$32,562	\$46,447	\$53,911
York County	22,469	26,271	28,074
Maine	37,170	40,024	45,401
US	31,987	33,317	38,571

Sources: U.S. Census Bureau, Claritas Inc.

Sales figures are calculated per household at each geographic level – a necessary step in order to compare trillions of dollars in sales at the national level to millions in Biddeford. (Again, estimates of households over the period were based on U.S. Census data). While sales per household seem extraordinarily high, representing about $\frac{3}{4}$ of the median household income, it is important to remember two things: total retail sales includes *all* purchases of goods, from cars to groceries, and the sales are not made exclusively to households – this includes businesses, government organizations, and any other group that bought goods from retail-classified establishments (NAICS 44-45) including visitors. The sales are presented per household simply as a benchmark in order to fairly compare the sales on the different geographic levels against each other.

Finally, sales per household were adjusted based on the median household income at each geographic level. The ultimate goal of this retail analysis is to compare sales in the study region to the national average in order to determine if sales are made to customers from outside the area, but different sales numbers may be the result of unusually high or low incomes. For example, the state of Maine has historically had a lower median household income than the U.S. (10.34% lower in 2007). It is reasonable to expect that sales per household in Maine are also lower than the U.S. average by a similar percentage. However, retail sales per household in Maine were actually 5.72% higher than the national average in 2007. This is a clear indication that a sizeable portion of these sales are coming from out-of-state buyers – as income is lower in Maine than the rest of the U.S., the approximate percent of out-of-state sales is higher than the 5.72% explained by sales per household. By adjusting sales for differences in income, a fair comparison can be drawn between the different geographic regions.

Relative to the U.S., Maine has a noticeably higher amount of income-adjusted sales per household. At the state level, this is indicative of tourist dollars – income generated from out-of-state visitors. Biddeford also has a high level of sales which has grown to surpass Maine, and significantly exceeds the national average. This is a clear sign of visitor spending, but may be the result of the

regional population traveling to the higher concentration of retail stores located in Biddeford in addition to out-of-state tourist spending. Either way, retail establishments in the City are bringing in a sizeable amount of revenue from the outside. Relatively low adjusted sales per household in York County may also contribute to the high sales in Biddeford, but this also presents a continuing opportunity for the City to serve as a retail center for the surrounding communities, importing dollars from tourists in southern Maine as well as keeping local dollars from the residents who live there.

VI. Overview of Key Exporting (Dollar Importing) Sectors – Opportunities for Industrial Development

A. Why Focus on Key Industries-Clusters?

A regional economy is typically comprised of numerous participants interacting with each other as buyers and sellers of goods and services—the outputs of one industry are the inputs to other industries. Industry A supplies goods to Industry B, which, in turn, supplies its goods to Industry C where they are made into products that are sold to ultimate users of those products—termed final demand. At each leg of the production cycle, value is added until the product (or service) is ready for use in final demand. Productivity of capital and labor and the economic linkages within the region determine the economic “reach” of each industry participant in the region’s economy—herein defined as the York County regional economy. Goods and services produced within the region and sold to final demand outside the region result in dollars flowing into the region’s economy. Once in the region’s economy, these dollars are circulated through subsequent business transactions as wage earnings, rents, and purchases of goods and services such that the total dollar impact is greater than the sum of the parts. This circulation of dollars through the economy is referred to as the multiplier effect.

While the regional economy defined in this study is made up of the municipalities that comprise the County region, there are economic linkages that exist between the region and its northern neighbors, Androscoggin and Cumberland Counties and to the south in New Hampshire’s Strafford and Rockingham Counties. Indeed, it is difficult to argue that the region—from an economic and socio-economic standpoint—includes much less than the entire York County and neighboring counties.

It is difficult and often inappropriate to study a municipality separately from its larger economic region. First, much of the data available, such as the BLS’ Quarterly Census of Employment and Wages, is published only down to the county level. Secondly, it is important for a municipality to look at economic development in the context of a larger picture rather than simply as a very narrow geographic focus.

B. Why are some industries more significant than others and why is it important to know the difference?

Industries primarily engaged in serving final demand outside the region are termed by participants in economic development and economists as “base industries.” Base (or basic) industries that play a significant role in the region’s economy as measured by relative employment levels and wages are referred to as “key industries” or “clusters”. A region’s economic strength and prospects are determined by its key industries because these industries are responsible for attracting the economic resources that improve the quality of life and well being of the region’s citizens through increased personal income and the provision of replacement and new public resources. A region’s key industries are those basic industries present in the region with significant employment levels and concentration. They typically exhibit high multiplier effects. Key industry sectors or clusters may be located in the region by historical factors, proximity to production requirements such as natural resources or to markets by transportation corridors, or other competitive advantages that favor the industry’s development in the region relative to elsewhere.

By understanding the competitive circumstances of the County’s key industries or clusters, a greater understanding is facilitated by what makes the region’s economy function. With this knowledge, the *Biddeford Mill Redevelopment Master Plan* can be helpful in directing the resources and efforts of the region to achieve the highest valued return to the county’s citizens by making the greatest relative contribution to overall quality of life.

C. York County’s Key Industry Identification--Method for Identifying Key Regional Industries-Clusters

The first step in identifying the key regional industries-clusters was taken during the completion of the strategic economic development plan. This process involved an examination of employment and wage data under the North American Industry Classification System. This first stage analysis revealed that several sectors appeared to be key regional industries, according to an assessment of past job growth, relative wages, and employment levels. This candidate list was further developed into a candidate list of key industries-clusters according to an assessment of these sectors by their markets (e.g. Do these industries have an export focus or do they serve mainly the local market?). This was undertaken because while an industry can be important to the county due to its size (e.g. the number of employees), those industries considered ‘base’ industries are the ones that import dollars into the region are therefore the industries-clusters that drive the county’s economy. The County’s economic strength and prospects for future development (and an improved standard of living) are determined by the health and performance of these key base industries-clusters. This is primarily because these industries-clusters are responsible for attracting the economic resources into the county that improve the quality of life and well-being of the region’s citizens through increased personal income and the provision of replacement and new public resources.

Therefore, this analysis of the county's key sectors-clusters focuses on those that are 'base' or dollar-importing industries.

Once this functional breakdown of the county's key industries-clusters is developed, the publication of the North American Industry Classification System (hereafter 'NAICS') configuration of the county's employment data allowed for estimation of the approximate magnitude and relative wage levels of these key industries-clusters. Table 18 presents a 2006 snapshot of the relative employment and relative wage level significance of the county's 6 key industries-clusters. This examination uses NAICS industry classification with data disaggregated to the three digit level as the starting point in this analysis. Although some data cannot be published because of U.S. Department of Labor confidentiality rules, the table does show the approximate level of employment and relative wage level significance of these important regional economic driver sectors-clusters.

