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Final Work Products

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Preliminary Executive Summary

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11.438 - Economic Development Planning
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Executive Summary

Introduction

This document provides a preliminary summary of the findings regarding Portland's:

- Demographic and Economic Profile
- Creative Economy
- Food Sector, and
- Stakeholder Interviews

These findings were compiled as the first phase of the semester long course, 11.438 - Economic Development Planning, taught at the Department of Urban Studies and Planning of the Massachusetts Institute of Technology in the Spring Semester of 2010. Compete drafts of the preliminary summaries were provided to the City of Portland, Office of Economic Development.

As the course and student research is currently continuing, it is expected that additional information will further inform these preliminary findings.

Demographic and Economic Profile

The economic profile of the City of Portland, ME provides a baseline of the city's current economy by answering the following questions: How is the city's economy performing? Who lives in the city? How are they doing economically? What industries support the city's economic vitality? How has the city's economy changed over time? What is going right in Portland – and where should the City be concerned? This baseline economic study complements and further informs studies undertaken by the food sector and creative economy groups that are part of the over arching project scope.

The initial research step was to analyze Portland's demographics. We found that Portland is highly educated – 42% of residents have college degrees or above; and that most residents have jobs in high-skill industries including law, technology, and health care.

The city is aging as a whole, as well; it has experienced a decrease in the number of 24 to 35 year old and an increase in individuals aged from 45 to 59 between 2001 and 2008. This trend has increased significantly Portland's median age.

During the same period of 2001 to 2008 the population of the city declined while the surrounding region's population increased. The City has become more diverse – the percentage of non-whites increased from 2001 to 2008. Portland residents, however have struggled to keep pace economically with the region. Poverty increased in the City from 14% of households in 2001 to 16% in 2008 and more than one in five Portland children live in poverty as of 2008. Compared to the region, poverty increased by a similar percentage, and the city's decline in real median household income was actually less than the decline at the region or the state level.

key findings

The **Service-Providing** domain accounts for **over 90% of all jobs** offered in Portland

Over 57% of jobs are concentrated in Education and Health Care services, Financial Activities, and Trade, Transportation and Utilities.

Manufacturing is the strongest sector for both Portland and MSA within the Good – Producing Domain.

Health Care and Social Assistance Industry contribute the **most to payroll** in Portland and the MSA.

The recession hit Portland residents hard. Unemployment, which had been on a continuing rise since 2001, has increased more rapidly since 2008, but at a rate on par with the region. The city's unemployment rate, however, was 6.4% for 2009, well below the state and national rates of 8.0% and 9.7% respectively.

An industry analysis is preceded by an overview of Portland's economy. Overall, the number of jobs in Portland has decreased while the number of jobs in Portland's MSA has decreased over the past decade. This suggests that Portland is not effectively competing with its surrounding region.

The brightest spot in Portland's economy appears to be the health care industry. Wages have remained stable and over 2,400 jobs were created from 2001 to

2008. Hospitals are the economic development anchor within the sector indicated by a high location quotient – substantially higher than the region or state. There appears to be room for growth in the heath care sector.

In the education sector, several hundred new jobs were created from 2001 to 2008, but real wages only increased by .25%. Educational facilities, however, are an asset that the City of Portland should continue to use as an economic base.

In the financial and insurance industries, recent trends show that the region is out-competing the city for firms and jobs. From 2001 to 2008 the City lost over 2,000 jobs in these industries – nearly one in three of all finance and insurance jobs in the city. Meanwhile, the region gained over 1,400 similar jobs. This change occurred gradually over this time frame, indicating that this trend may have been determined by a series of businesses that left the city, rather than the flight of just one or two large firms. This finding suggests the City of Portland should retain and expand existing firms in these industries.

Tourism is an important segment of Portland's economy representing an estimated 4,000 jobs—almost 6% of the city's total employment. Portland is the leading destination among the 8.4 million annual visitors to the Greater Portland and Casco Bay region—75% of whom report visiting the city. Despite its large job and visitor base, tourism-related firms offer low-wage jobs that range from 29% to 65% of Portland's average wage in 2008.

The manufacturing industry declined by 8.5% from 2001 to 2008. Portland fared better than the MSA, which lost 21% of its manufacturing jobs between 2001 and 2008. While food producers account for half of the City base in manufacturing, the food manufacturing industry shed over 18% of its jobs during this time frame. The silver lining: the chemical manufacturing sector in which MSA employment increased by 60% between 2001 and 2008.

A brief description of self-employment data is provided that helps provide a picture of the extent of self-employment in Portland. Further analysis should compare the extent of self-employers (non-employers) to employers working for a firm. The preliminary analysis demonstrates that the Portland metropolitan statistical area has a total of 47,000 self-employer firms that together grossed over $2.09 billion in 2007. A deeper analysis is beyond the scope of this report.

Portland has many economic assets - a well-educated workforce, a strong health care industry, a substantial finance and insurance sector, educational resources, and a solid manufacturing base. Other local assets will continue to be identified throughout this project. The greatest challenge to the City illuminated by this research, is that without adjustments, the city will likely continue to lose firms in key industries thus contributing to increases in unemployment and poverty, as well as the loss of younger workers.

Creative Economy

The creative economy is small part of Portland's economy, but it plays an important and visible role in shaping the city's identity as an arts and cultural center for the region. This report provides a preliminary snapshot of the creative sector and highlights some potential opportunities to address these challenges and continue Portland's growth in this sector.

The creative economy, as defined by the New England Foundation for the Arts (NEFA), consists of more than just artists and performers, and includes some unanticipated categories. It spans a wide range of job types and wages. Portland's creative economy accounts for a small portion of total employment (5-6% of jobs), but creative economy jobs are holding strong over time (3% growth from 2001 to 2008). Additionally, Portland is a center for arts in the region—the city hosts most of the arts, entertainment and recreation jobs (213 jobs) that are found in the county (275 jobs).

Synthesizing our analysis from our various data sources, some strong components of the creative economy appear to be:

Architectural Services—Architectural services provide a large number of creative jobs (248) and the highest average wages of the creative economy ($72,644). Cumberland County has relatively strong representation in this area as compared to the nation.

Advertising agencies—Advertising agencies also compose a large number of creative jobs (177) and high average wages ($64,116).

Media broadcasting—Various media and communications professions show high growth and high representation in the county as compared to the nation.

Visual Arts & Design—Many who work in visual arts are self-employed, and these jobs are high in number, but low in wages.

Gift, novelty and souvenir shops – Retail trade composed the second highest number of jobs in Portland, but offer among the lowest wages.

Libraries and archives—There has been a high growth in this area, and it is highly represented in the county as compared to the nation.

Assets

The city of Portland has a strong starting point for the development of the creative economy, with a number of important assets, including:

Quality of Life—The city's attributes include small size, vibrant cultural scene, good regional schools, proximity to outdoor recreation, and delicious local food—all of which attract creative professionals to the city.

Strong Anchor Institutions—Maine College of Art (MECA) and the Portland Museum of Art are examples of institutions that attract and educate new creative professionals.

First Friday Events—Art Walks and Development of Arts District.

Ongoing Collaborations—Organic efforts have come from creative professional identifying gaps in the economic growth of their businesses.

Existing Financial Opportunities—These include local and statewide initiatives.

Firms with a Unique Niche—These firms are geographically flexible and attract clientele across the country and internationally.

City Efforts to Date—In particular, the creation of the Creative Portland Corporation.

Challenges

Through interviews with stakeholders, we have identified a variety of challenges for the creative economy, including:

Insufficient local market for creative goods—Portland's success as a center for culture and arts has not translated into a level of consumption that can maintain the arts community.

Inadequate funding opportunities—Because Portland is such a small city, there are limited donors, and organizations often find themselves competing for limited funds.

Attracting and retaining professional employees—Limited competitors and Maine's brand hinder companies that want to attract professional employees.

General challenges

- Lack of accurate metrics for the creative economy
- Creative professionals often work multiple jobs
- High city tax rates
- Lack of public transportation to downtown
- Lack of collaboration due to Maine 'independent spirit'

Opportunities

We encourage Portland to take advantage of opportunities in the following areas:

Collaboration—Support efforts to build and strengthen partnerships

- Create an artists cooperative or business incubator
- Create forums for information exchange
- Strengthen Creative Portland Corporation's role in policy

Promotion—Market Portland's assets to internal and external audiences

- Quantify and study the creative economy
- Build community within Portland by raising awareness about activities
- Develop a marketing campaign to attract local and external business

Governance—Build the capacity of city government to strengthen the creative economy

- Develop strong and sustained leadership within city government
- Build capacity and expertise of local government to help creative businesses
- Provide training and workshops for local government and business community

Business support—Provide incentives to create and grow Portland businesses

- Focus on retaining and growing existing businesses, and recruit new businesses
- Provide educational workshops and business support services

Funding—Maximize opportunities for individual and organizational funding

- Create a creative economy revolving loan fund
- Encourage business and venture capital investments in the creative economy
- Disseminate information on funding opportunities

Quality of Life—Maintain and improve quality of life to retain creative professionals

- Ensure rents are affordable for creative professionals, especially in downtown
- Maintain high quality amenities such as education, health care and social services
- Improve transportation connections to downtown, and prioritize pedestrians
- Connect immigrant and ethnic communities to the creative economy
- Highlight and preserve existing environmental conditions

Food Sector

Portland's food sector, comprised of establishments involved in production and harvesting, processing and manufacturing, distribution and marketing, and sales of food and beverage products, represents an important part of its economy. It a significant source of employment (11% of all jobs in Portland) and is also central to the character of Portland's evolving identity as a food destination. Portland prides itself on the high quality products manufactured, harvested and sold in the region – from local organic produce to lobster, from milk to artisan specialty products - as well as the range of eating establishments from which one can choose.

We utilized quantitative and qualitative methodologies to analyze the status of the sector in Portland, and highlight major trends, changes, and opportunities.

Our preliminary quantitative data analysis has revealed three significant trends: lower paying jobs in the restaurant and retail sub-sectors are growing, while higher paying employment in fishing, wholesale and food manufacturing is on the decline. There also seems to be an opportunity for more restaurants to open in Portland. In the next phase of our work, we will aim to create strategies to support the creation of high-paying quality jobs, while retaining staple industry employment.

Our qualitative research, consisting of more than 15 stakeholder interviews from representatives across the sector, indicates that the food sector is nascent with opportunity. In particular, we believe there is an opportunity to further leverage connections between local farmers and fishermen, wholesale distributors and restaurants. With the guidance of the City, we hope to explore creative ideas to capitalize upon these opportunities.

Stakeholder Interviews

In the first round of stakeholder interviews, we sought to achieve an understanding of the various viewpoints as to Portland's challenges, assets, and opportunities, as well as visions and goals for the city. It is our intent that from these discussions, patterns and themes will emerge that will help guide further analysis and inform our recommendations. We completed interviews with the following members of Portland's Economic Development Division and Task Force members:

- Greg Mitchell, Director of Economic Planning Division
- Joseph Gray, City Manager
- Bill Needleman, Senior Planner
- Charlie Poole, Proprietors of Union Wharf
- Ed Bradley, Vessel Services, Inc
- Jack Lufkin, Gorham Savings Bank
- Nathan Smith, Bernstein Shur, Counselors at Law
- Gerard Kiladjian, Portland Harbor Hotel

All interviewees were asked to identify Portland's assets, challenges and economic expansion opportunities. We have summarized the common threads that were found throughout all the interviews.

Vision /Opportunities

Waterfront: The waterfront has been an important part of Portland's identity. Transition from its industrial form to a newer phase of Cruise Ships and Tourism offers tremendous potential for Portland going forward. The opportunity exists to attract new industries, such as wind power generation.

Creative Economy: Developing the creative economy was a recurring theme in shaping the future vision for Portland.

Green City: There was a view that Portland has been undersold as a "Green City." There is an existing talent pool and areas such as environment consulting could also be an opportunity that Portland looks to for job creation.

Tourism: There is an opportunity to continue to leverage the current transportation infrastructure that Portland has in place to try and attract greater number of tourists to Portland.

In addition to the main themes above, several other suggestions were made. These included building up housing stock, "build up " garages as in Hong Kong, taking a chapter out of Vermont's strategy by building on the "Made in Portland" brand. Having a quality airport was seen as important. Bayside development and attracting companies that can help improve Portland's manufacturing base also ranked high in terms of where the city's priorities should be.

Challenges

Demographics: References were made to the mix of the current demographic base. The older average age was something that Portland would have to work with as it shaped its future.

Regulation and Zoning: There was repeated mention about the uncertainty in the regulatory environment and the complexity that posed to businesses. A need for greater collaboration with the community was voiced. Examples cited included the site plan review standards, new review studies coming being called for when projects were already underway creating bottlenecks and delays.

Transportation and Infrastructure: There was a need to continue to improve the railroad infrastructure. Reference was also made to the bottlenecks that lack of parking was beginning to pose.

Affordability: This was cited in particular reference to the creative economy, providing people in this sector with opportunities for affordable housing and infrastructure was key to attracting to them to the area.

Waterfront: Current waterfront zoning may not accurately reflect present conditions of the fishing industry. Consideration of new zoning regulations may be important to ensure ongoing maintenance and viability of waterfront properties.

Assets

High Quality of Life: Quality public schools, safe communities, low traffic congestion and an abundance of amenities were cited as some of Portland's strengths.

Strong Banking /Financial Services Sectors: The banking industry is robust and has the capacity to finance projects and businesses. This is supported by the strong infrastructure provided by law firms.

Natural Landscape: Portland's spatial openness, trails and waterfront attract both residents and tourists to the city.

Transportation infrastructure: Although transportation improvements were stated as necessary, the city has a relatively strong starting point due to its rail and sea transportation infrastructure.

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Portland, Maine Economic Profile

May 2010

Prepared as part of MIT Course 11.438
Economic Development Planning

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Executive **Summary**

Introduction

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key findings

The **Service-Providing** domain accounts for **over 90% of all jobs** offered in Portland.

Over 57% of jobs are concentrated in Education and Health Care services, Financial Activities, and Trade, Transportation and Utilities.

Manufacturing is the strongest sector for both Portland and MSA within the Good – Producing Domain.

Health Care and Social Assistance Industry contribute the **most to payroll** in Portland and the MSA.

Findings

Our initial research step was to analyze Portland's demographics. We found that Portland is highly educated – 42% of residents have college degrees or above. Most residents have jobs in high-skill industries including law, technology, and health care.

The median age of residents has increased as well; it has experienced a decrease in the number of 24 to 35 years old and an increase in individuals aged from 45 to 59 between 2001 and 2008.

During the same period the city's population declined while the surrounding region's population increased. The city has become more diverse – the percentage of non-whites increased from 2001 to 2008. Portland residents, however have struggled to keep pace economically with the region. Poverty increased from 14% of households in 2001 to 16% in 2008, and more than one in five Portland children live in poverty as of 2008. Compared to the region, poverty increased by a similar percentage. The city's decline in real median household income was actually less than the decline at the region or the state level.

The recession hit Portland residents hard. Unemployment, which had been on a continuing rise since 2001, has increased more rapidly since 2008, but at a rate on par with the region. The city's unemployment rate, however, was 6.4% for 2009, well below state and national rates of 8.0% and 9.7% respectively.

Next, we provide an overview of Portland's economy. Overall, the number of jobs in Portland has decreased while the number of jobs in Portland's MSA has increased over the past decade. Accordingly, Portland may not be effectively competing with its surrounding region.

Executive **Summary**

The brightest spot in Portland's economy appears to be the health care industry. Wages have remained stable and over 2,400 jobs were created from 2001 to 2008. Hospitals are the economic development anchor within the sector indicated by a high location quotient – substantially higher than the region or state. There appears to be room for growth in the heath care sector.

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Next, we briefly describe self-employment data which helps provide a picture of self-employment in Portland. Further analysis should compare the extent of self-employers (non-employers) to employers working for a firm. Our preliminary analysis demonstrates that the Portland metropolitan statistical area has a total of 47,000 self-employer firms that grossed over $2.09 billion in 2007. A deeper analysis is beyond the scope of this Phase 1 report.

The appendix provides supplementary charts pertaining to the finance, insurance, and manufacturing sectors.

Portland has many economic assets - a well-educated workforce, a strong health care industry, a substantial finance and insurance sector, educational resources, and a solid manufacturing base. Other local assets will continue to be identified throughout this project. The city's greatest challenge illuminated by this research is that, without adjustments, the city will likely continue to lose firms in key industries thus contributing to increases in unemployment and poverty, as well as the loss of younger workers.

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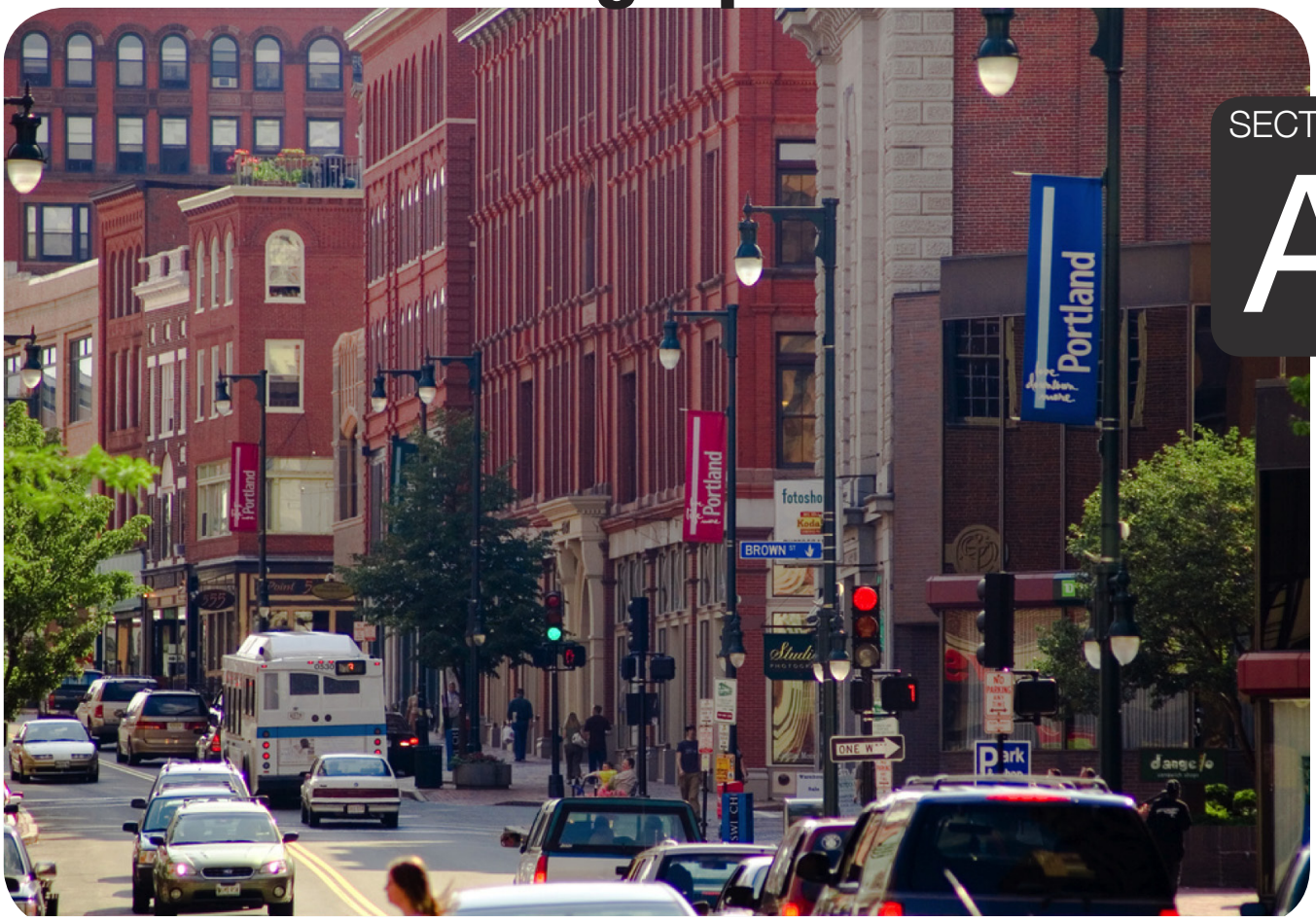
Portland **Demographics**



SECTION A

Introduction

The demographic section provides an overview of who lives in Portland and their economic wellbeing. In this section a demographic breakdown of Portland's population by gender, place of birth, age, and race and ethnicity is provided. Next, an evaluation of how these populations are doing in terms of income and poverty is presented. The report also analyzes changes in unemployment rates in the past decade. Finally, the key occupations of residents are assessed.

key findings

Portland's residents are **better educated** than those of the MSA or of Maine, with **42% of residents** holding a bachelor's degree or higher.

Key occupations of residents are **highly skilled and technical** positions, including lawyers, computer technicians, and health care workers.

The Portland labor force is most concentrated in **professional and technical** fields.

Racial diversity has increased from 8% non-white in 2000 to 15% non-white in 2008, and there has been a substantial **increase in the number of foreign-born individuals**.

The city has experienced a modest **population decline** since 2000, while the surrounding region has experienced a substantial population increase.

There has been a **decline** in the population **ages of 25-44** and an **increase** in population between **45 and 59** years of age.

Unemployment in Portland **has increased consistently** over the past decade, with the most significant increases over the past two years.

The **median household income decreased** from 2000-2008, though this decrease was less than that of the region or the state.

Data Sources

The following set of tables and charts provides a look into the demographics of the Portland region. The section highlights areas of significant change and compares Portland with its surrounding region when relevant. The data used for analysis are from the 2000 Census and the 2006-2008 American Community Survey (ACS) 3-year estimates. The ACS is a nationwide survey by the US Census Bureau that is designed to describe the population on an annual basis. For the purposes of this profile, 2006-2008 3-year estimates were used to approximate Portland's situation in 2008. "2008" is indicated when referring to these data. The 2006-2008 3-year estimates consist of data collected between January 2006 and December 2008, and represents the region's average characteristics over this timeframe. Since ACS data is based on a sample and not a full census, values for 2006 to 2008 are estimates and may vary from actual figures.

Population

Portland is the largest city in the state of Maine with a population estimated at 63,591 in 2008. The city serves as a social, cultural and economic hub for the state of Maine. Portland's population slightly declined from 64,246 in 2000 to 63,591 in 2008.

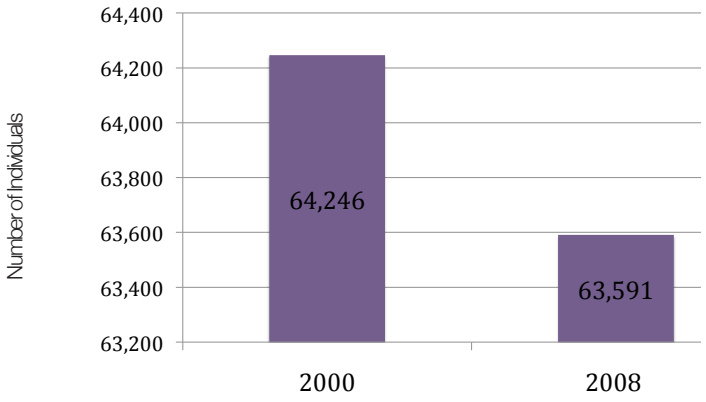
Portland's gender ratio has remained consistent at 52% female and 48% male. The city's foreign born population increased between 2000 and 2008 and now makes up 9.7% of Portland's population. The median age of Portland's population increased from 35.6 to 39.1 years over this timeframe.