Table 18

Industry Sector	Number of Firms 2006	Employment 2006	% Regional Avg. Wage 2006	% State Sector Avg. Wage 2006
Wood Product Manufacturing	28	473	112%	115%
Fabricated Metal Product Manufacturing	57	1398	127%	104%
Food Manufacturing	27	1008	95%	104%
Textile Product Mills	8	406	88%	91%
Plastics & Rubber Products Manufacturing	16	1003	143%	118%
Tourism	--	--	--	--
Amusements, Gambling & Recreation	103	1091	49%	91%
Accommodation	253	2349	60%	111%
Food Services and Drinking Places	480	6548	44%	110%

Source: Bureau of Labor Statistics

Table 19 (below) shows the results of this assessment and lays out a typology of the County's key sectors-clusters. These sectors-clusters are grouped into an array based on function rather than the traditional employment sector reporting configuration. Along with each type of sector-cluster, a sampling of some of the firms that comprise the industry in York County is provided.

Table 19. List of Dollar Importing Key Industries and Illustrative Employers-- York County Regional Economy

1. Wood Product Manufacturing. This category manufactures wood products such as lumber, plywood, veneers, flooring and wood trusses. An example of an employer in this category in the region:
Wood Structures, Inc.
2. Fabricated Metal Product Manufacturing: This category is comprised of firms that manufacture metal into intermediate or end products. Some examples of regional firms in this category include:
AVX Tantalum Corp.
Serma Tech

-
- Prescott Metal, Inc.
3. Food Manufacturing: This category is comprised of manufacturers that make food products not sold on the premises. An example of an employer in this category in the region:
Interstate Bakeries
 4. Textile Product Mills: This category of companies produces non-apparel textiles such as rugs and towels. An example of an employer in this category in the region:
West Point Stevens
 5. Plastics and Rubber Products Manufacturing: This category includes prominent regional firms involved in the manufacture of plastic and rubber products for a variety of applications. Some examples of regional firms in this category include:
Fiber Materials, Inc.
CRI-SIL, LLC
Soleras, Ltd.
 6. Tourism: The regional economy also includes a number of firms that cater to both local and visitor demand. Some examples of regional firms in this category include:
Comfort Suites
Pizza By Alex
-

D. Industry-Cluster Characterizations

The industrial sectors in the County's regional economy—whether exporting base industries or industries that primarily serve local demand—are typically distributed across a broad spectrum of performance and structure. Some categories have historically been, and continue to be, major sources of jobs for residents in the county. Other categories may remain as significant sources of jobs, but they are not as prominent as they once were. Still others may be declining in terms of the number of jobs they provide, and some may have recently risen to new and much higher levels of prominence. Additionally, there may be categories that are growing in terms of the number of job opportunities they provide, but they have not yet risen to a level of significance where they could be viewed as a major job category for the county's economy.

Sectors-clusters can be thought of as having life cycles similar to those of biological organisms. Industries can arise from small entrepreneurial activities and grow into significant employment and innovation sectors-clusters before maturing and declining in size and importance. A multitude of local, regional, state, national, and global factors can affect an industry at each stage in this cycle. Some industries can be operating in growing markets at the leading edge of industry technology. Other sectors in a state or region may be struggling to contend with declining markets and sharpening global competition. At the same time, some industries may be working hard to build new lines of business, and/or are struggling to find workers with the skill sets needed to meet these new opportunities. Other sectors in the County's economy may be contending with a

re-structuring of the national and global marketplace, and are therefore undertaking a concerted effort to reinvent and revitalize their product and/or their service lines.

Six criteria are used to assist in classifying the county's key industries based on the industry life cycle. This was undertaken in order to more fully understand the position the county's key industry-clusters find themselves in relative to the State and nation. The criteria are used to place industries into the following life cycle categories: Leading, Lagging, Stable, or Potential relative to each other and their counterparts outside the county; these categories do not follow any set rule and are applied to sectors based upon the criteria they meet and sound economic judgment. These criteria are:

- (1) Standing as an employer in the county in 1991.⁸ That is, the industry-cluster was significant from an employment perspective at the beginning of the last business cycle
- (2) Standing as an employer in the county in 2001 and 2006. In 2001, the sector remained as a significant employer—and remained so in 2006
- (3) Whether or not a sector added job opportunities over the business cycle beginning in 1991 and ending in 2001. That is, the sector has been a long-term positive contributor to the county's job base even if it lost a significant number of jobs over the 2001-03 recessionary time).
- (4) Whether or not a sector's jobs grew at a rate equal to or higher than the average rate of job growth in the region.
- (5) Whether the sector added more jobs relative to its national industry counterpart. This factor captures whether the sector was competitive relative to its industry counterpart.
- (6) Whether the industry category's wage per job was greater than 85% of the U.S. average. Comparison to the within sector wage at the state and national level are included as wages in Maine tend to be a good deal lower than those in the average state.

The analysis presented here is a derivative of an approach developed by Economic & Policy Resources, Inc. for clients over the 1996 to 2003 time frame including the strategic industry sector-cluster analysis for the Vermont Department of Economic Development, and conducted for the state of New Hampshire in conjunction with the Whittemore School at the University of New Hampshire. This analysis does not include interviews of major area firms as

⁸ With calendar year 1991 the beginning of the previous business cycle using the determination of the National Bureau of Economic Research (the "NBER") in Cambridge, Massachusetts the widely recognized organization that assigns dates to U.S. business cycles.

conducted on previous projects as this is beyond the scope of the study. The method employs concepts based on the competitiveness-clustering theory model of Harvard University Professor Michael E. Porter first developed during the 1980s and early 1990s.

E. Findings

The results of the factor analysis approach are shown in Table 20. The table displays how each key industry sector is characterized consistent with the evaluative criteria described above. These results identify the county's key industries. To produce Table 20 all industries with over 1000 employees in 2006 are tested against the evaluative criteria; only industries classified as "leading", "stable", or of special importance to the county's economy (tourism) are deemed key sectors. The employment industries that did not fit the criteria for key sectors and/or were not employers of standing (over 1,000 workers) but were still considered to be significant economic players are included below the key sectors. Due to the concentration of nearly all county employment in Wood Product Manufacturing, and Textile and Product Mills within the City and the export nature of these industries, the decision was made to include them as key industries despite falling below employment prominence at the county level.