Table A-1
Percent Change in Population, 2000-2008

Portland	-1%
MSA	5.10%
Cumberland County	3.50%
Maine	3.20%

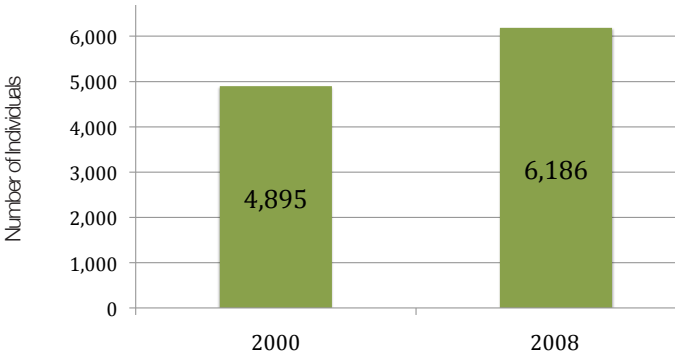
Source: U.S. Census Bureau, 2000 Census, 2006-2008 American Community Survey

Chart A-2
Population Change, Portland, 2000-2008



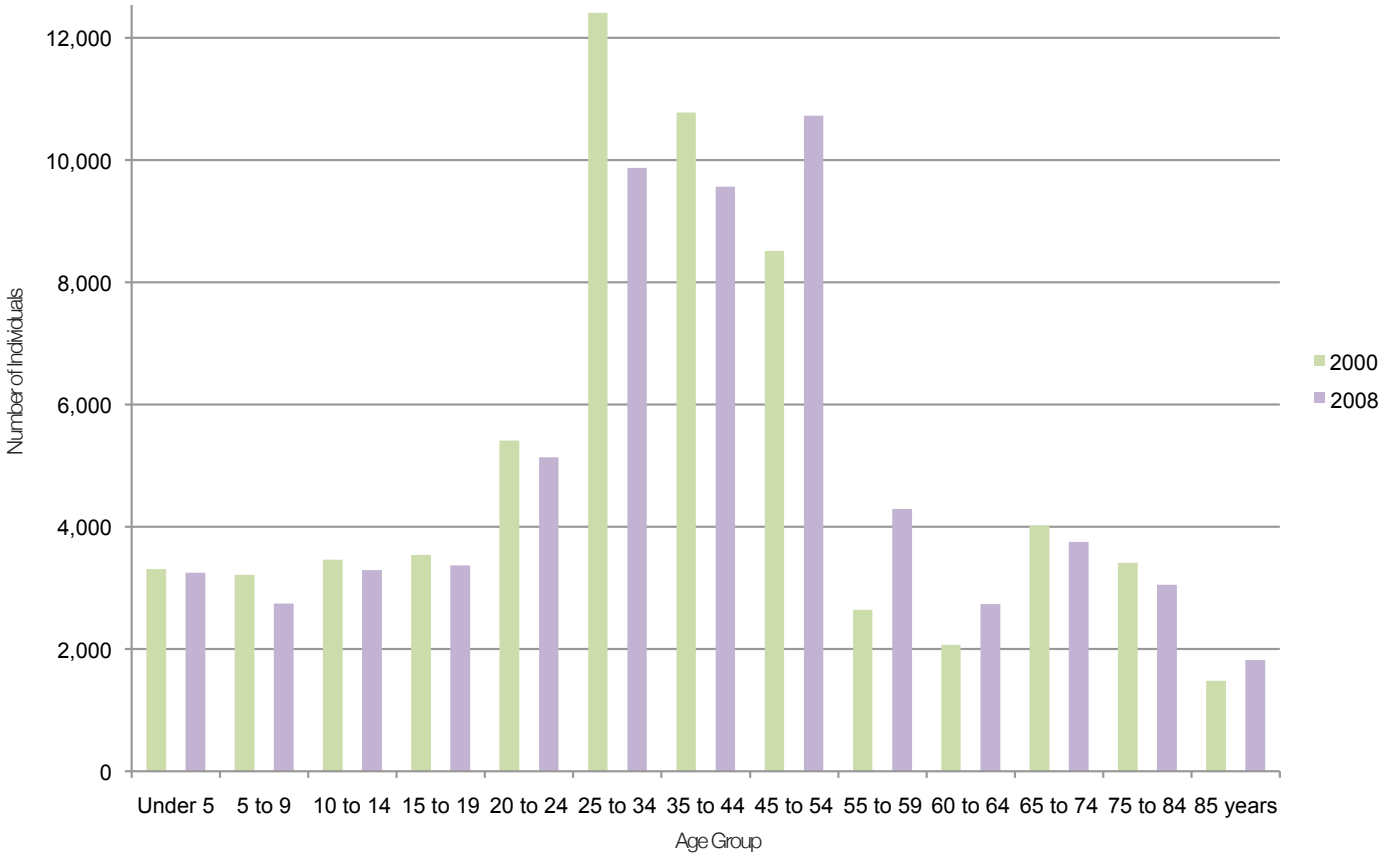
Source: U.S. Census Bureau, 2006-2008 American Community Survey, Census 2000

Chart A-3
Foreign Born Individuals, Portland, 2000-2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey, Census 2000)

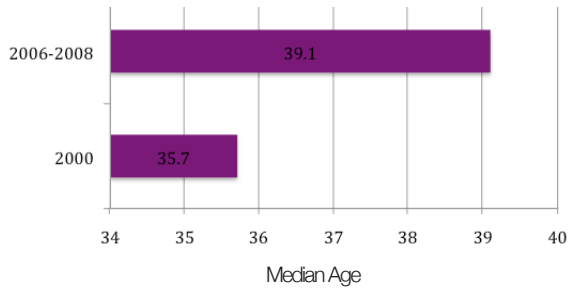
Chart A-4
Change in Population by Age Group, Portland, 2000-2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey, Census 2000

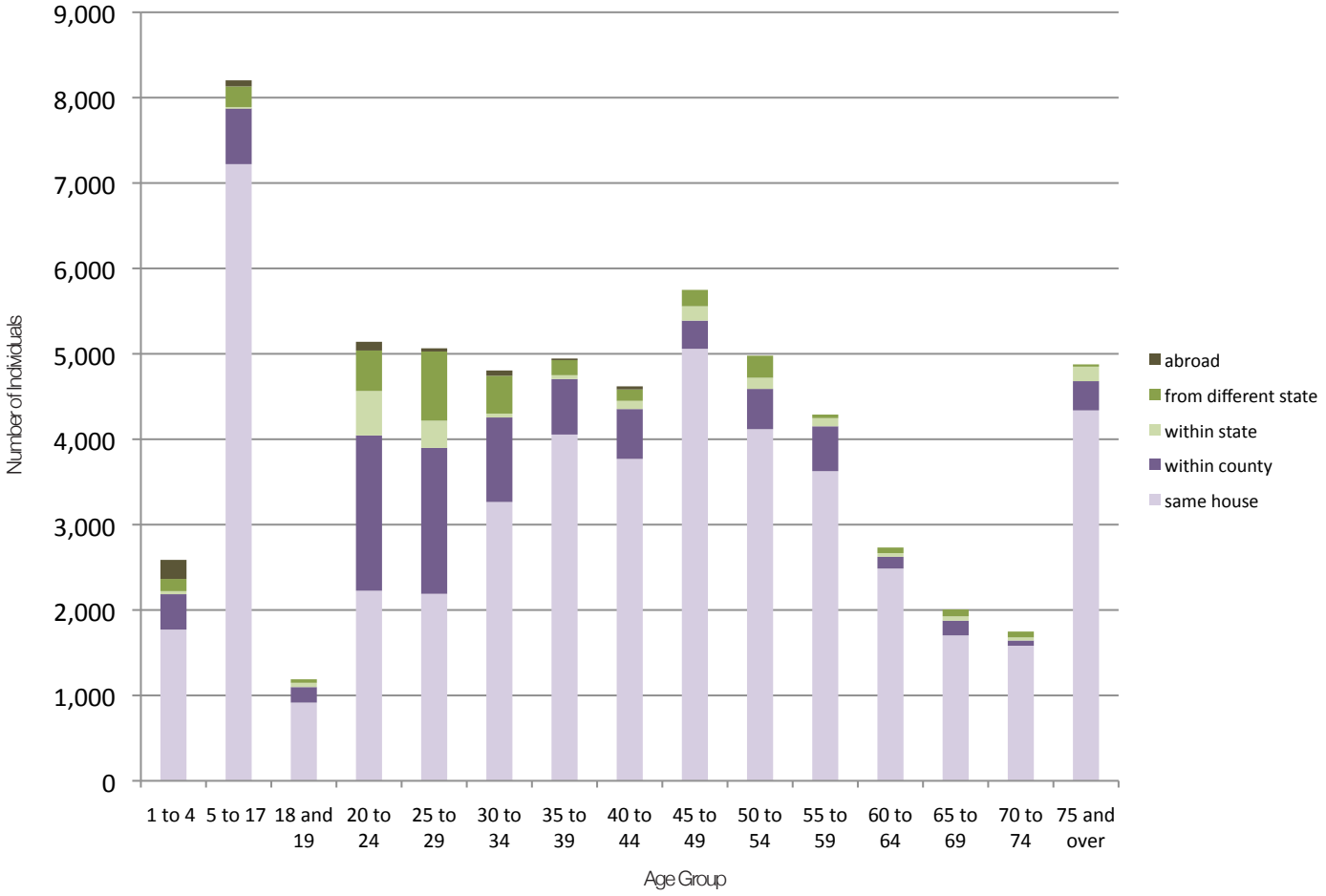
The increase in Portland's median age can be attributed to a large decrease in residents between the age of 25- 44 years and an increase in residents ages 44 -64 years. Portland has also experienced a minor loss of 20 to 24 year old individuals. Overall, Portland exhibits the characteristics of an aging population.

Chart A-5
Median Age, Portland, 2000-2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey, Census 2000

Chart A-5
Population Mobility by Age Group, Portland, 2008

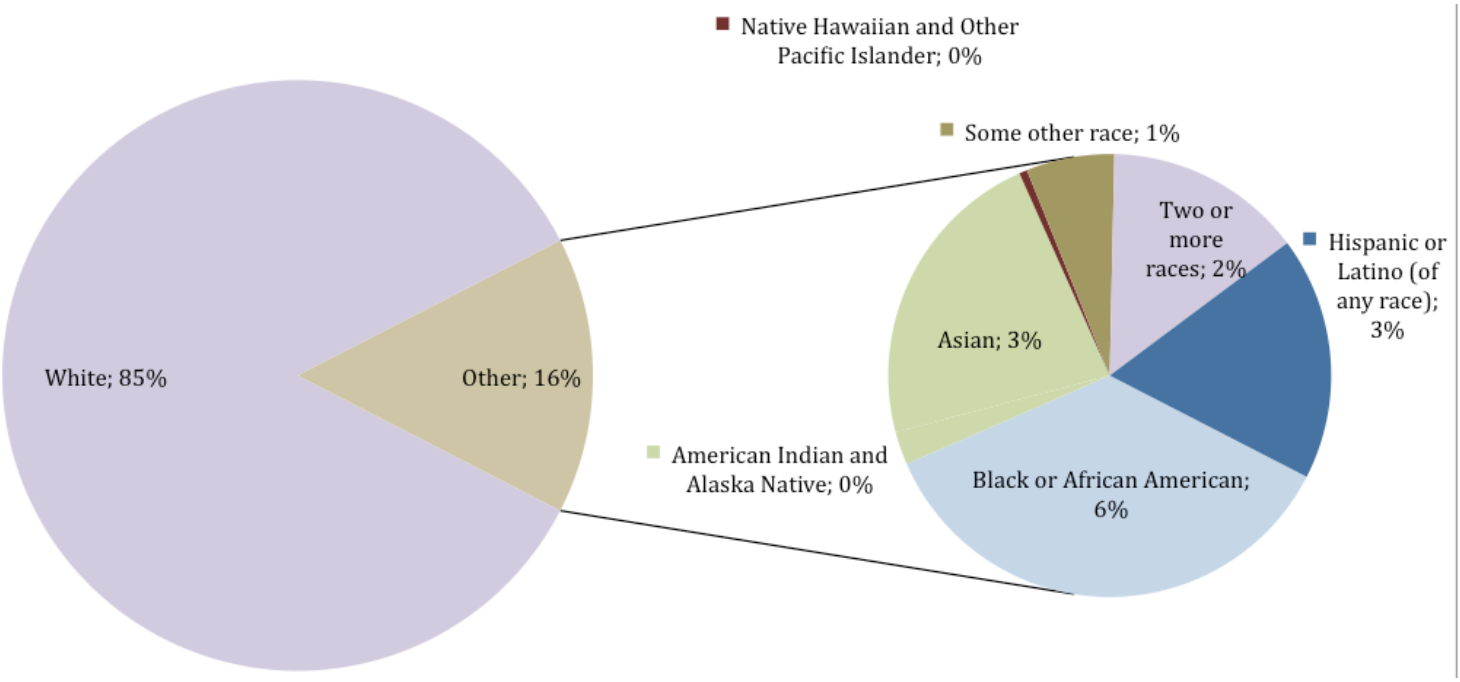


Source: U.S. Census Bureau, 2006-2008 American Community Survey

Mobility

In general, younger age groups in Portland have a greater degree of mobility (measured by changing residence within the past year) than other groups. A high percentage of individuals between 20 and 29 have moved within Cumberland County within the last year measured. This age group also has the largest number of individuals moving from elsewhere in Maine to Portland.

Chart A-6
Racial Composition, Portland, 2008 Estimate



Source: U.S. Census Bureau, 2006-2008 American Community Survey

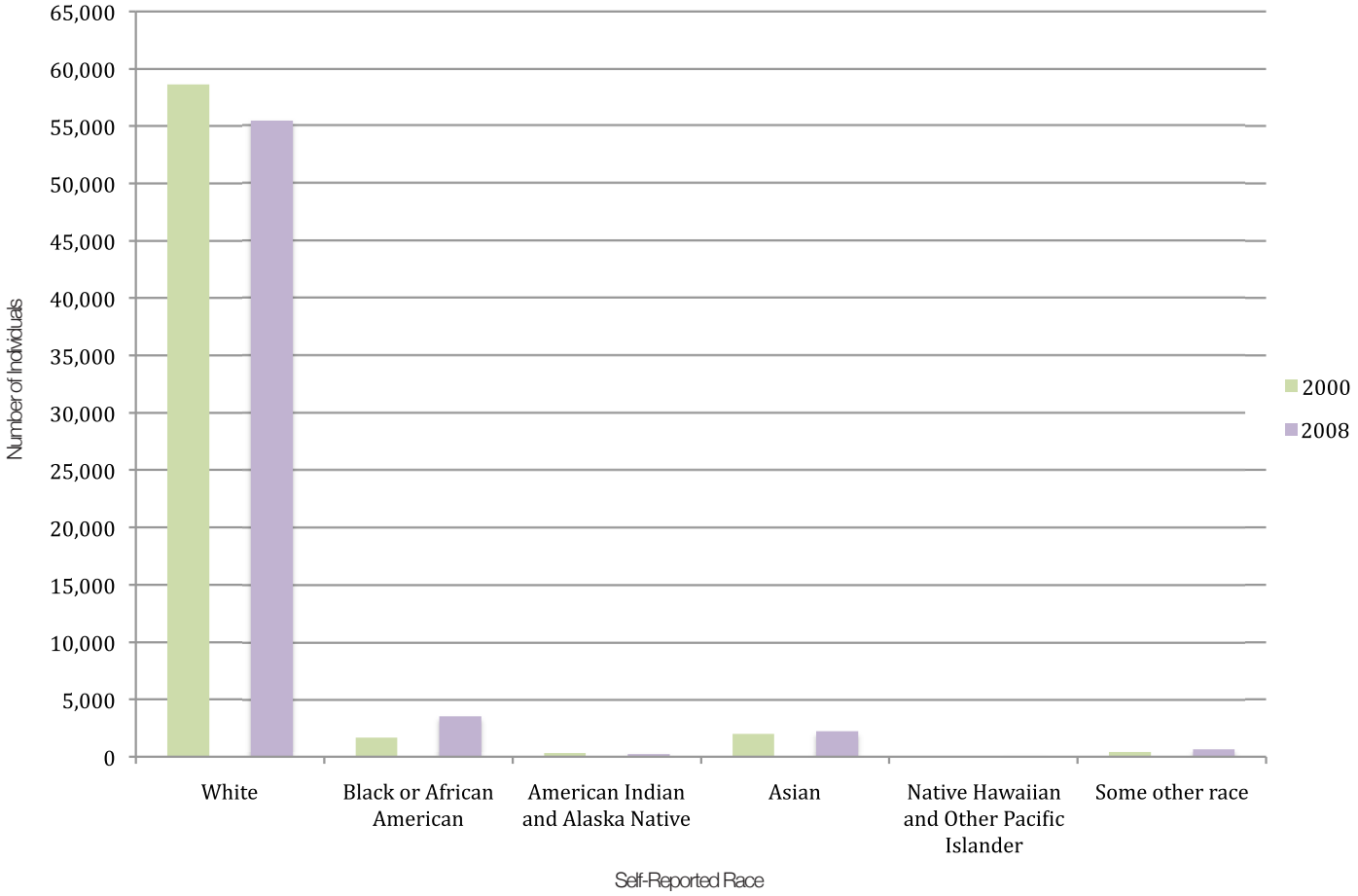
Race & Ethnicity

Portland, prides itself in being a diverse place to live that wellcomes refugees. Portland is 85% white and 16% other races made up of 6% African American or Black, 3% Asian, 3% Hispanic or Latino and 2% individuals who identify with two or more races.

Of the non-white population in the city, identifiable ethnic groups with the highest populations are Puerto Rican, at 17% of the non-white population, and Vietnamese at 14% of the non-white population.

Between 2000 and 2008 Portland has seen a decrease in the White population and an increase in the Black or African American population. The Asian population has stayed relatively constant. There is not currently an ethnic breakdown of the Black or African American population; therefore, ethnic groups that have increased cannot be pinpointed.

Chart A-7
Change in Racial Composition, Portland, 2000-2008

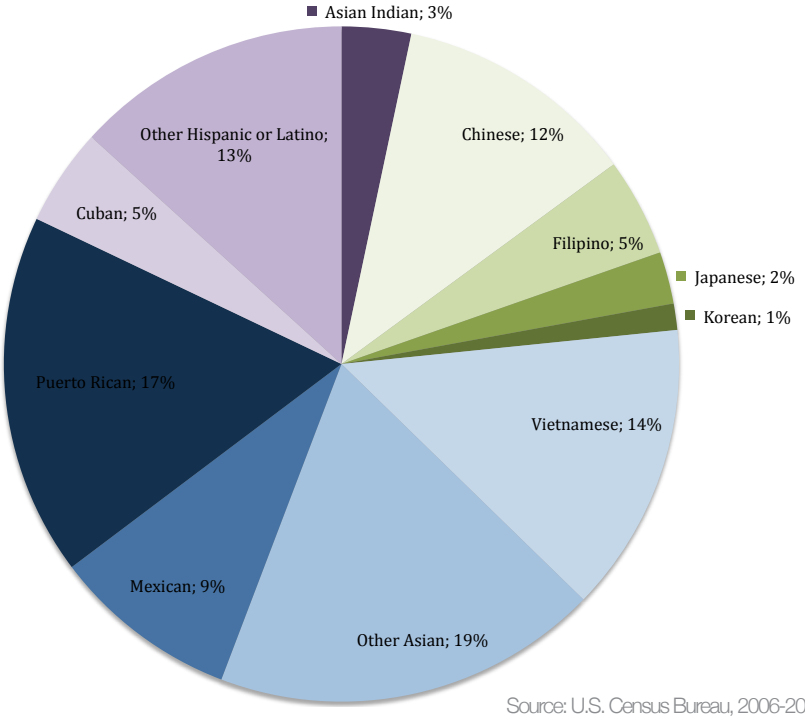


Source: U.S. Census Bureau, 2000 Census, 2006-2008 American Community Survey

Demographics: **Race & Ethnicity**

Chart A-8

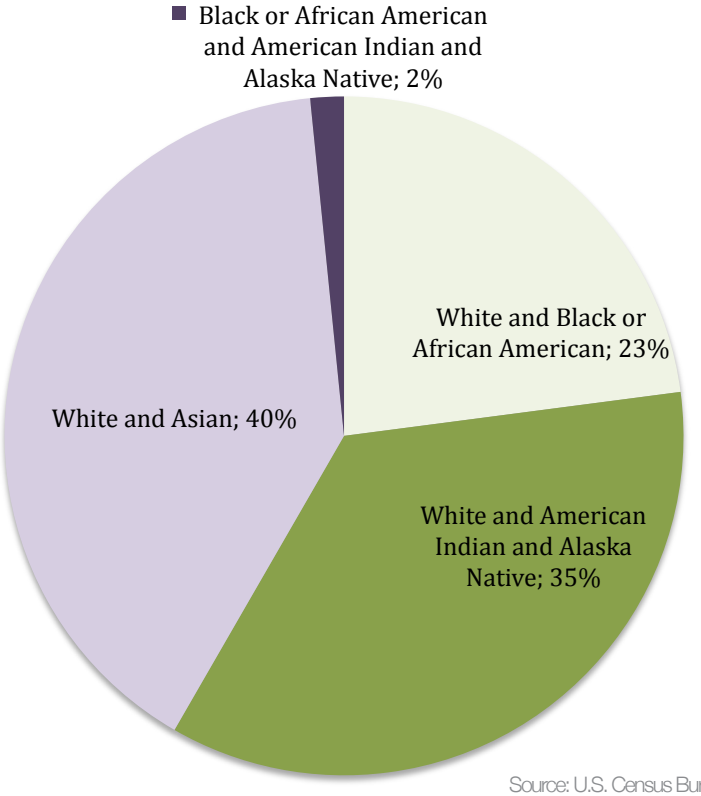
Ethnic Composition of Non-White Population, Portland, 2008 Estimate



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-9

Racial Composition of Individuals with Two or More Races, Portland, 2008 Estimate



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Table A-2
Change in Median Household Income, 2000-2008

	2000	2008	% Change
Portland	45,654	44,906	-1.60%
MSA	57,253	54,400	-5%
Cumberland County	56,409	53,900	-4.40%
State	47,690	46,600	-2.30%

Source: U.S. Census Bureau, 2000 Census, 2006-2008 American Community Survey

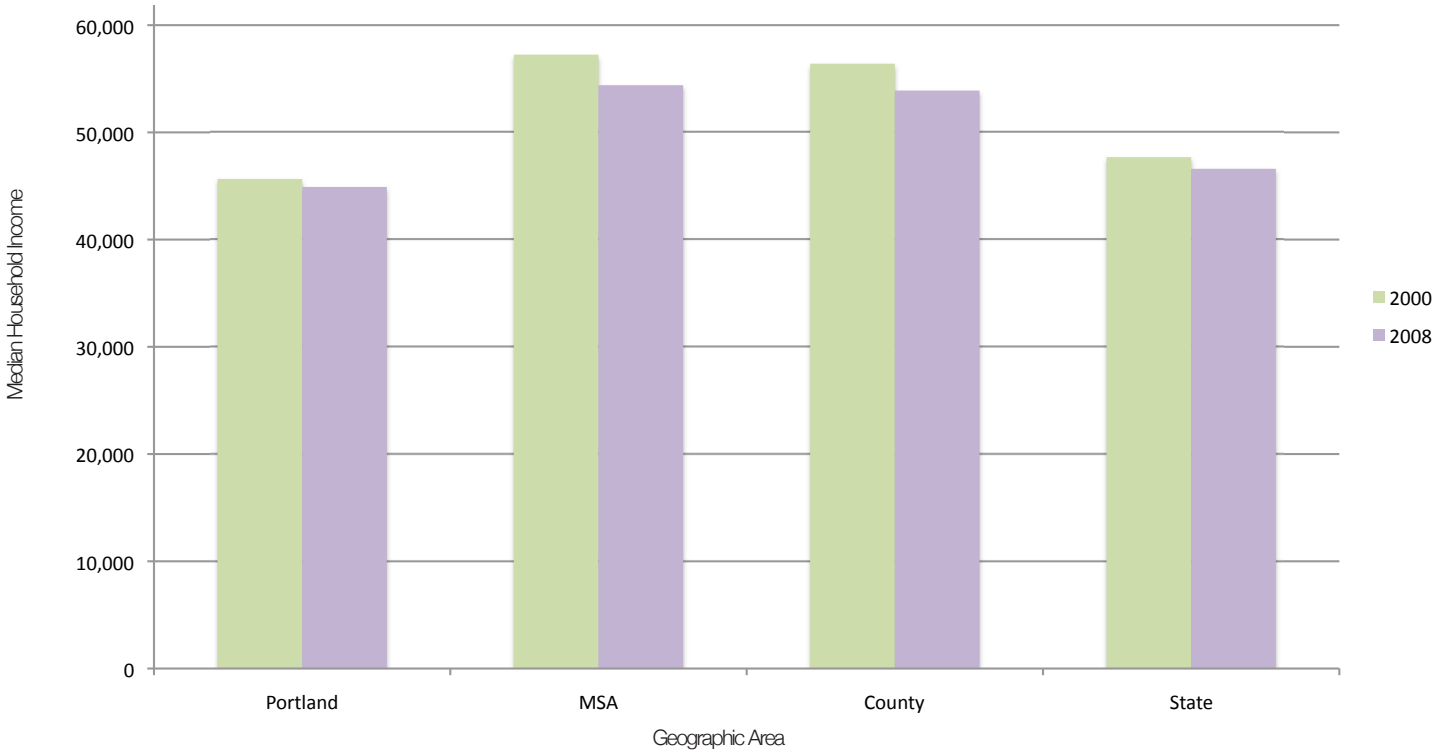
Income

The City of Portland has a median household Income significantly lower (17 percent) than its surrounding Metropolitan Statistical Area and only slightly below the Maine state average (4%). Portland's median household income has not varied significantly from year 2000 levels. It has decreased at a rate on par with regional and state changes.

Median Household Income varies across the racial groups within Portland. Non Latino or Hispanic White and White households have on average higher incomes than the city average. Asian, Hispanic, Black and households with two or more races all have median incomes below the city average. The greatest income disparity, almost 50 percent, is between Hispanic White and Black households.