Outside factors were also considered when ranking the industries, for example although the criteria are very similar among the non-key sectors common sense suggests that average wages at food and beverage stores are not likely to break 85% of the national average wage. The future course of Textile Product Mills and Food Manufacturing wage is not so clear though a safe assumption would be that employment in all manufacturing industries receives downward pressure from continuing improvements in automation.

Table 20: Criteria Check

Sector	Major Employer in 1991	Major Employer in 2001	Major Employer in 2006	Jobs Added 2001-2006	Job Growth Greater than State	Job Growth Greater than U.S.	Average Wage 85%+ of US Sector Average	Average Wage 85%+ of ME Sector Average	Average Wage 85%+ of US Average Wage	Conclusion
	Key Industries									
Fabricated metal product manufacturing	+	+	+	+	+	+	+	+	+	Leading
Food manufacturing	-	+	+	-	+	-	+	+	-	Potential
Plastics and rubber products manufacturing	+	-	+	+	+	+	+	+	+	Leading
Tourism, Food Service	+	+	+	D	D	-	+	+	-	Leading
Textile product mills	-	D	-	-	D	D	+	+	-	Lagging ¹
Wood product manufacturing	-	-	-	+	+	+	+	+	+	Potential
Non-Key Industries										
Nursing and Residential Care Facilities	+	+	+	+	+	+	+	+	-	Stable
Food and beverage stores	+	+	+	+	+	+	+	-	-	Stable
Sporting goods, hobby, book and music stores	-	-	-	+	+	+	+	-	-	Stable
Miscellaneous store retailers	-	-	-	-	-	-	-	-	-	Lagging

Note: Tourism includes Accommodation, Amusements, gambling, and recreation; D indicates non-disclosure

1: This sector was included due to its concentration within the City

1. Leading Industries

The classification “Leading Industries” as used in this analysis applies to strategic sectors that exceeded the threshold level of employment standing of 1,000 full- or part-time jobs over the 1991-2001 time frame (the most recent complete economic expansion). The data show that half of the county’s leading industries exhibited a degree of employment stability over the past business cycle, with no industry that exceeded 1,000 employees in 1991 falling below that level by 2001.

Economic development plans often stress attracting high tech industry and with good reason. Prosperous and stable regional economies throughout the world share at least one common trait; they have at their core high value added industries. Specialized products stand out in the global market place and are less likely to compete on price alone. Further, studies of New England regional economies have found that due to higher costs New England is not competitive in the long run in cost sensitive or commodity based industries. Industries which meet the “Leading” criteria have many of these characteristics.

2. Stable Industries

Stable industries are those that meet many of the criteria for leading industry classification but still leave something to be desired. These are industries which as of the 2006 data do not appear likely to add or lose a significant number of jobs. The right mix of policies could see industries with this classification expand, likewise adverse policies, or more favorable conditions in other locations could lead these firms to downsize. This classification was also applied to industries which by their nature are limited to serving local demand.

3. Potential Industries

The potential industries label is applied to sectors which fit many of the Key sector criteria but either have lower employment levels or wages. These are also industries which are geared toward selling outside of the county and have the potential for producing specialized or high tech products.

4. Lagging Industries

Lagging industries have a downward employment trend and low wages and often a focus on local demand. In York County this applied to Textile and Product Mills, these firms generally compete on cost and continue to operate within the U.S. in part due to favorable governmental policies and trade barriers such as tariffs. While a given firm in this industry may find success in specialized product manufacturing, the industry as a whole is not likely to add jobs.

F. Location Quotient and Shift-Share Analysis—A First Look at Linkages and Relationships

So far, this analysis has looked at the important attributes of the county’s strategic industries/clusters, characterizing them in terms of their positioning and relative performance over the last business cycle and the most recent expansion period of 2001-2006. In this next stage of the analysis, location quotient and shift-

share figures are computed for the county relative to the U.S. economy and the state of Maine, unfortunately the data set used to compute these location quotients (the Bureau of Labor Statistics' Quarterly Census of Employment and Wages) is incomplete for Biddeford—a result of the City's small size and confidentiality rules. As a consequence the analysis cannot go any deeper than York County. As economic conditions within the county directly impact Biddeford and many residents work outside of the City's boundaries, this analysis is still informative. When possible, anecdotes and data from Biddeford's industries are included to keep the county level result in perspective.

Location Quotients and Shift-Share analysis are methods that: measure degrees of industry concentration (e.g. to confirm the export nature of the region's key sectors), and differences between the growth of the county economy and the growth in the national or state economy. Shift-Share analysis seeks to take the employment growth in a regional industry and determine the portion of that growth due to nation and industry trends as well as the local trends in excess of nation and industry factors.

G. Location Quotient Analysis

In this study, location quotient refers to the ratio of a given industry's employment share at the county level to the same industry's employment share at the state/national level. Employment is used as the basis of comparison as employment figures are available for nearly every industry across the county, allowing for the widest possible comparison.

Location quotients were calculated for each industry where comparative data were published as follows:

$$LQ = \frac{(E_i/E_c)}{(E_{ni}/E_{nt})}$$

Where:

E_i = Employment in the county's industry

E_c = Total employment in the county

E_{ni} = National employment in the industry

E_{nt} = Total national employment

Location quotient analysis is typically used to classify industries that have a comparatively larger or smaller presence in a regional economy—such as York County. A location quotient that is equal to 1.0 means that the share of employment in the regional industry is exactly the same as the percentage employment in that industry nationally. If the location quotient is greater than 1.0, the share of employment in the regional economy (e.g. the county) exceeds the national share of employment in that industry. Conversely, if the location quotient

is less than 1.0, that means the region's share of employment in the industry is less than that in its national counterpart.

Analytically, industries-clusters with a location quotient greater than 1.0 indicate a relatively high production of goods and services. It is therefore likely that some amount of that production is exported outside of the County's economy (most likely the portion of that industry's production that exceeds 1.0). That portion of the production activity is then properly characterized as supporting the expansion of the County's economic pie. Alternatively, industries with a location quotient that was less than 1.0 are most often viewed as being primarily local-serving or non-basic industries. For economic development policy purposes, the focus of policy is typically at the extreme with sectors-clusters with a greater than 1.10 level (likely export industries) being the focus.