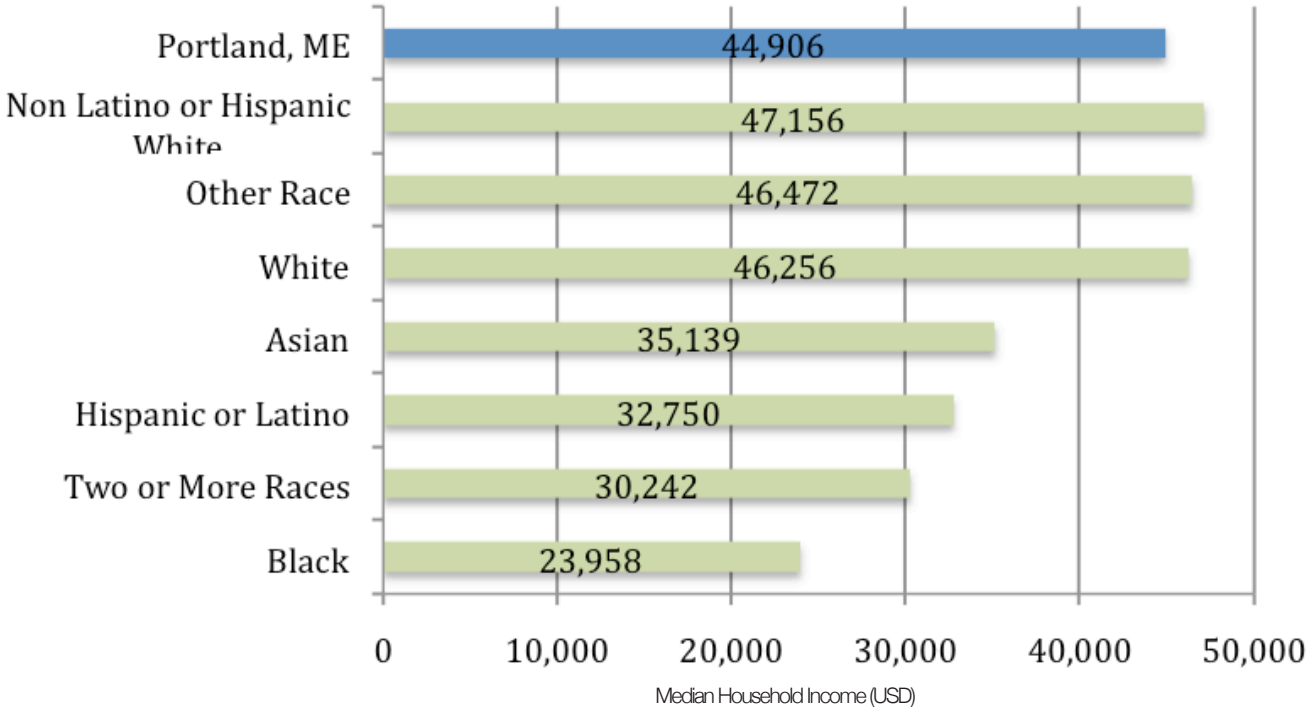
Demographics: **Income**

Chart A-10
Change in Median Household Income, 2000-2008



Source: U.S. Census Bureau, 2000 Census, 2006-2008 American Community Survey

Chart A-11
Median Household Income Disparity by Race, Portland, 2006-2008 Estimate



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Poverty

Portland's 2008 poverty rate was 16%, almost twice that of the MSA and 28% above the state. Poverty levels in the City of Portland have grown at a rate consistent with the region and the state over the last several years. Foreign-born Portland residents have a ten percent higher poverty rate than those born within the United States.

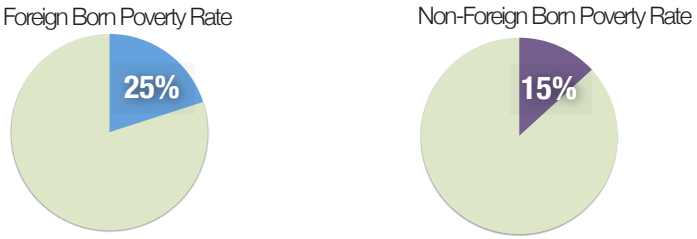
Individuals in the 18-24 years old range have the highest rate of poverty followed by 35-44 and 25-34 year old individuals respectively. Children also suffer a high level of poverty. In Portland, 21% of the population under the age of 18 currently lives in poverty.

Table A-3
Change in Poverty Levels, 2000-2008

	2000	2008	% Change
Portland	14.10%	16.20%	2.10%
MSA	5.70%	8.40%	2.70%
Cumberland County	5.90%	8.50%	2.60%
State	10.90%	12.60%	1.70%

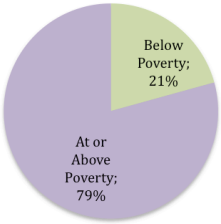
Source: U.S. Census Bureau, 2000 Census, 2006-2008 American Community Survey

Chart A-12
Poverty Rate, Foreign Born and Non-Foreign Born Individuals, 2008



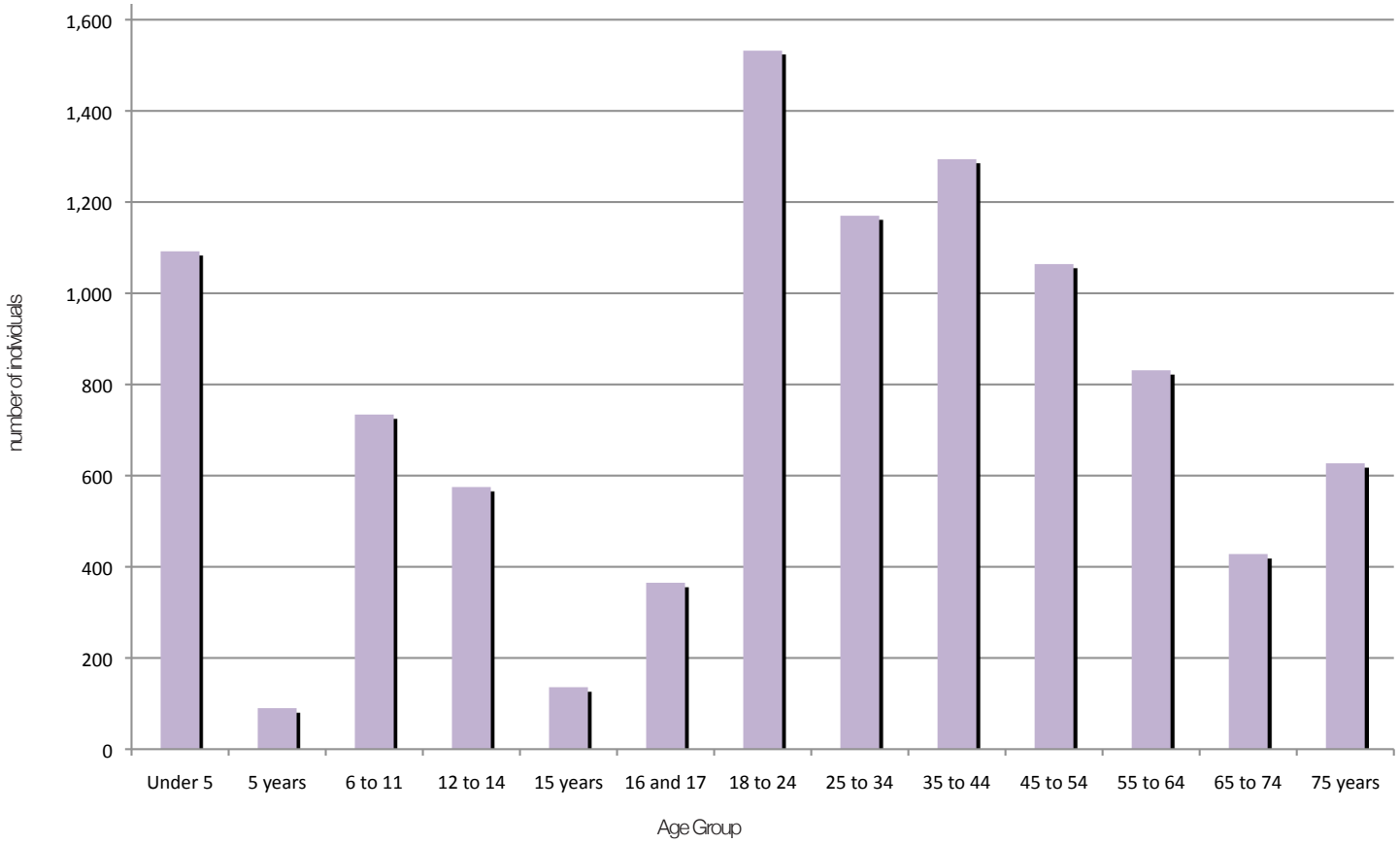
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-13
Children Under 18 Living In Poverty, Portland, 2008



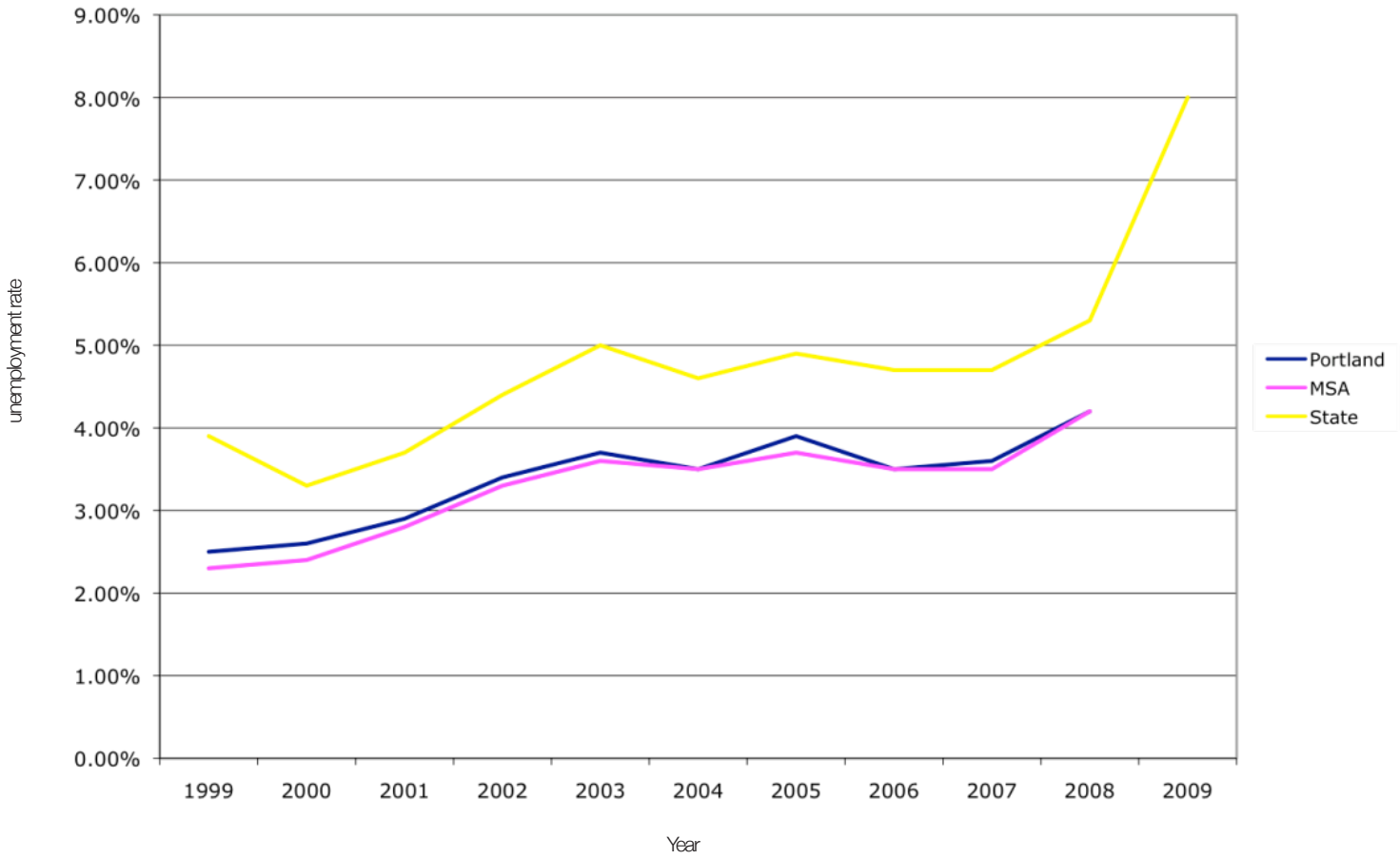
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-14
Individuals with Income Below Poverty Level by Age Group, Portland, 2008 Estimate



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-15
Annual Unemployment Portland, MSA, Maine,1999-2009

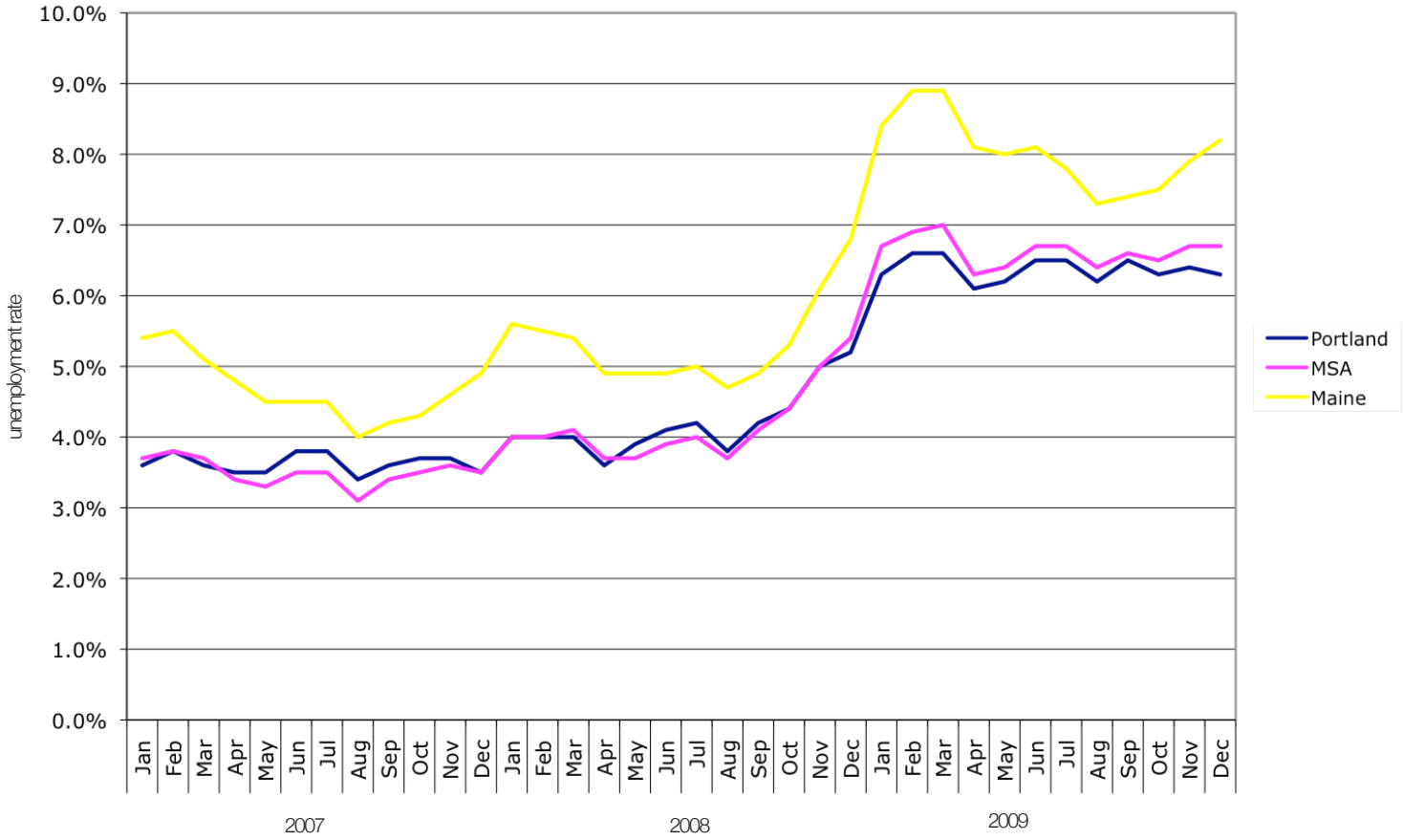


Source: Bureau of Labor Statistics, 1999-2009

Unemployment

Unemployment has been on a gradual rise for the past decade in Portland. The City's unemployment rate has been about the same as the MSA's, which has been significantly lower than the state's unemployment rate. While the 2009 annual data have not yet been released for Portland and the MSA, unemployment rates skyrocketed for the state from five percent in 2008 to eight percent in 2009.

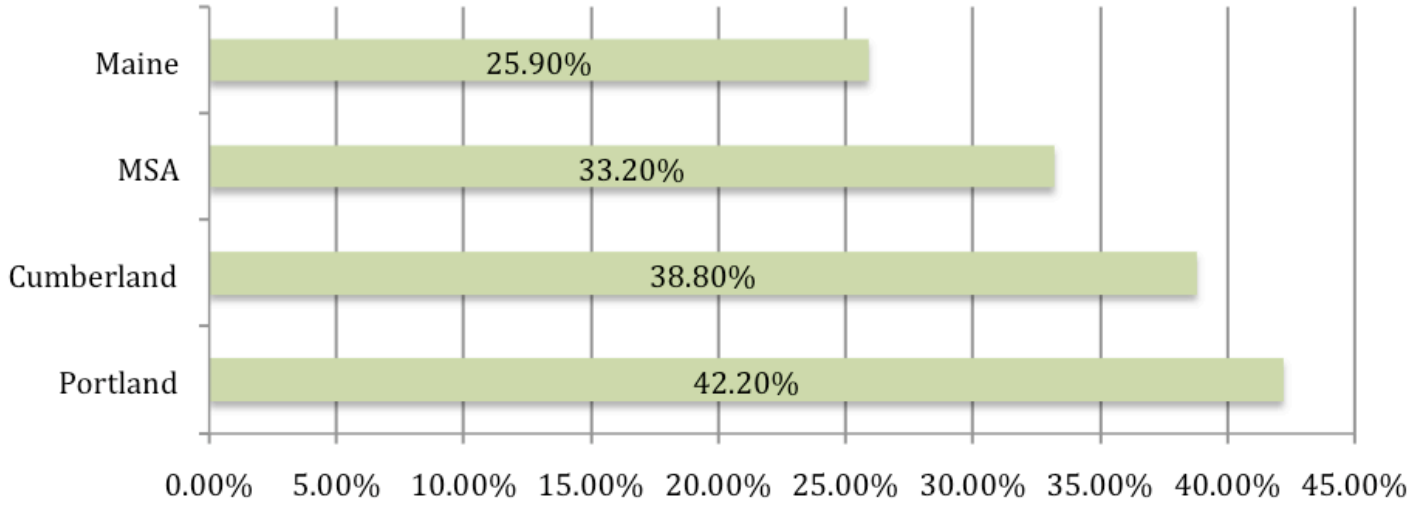
Chart A-16
Monthly Unemployment, Portland, MSA, Maine, 2007-2009



Source: Bureau of Labor Statistics, 2007-2009

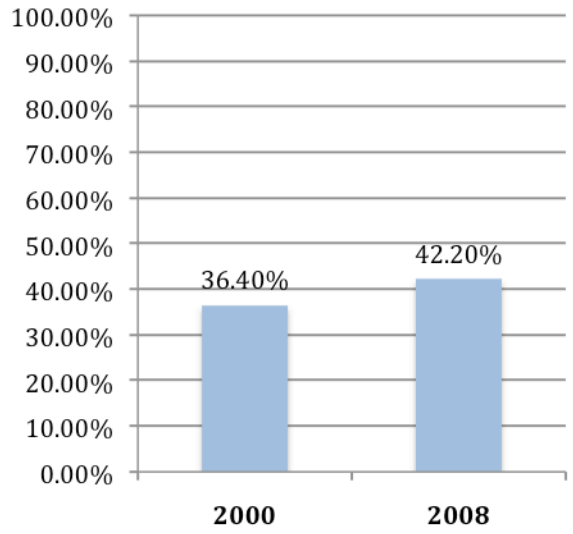
Monthly employment has significantly increased over the past two years. Portland's unemployment rate has been slightly lower than the MSA and significantly lower than the state of Maine. In 2009 the City's unemployment rate was 6.4%, much lower than the state of Maine (8.2%) and the nation (9.7%).

Chart A-17
Percentage of Population 25 Years or Over with a Bachelor's Degree or Higher, 2008 Estimate



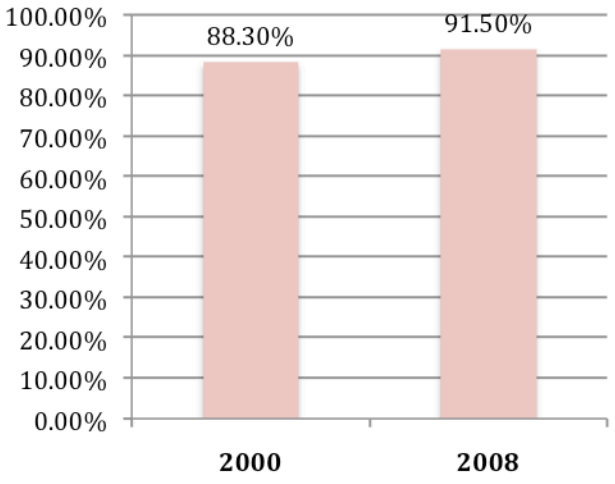
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-18
Percentage of Population 25 Years or Over with a Bachelor's Degree or Higher, Portland, 2000-2008



Source: U.S. Census Bureau, Census 2000, 2006-2008 American Community Survey

Chart A-19
Percentage of Population 25 Years that are High School Graduates or Higher, Portland, 2000-2008



Source: U.S. Census Bureau, Census 2000, 2006-2008 American Community Survey

Education

On average, Portland's population increased its educational attainment between 2000 and 2008 and has a higher educational attainment than the County, MSA and State. Between 2000 and 2008 the percentage of individuals 25 years and older with a bachelor's degree or higher in Portland increased from 36.6% to 42.2%. Currently Portland's population with a Bachelor's degree or higher is 3.4% higher than Cumberland County (38.8%), 9% higher than the MSA (33.2%) and 16% higher than Maine (25.9%).

Table A-4
Largest Occupations Among Portland's Labor Force, 2008 Estimate

PROFESSIONAL AND TECHNICAL SEGMENT	
Computer Specialist	990
Registered Nurses	755
Media and Communications	577
Health Technicians	562
Art and Design Workers	551
Lawyers	464
OTHER	
Financial Specialist	750
Business Operations Specialist	746
Teachers	818

Source: U.S. Census Bureau, 2006-2008 American Community Survey

Occupation

Workforce skills are increasingly important to the economic advantage and desirability of Portland. The occupational composition and strength of Portland's workforce represents an economic asset for the city that can help to attract and support the growth of businesses and serve as a base for entrepreneurship innovation and invention.

Among major occupation groups in Portland, the city is most distinguished by the professional and technical segment. This segment has both the largest workforce at 9,741 employees and the largest location quotient[1] at 1.36. Within this segment, professions with the largest workforce are computer specialist with 990 workers followed by registered nurses with 755 workers. Outside of the professional and technical segment, financial specialists, business operations specialists and teachers have a workforce comparable to computer specialist and registered nurses.

Overall, areas of Portland's strongest growth and stability are the arts, design, media, and communications. These fields have the large workforces and high location quotients in Portland.

1. A location quotient is a ratio of analysis in this case industry employment in the analysis area to base-industry employment in the analysis area divided by the ratio of analysis-industry employment in the base area to base-industry employment in the base area.

Demographics: **Occupation**

Table A-5
Major Occupation Groups, Portland, 2008

Professional and Technical Workforce:	9741
Health Care	2301
Education	2154
Arts, Design, Media, Entertainment	1337
Community and Social Service	1295

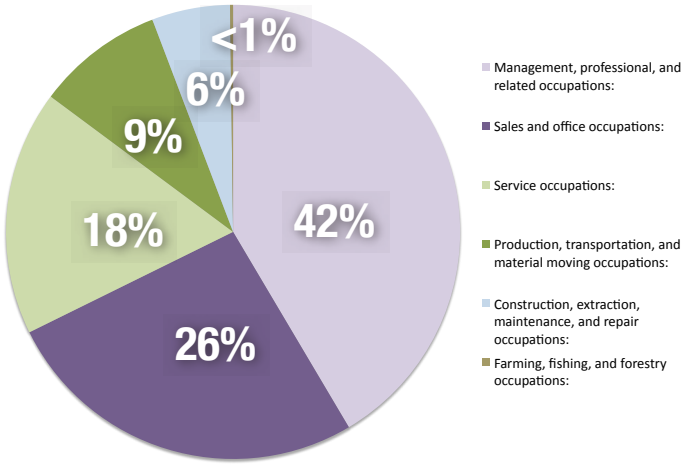
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Table A-6
Labor Force Occupational Locational Quotients, Portland, 2008

Food Processing	2.34
Social Scientist	2.34
Art/Design Workers	2.3
Media/Communications	2.26
Architects, Surveyors, Cartographers	2.06
Printing	1.86
Life, Physical Scientist	1.47
Computer Specialist	1.25

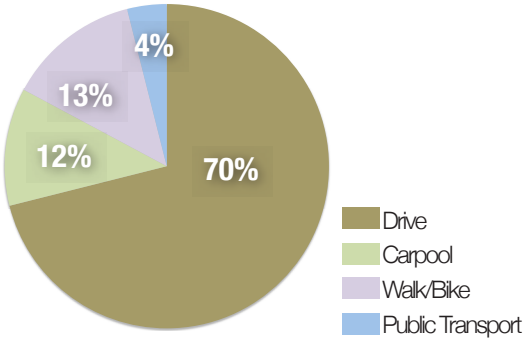
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Table A-20
Labor Force Occupational Locational Quotients, Portland, 2008



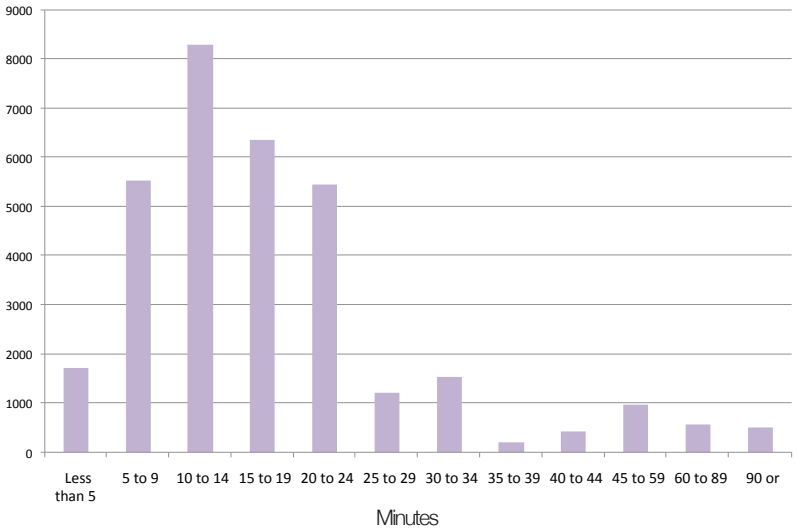
Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-21
Means of Transportation to Work, Portland, 2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Chart A-22
Commuting Time, Portland, 2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey

Journey to Work

The majority (70 percent) of Portland workers commute to their place of work by driving alone. Only 4 percent of commuters use public transportation, and 13 percent of commuters walk or bike to work. Most of Portland's labor force commutes less than 20 minutes to work. A travel time of 10 to 14 minutes to work is most common.

Portland **Economic Profile**

SECTION B

Introduction

In this section we first look at Portland's overall economy, identifying major trends and industries. Next, we profile the health services, education, insurance/financial services, and manufacturing sectors. They are four of the city's largest sectors and are not covered in the separate creative economy and food sector reports. We profile these sectors in terms of their percent of total employment economy, wages, number of jobs, size of firm, and relative strength to the region, state, and nation.

We also look at the growth or decline of these industries over time compared to the region. Finally, we break down the distribution of self-employed workers by industry.

The economic profile describes which sectors are gaining and losing jobs, contribute the most to payroll, and provide higher paying jobs. For overall employment and the financial services sector, Portland is not competing successfully with the region for business. While employment in Portland slightly declined between 2001 and 2008, the employment in the MSA significantly increased during this time frame.

Data in this section are from the Maine Department of Labor ES-202 (2001-2008).

Overview

This section examines the composition and trends of industries in Portland and the adjacent region. Portland's portion of MSA industry has been subtracted more accurately portray how Portland compares to the MSA.

Employment

As indicated in table B-1, in 2008, 68,600 jobs were located in Portland and 124,100 additional jobs were located in the balance of the MSA region. The Service-Providing domain accounts for 91.44% of all jobs in Portland and 84.38% of all jobs in the MSA. Over 57% of jobs are concentrated in Education and Health Care services, Financial Activities, and Trade, Transportation and Utilities. Manufacturing is the strongest sector for both Portland and the MSA within the Good – Producing Domain.

Since 2001, Portland has lost jobs in several sectors in which MSA has gained employment. The Employment in the MSA declined in only two sectors: Manufacturing and Retail Trade.

key findings

The health care industry has been **growing** in Portland and the region since 2001.

Wages within the health care industry have remained **stable.**

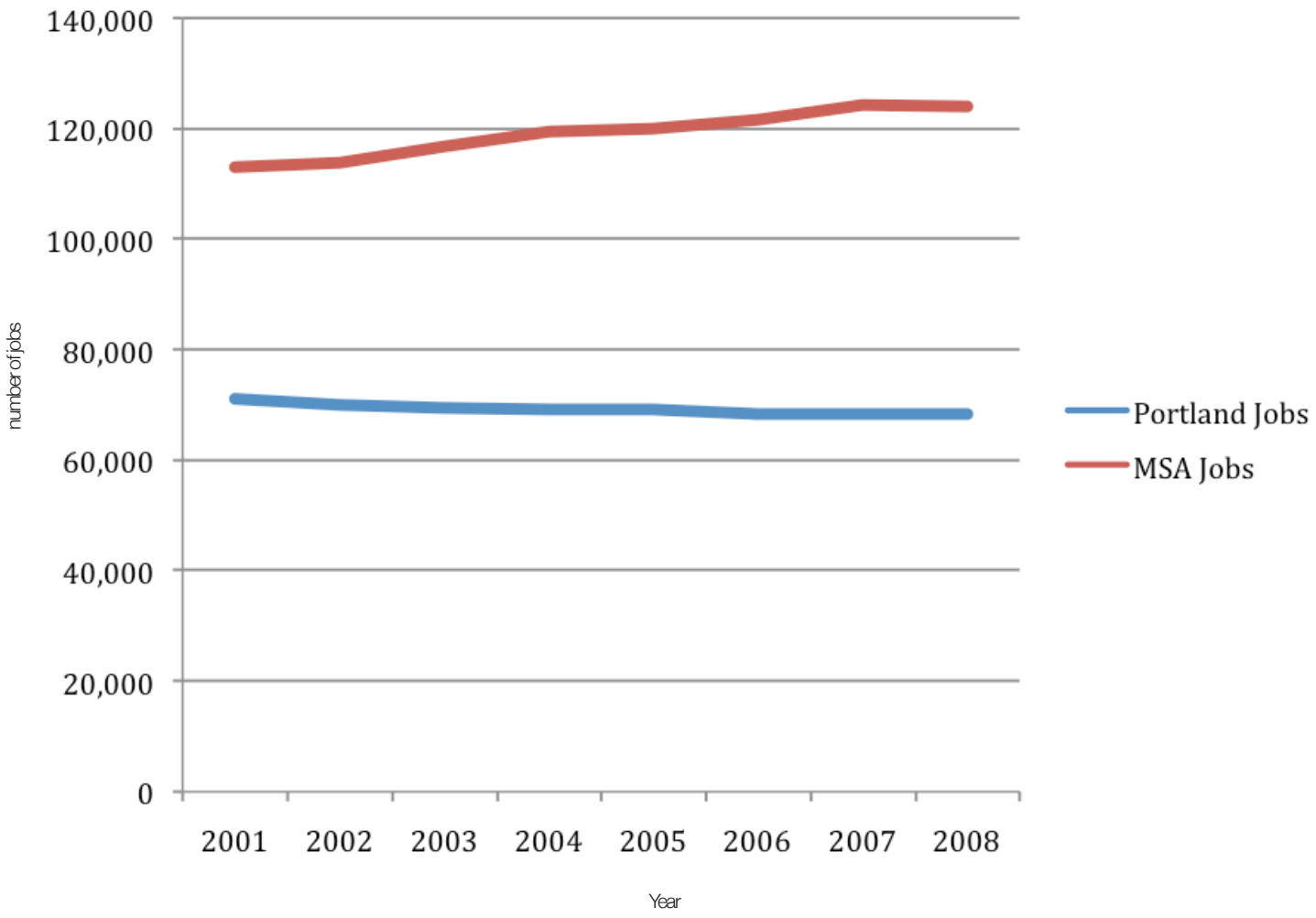
Portland has a **strong economic base** in social assistance, nursing and residential care facilities, and health care and social assistance.

Hospitals are the economic development **anchor** within the healthcare sector.

Table B-1
Employment Overview, 2008

Industry	Employment in Portland	Employment in MSA	% of Portland Total Employment	% of to MSA Total Employment
Total, all industries	68,600	124,100		
Agriculture, Forestry, Fishing & Hunting	16	431	0.02%	0.35%
Utilities	460	556	0.67%	0.45%
Construction	2,414	7,811	3.52%	6.29%
Manufacturing	3,445	11,117	5.02%	8.96%
Wholesale Trade	2,894	5,356	4.22%	4.32%
Retail Trade	5,333	20,601	7.77%	16.60%
Transportation and Warehousing	2,500	6,161	3.64%	4.96%
Information	2,618	2,429	3.82%	1.96%
Finance and Insurance	6,157	6,087	8.98%	4.90%
Real Estate and Rental and Leasing	1,506	1,686	2.20%	1.36%
Professional and Technical Services	5,301	5,410	7.73%	4.36%
Management of Companies and Enterprises	1,052	2,736	1.53%	2.20%
Administrative and Waste Services	3,994	5,254	5.82%	4.23%
Educational Services	4,647	11,247	6.77%	9.06%
Health Care and Social Assistance	15,990	16,047	23.31%	12.93%
Arts, Entertainment, and Recreation	1,046	2,378	1.52%	1.92%
Accommodation and Food Services	5,188	12,167	7.56%	9.80%
Other Services, Ex. Public Admin	1,890	3,372	2.76%	2.72%
Public Administration	2,150	3,228	3.13%	2.60%

Chart B-1
Number of Jobs, Portland and MSA, 2001-2008



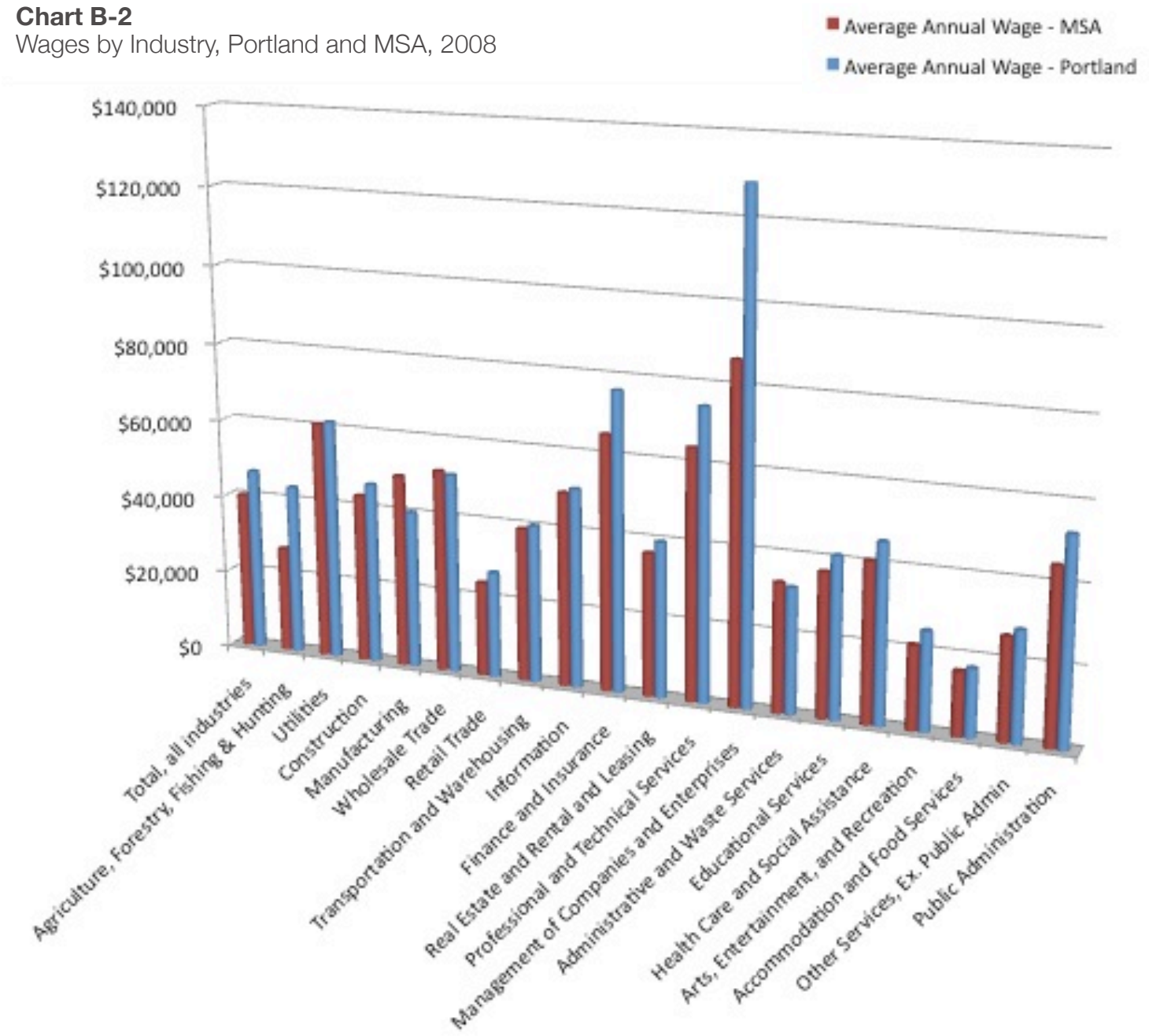
As illustrated in Chart B-1 overall employment in Portland slightly declined between 2001 and 2008, which gained jobs. Specifically, the City of Portland lost 2,487 jobs between 2001 and 2008, a decline of 3.5%. The MSA gained 11,094 jobs between 2001 and 2008, a 9.82% increase in employment.

Table B-2 describes job gains and losses in each industry for Portland and the MSA between 2001 and 2008. Portland lost jobs in 11 of 17 sectors during this period while the MSA gained jobs in 15 sectors and had employment decline in only two sectors: Manufacturing, Retail Trade and Administration.

Table B-2
Number of Jobs, Portland and MSA, 2001-2008

Industry	Change of Employment in Portland 2001-2008	Change of Employment in MSA 2001-2008	% Change of Employment in Portland 2001-2008	% Change of Employment in MSA 2001-2008
Total, all industries	-2,487	11,094	-3.50%	9.82%
Agriculture, Forestry, Fishing & Hunting	-3	86	-15.79%	24.93%
Utilities	-213	302	-31.65%	118.90%
Construction	51	216	2.16%	2.84%
Manufacturing	-320	-2,917	-8.50%	-20.79%
Wholesale Trade	-537	549	-15.65%	11.42%
Retail Trade	-456	-592	-7.88%	-2.79%
Transportation and Warehousing	-1,485	2,559	-37.26%	71.04%
Information	-349	72	-11.76%	3.05%
Finance and Insurance	-2,119	1,681	-25.60%	38.15%
Real Estate and Rental and Leasing	-75	181	-4.74%	12.03%
Professional and Technical Services	391	1,152	7.96%	27.05%
Management of Companies and Enterprises	348	705	49.43%	34.71%
Administrative and Waste Services	-921	670	-18.74%	14.62%
Educational Services	488	748	11.73%	7.12%
Health Care and Social Assistance	2,411	3,424	17.76%	27.13%
Arts, Entertainment, and Recreation	55	374	5.55%	18.66%
Accommodation and Food Services	194	1,452	3.88%	13.55%
Other Services, Ex. Public Admin	-14	199	-0.74%	6.27%
Public Administration	67	219	3.22%	7.28%

Chart B-2
Wages by Industry, Portland and MSA, 2008



Wages

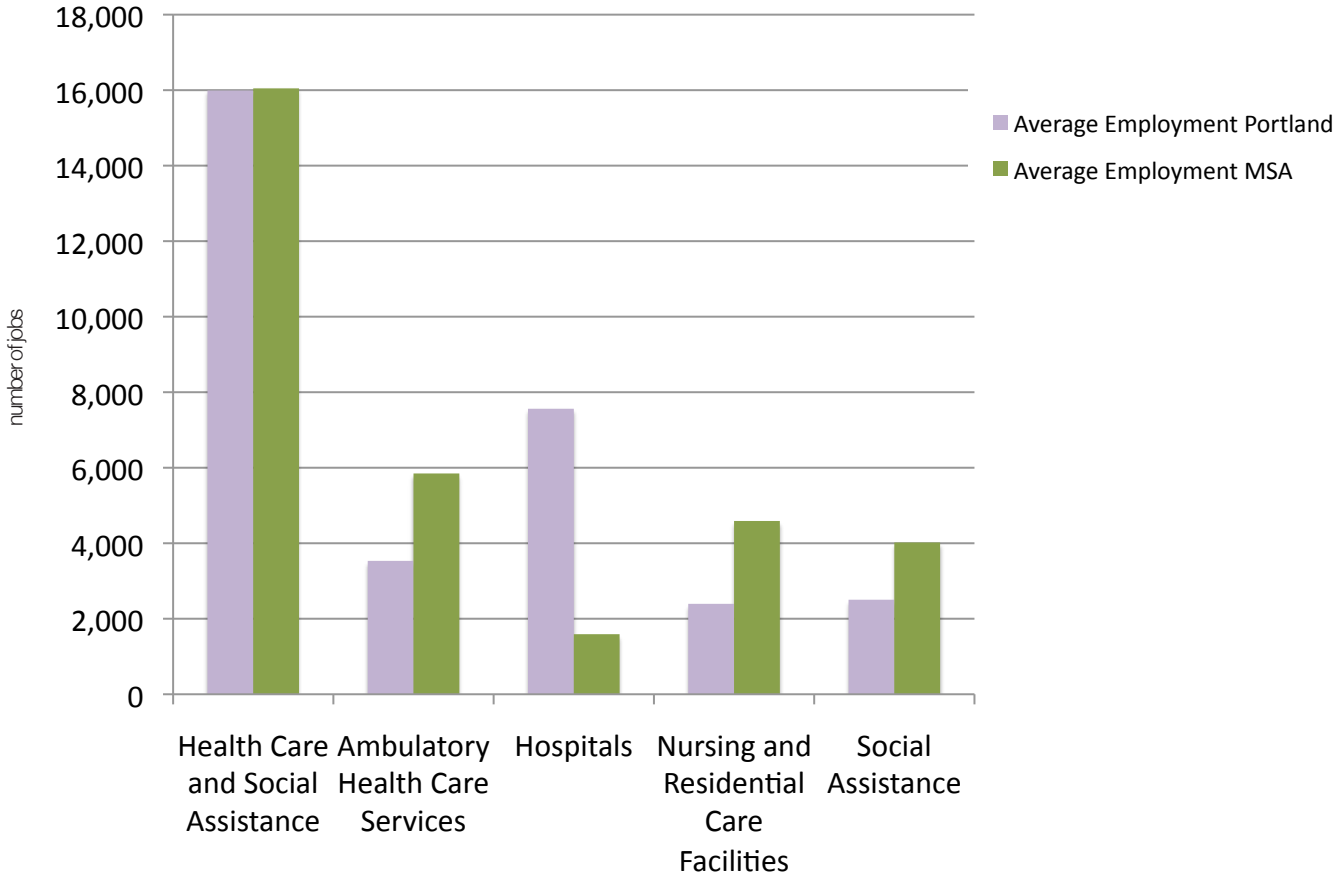
In 2008 overall wages were higher in Portland than the MSA. Chart B-2 indicates wages for each industry for the MSA and Portland. With the exception of Manufacturing, Wholesale Trade and Administrative and Waste Services, wages were higher in Portland than the MSA.

Table B-3
Wages by Industry, Portland and MSA, 2008

Industry	Estimated Payroll - Portland	Estimated Payroll – MSA	% Estimated Total Payroll - Portland	% Estimated Total Payroll - MSA
Total, all industries	$3,210,480,000	$5,001,230,000	100%	100%
Agriculture, Forestry, Fishing & Hunting	$697,216	$11,654,240	0.02%	0.23%
Utilities	$28,393,040	$33,913,776	0.88%	0.68%
Construction	$112,473,088	$338,341,276	3.50%	6.77%
Manufacturing	$139,370,920	$550,914,052	4.34%	11.02%
Wholesale Trade	$148,230,680	$278,233,488	4.62%	5.56%
Retail Trade	$144,481,636	$497,060,928	4.50%	9.94%
Transportation and Warehousing	$101,140,000	$242,521,604	3.15%	4.85%
Information	$133,413,280	$120,750,448	4.16%	2.41%
Finance and Insurance	$471,921,736	$398,503,716	14.70%	7.97%
Real Estate and Rental and Leasing	$60,143,616	$61,984,104	1.87%	1.24%
Professional and Technical Services	$395,560,620	$347,711,520	12.32%	6.95%
Management of Companies and Enterprises	$135,228,288	$237,167,424	4.21%	4.74%
Administrative and Waste Services	$128,558,872	$173,760,288	4.00%	3.47%
Educational Services	$192,106,980	$416,408,928	5.98%	8.33%
Health Care and Social Assistance	$735,028,320	$658,376,316	22.89%	13.16%
Arts, Entertainment, and Recreation	$26,488,904	$51,069,928	0.83%	1.02%
Accommodation and Food Services	$90,644,736	$199,295,460	2.82%	3.98%
Other Services, Ex. Public Admin	$53,366,040	$88,899,408	1.66%	1.78%
Public Administration	$113,141,600	$144,691,872	3.52%	2.89%

In 2008, the largest payroll contributor in Portland and the MSA was Health Care and Social Assistance. Finance and Insurance Services were the second most significant contributor to Portland's payroll and Professional and Technical Services the third. Together, these three sectors accounted for half of the city's 2008 estimated payroll. Manufacturing is the second greatest contributor to the MSA's payroll, while Retail and Trade is third.

Chart B-3
Health Care Employment, Portland, MSA, 2008

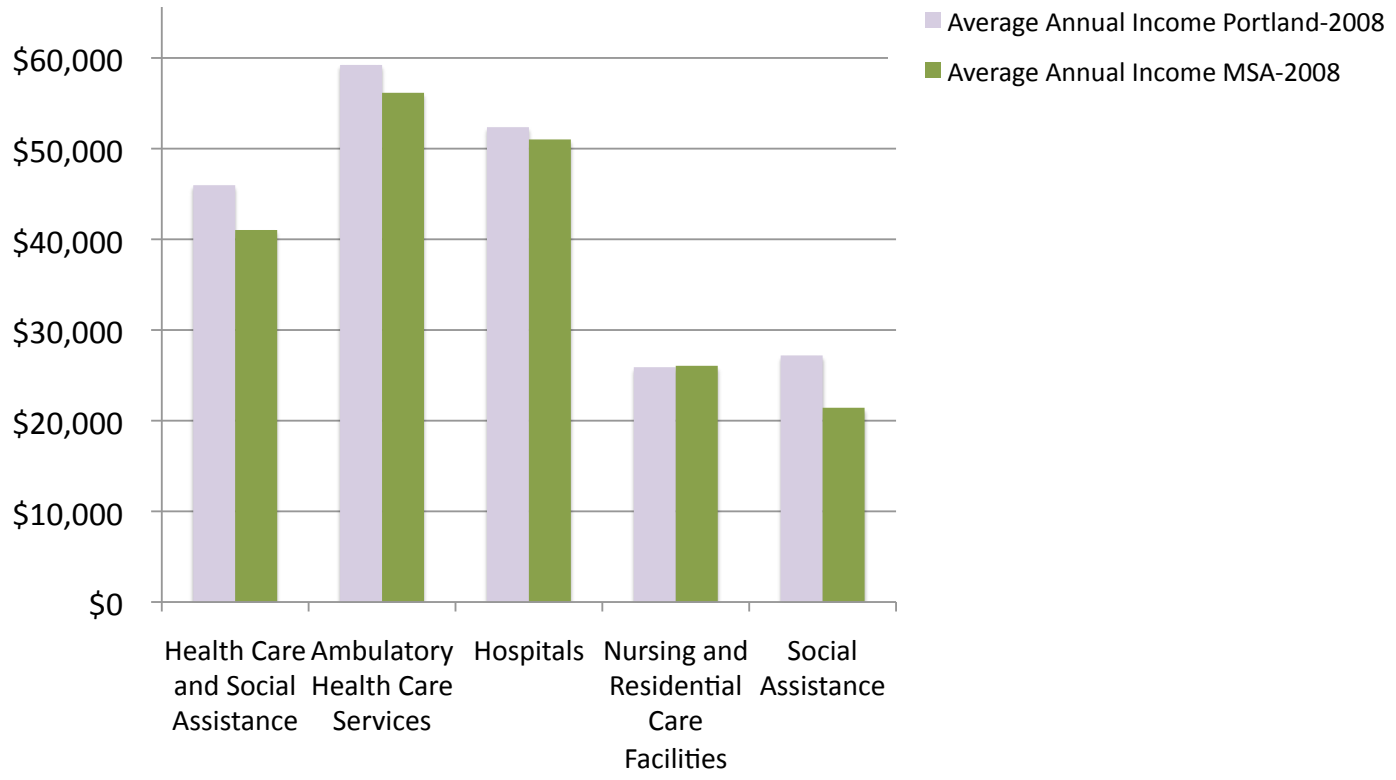


Health Care

Health care and social assistance is a significant source of employment and payroll in Portland. For this reason we have profiled the number of jobs, average wage, average size of establishment, and location quotient.

In 2008, the average employment for the Health Care and Social Assistance sectors was comparable between Portland and its surrounding MSA. Portland, though, has a higher concentration of hospital jobs while the MSA offers more jobs in Ambulatory Health Care sector including dentists, health physicians and health practitioners. The MSA offers more jobs than Portland in Nursing and Residential Care Facilities as well as Social Assistance.

Chart B-4
Average Health Care & Social Assistance Wages, Portland and MSA, 2008



Annual wages offered in the Health Care and Social Assistance sector are consistently higher in Portland than the MSA with the exception of Nursing and Residential Care Facilities, in which they are similar. The highest annual wages for Portland and the MSA, are in the ambulatory health care and social assistance industry, and the hospital industry.