Table 21 presents the results of the location quotient analysis on the key industries identified in Table 21. The table provides location quotients for York County versus the United States and Maine. This allows for better understanding of how key industries compare in employment proportions at the state and national level. Although many industries in York County may have high location quotients which suggest they support the county and Biddeford's economy the 1,000 employee threshold is necessary in order to limit the analysis to only the most important industries; as a result only industries deemed key to the county (and thus the City) are focused on in this section. As stated before Wood Product Manufacturing and Textile and Product Mills were deemed to be sufficiently important to Biddeford's employment base and geared toward export and are thus also included despite having employment levels below 1,000. (Table 22 shows location quotients for a selection of "non-key" industries). A comprehensive analysis of all industries within the county is certainly possible, and would be useful for identifying those industries which while smaller than the "key" sectors still play an important role in the county economy; however such an analysis is beyond the scope of this study.

Key Industry	Versus the U.S. Economy			Versus the Maine Economy		
	1991	2001	2006	1991	2001	2006
Wood Product Manufacturing (321)	1.24	1.36	1.68	0.45	0.50	0.67
Fabricated Metal Product Manufacturing (332)	1.58	1.63	1.79	2.72	2.41	2.53
Food Manufacturing (311)	0.18	1.43	1.35	0.19	1.48	1.44
Textile Product Mills (314)	5.78	4.87	5.00	3.86	3.10	3.38
Plastics & Rubber Products Manufacturing (326)	2.87	2.11	2.50	3.57	3.49	3.79
Memo:						
Tourism	--	--	--	--	--	--
Amusements, Gambling & Recreation (713)	1.21	1.25	1.31	1.18	1.20	1.26
Accommodation (721)	2.49	2.42	2.54	1.92	1.85	1.85
Food Services and Drinking Places (722)	1.62	1.46	1.39	1.50	1.46	1.43

Basic Data Sources: U.S. BLS

Table 22: York County Industry Employment Location Quotients

Industry	Versus the Maine Economy			Versus the U.S. Economy		
	1991	2001	2006	1991	2001	2006
Crop production	0.45	0.47	0.64	0.25	0.28	0.39
Animal production	0.23	0.44	D	0.25	0.35	D
Construction of buildings	1.00	1.06	D	1.16	1.10	D
Heavy and civil engineering construction	0.40	0.24	D	0.42	0.22	D
Wood product manufacturing	0.45	0.50	0.67	1.24	1.36	1.68
Nonmetallic mineral product manufacturing	1.09	2.41	1.57	0.61	1.75	1.08
Machinery manufacturing	0.95	1.36	0.57	0.41	0.65	0.23
Electrical equipment and appliance mfg.	0.28	0.95	0.77	0.19	0.47	0.31
Furniture and related product manufacturing	2.98	2.75	2.12	1.74	1.93	1.22
Miscellaneous manufacturing	1.16	0.82	0.85	0.71	0.49	0.59
Textile mills	1.51	1.45	0.00	3.21	2.17	D
Textile product mills	3.86	3.10	3.38	5.78	4.87	5.00
Printing and related support activities	2.31	2.65	1.91	1.38	2.16	1.60
Chemical manufacturing	0.81	1.51	1.26	0.20	0.48	0.54
Plastics and rubber products manufacturing	3.57	3.49	3.79	2.87	2.11	2.50
Wholesale trade	0.40	0.48	0.58	D	0.37	0.48
Merchant wholesalers, durable goods	0.39	0.49	0.66	0.25	0.32	0.48
Merchant wholesalers, nondurable goods	0.41	0.49	0.55	0.36	0.44	0.50
Electronic markets and agents and brokers	0.41	0.42	0.44	0.27	0.39	0.42
Motor vehicle and parts dealers	0.66	0.93	0.96	0.71	1.12	1.18
Furniture and home furnishings stores	1.54	1.23	1.13	1.56	1.21	0.98
Electronics and appliance stores	0.44	1.15	0.97	0.31	0.93	0.72
Building material and garden supply stores	0.78	1.19	1.10	0.97	1.48	1.43
Food and beverage stores	1.06	1.14	1.16	1.48	1.63	1.67
Health and personal care stores	0.96	1.08	0.81	0.89	0.90	0.65
Gasoline stations	0.96	1.00	0.91	1.40	1.72	1.79
Clothing and clothing accessories stores	1.44	1.59	1.57	1.41	1.29	1.25
Sporting goods, hobby, book and music stores	1.07	1.03	1.09	1.39	1.34	1.44
General merchandise stores	0.60	0.65	0.75	0.48	0.60	0.71
Miscellaneous store retailers	1.00	1.15	1.06	1.22	1.43	1.34
Nonstore retailers	0.49	0.77	0.62	1.58	3.05	3.02
Truck transportation	0.40	0.34	0.37	0.42	0.33	0.37
Transit and ground passenger transportation	1.03	0.67	0.65	0.86	0.55	0.52
Publishing industries, except Internet	0.58	0.57	0.57	0.48	0.44	0.50
Telecommunications	0.54	0.50	0.74	0.39	0.29	0.52
Other information services	0.94	1.01	1.05	4.91	4.95	4.57
Finance and insurance	0.58	0.45	0.56	0.52	0.48	0.52
Credit intermediation and related activities	0.79	0.63	0.76	0.68	0.74	0.75
Real estate	0.81	1.09	1.11	0.44	0.64	0.74
Professional and technical services	0.53	0.66	0.62	0.36	0.48	0.44
Management of companies and enterprises	0.56	0.26	0.33	0.27	0.20	0.23
Administrative and support services	0.50	0.54	0.59	0.32	0.33	0.35
Waste management and remediation services	0.88	0.71	0.81	0.75	0.78	0.89
Educational services	1.14	1.09	1.13	1.20	1.08	1.08
Ambulatory health care services	0.69	0.80	0.79	0.67	0.91	0.83
Hospitals	D	D	D	D	D	D
Nursing and residential care facilities	0.83	1.11	0.98	1.40	1.98	1.72
Social assistance	D	D	D	D	D	D
Performing arts and spectator sports	D	D	D	D	D	D
Museums, historical sites, zoos, and parks	D	D	D	D	D	D
Amusements, gambling, and recreation	1.18	1.20	1.26	1.21	1.25	1.31
Accommodation	1.92	1.85	1.85	2.49	2.42	2.54
Food services and drinking places	1.50	1.46	1.43	1.62	1.46	1.39
Personal and laundry services	0.86	1.03	1.02	0.71	0.74	0.75
Membership associations and organizations	0.74	0.73	0.82	0.64	0.66	0.75
Private households	0.95	0.90	0.58	D	0.93	D

Source: Bureau of Labor Statistics

H. Shift-Share Analysis

The final component of this initial industry-cluster analysis is shift-share analysis of the region's key sectors and the functional key industry-cluster configuration of the county's industries. Shift-share analysis partitions local job change into three components: (1) a national share that reflects the employment trend in the greater economy (2) a share reflecting industry specific factors or the York County economy's overall industrial mix relative to the U.S. economy, and (3) local factors or a share reflecting local influences on industry performance.