Chart B-5

Average Annual Real Wages for Health Care & Social Assistance, Portland, 2001-2008

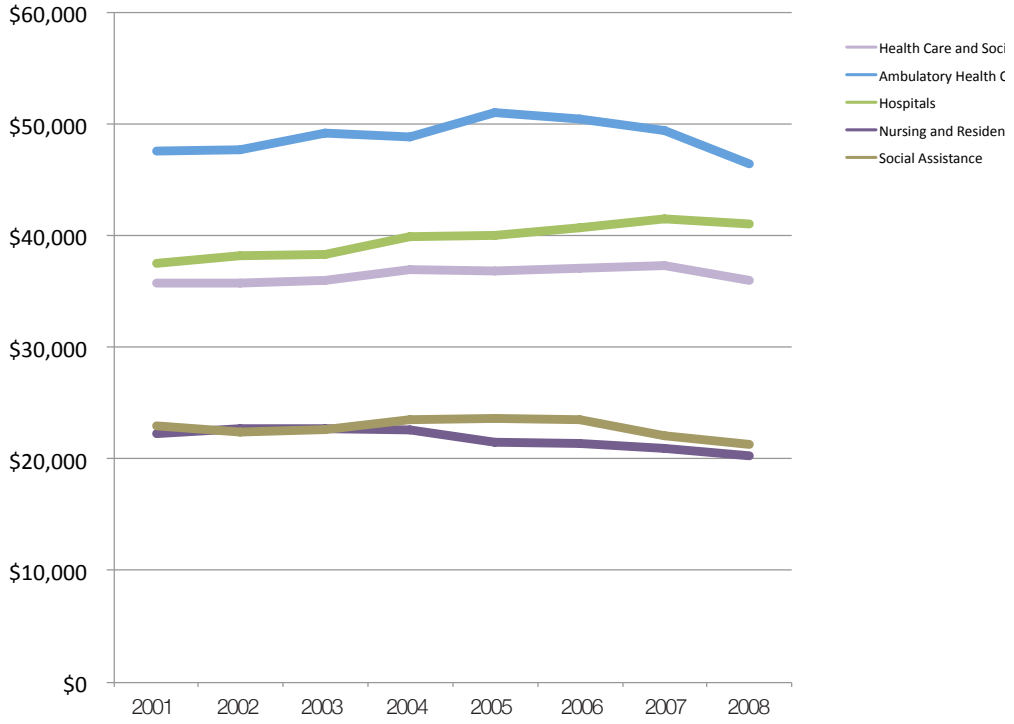


Chart B-6

Average Annual Real Wages for Health Care & Social Assistance, MSA, 2001-2008

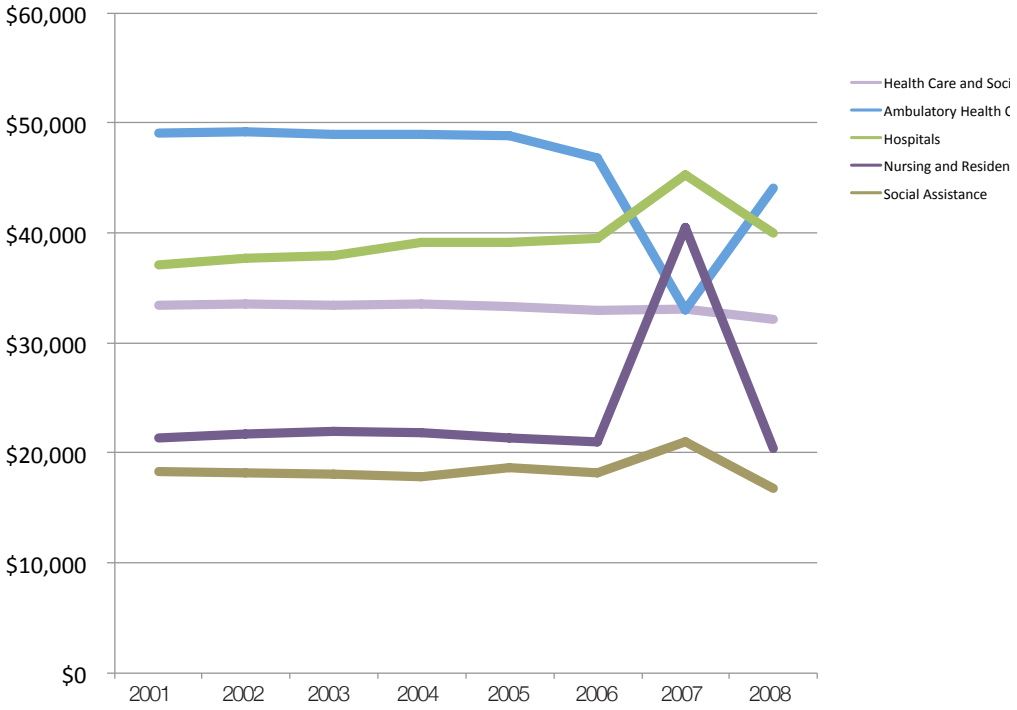


Table B-4
*Location Quotient for Health Care & Social Assistance, 2008

Industry	Maine	MSA	Portland
Health Care and Social Assistance	1.42	0.94	1.69
Ambulatory Health Care Services	1.04	0.95	1.03
Hospitals	1.52	0.32	2.73
Nursing and Residential Care Facilities	1.72	1.39	1.31
Social Assistance	1.76	1.55	1.75

*Note: In general, location quotients are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to a larger area or base. For example, location quotients can be used to compare State employment by industry to that of the nation; or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic sub-area to that in the State. - Source: Bureau of Labor Statistics

We collected annual wages for the health care industry and adjusted for inflation. As indicated in chart B-5, annual wages for Portland within the health care industry have remained relatively stable. There has been a slight increase in wages related to hospital employment while the remaining sectors have slightly declined. This decline may be due to the recession.

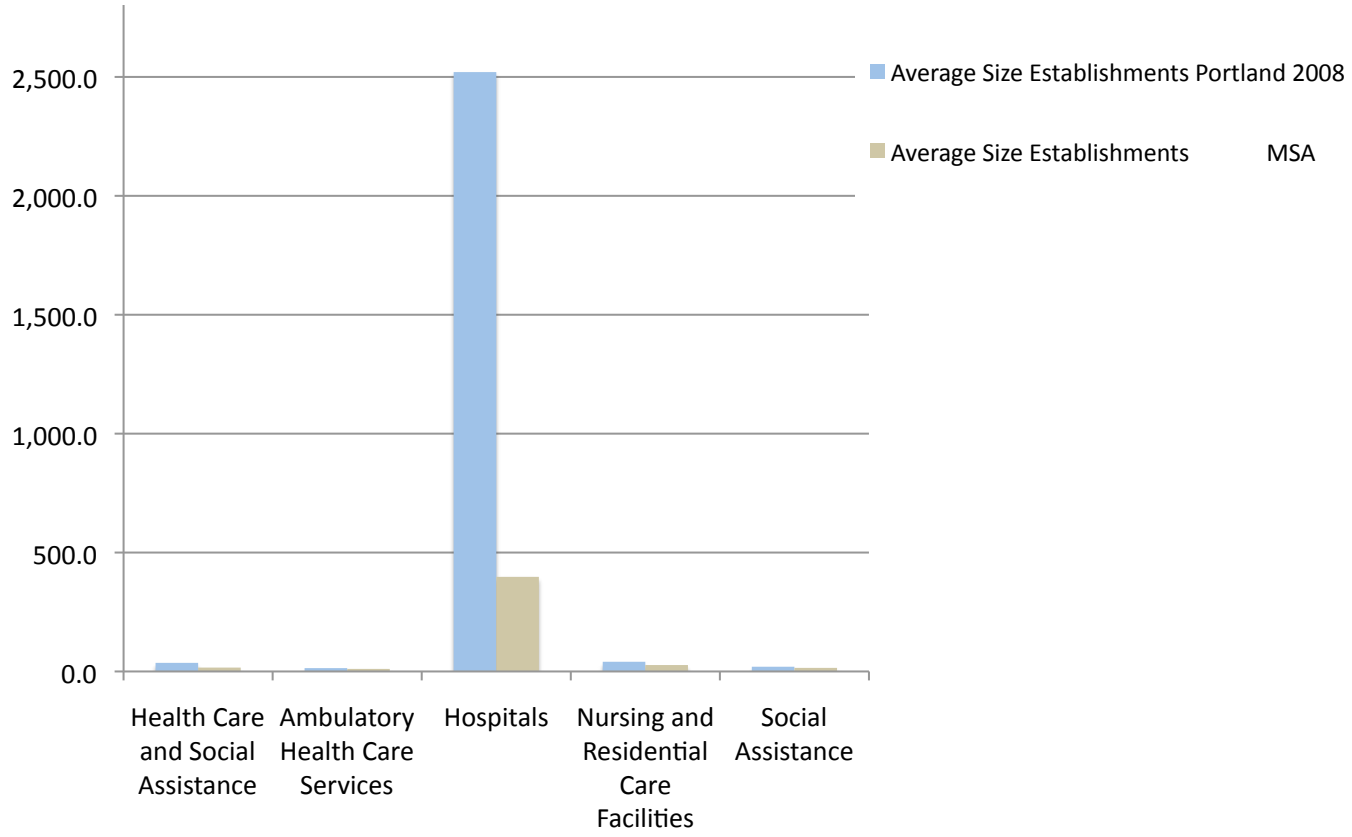
Overall, higher wage levels exist in the ambulatory health care sector (physicians, dentists, chiropractors, optometrists, etc.) while social assistance services and nursing and residential care facilities pay lower wages. Specifically, hospital wages increased 9.39% between 2001 and 2008. For the same time period, ambulatory health care services decreased 2.37%, nursing and residential care facilities declined 8.74% and social assistance decreased 6.99%.

Similar observations can be made for the health care industry in the MSA. Ambulatory health care services and hospital employment enjoy higher wages. Significant changes occurred between 2005-2007. There is a slight decline in the wages in all sectors in 2008, which may be due to the recession. Specifically, overall annual wages for the health care and social assistance sector have declined 3.76% between 2001 and 2008. Annual wages in ambulatory and health care services declined 10.18%, followed by social services that declined by 7.68%, and nursing and residential care facilities that declined by 4.40%. In contrast, annual wages in hospitals increased by 7.76% in this time frame.

Portland has a strong economic base in social assistance, nursing and residential care facilities, and health care and social assistance (Table B-4). All industries within the health care and social assistance sector in Portland are characterized by a location quotient higher than 1, and provide a strong base for Portland to build upon. Hospitals are the economic development anchor within the sector as they are characterized by a location quotient of 2.73. This means hospital jobs are 2.7 times more concentrated in Portland than the nation.

The outlook of the MSA is somewhat different. While Portland demonstrates a strong economic base in hospitals and social assistance services, the low location quotients in these areas suggests that there is room for their growth within the MSA. As such, Portland may face increased competition to retain its position in the heath care sector.

Chart B-7
Establishment Size by Number of Employees, 2008



Hospitals are by far the largest health care establishments in both Portland and the surrounding region. The size of hospitals in Portland, with an average of 2,520 employees per hospital, is considerably larger than hospitals in the MSA which have 397.8 employees per hospital.

The health care industry has been growing in Portland since 2001. The largest growth occurred among hospitals, while ambulatory health care services, nursing and residential care facilities, and the social assistance sector remained relatively stable. Specifically, the overall health care and social assistance sector in Portland added 2,411 jobs from 2001 to 2008, a 17.76% increase. There were 7,561 jobs within Portland's hospitals in 2008, an increase of 1,295 (20.67%) from 2001.

The MSA's health care industry has also been growing since 2001. The largest MSA growth occurred in ambulatory health care services, nursing and residential care facilities as well as the social assistance sector, while hospitals' contribution to employment remained stable.

Overall, there has been a 27.1% increase of jobs (3,424) within the MSA's health care and social assistance sector from 2001 to 2008. Between 2001 and 2008, ambulatory health care services grew 38.59% with the addition of 1,628 jobs; hospitals grew 13,97% with the addition of 195 jobs; nursing and residential care facilities increased 9.44% with 396 more jobs; and social assistance expanded by 42.81% with 1,205 additional jobs.

Chart B-8
Average Health Care Employment, MSA, 2001-2008

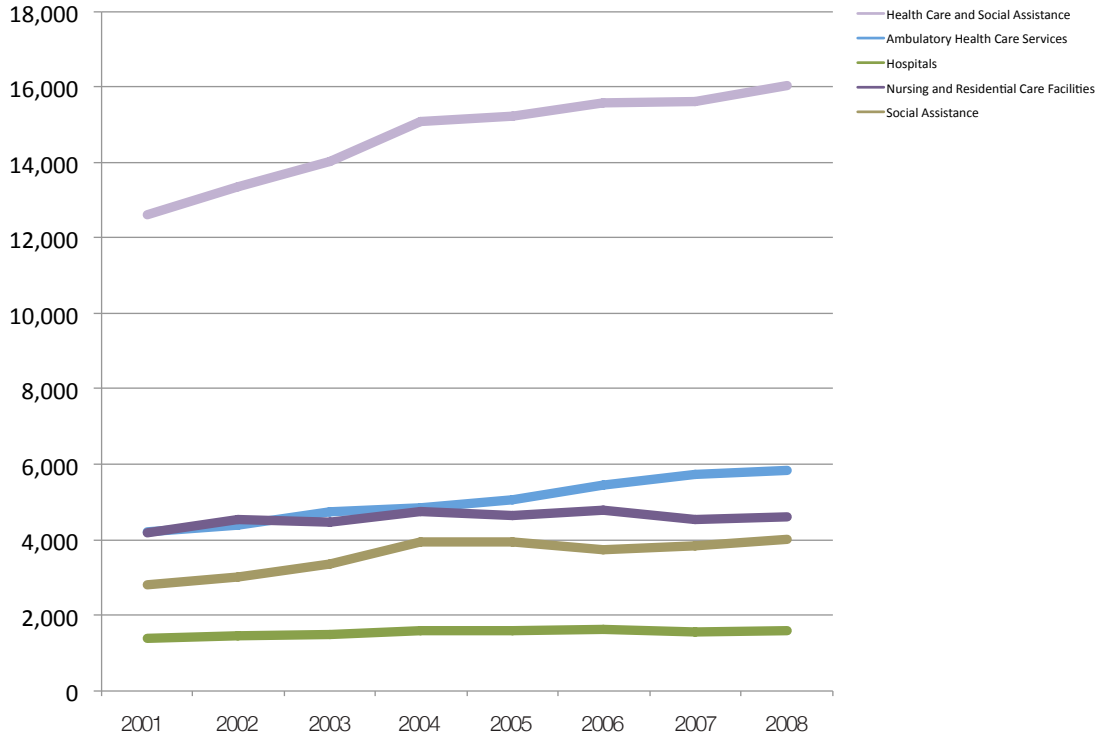


Chart B-9
Average Health Care Employment, Portland, 2001-2008

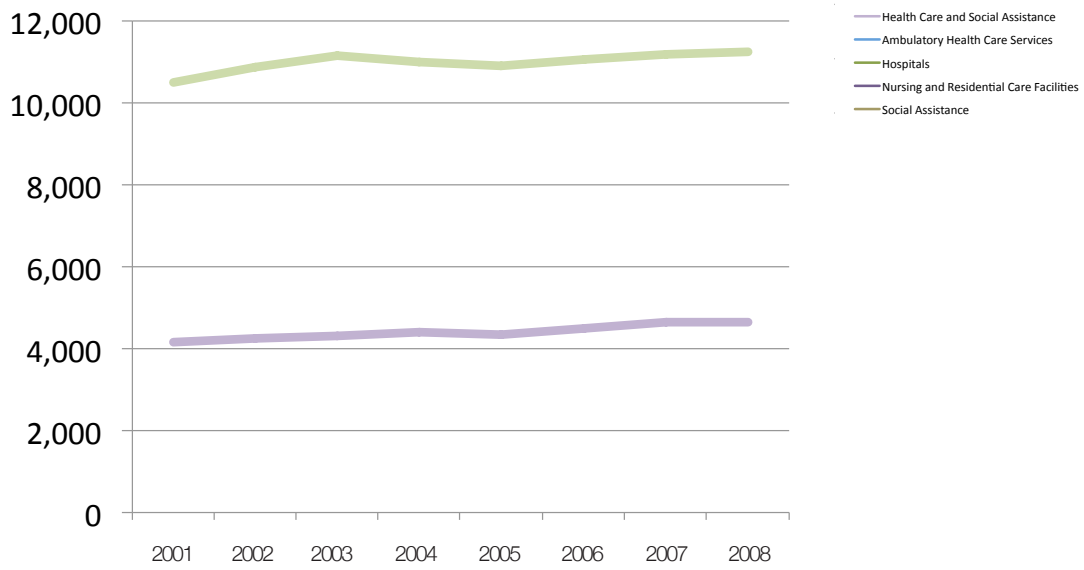


Chart B-10

Average Employment for Educational Services, MSA and Portland, 2001-2008

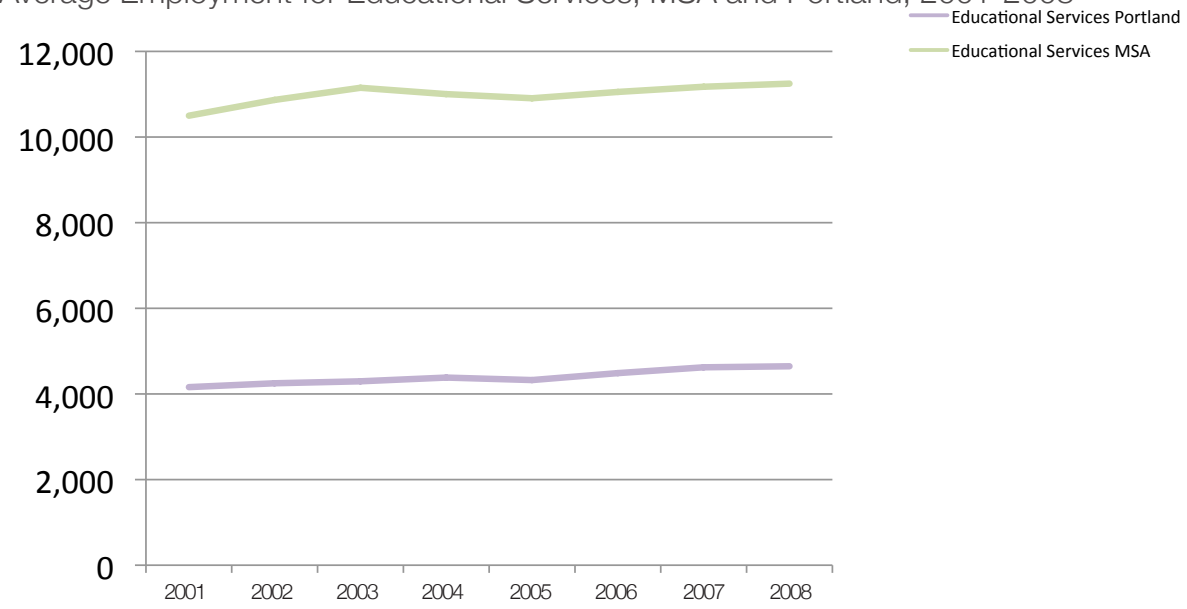


Chart B-11

Average Annual Wage, MSA and Portland, 2001-2008

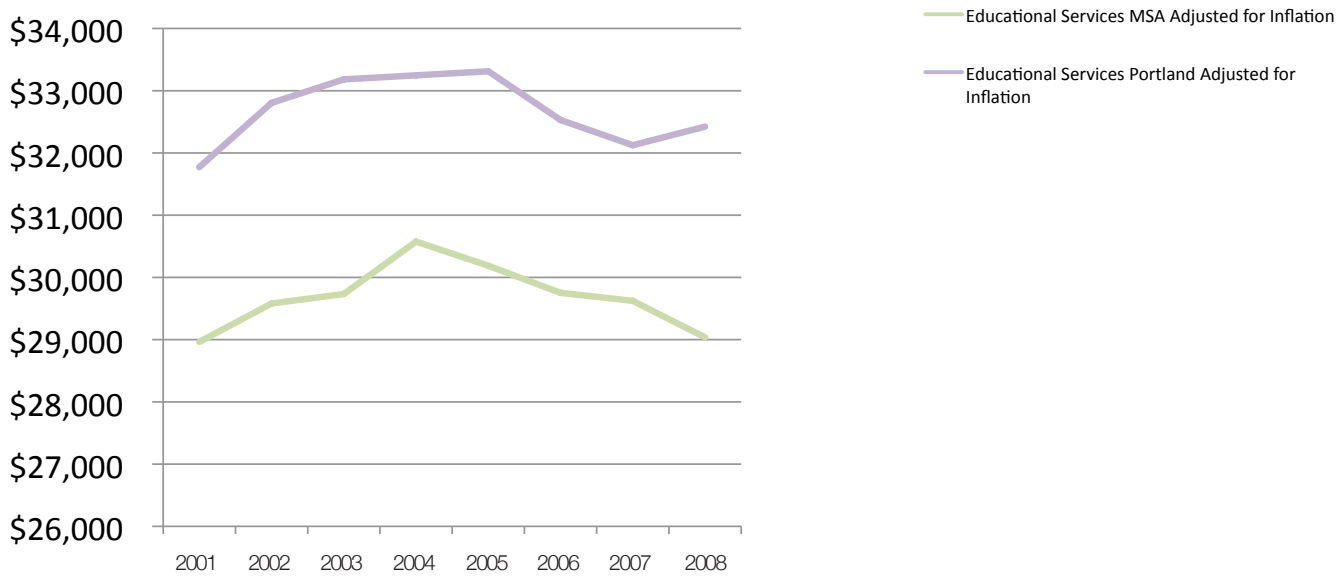


Table B-5
*Location Quotient for Educational Services, 2008

NAICS Code	Industry	Maine	MSA - Portland	Portland
61	Educational Services	1.02	4.33	3.24

Education

The educational sector provides a significant number of jobs in Portland. It offers more than twice as many employment opportunities in the surrounding MSA than in Portland. In both geographic areas, there is some growth between 2001 and 2008. Specifically, from 2001 to 2008 Portland added 288 jobs in the educational services sector, an increase of 11.73% , while the MSA added 748, an increase of 7.12%.

With respect to educational services, annual real wages increased between 2001 and 2005 and declined afterwards in both the geographic area of Portland and in the MSA. Since 2007, there is some increase in the annual wages for the city of Portland while wages in the MSA continued to decline. Overall, annual wages have increased 0.25% in the City of Portland and 2.05% in MSA between 2001 and 2008.

As evidenced by the high location quotients, both Portland and the MSA area have a strong base and concentration of jobs educational services, at 3.2 and 4.3 times the national share respectively (Table B-5).

key findings

Annual real **wages increased** .25% in the City of Portland and 2% in the MSA between 2001 and 2008.

The City of Portland and the MSA have a **strong economic base in education**.

*Note: In general, location quotients are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. For example, location quotients can be used to compare State employment by industry to that of the nation; or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic sub-area to that in the State. - Source: Bureau of Labor Statistics

Chart B-12

Average Employment of Finance and Insurance Industries, Portland & MSA, 2008

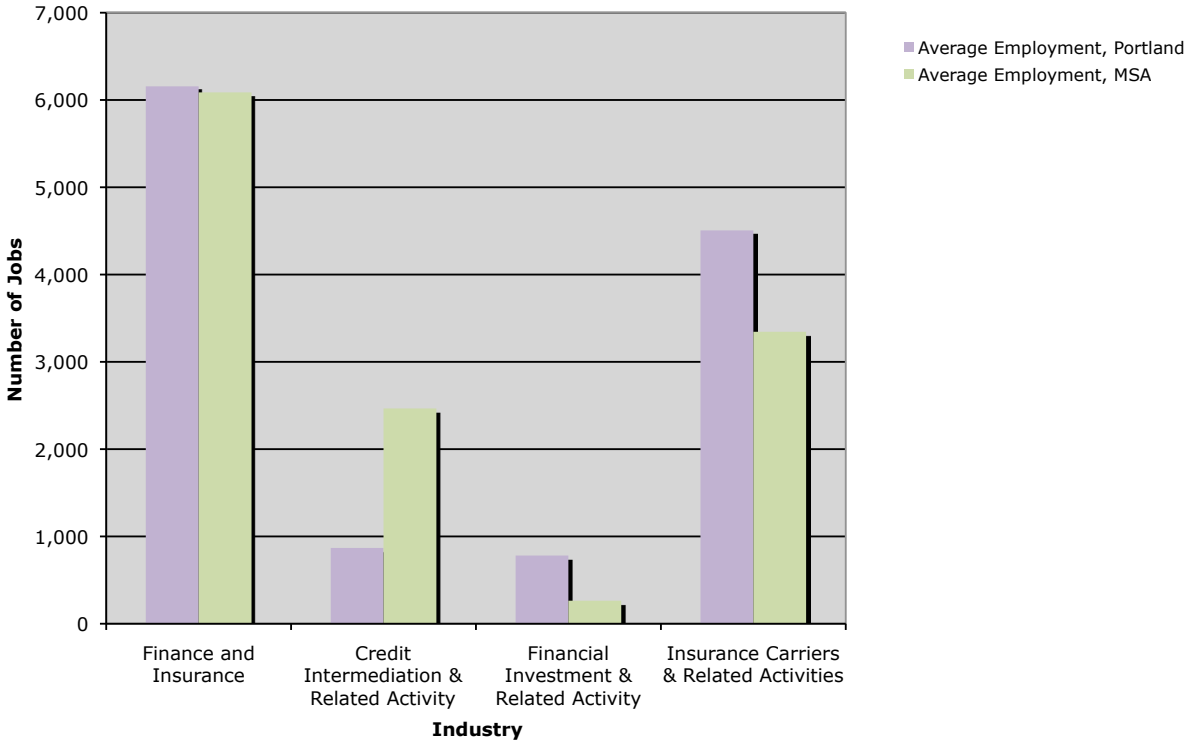
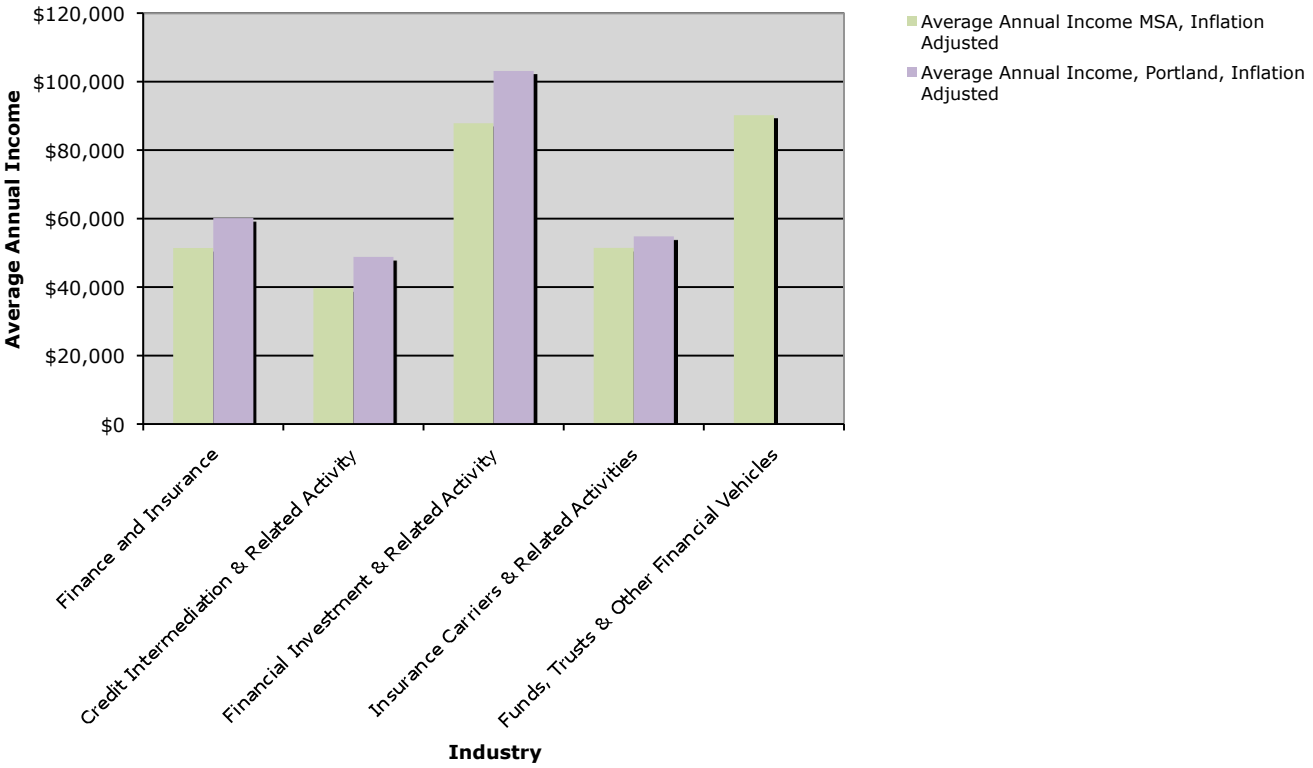


Chart B-13

Average Annual Real Wages of Finance and Insurance Industries, Portland & MSA, 2008



Finance and Insurance

The finance and insurance industries exemplify how Portland attracts well-paying jobs while struggling to complete with the surrounding region.

The City of Portland and the surrounding area have approximately the same number of finance and insurance jobs. The City of Portland has approximately 25% more insurance related jobs than the surrounding region, while approximately three times more jobs exist in the surrounding area than Portland in the credit intermediation industry.

Firms in Portland pay 7% to 23% more than firms throughout the region. Data are not available for firms in Portland that specialize in funds, trusts and other financial vehicles.

key findings

Finance and Industry jobs in Portland **pay significantly better than** jobs in these sectors in the MSA.

The City has **lost approximately 2,000 jobs** in these sectors, while the region has gained a similar number of these jobs.

Portland has a **strong export base** in the finance and insurance industries.

Chart B-14

Number of Jobs in Financial Services and Insurance Industries, Portland, 2001-2008

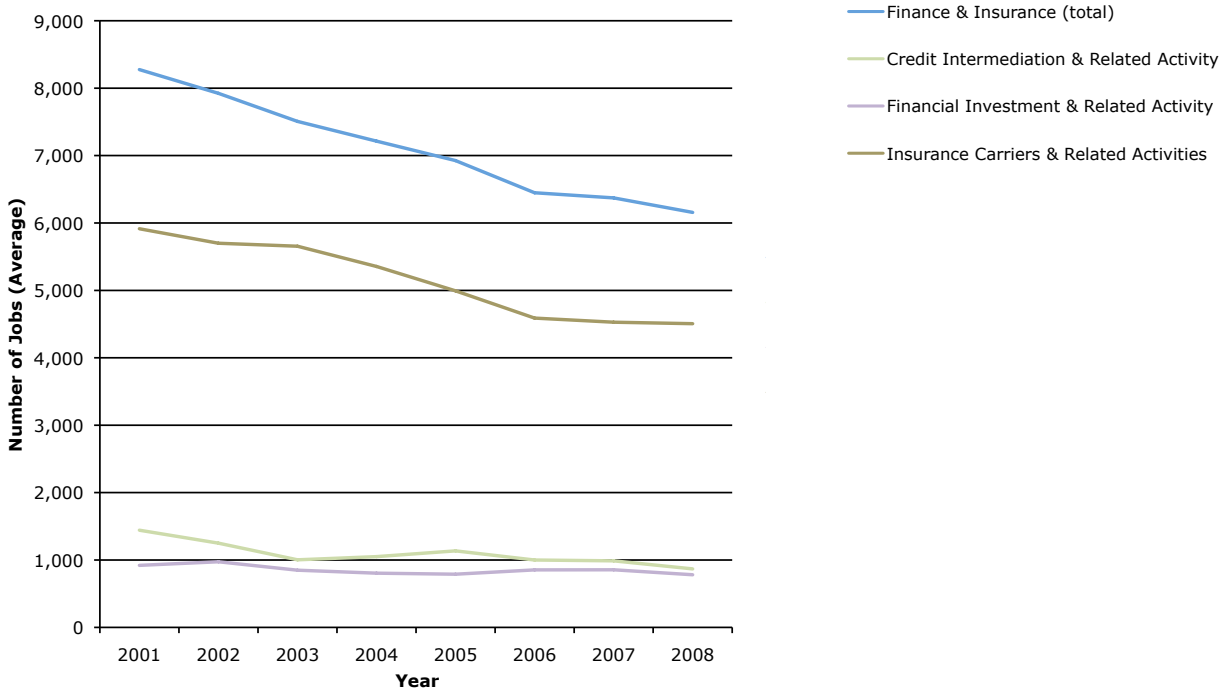


Chart B-15

Number of Jobs in Financial Services and Insurance Industries, MSA, 2001-2008

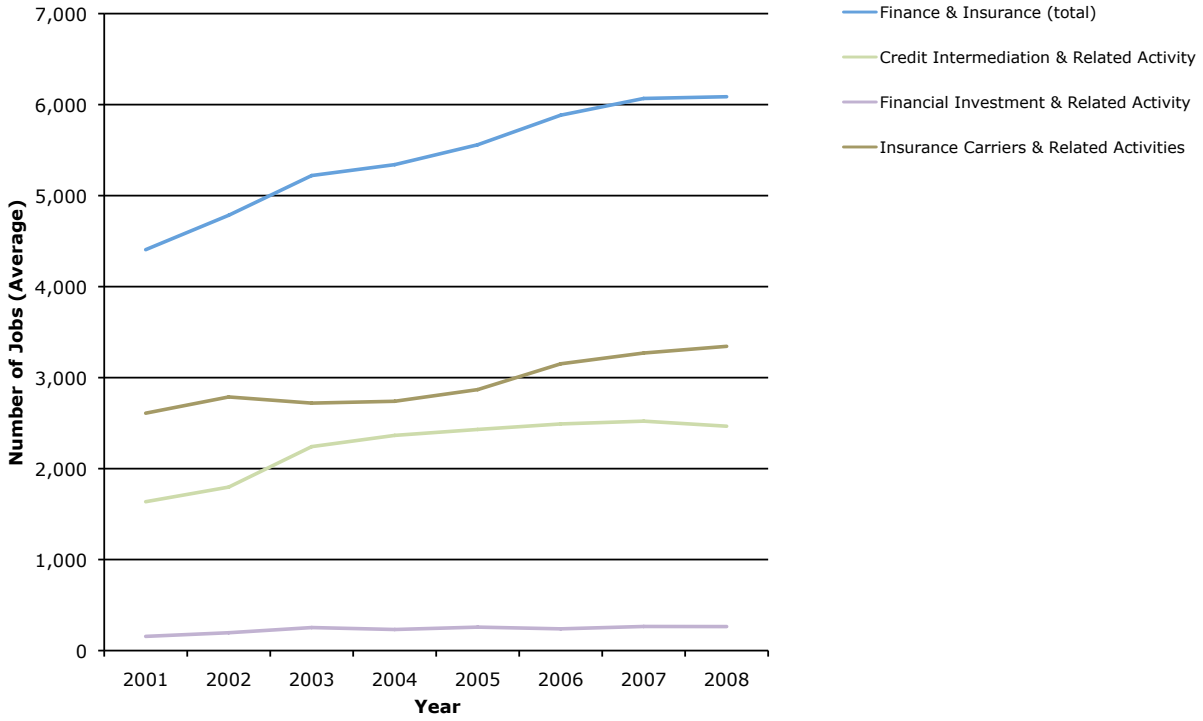
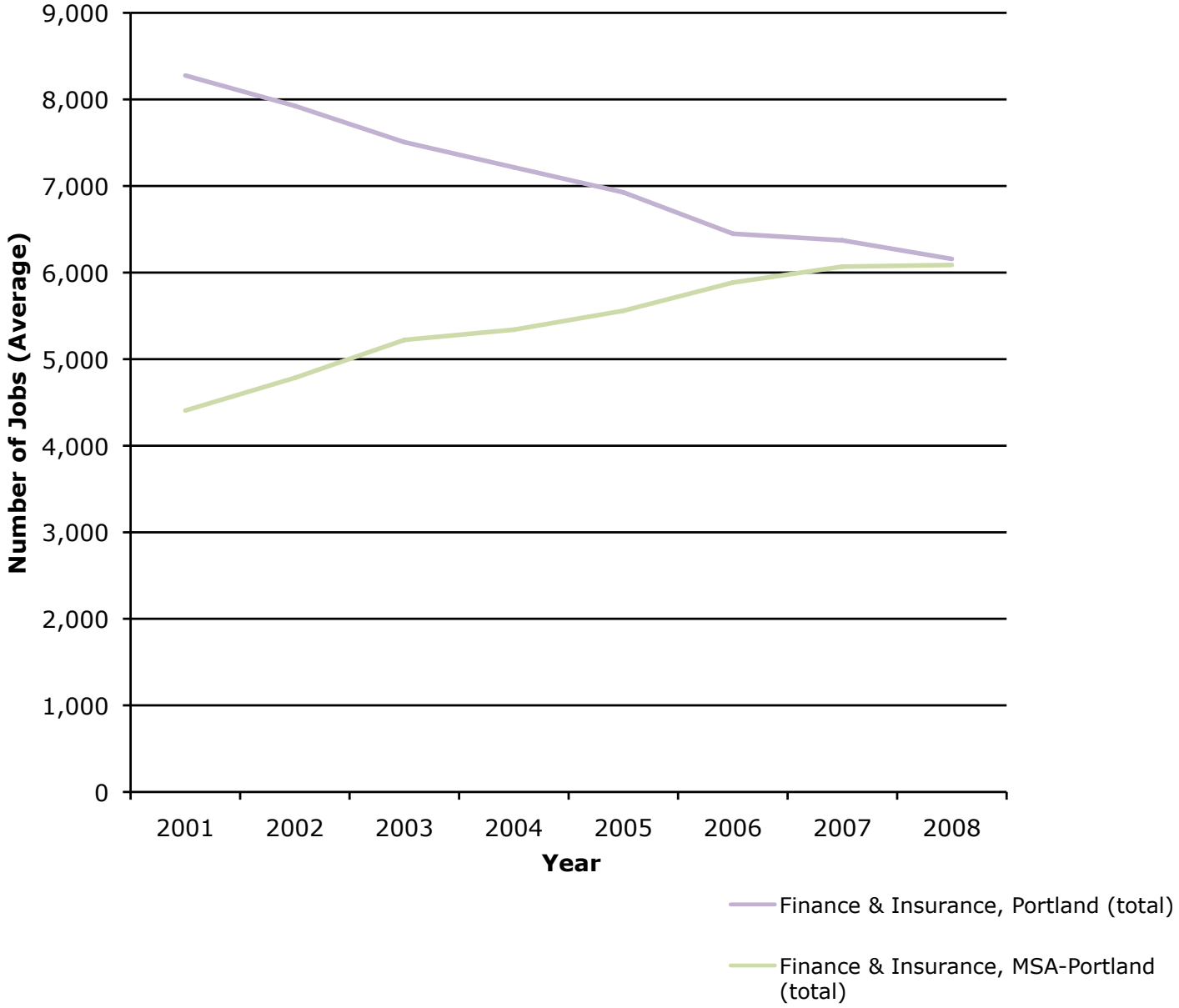


Chart B-16
Employment For Financial Services and Insurance, Portland & MSA, 2001-2008



Portland lost 2,119 jobs in the finance and insurance industries from 2001 to 2008 while the surrounding region gained 1,681 similar jobs. These data indicate that the City of Portland may be losing firms to the surrounding region. These jobs losses were especially high among insurance firms; employment also declined among Portland's banks (credit intermediation). 2.5 times more jobs were lost in Portland in the finance and insurance industries than the credit intermediation industries during this time frame.

Chart B-17

Average Annual Real Wages in Financial Services and Insurance Industries, Portland, 2001-2008

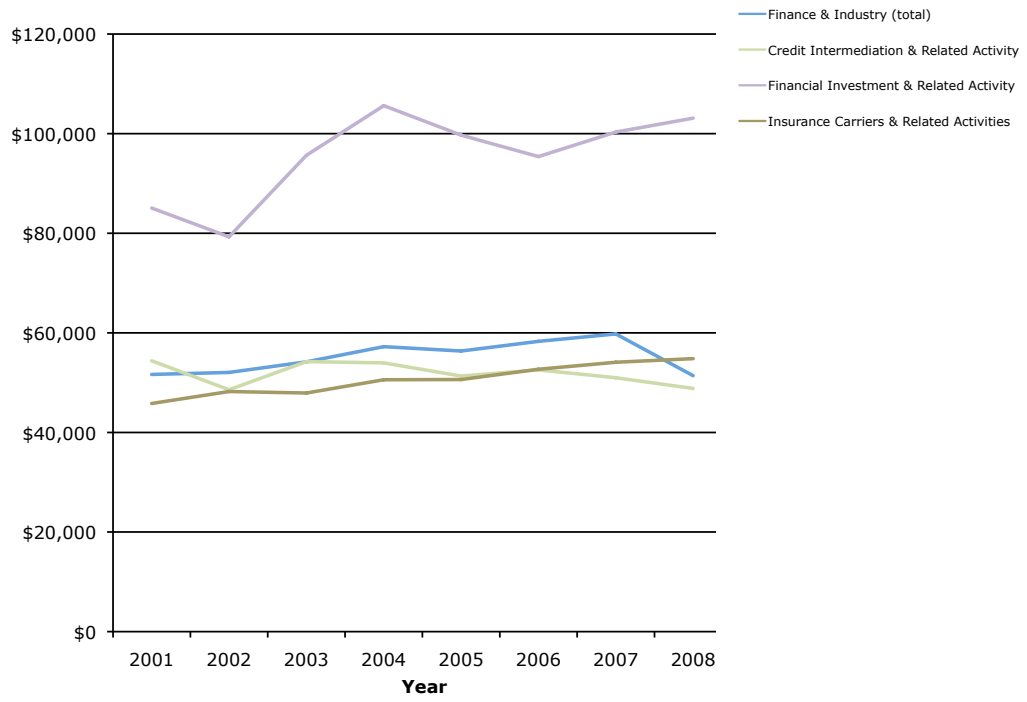


Chart B-18

Average Annual Real Wages in Financial Services and Insurance Industries, MSA, 2001-2008

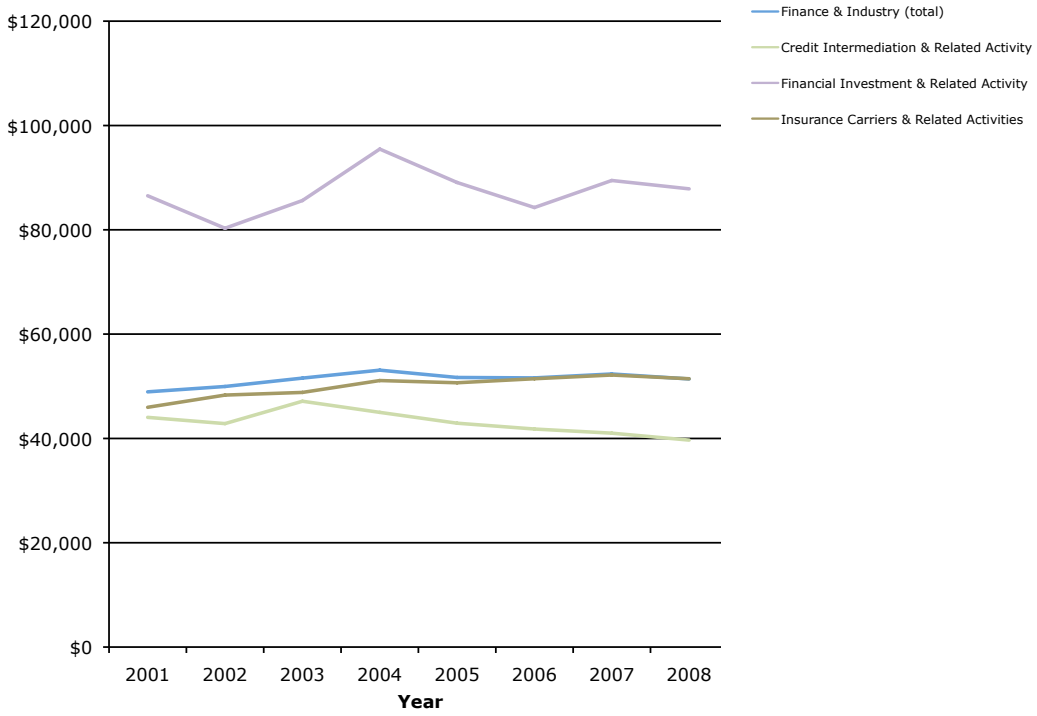


Table B-6
*Location Quotient Analysis of Finance and Insurance Industries, 2008

NAICS Code	Industry	Maine	MSA - Portland	Portland
NAICS 52	Finance and insurance	0.94	0.95	1.74
NAICS 522	Credit intermediation and related activities	1.01	0.83	0.53
NAICS 523	Securities, commodity contracts, investments	0.36	0.28	1.48
NAICS 524	Insurance carriers and related activities	1.13	1.41	3.44

Table B-7
Percent of Employment, 2008

Industry	U.S Total	Maine	MSA - Portland	Portland
Finance and insurance	5.17%	4.88%	4.90%	8.98%
Credit intermediation and related activities	2.40%	2.43%	1.99%	1.27%
Securities, commodity contracts, investments	0.77%	0.28%	0.21%	1.14%
Insurance carriers and related activities	1.91%	2.16%	2.69%	6.57%

Average annual real wages increased by 5% in the financial and insurance industries throughout the region. From 2001 to 2008, annual real wages increased by 2% for employees in financial investment and related firms, and decreased by 10% in credit intermediary and related firms. Average annual real wages grew by 12% in insurance carrier and related firms.

Annual real wages were stable for the financial services sector from 2001 to 2008. Within financial services, wages increased in financial investment and insurance firms and decreased in credit intermediation firms. Annual real wages increased by 21% and 20% in the financial investment and insurance industries, respectively. However, wages dropped by 10% in the credit intermediation industry during this time frame.

Despite recent job losses, Portland still has a strong base in the finance and insurance industries, which indicates its financial service firms serve"export" markets beyond the city. In particular, Portland has an export base in securities, commodity contracts, investments, insurance carriers and related activities even though many of these firms left to the surrounding region.

Significantly, the finance and insurance industries constitute 9% of the City's employment; the insurance industry constitutes nearly 7% of its employment. These statistics indicate the City would benefit by retaining and growing its existing finance and insurance industries.

*Note: In general, location quotients are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. For example, location quotients can be used to compare State employment by industry to that of the nation; or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic sub-area to that in the State. - Source: Bureau of Labor Statistics

Tourism in Portland

Tourism is widely considered to be an important component of Portland's economy, and the city has supported the tourism industry with recent investments, such as providing $3.6 million in funds for the new Ocean Gateway ferry terminal. In 2008, the Greater Portland and Casco Bay region received an estimated 5.57 million overnight visitors and 2.82 million day visitors, according to the Maine Office of Tourism. These visitors represent 15% and 17%, respectively, of the total visitors to Maine. Shopping is the focus of day leisure visits to the region, while rest and relaxation is the primary purpose of overnight leisure visits. Many overnight visits to Greater Portland also center around activities such as sporting events, concerts, and festivals. Of the visitors to the Portland region, the majority¬, roughly 75%, visit the City of Portland.

While tourism is perceived as integral to Portland's economy, there is no existing research quantifying tourism's economic contribution to the city. There are many challenges to conducting this analysis, including data availability and consistency, and the fact that many businesses serve both tourists and residents. We have developed a methodology, described in detail in the following technical appendix, that estimates the employment contribution of tourism to the Portland economy. This approach first estimates Portland visitor (i.e., tourist) expenditures by multiplying state visitor expenditures, available from the Office of Tourism, by the share of Maine visitors that visit the City of Portland. Next, the estimated Portland tourist spending on food, retail , and recreation was divided by total receipts from those industries, as reported in the 2007 U.S. Economic Census, to estimate the percentage of receipts attributable to tourism. Finally, this percentage, which estimates the share of business sales related to tourists, was multiplied by the total employment in each business category to estimate the number of Portland jobs supported by tourism. All lodging receipts and jobs were considered tourism-related, as lodging almost exclusively serves visitors. The results of this analysis are presented in Table B-8.

As table B-8 shows, roughly 4,000, or about 6%, of the city's jobs can be attributed to tourism spending. While this analysis gives some indication of the relative importance of tourism to the city's economy, it only provides a rough estimate of tourism impacts. When interpreting these data, it should be noted that the analysis compares 2008 spending data to 2007 receipts. In addition, the expenditures are extrapolated from state-level data, while in reality spending patterns likely differ at the regional or metropolitan scale. The analysis also does not consider transportation-related expenditures, as there is no way to relate these expenditures to Portland-specific activities.

While the analysis suggests that tourism contributes a significant number of jobs to Portland's economy, the average annual wages of tourism-related jobs are lower than other jobs in the city. This is expected and partly due to the seasonal nature of tourism in Maine. Table B-9 2 provides a summary of the average wages in tourism-related industries in Portland in 2008, in descending order. Average wages in all of these industries are substantially below the average annual wage in Portland in 2008, $46,800. Within the tourism-based industries, those related to arts and culture have the highest average wages.

1.Only receipts from retail establishments that tourists would likely visit were included. These establishments were: home furnishings stores; specialty food stores; clothing and clothing accessory stores; sporting goods, hobby, book, and music stores; gift, novelty, and souvenir stores; and art dealers.

Table B-8
Estimated Portland Visitor Expenditures and Jobs Attributed to Tourism, 2008

Spending Category	Estimated Portland Visitor Expenditures*	Total Portland Receipts	% Receipts Attributable to Tourism	Jobs Attributable to Tourism
Lodging		$58,667,000	100%	953
Food Services and Drinking Places	$96,488,300	$187,320,000	52%	2,119
Retail Goods	$86,625,505	$109,204,000	79%	599
Recreation, Arts and Entertainment	$23,260,798	$50,699,000	46%	361
Total				**4,032**

* Visitor expenditures combine estimated expenditures for leisure, business, and family/relative visits.

Table B-9
Average Wages in Tourism-Related Industries, 2008

NAICS Code	Industry	Average Wages
Tourism-Related Industries		
453920	Art Dealers	$31,980
711	Performing Arts and Spectator Sports	$29,640
712	Museums, Parks and Historical Sites	$28,964
448	Clothing and Clothing Accessories Stores	$28,548
44-45	Retail Trade	$27,092
445	Food & Beverage Stores	$20,748
721	Accommodation	$20,644
713	Amusement, Gambling & Recreation Industries	$19,916
451	Sporting Goods/Hobby/Book/Music Stores	$18,356
722	Food Services and Drinking Places	$16,796
453220	Gift, Novelty, and Souvenir Stores	$13,520
Portland Average		**$46,800**

Manufacturing

Here, we analyze manufacturing because it is the strongest sector within the Good – Producing Domain for both Portland and the MSA. Importantly, manufacturing jobs can provide wages for Portland residents who do not have a higher education.