Tables 23, 24, and 25 present the results of this shift-share analysis for the periods 1991-2001, 2001-2006, and 1991-2006. The column "national share" shows what industry employment would have been had the industry's employment grown at the same rate as national employment. The "Industry share" column shows what industry employment would have been in York County had it grown at the same rate as the national industry. The final share column "Local Share" is of the greatest interest as it balances the other two shares so that the sum of "National Share" "Industry Share" and "Local Share" is equal to the observed change in employment. Local share shows the amount of the employment change that is in excess of the national employment trend and the industry employment trend.

As an example consider industry A: Assume that over the period 2001-2006 general employment in the United States expanded by 10% and employment in industry A expanded nationally by 15% and that within York County employment in industry A grew by 100% from 100 to 200 over the same period. 10% of growth could be attributed to the employment growth that prevailed nationally, 5% could be attributed to industry wide trends (industry employment growth minus that growth attributable to national trends) and the remaining 85% of the York County industry growth must be due to factors within the county that attracted the disproportional investment; $100\%=10\%+5\%+85\%$. In the shift-share tables below, the growth or decline in each section (national share, industry share, and local share) is presented as the number of jobs of each factor rather than percentages.

Table 23: Key Industry Shift-Share Analysis 1991-2001

Industry	Local Employment		National Employment		% Chg		Nat'l share	Industry Share	Local Share	Abs Change
	1991	2001	1991	2001	Loc Emp	2001				
Fabricated Metal Product Manufacturing (332)	1,240	1,353	1,516,243	1,668,100	9%	265	-141	-11	113	
Food Manufacturing (311)	144	1,104	1,509,106	1,554,605	667%	31	-26	956	961	
Plastics & Rubber Products Manufacturing (326)	1,122	938	754,057	894,801	-16%	240	-30	-393	-183	
Wood Product Manufacturing (321)	318	386	494,853	570,296	21%	68	-19	20	69	
Textile Product Mills (314)	635	492	212,103	203,341	-23%	136	-162	-117	-143	
Tourism	-	-	-	-	-	-	-	-	-	
-Amusements, Gambling & Recreation (713)	530	800	842,357	1,291,406	51%	113	169	-13	270	
-Accommodation (721)	2,013	2,197	1,561,373	1,827,321	9%	430	-87	-159	184	
-Food Services and Drinking Places (722)	5,259	6,012	6,272,843	8,273,315	14%	1,123	554	-924	753	

Source: Bureau of Labor Statistics

Table 24: Key Industry Shift-Share Analysis 2001-2006

Industry	Local Employment		National Employment		% Chg		Nat'l share	Industry Share	Local Share	Abs Change
	2001	2006	2001	2006	Loc Emp	2006				
Fabricated Metal Product Manufacturing (332)	1,353	1,398	1,668,100	1,545,100	3%	44	-144	145	45	
Food Manufacturing (311)	1,104	1,008	1,554,605	1,470,037	-9%	36	-96	-36	-96	
Plastics & Rubber Products Manufacturing (326)	938	1,003	894,801	793,246	7%	30	-137	171	64	
Wood Product Manufacturing (321)	386	473	570,296	555,237	23%	12	-23	97	86	
Textile Product Mills (314)	492	406	203,341	160,558	-17%	16	-119	18	-85	
Tourism	-	-	-	-	-	-	-	-	-	
-Amusements, Gambling & Recreation (713)	800	918	1,291,406	1,387,436	15%	26	34	59	119	
-Accommodation (721)	2,197	2,349	1,827,321	1,826,247	7%	71	-72	153	152	
-Food Services and Drinking Places (722)	6,012	6,559	8,273,315	9,297,174	9%	195	549	-197	547	

Source: Bureau of Labor Statistics

Table 25: Key Industry Shift-Share Analysis 1991-2006

Industry	Local Employment		National Employment		% Chg		Nat'l share	Industry Share	Local Share	Abs Change
	1991	2006	1991	2006	Loc Emp	2006				
Fabricated Metal Product Manufacturing (332)	1,240	1,398	1,516,243	1,545,100	13%	314	-290	134	158	
Food Manufacturing (311)	144	1,008	1,509,106	1,470,037	600%	36	-40	868	864	
Plastics & Rubber Products Manufacturing (326)	1,122	1,003	754,057	793,246	-11%	284	-225	-177	-118	
Wood Product Manufacturing (321)	318	473	494,853	555,237	49%	80	-42	116	154	
Textile Product Mills (314)	635	406	212,103	160,558	-36%	161	-315	-75	-229	
Tourism	-	-	-	-	-	-	-	-	-	
-Amusements, Gambling & Recreation (713)	530	918	842,357	1,387,436	73%	134	209	45	388	
-Accommodation (721)	2,013	2,349	1,561,373	1,826,247	17%	509	-168	-5	336	
-Food Services and Drinking Places (722)	5,259	6,559	6,272,843	9,297,174	25%	1,330	1,206	-1,236	1,300	

Source: Bureau of Labor Statistics

The shift share analysis shows that in general local factors improved for the key industries of York County from the 1990s to the current expansion. The 2001-2006 analysis shows that local share remained positive or was only slightly negative for all Key sectors. Local employment trends appear to have turned against the food service industry, though this is only a subcategory of the composite tourism sector. York County clearly has attributes that have drawn high value added manufacturing firms to the region, though further study is necessary to uncover the determinants of this manufacturing agglomeration.

I. Industry Linkages

1. Key Input-Output Relationships

While this study does not attempt to forecast the future state of key industries, it is likely that the equilibrium presented will remain mostly unchanged for the immediate future. The key industries identified accounted for 21% of total county output; individually output ranged from a high of 6.29% of total in the Tourism sector to 1.07% of the Plastics & Rubber Products Manufacturing sector. While export share of industry output showed great variation across industries, it was highest in the manufacturing sectors, given that the model treats anything sold out by key industries to customers outside of the County as exports, this is an intuitive result. Exports were highest in the Fabricated Metal Products sector, where it is estimated that this sector exports 80% of its output. The sector with the lowest estimated export share was the Tourism sector, a key part of the regional economy that acts as an export sector because it imports dollars into the region through visitor spending. Due to the nature of tourism the goods and services it sells are almost exclusively delivered within the County's borders. As a result the model cannot quantify the share of sector output sold to visitors (which should be regarded as exports). It seems reasonable to assume that exports in the Tourism sector account for the vast majority of sales.