The manufacturing sector for the entire metropolitan statistical area (MSA) in 2008 is comprised of 14,562 jobs. The MSA also supports 11,117 manufacturing jobs and Portland holds 3,445 manufacturing jobs. The dominant manufacturing sub-sector for the City of Portland is Food Manufacturing (NAICS 311). Within the 3 digit NAICS level, food manufacturing is broken down into the following 4-digit coded categories: Bakeries and Tortilla Manufacturing; Fresh and Frozen Seafood Processing; Retail Bakeries; and Poultry Processing. This sector supports a total of 1,657 jobs compared to the 754 jobs in the surrounding region.

Average annual manufacturing wages in Portland were lower than wages in the MSA. The manufacturing sector pays $38,900 within the city and $47,650 within the MSA. However, wages are higher within the city for food manufacturing.

key findings

The total sector **pays significantly less within the city** compared to the MSA: **$38,900** in annual wages on average within the city and **$47,650** within the MSA

The manufacturing industry has **declined 8.5 %** from 2001

Food manufacturing, the city's largest manufacturing industry with over 1,600 jobs, **declined** 4.7% from 2005 to 2008 and a total of **9.0%** between 2001 and 2008

Chemical manufacturing increased by 59.0% in MSA between 2001 and 2008

Chart B-19
Average Manufacturing Employment, Portland & MSA, 2008

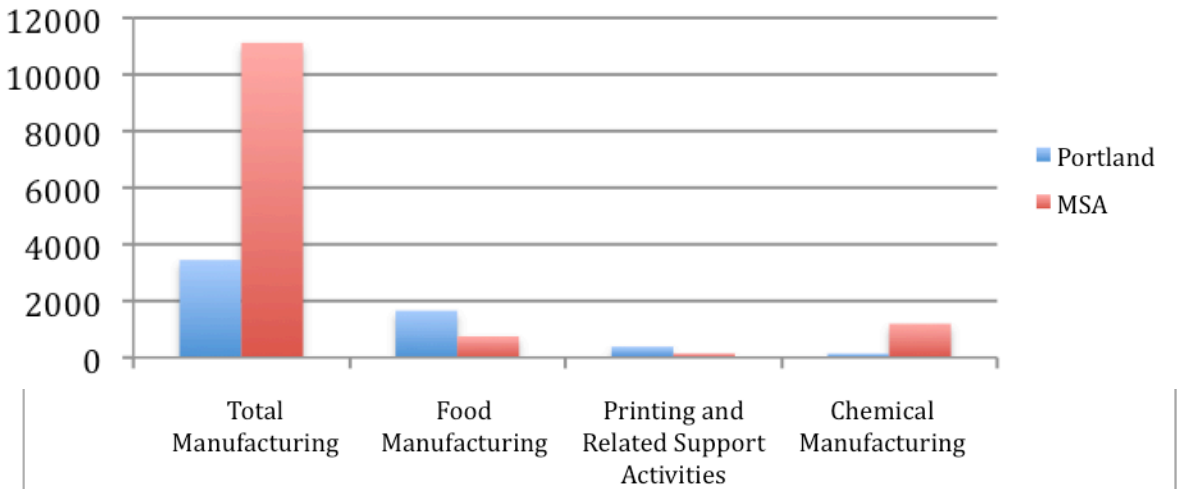


Chart B-20
Average Annual Manufacturing Wages, Portland & MSA, 2008

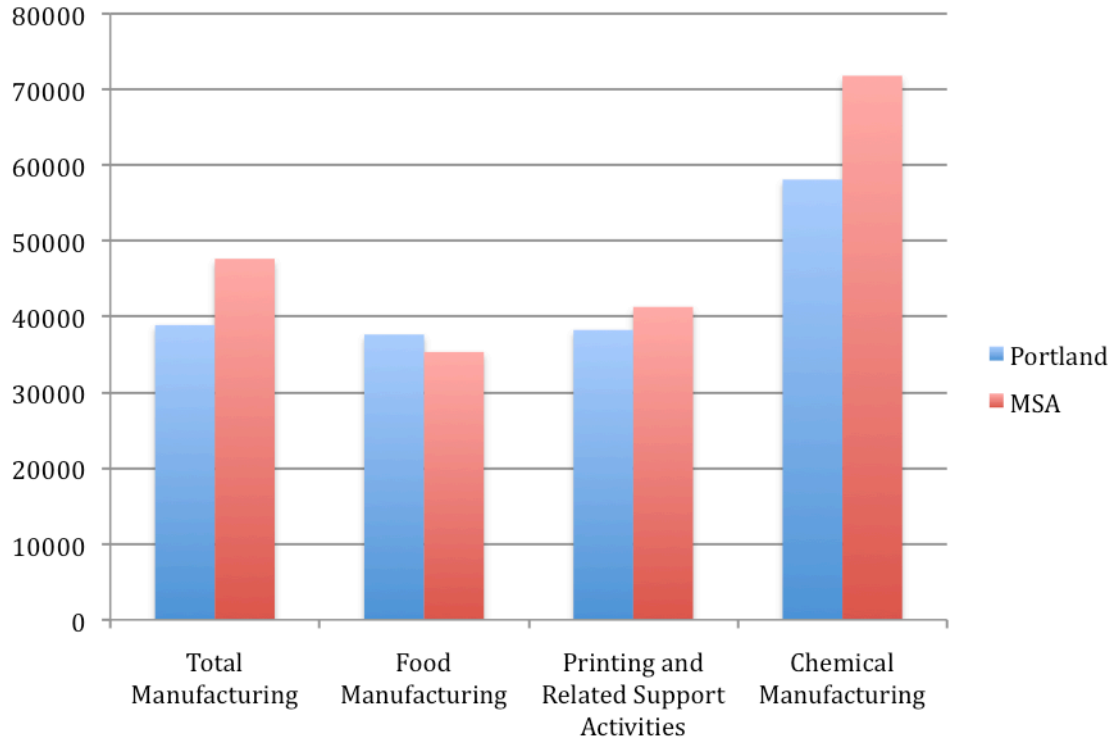


Chart B-21
Average Manufacturing Employment, Portland, 2001-2008

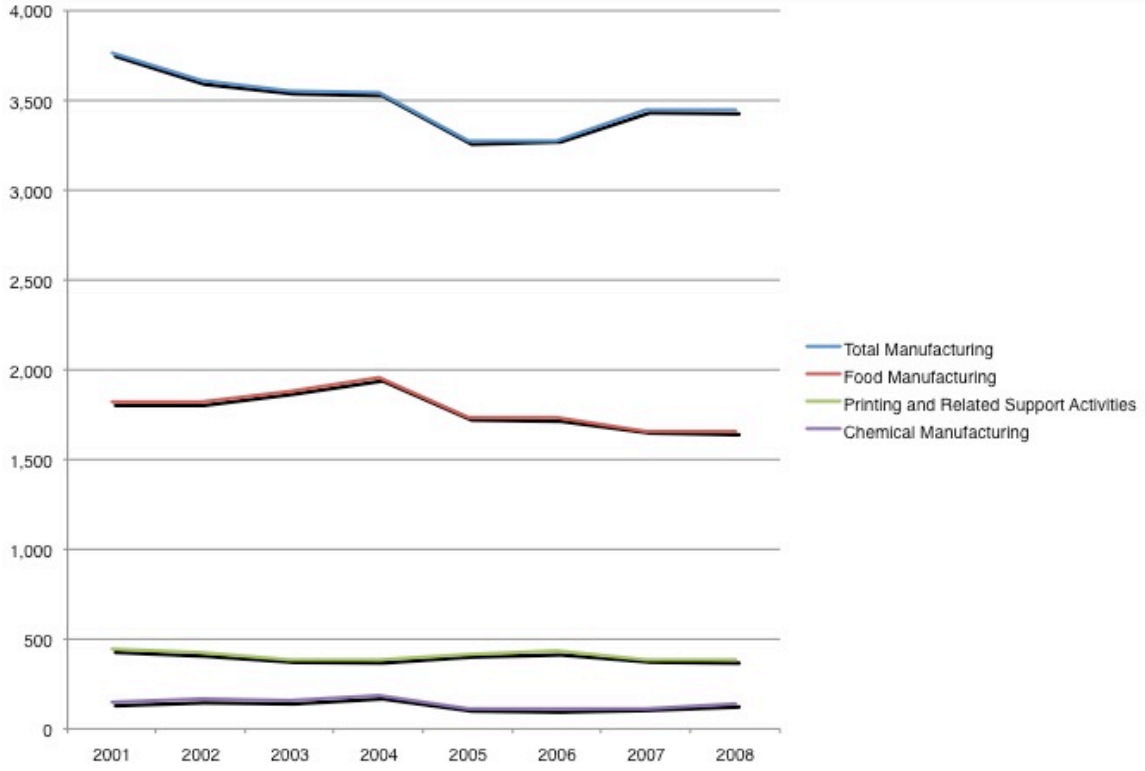


Chart B-22
Average Manufacturing Employment, MSA, 2001-2008

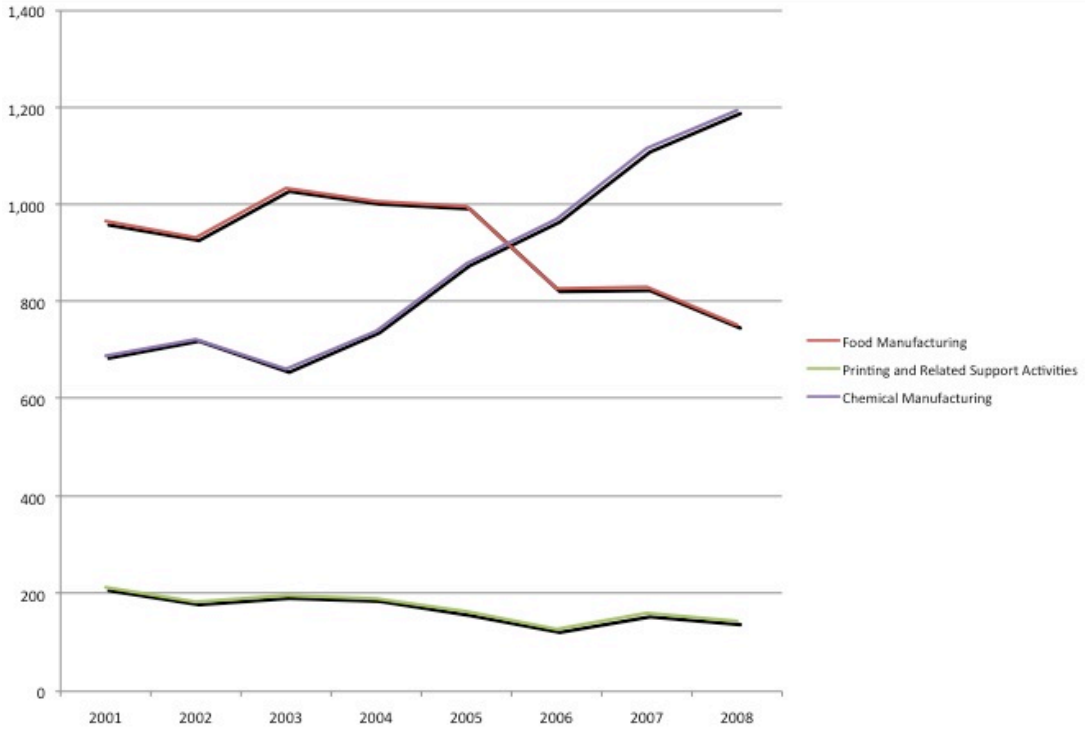


Table B-10
Employment Trends, Portland, 2001-2008

	Absolute Change 2001-2008	Percentage Change 2001 to 2008	Absolute Change 2005-2008	Percentage Change 2005 to 2008
Total Manufacturing	-320	-8.5%	170	5.2%
Food Manufacturing	-164	-9.0%	-82	-4.7%
Printing and Related Support Activities	-60	-13.5%	-34	-8.1%
Chemical Manufacturing	-7	-4.7%	23	19.5%

Table B-11
Employment Trends, MSA, 2001-2008

	Absolute Change 2001-2008	Percentage Change 2001 to 2008	Absolute Change 2005-2008	Percentage Change 2005 to 2008
Total Manufacturing	-3237	-18.2%	-506	-3.4%
Food Manufacturing	-376	-13.5%	-327	-11.9%
Printing and Related Support Activities	-130	-19.7%	-53	-9.1%
Chemical Manufacturing	496	59.0%	336	33.6%

The above tables quantify which sub-sectors within the total manufacturing industry grew and declined from 2001 to 2008. When the total industry is measured for incremental percentage changes, Portland has lost a total of 320 jobs or has decline 8.5 %. While the food industry has remained a sizable component of the entire industry, the sub-sector is declining. The food manufacturing industry from 2001 to 2008 suffered a 9% decrease; from 2005 to 2008 this sector experienced a 4.7% loss in employment.

It is important to note that the above table does not capture the nuances of the raw data. When calculated for absolute percentage change, manufacturing has grown 5.2 % within 2005-2008, with chemical manufacturing leaping ahead with a 19.5% increase in employment. Within chemical manufacturing, the sectors that comprise the sector (4 digit NAICS), include: In-Vitro diagnostic substance manufacturing and Pharmaceutical & Medicine manufacturing. However, as shown in tables B-10 and B-11, Portland growth in chemical manufacturing lagged the much higher growth for the MSA, 59% from 2001 to 2008.

Chart B-20 clearly illustrates net decline in food manufacturing, 18.2% for the MSA, and the large increase in chemical manufacturing, 59.0%, within an eight-year span. The majority of this growth occurred from 2005-2008.

Chart B-23
Average Annual Real Wages, Portland, 2001-2008

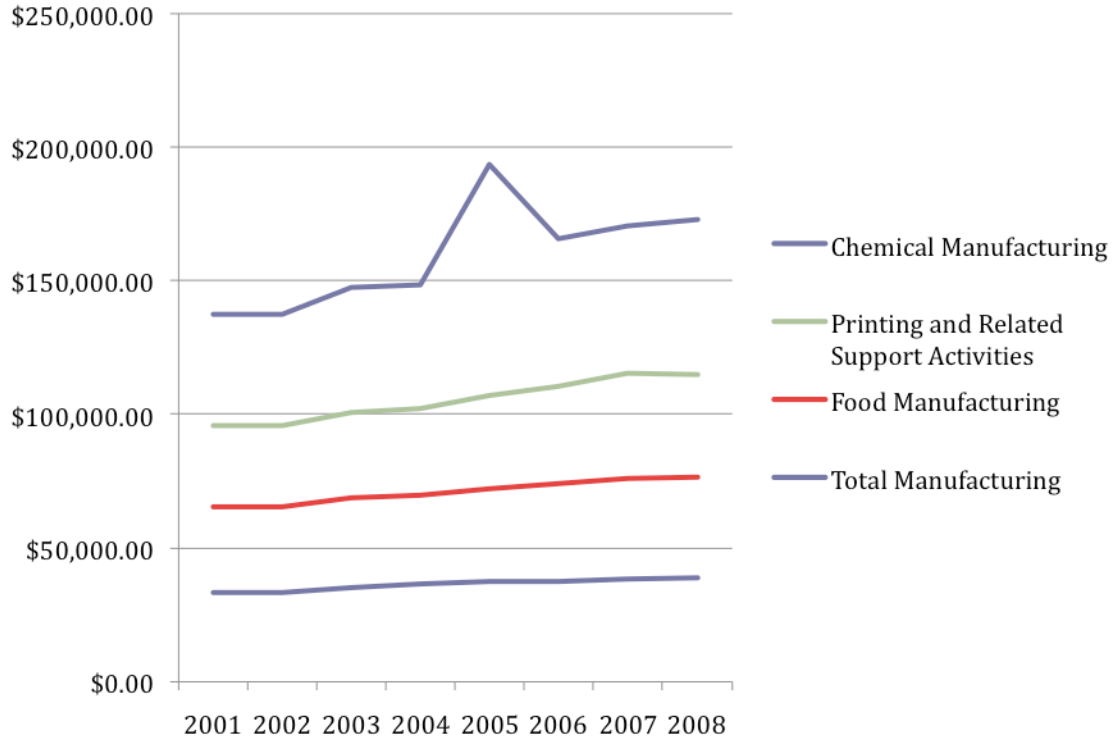
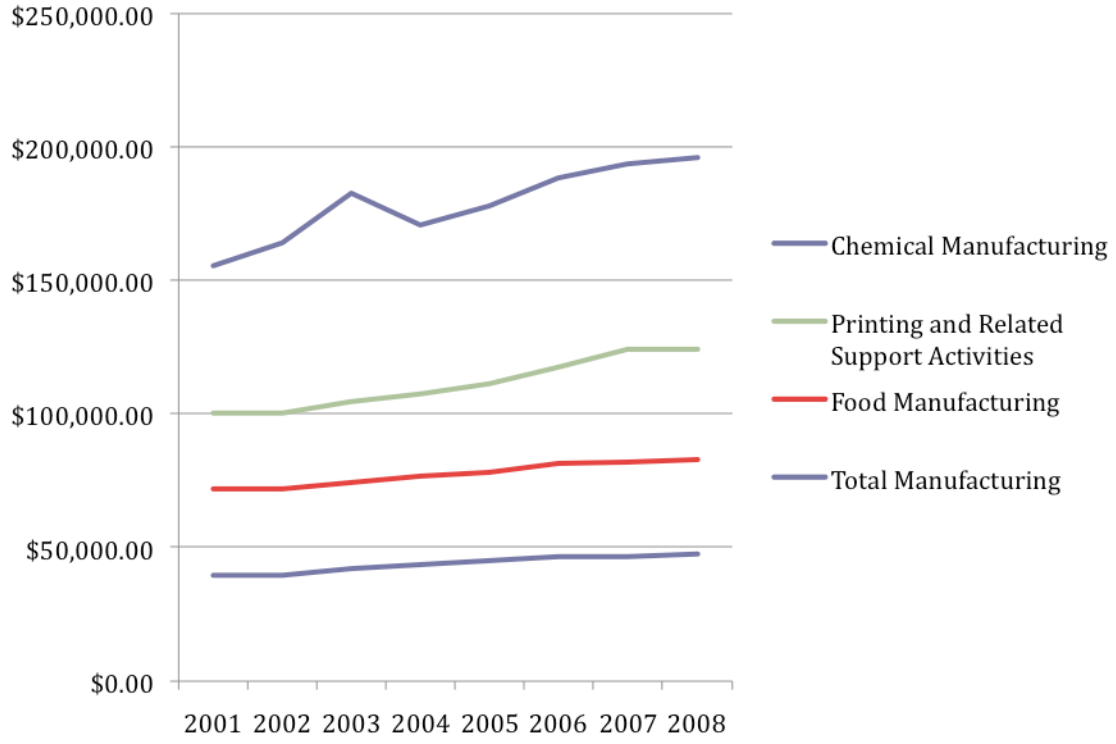


Chart B-24
Average Annual Real Wages, MSA, 2001-2008



Economic Profile: **Manufacturing**

Table B-12
Location Quotient Analysis*

Industry	Maine	MSA - Portland	Portland
Base Industry: Total, all industries	1.00	1.00	1.00
Manufacturing	0.99	0.75	0.42
Food Manufacturing	0.90	0.47	1.85
Printing and Related Support Activities	0.84	1.84	1.07
Chemical Manufacturing	0.53	2.14	0.27

The manufacturing industry represents a small proportion (approximately 5%) compared to total employment of the region. Food manufacturing is the city's largest manufacturing sector. The Location Quotient for Food Manufacturing is 1.85, indicating that the City has met the locate needs of the market and so the industry exports its products to outside of the city limit.

*Note: Location quotients are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. For example, location quotients can be used to compare State employment by industry to that of the nation; or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic sub-area to that in the State. - Source: Bureau of Labor Statistics

Self-Employers

Self-employer data can explain the extent of self-employment in a given area. Further analysis could compare the extent of self-employers (non-employers) to employers working for a firm. The graphs below demonstrate that the Portland metropolitan statistical area has a total of 46,769 self-employer firms that grossed over $2.09 billion in 2007.

Chart B-25

Self-Employer Receipts, MSA, 2007

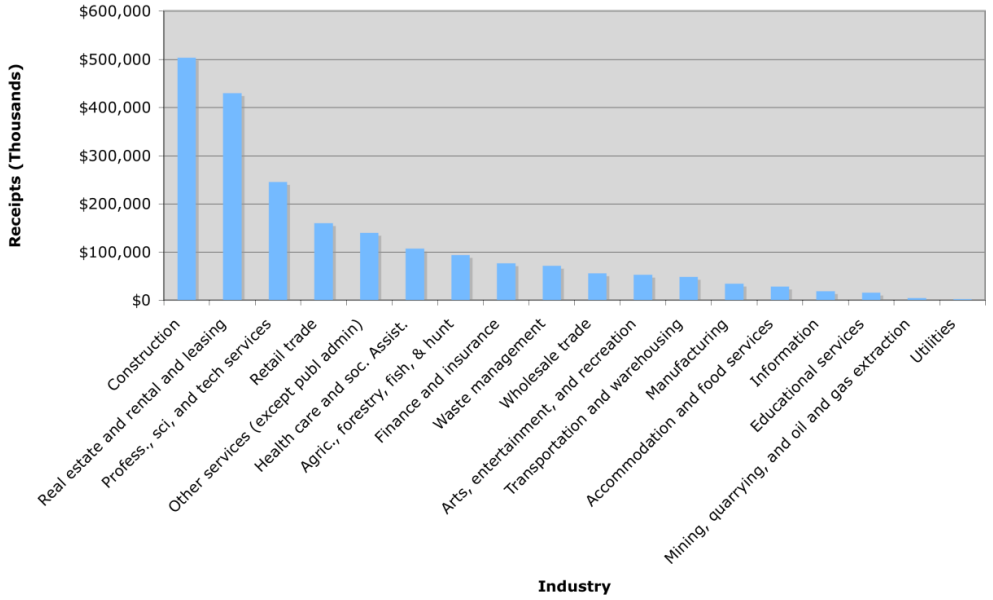
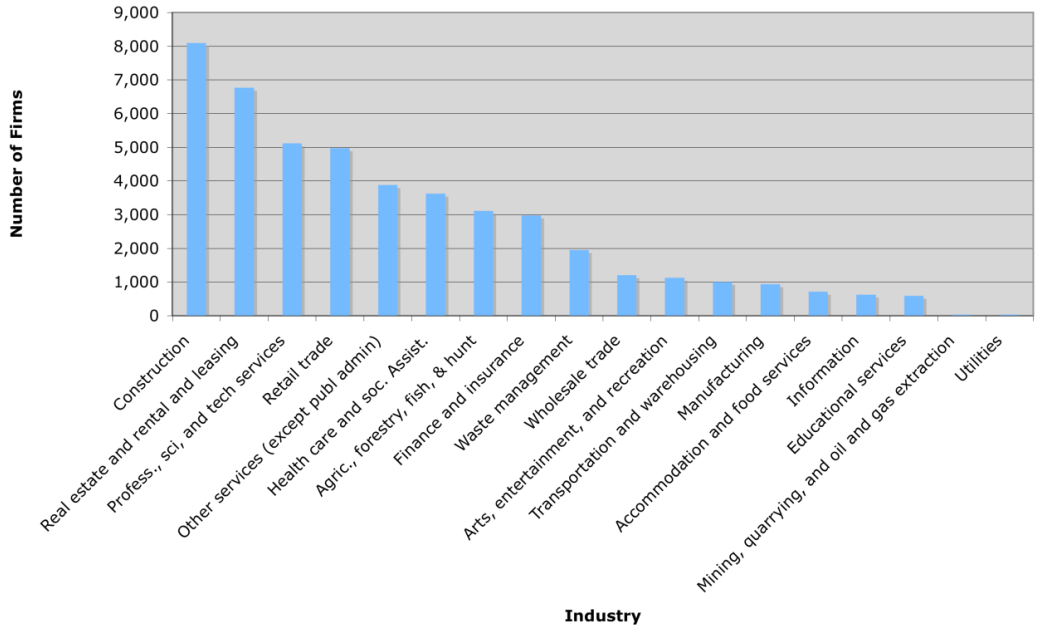
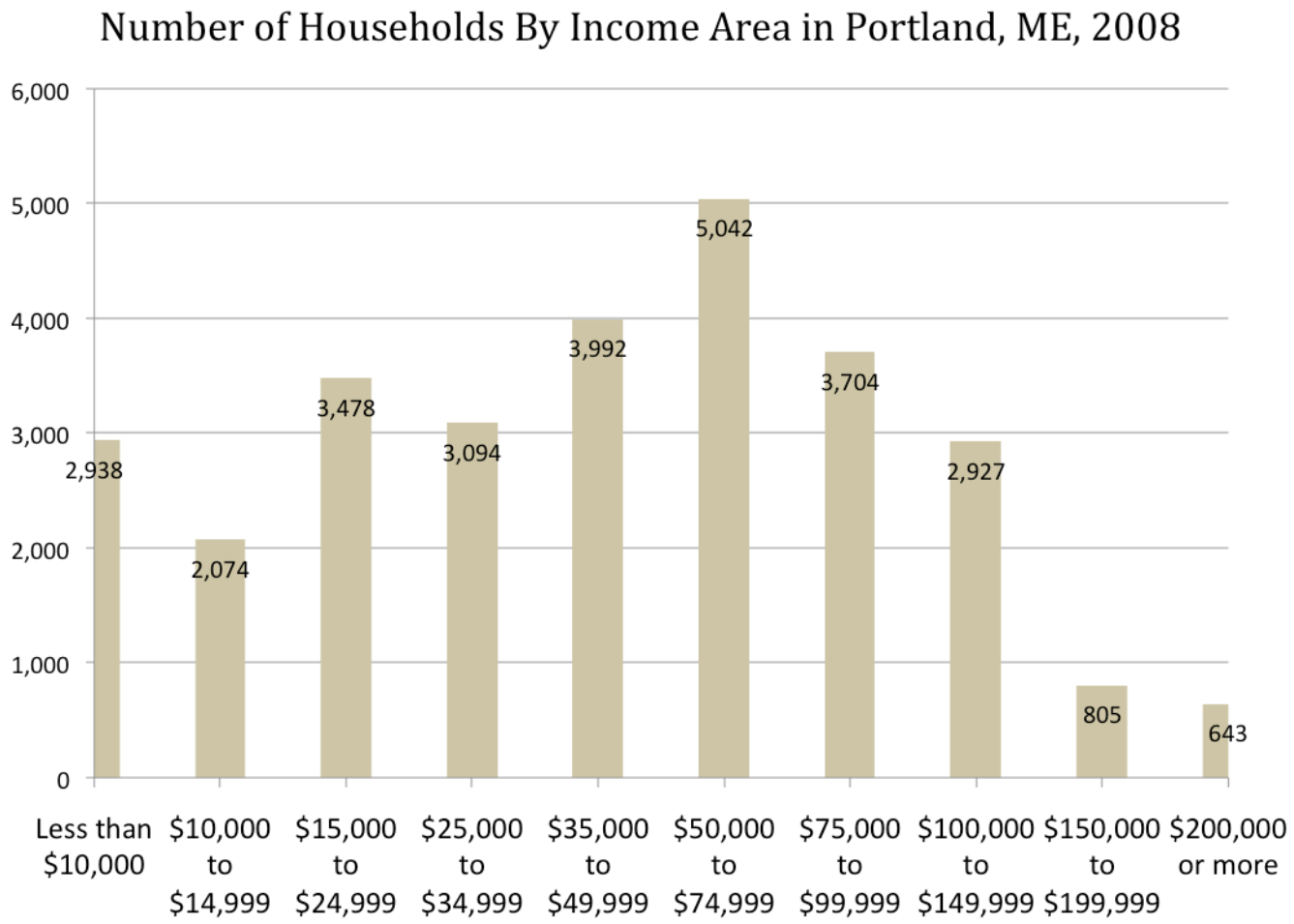