On the input side, Food Manufacturing purchased the largest share of inputs from local services out of the identified key sectors. Fabricated Metal Products Manufacturing had the lowest share with a value of 11.66%. Regarding industry share of imported inputs (imported in this case meaning from outside the County), the manufacturing cluster imported a larger share of inputs than the service industries, the two largest importing sectors were Wood Product and Fabricated Metal Products Manufacturing, with each estimated to import 47.73% and 47.74% of their inputs, respectively.

When analyzing industries using input-output models the most important result in terms of a given industry's impact on the local economic health is value added share of inputs. Value added refers to the incremental increase in price of an intermediate good resulting from the human effort exerted upon the good at a given stage of the production process. For example, if a tire factory turns \$3

million of rubber into \$10 million of tires by using \$5 million of other inputs⁹, value added is \$2 million. The model used in this study defines value added as the sum of employee compensation, proprietor's income, other property income and indirect business taxes. High value added industries usually employ skilled workers, pay higher wages, and earn higher profits as a result of the specialized and value adding nature of the production processes.

The share of total inputs due to value added in the County's key industries is markedly higher for non-manufacturing industries. This is due to the manufacturing cluster's focus on mature industries. Economic theory predicts that, all else being equal, profits are highest in industries which employ emerging technologies. As the technology is mastered and additional firms enter the industry, prices fall. Due to the highly competitive and global nature of the businesses York County's key manufacturing sectors compete in, the price they receive and thus value added is lower than the service industries.

Input-output modeling and the results displayed in Table 27 and 28 show each key sector's place within the County's economy allowing for the analysis needed to accurately assess the condition and potential of the region. The most striking results are found in the manufacturing cluster comprising five sub industries. Manufacturing industries produce about 13% of all output in the County and are overwhelmingly geared to exporting. These industries rely heavily on intermediate goods from outside of the county; though still buy a significant share of inputs locally. Value added makes up at least one third of total inputs for all but the Textile Manufacturing sector.

The next step is to examine the results of columns (2) and (3) from Table 26 in more detail, that is, the relationship between the suppliers to the key sectors-clusters and the sectors that these key industries sell to. The goal of this section is to learn whether there are many or few supplier/buyer industries and how much a key sector-cluster relies on a given industry to supply inputs or buy its output. Industries with many buyers are less vulnerable to the fate of any given industry, likewise industries that rely on a relatively small number of suppliers are more open to the forces affecting those suppliers. It is beyond the scope of this study to examine the specific industries the key regional sector-clusters sell to or buy from outside of the County. Such a study would require an in-depth analysis of key companies in each of the region's existing and emerging sectors, though would certainly give valuable insight into the future of the County's economic development.

⁹ Electricity, labor, rent on the facility and machines, and so on.

Table 26. Summary Key Industry Input-Output Statistics [1]

Key Industry	(1) Output as a % of Total Regional Output	(2) Exports as % Industry Output	(3) % Inputs from Local Sources	(4) % Inputs from Imports	(5) % Inputs Value Added [2]
Food Manufacturing	1.15%	59.56%	31.40%	29.60%	39.00%
Textile Manufacturing	2.99%	68.50%	15.12%	55.98%	28.90%
Wood Product Manufacturing	1.77%	76.77%	18.76%	47.73%	33.51%
Plastics & Rubber Products Manufacturing	1.07%	75.30%	16.56%	37.89%	45.55%
Fabricated Metal Products Manufacturing	2.86%	80.15%	11.66%	47.74%	40.60%
Tourism	6.29%	42.43%	17.84%	29.27%	52.89%

Notes:

[1] the rows made up by (3), (4), and (5) break down the production process and sum to 100%. Inputs are broken into 3 categories, those that are imported, those that are supplied locally, and those due to the labor and technology applied to the first two.

[2] Value Added is defined as “value added during production to all purchased intermediate goods and services.” This equates to the sum of employee compensation, proprietor’s income, other property income and indirect business taxes.

[3] The Tourism cluster is made up of the three most significant tourism subsectors; NAICS 713, 721, 722. It should be noted that many smaller tourism sub-sectors are excluded from this analysis

2. Overview of Supplier Linkages

Tables 27 and 28 highlight the different industries within the York County regional economy that support and/or are supported by the region's key sectors. Table 27 shows the supplier linkages for each key industry by giving the most significant suppliers up to at least half of total locally bought inputs. Table 28 illustrates the buyer linkages for each key sector-cluster in the same manner as Table 27 does for suppliers. The consumer industries are sorted by their share of total locally sold output which they purchase; consumer industries are included up to the marginal industry which brings the total displayed value above 50% of all locally sold output.

As can be seen from Table 28 the distribution of supplier linkages is similar across industries, with exception in the Wood Product Manufacturing, which had only two suppliers making up 68% of inputs purchased within the county. However, as this sector obtains most of its inputs from imports and value added, it seems reasonable that should local supplies become disrupted replacements could be easily imported from outside the county. The qualifier "Own Industry" means that the supplier industry is itself a subcategory within the key industry. It should be noted that just because two given firms fall under the same industry classification does not mean the pair are direct competitors or otherwise unwilling to form partnerships. Oftentimes firms within an industry will produce complementary rather than rival goods, but still fall under the same industry umbrella. It is also possible that rival firms will cooperate on ventures which neither can handle alone, while competing for other segments of the market.

An interesting though perhaps unsurprising finding of this analysis is the presence of the Wholesale Trade sector as a significant supplier to all but the Wood Product Manufacture sector. This sector ranged from supplying 23.3% of local inputs in the Textile Product Mills sector to 8.4% in the Tourism Cluster. It is beyond the scope of this study to pursue this finding further, though given its role as a key supplier to the County's Key industries it may be worthwhile to study these linkages.

Table 27

Key Industry	Distribution of Locally Purchased Inputs from Industries (Largest 50% of sectors)
Food Product Manufacture	<u>51.1% bought from 6 Sectors</u> Wholesale Trade 19.2% Animal Production 8.4% Fruit Farming 8.4% Lessors of nonfinancial intangible assets 5.8% Insurance Carriers 4.7% Truck Transportation 4.5%
Textile Product Mills	<u>51.9% bought from 7 sectors</u> Wholesale trade 23.3% Fiber- yarn- and thread mills 6.6% Real Estate 5.2% Other leather product manufacturing 4.6 All other miscellaneous professional and technical 4.4% Truck transportation 4.3 Other State and local government enterprises 3.5%
Plastics and Rubber Product Manufacture	<u>51.3% bought from 4 Sectors</u> Own Industry 29.4% Wholesale Trade 14.4% Power Generation and Supply 3.9% Other Basic Chemical Manufacturing
Fabricated Metal Product Manufacture	<u>51.1% bought from 12 Sectors</u> Wholesale Trade 20.0% Real Estate 4.5% All other Professional and Technical Services 4.25% Truck Transportation 3.8% Smalls Arms Manufacture 2.9% Power Generation and Supply 2.5% Management of Companies and Enterprises 2.5% Scrap (Own Industry Subcategory) 2.3% Legal Services 2.3% Monetary Authorities and Depository Credit interests 2.2% Architectural and Engineering Services 2.0% Custom Computer Proqraming Services 2.0%
Wood Product Manufacture	<u>68.8% bought from 2 Sectors</u> Logging 38.6% Sawmills (Own Industry Subcategory) 30.2%
Tourism	<u>50.8% bought from 7 Sectors</u> Real Estate 21.4% Wholesale Trade 8.4% Maintenance and Repair of Non Residential Buildings 5.7% Bread and Baker Product -less frozen- Manufacture 43.4% Advertising and Related Services 4.3% Power Generation and Supply 4.3% Food Service and Drinking Places 2.7%

3. Overview of Customer Linkages

Table 28 describes the customer linkages between the County’s key industries and the local industries they sell their products and services to. Customer side linkages are less uniformly distributed than those on the supplier side. The most diversified of the key industries were Plastics and Rubber Products, Fabricated

Metal Product Manufacturing, and the Tourism cluster. It should be noted that though the Tourism sector shows apparent diversification in its customer base this study is limited to inter-industry linkages, and does not consider private individuals who likely purchase the majority of the sector's output. Food Product Manufacture was the least diversified sector with 54.2 % of local industry sales to the Food Service and Drinking Places sector. As this sector sells 40% of output within the county, it is highly open to volatility in the Food Service and Drinking Places sector. Given rising fuel prices and the slow down in the U.S economy it is possible that this sector will face a short run loss of demand.

While more diversified than the Food Product Manufacturing sector, the Wood Product Manufacturing sector may face longer run economic challenges. Given that two of the top buyer industries are involved in residential housing construction, the short-term economic outlook for the next several years—until the housing market begins to recover is guarded. The demographics of the State and the rest of the New England region, the ongoing housing market correction and related credit crunch do not favor continued high levels home construction. It is entirely possible that this sector will adjust to changing market conditions with innovative products and entry into new markets. This may be an area for further study.

Table 28

Key Industry	Distribution of Output Sold to Local Industries
Food Product Manufacturing	54.2% in 1 Sector Food Service and Drinking Places 61.0%
Textile Product Mills	58.4% sold to 2 Sectors Hotels and motels- including casino hotels 37.7% Hospitals 20.7%
Plastics and Rubber Products Manufacturing	Largest 50% of Customer Industries spread over 40 Industries top 5 are: Aircraft Engines and Parts Manufacturing 5.9% Fluid Power Pump and Motor Manufacturing 3.4% Small Arms Manufacturing 2.4% Machine Shops 2.3% Soft drink and Ice Manufacturing 1.9%
Fabricated Metal Product Manufacturing	50.0% sold to 5 sectors Aircraft Engines and Parts Manufacturing 19.2% Fluid Power Pump and Motor Manufacturing 11.2% Small Arms Manufacturing 7.8% Machine Shops 7.6% Laboratory Apparatus and Furniture Manufacturing 4.0%
Wood Product Manufacturing	50.0% sold to 3 Sectors New Residential 1 Unit Structures (construction) 21.3% Engineered Wood Member and Truss Manufacturing 14.3% New Residential Additions and Alterations 11.7% Maintenance and Repair of Non-Residential Buildings 6.9%
Tourism	Largest 50% of Customer Industries spread over 14: top 5 are: Nursing and Residential Care Facilities 6.4% Aircraft Engines and Parts Manufacturing 6.0% Hospitals 5.8% Food Services and Drinking Places 5.2% Monetary Authorities and Depository Interests 3.7%

VII. Overview of Regional Visitor Activity

The State of Maine’s economy relies on tourism more than most states with 16.7% of employment in the tourism sector, more than New Hampshire (9.5%), Vermont (9.4%) or Florida (12.5%). In addition to this, 20.8% of state output was due to visitor spending as of 2006. Tourism also generates significant tax revenues for the state. About $\frac{1}{5}$ of all sales tax revenues are directly or indirectly produced by visitor spending. In 2006, this tax revenue was \$429 million.

Calendar year 2006, the latest year for which visitor counts are available, saw approximately 10.1 million overnight trips and 31.7 million day trips to Maine. Maine’s Southern Coast accounts for nearly 40% of all trips to Maine. In 2006, this translates to 16.7 million trips to the Southern Coast. A total of 77% of travelers to Maine use their own automobile as their primary mode of transportation. Being right off of Interstate 95, Biddeford is positioned to capture

both destination demand, that is, individuals traveling to Biddeford, as well as dollars from travelers passing through to other Maine locales.

Most new growth in state visitor activity is in marketable trips, that is trips in which marketing can influence the visitor's destination decisions rather than trips where the destination is predetermined (visiting relatives or business trips). This suggests that given the right mix of visitor draws, Biddeford should be able to affect its visitor volume with marketing. A 2004 study found that of trips made by non-Maine travelers 75% of day trips and 61% of overnight trips were made by travelers from the greater Boston area.

Tourism studies have been done for Maine and although recent data is unavailable at the municipal or even county level, a 2006 study¹⁰ did identify key sectors linked to the tourism industry across Maine: Retail, Restaurants, Recreation, Accommodation, and Transportation. Employment levels in these tourism related sectors are available at the municipal level in the Quarterly Census of Employment and Wages, the same data set used in section V of this report. Due to the wide range of services provided by the transportation sector, more detailed statistics are necessary to avoid misrepresenting this sector's contribution to the City's tourism industry (three digit NAICS rather than the two digit used below). Because more detailed numbers are not disclosed by the Bureau of Labor Statistics/Maine Department of Labor the transportation sector has been removed from this analysis.

The employment data show that Biddeford's employment mix has shifted strongly toward industries which benefit from tourism spending both relative to the State and the county. This is most easily seen by charting a time series of the location quotient (the ratio of employment share of each industry sector in the City, relative to the share in the United States as a whole) for these tourism related industries. This analysis shows a recent increase in Retail Trade location quotient over the past two years, a period that may coincide with the growth of large national chain retailers in the town. This has apparently led to an increase of acquisition-based retail activity by City residents as well as residents in neighboring municipalities—seeking to patronize those lower-priced stores. Although the Accommodations sector's location quotient increased as well in 2007, there is little evidence that the increase is tied to visitor activities. Biddeford does not show up anywhere in the top 20 Maine destinations for visitors and the community appears to lack an appropriate venue for displaying-selling the work of the City's artisans which currently populate the mill area. Tourism is happening all around the City. One area for further consideration appears to be developing and implementing long-term strategies—in concurrence with the development of the mill area—which may be helpful in

¹⁰ Travel and Tourism in Maine The 2006 Visitor Study.

building an attractive point of destination point for out-of-area and out-of-state visitors.¹¹

The table below shows the trend in location quotient by sector. Clearly Biddeford's potential tourist industries have specialized in Accommodation, Restaurants, and Retailing while employment in Art, Entertainment and Recreation is proportionally lower than for either the State or the County.

LQ Biddeford:Maine	2001	2002	2003	2004	2005	2006	2007
Accommodation and Food Services	0.59	0.63	0.58	0.63	0.75	0.83	1.11
Arts, Entertainment, and Recreation	0.34	0.43	0.48	0.46	0.47	0.46	0.41
Retail Trade	0.89	0.96	0.93	0.96	0.96	1.06	1.21
LQ Biddeford:York County							
Accommodation and Food Services	0.38	0.40	0.37	0.41	0.49	0.55	0.70
Arts, Entertainment, and Recreation	0.32	0.39	0.45	0.41	0.41	0.42	0.37
Retail Trade	0.87	0.94	0.91	0.95	0.97	1.07	1.19

Source: Maine Department of Labor

VII. Review of Other Mill Revitalization Plans

During the 19th and early 20th centuries, residents in many municipalities throughout New England located on rivers relied on textile and other mills for their livelihoods. The best examples of such mill municipalities include Manchester, New Hampshire, Lowell, Massachusetts, and Lawrence, Massachusetts. As mill (mostly textiles) production moved away from the New England region to the southern states in search of lower wages and other costs, New England's mill municipalities were left with large unoccupied plants-buildings facing uncertain futures. Over the years, many municipalities decided that their mills are a unique asset worth preserving and re-developing. Many went through a difficult period of re-examination and introspection about what should be done with those areas. Many have since gone through a process to develop a vision and detailed plans designed to transform these areas into residential, commercial-mixed use developments that these municipalities have tried to leverage into a re-invigorated community-economic development effort.

In reviewing what was accomplished in these mill area revitalization/re-development efforts, it was clear that each mill district is different with respect to existing infrastructure, market conditions, and building conditions. Revitalization strategies and efforts were specifically tailored to each district and there is little doubt that that will be true for the Biddeford district. However, these revitalization efforts also have some common features or threads that can be instructive for the Biddeford revitalization/re-development effort. Looking at the above New England examples, it seems apparent that there are several similarities that deserve mention.

¹¹ Recent developments (during August-September of 2008) surrounding the possible sale of the MERC plant offer some additional reason for further investigating and developing such a visitor destination strategy.

First, nearly every example of mill revitalization-re-development utilized the concept of mixed uses/spaces to gain benefits such as increased pedestrian activity and the creation of a 24-hour habited area. Second, most plans stress that mill redevelopment is a long-term strategy and does not promise instant results. The third similarity across New England mill re-development efforts is their emphasis on creating a destination. The goal of destination building is to create an area of retail, office, restaurant space that attracts local and visitor demand to that area—essentially putting as many pairs of feet on the ground as are needed to build a critical mass of consistent patronage across the entire 24 hour period to help build the type of critical mass of patronage that is needed to help a diverse mix of small service-retail-oriented businesses to succeed, if not thrive.

a. Re-Development in Lowell, Massachusetts: The Jackson Appleton Middlesex Urban Revitalization and Development Project in Lowell, Massachusetts was a study undertaken in 2000. The stated goal of the study was to create a long term development plan to revitalize the downtown district. The tools the study outlines include: (1) adopting new zoning for the district to increase residential and commercial uses, (2) a comprehensive infrastructure improvement plan, and (3) and the introduction of an economic incentive plan.

The economic incentive plan is Massachusetts's Economic Development Incentive Plan which provides state and local tax benefits to offset development costs. The State of Maine has similar programs in its the Pine Tree Development Zone program which reduces or eliminates state taxes for businesses that locate to targeted areas AND provide quality jobs. Also available in the Lowell, Massachusetts effort was an Employment Tax Increment Financing program which reimburses businesses up to 80% of their new employee's income tax withholdings if a business adds five new jobs within a two year timeframe.

Many recommendations for mill district revitalizations overlap with "normal" downtown area development plans. The central idea of most downtown plans is the creation of "vibrancy" or a downtown filled with activity, with more businesses open later and a population that works and lives in close proximity to the subject area. In addition, the zoning provisions for mixed use buildings were also used in the Lowell re-development as a tool to help create vibrancy. Usually this entails businesses locating on the first floor of buildings and residential uses in the floors above. This creates a true living/working atmosphere and helps to avoid one of the downsides to commercial only zoning—the desertion of the downtown after business hours.

b. Tax Credits and the Foundry and Rising Sun Mills in Rhode Island: This re-development example is noteworthy because of its use of tax credits. In 2001, the state of Rhode Island increased the historic preservation investment tax credit to 30%. Since that measure took effect, several large mill plans have been undertaken including the Foundry and the Rising Sun Mills. The Foundry was

converted to 220 apartments. The Rising Sun Mills are expected to include a total of 151 apartments, 100,000 square feet of office space, and a small-business incubator. The Rising Sun Mill has been viewed as a prime example of mixed-use zoning that was used to create a 24-hour vibrancy in the re-developed area.

c. The Re-development of Manchester, New Hampshire: Manchester, New Hampshire is another example of a New England mill municipality that has accomplished significant mill area revitalization. The most evident example of this is the Amoskeag Millyard. The first step undertaken by the City of Manchester was to re-zone in the mill area from industrial to mixed use. The 1980s saw private mill developers moving in using the federal government's historic properties tax credit to attract investment and re-development activity. The Millyard now contains a healthy mix of residences, commercial space with high-tech firms, architects, and other professional firms which have moved into the mill area to bring a new level of energy into what formerly was a run-down, relatively lifeless area in a prominent are of the City. [Exact figures for units and square footage are unknown, but will be added in the future if found]