Chart B-26

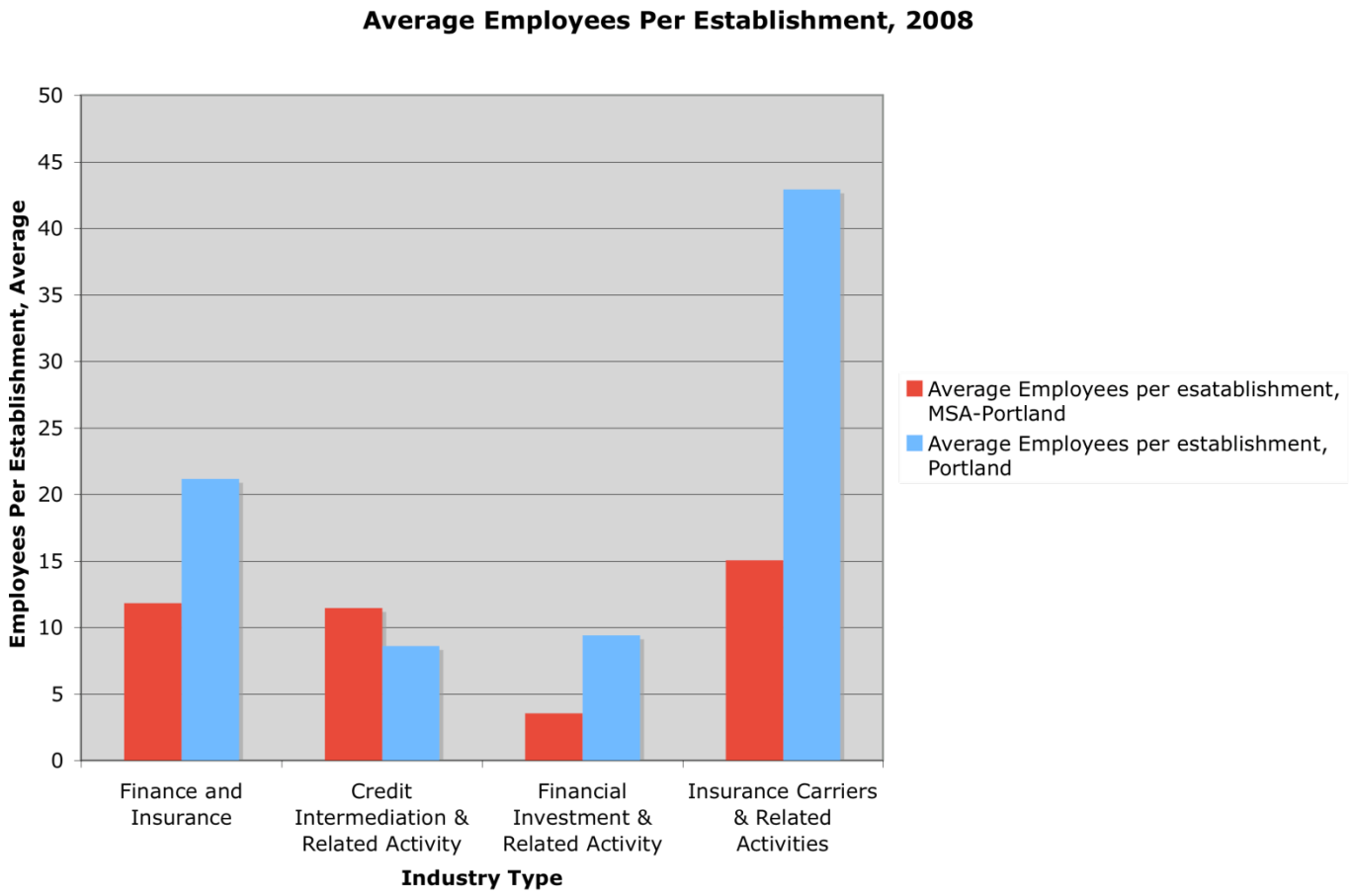
Number of Self-Employers, MSA, 2007



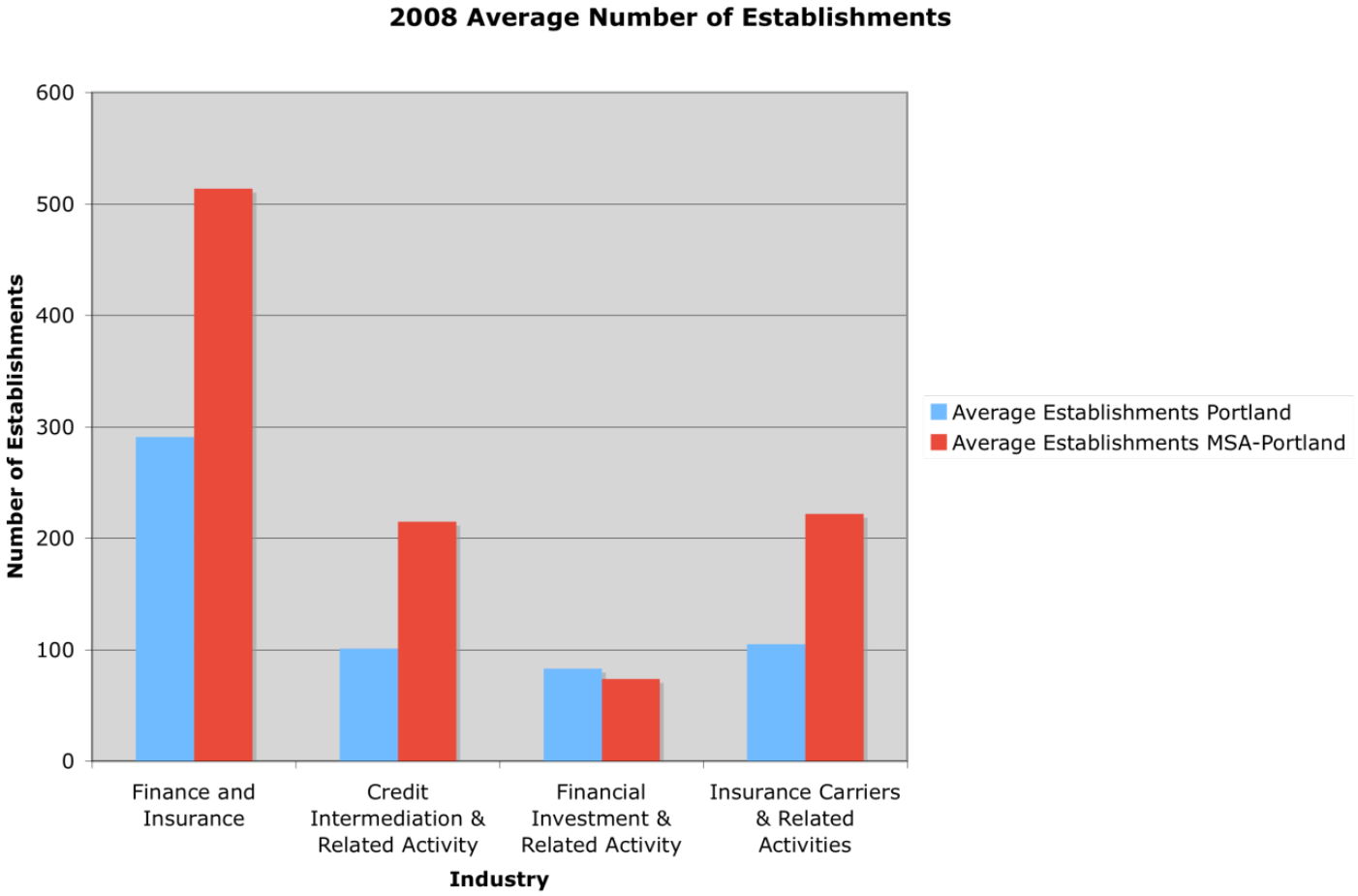
Appendix



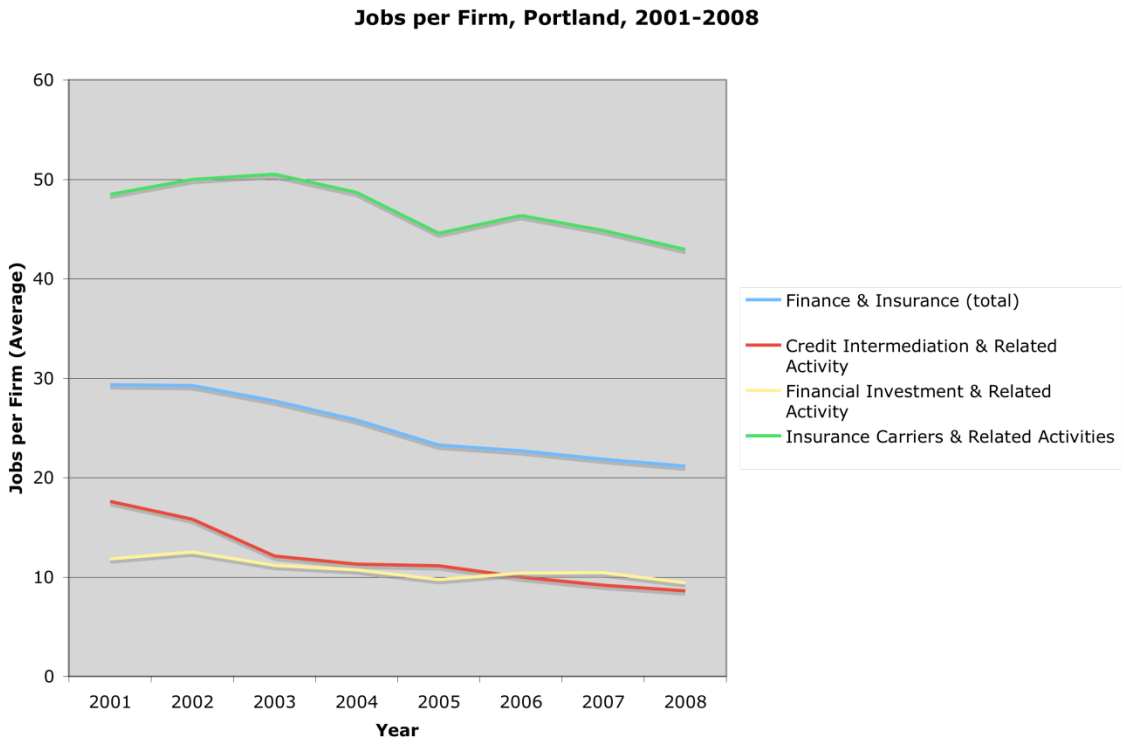
Source: U.S. Census Bureau, American Community Survey 2006-2008

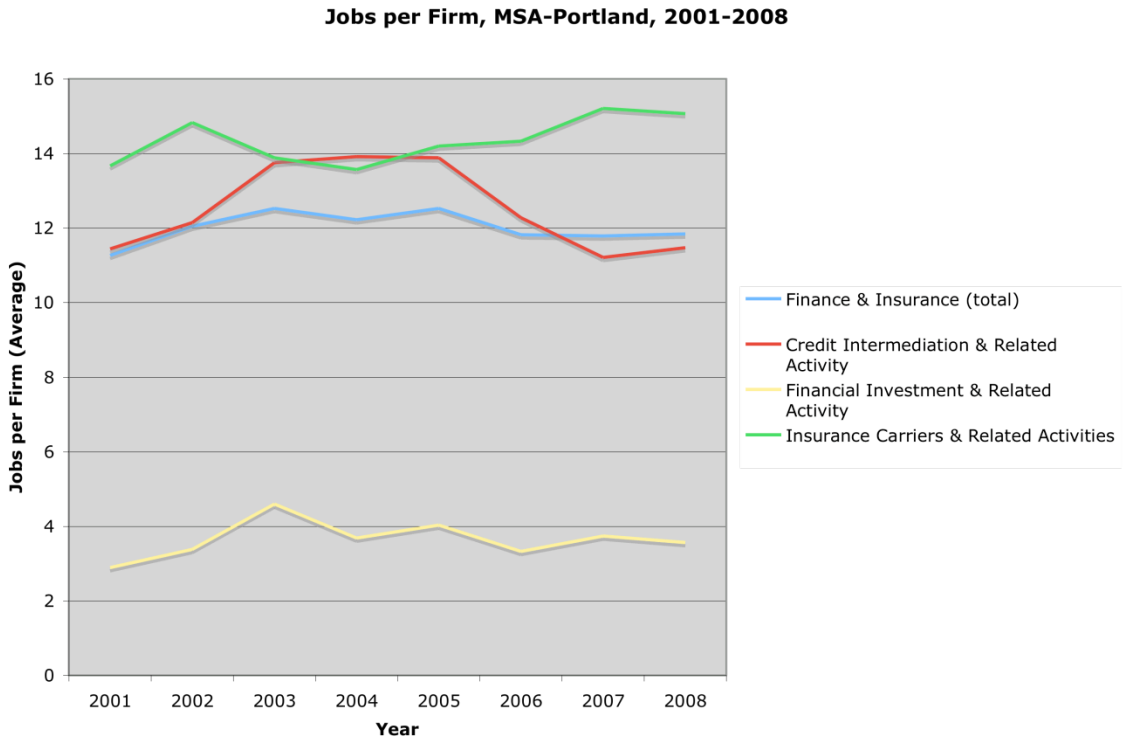


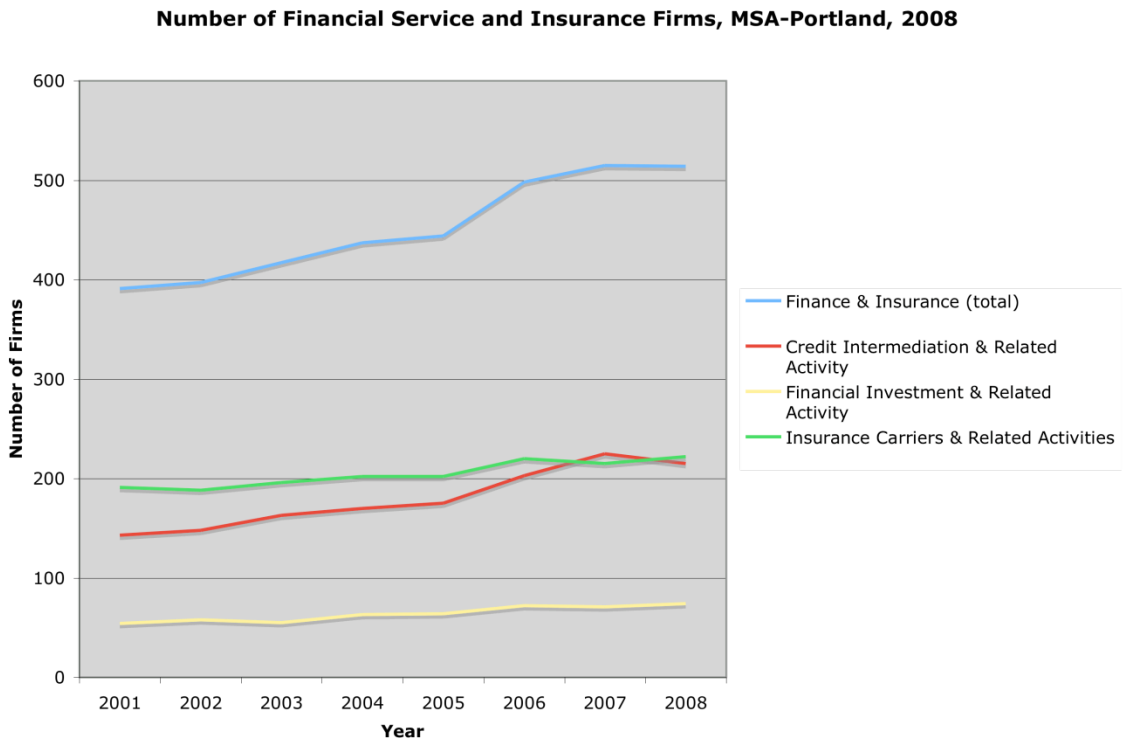
Firms in Portland are typically larger than firms in the surrounding region. In particular, firms in the insurance industry are nearly three times larger in Portland than the surrounding region. However, credit intermediation firms are larger in the surrounding region than in Portland.

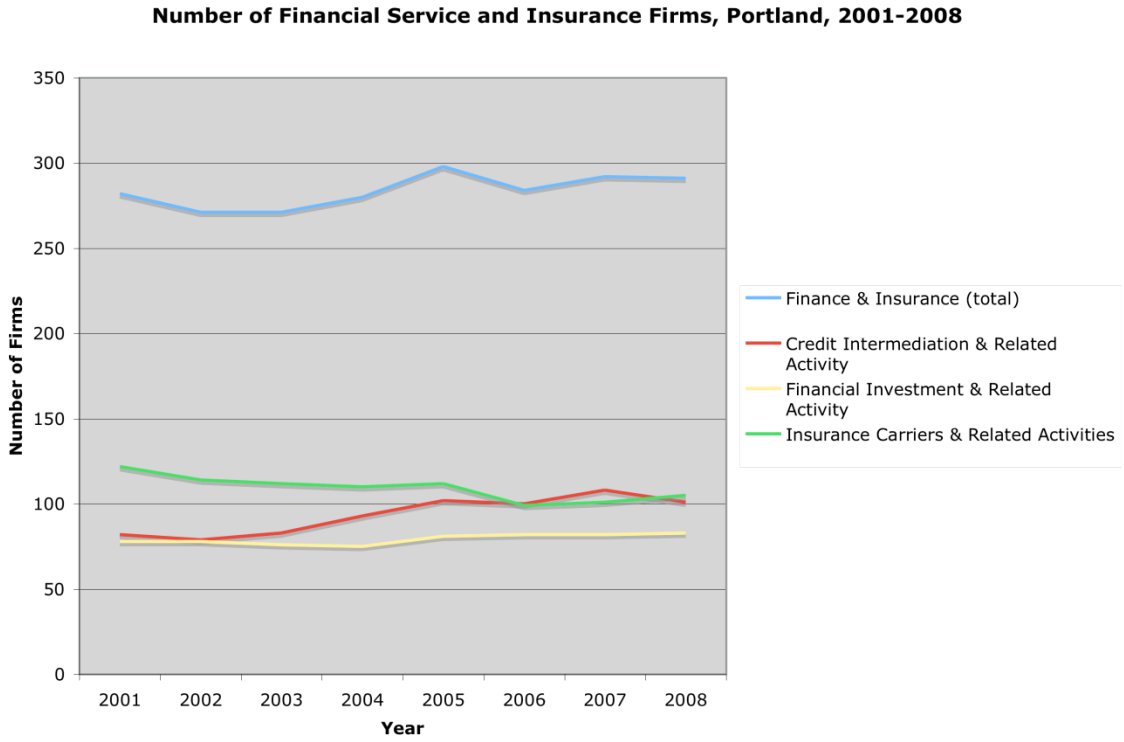


Although firms in Portland are larger than firms in the MSA, more firms exist in the MSA than in Portland. However, Portland has several more finance and insurance firms than the MSA.


Jobs per Firm, Portland, 2001-2008
Jobs per Firm (Average)
60
50
40
30
20
10
0
2001
2002
2003
2004
2005
2006
2007
2008
Year
Finance & Insurance (total)
Credit Intermediation & Related Activity
Financial Investment & Related Activity
Insurance Carriers & Related Activities


Jobs per Firm, MSA-Portland, 2001-2008
Jobs per Firm (Average)
16
14
12
10
8
6
4
2
0
2001
2002
2003
2004
2005
2006
2007
2008
Year
Finance & Insurance (total)
Credit Intermediation & Related Activity
Financial Investment & Related Activity
Insurance Carriers & Related Activities


Number of Financial Service and Insurance Firms, MSA-Portland, 2008
600
500
400
300
200
100
0
Number of Firms
2001
2002
2003
2004
2005
2006
2007
2008
Year
Finance & Insurance (total)
Credit Intermediation & Related Activity
Financial Investment & Related Activity
Insurance Carriers & Related Activities


Number of Financial Service and Insurance Firms, Portland, 2001-2008
350
300
250
200
150
100
50
0
Number of Firms
2001
2002
2003
2004
2005
2006
2007
2008
Year
Finance & Insurance (total)
Credit Intermediation & Related Activity
Financial Investment & Related Activity
Insurance Carriers & Related Activities

Tourism Technical Appendix

Portland visitor expenditures were estimated by conducting the following steps.

1. Statewide visitor expenditures (for both day and overnight visitors) for 2008, as presented in the "2008-Maine-Visitor-Research" presentation (available on the Office of Tourism website), were multiplied by the percentage of statewide visitors that visit the Greater Portland/Casco Bay region, as indicated in the aforementioned presentation.

2. The estimates of Greater Portland/Casco Bay expenditures were then multiplied by the percentage of leisure visitors to the region that visited Portland. Because the percentage of leisure visitors travelling to all towns and cities in the region summed to over 100% (presumably because visitors traveled to multiple locations on one trip), the calculation divided the percentage of tourists that visited Portland by a sum of the percentage that went to all other cities and towns in the region. Because data were not available on the percentage of regional business and friend and relative visitors that visited Portland, the percentage based on leisure visitors was applied to the other visit expenditures as well.

The economic impact of tourism in Portland was estimated using the following steps.

1. Data from the 2007 Economic Census were used for the total receipts and jobs in Portland in the categories identified in the state tourism spending analysis. These categories are: lodging, food, retail, and recreation. Transportation expenditures are also captured in the state report, but were not incorporated in this analysis, as it was impossible to determine what percentage of this spending was Portland-specific.

The NAICS codes that were used for each category are below. It should be noted that for retail, only those establishments that tourists would likely visit were included.

Expenditure Category	NAICS codes
Lodging	721
Food	722
Retail	4422, 4452, 448, 451, 45322, 45392
Recreation	71

2. The estimated Portland visitor expenditures for each category was then divided by the total receipts in that category to determine the percentage of receipts that could be attributed to tourism. One-hundred percent of the total lodging receipts were considered tourism-related.

3. Next, the percent generated in the previous step was applied to the total jobs in each category to determine the number of jobs that could be attributed to tourism.

Portland's Creative Economy: Preliminary Analysis

Tim Bates, Julie Chan, Christian Mahillet,
Amanda Martin & Stefanie Ritoper

A preliminary analysis of Portland's creative economy for the City of Portland. Created in conjunction with Karl Seidman's Spring 2010 graduate-level course, *Economic Development Planning*.

Department of Urban Studies and Planning, MIT
April 2010

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Executive Summary

The creative economy is small part of Portland's economy, but it plays an important and visible role in shaping the city's identity as an arts and cultural center for the region. This report provides a preliminary snapshot of the creative sector and highlights some potential opportunities to address these challenges and continue Portland's growth in this sector.

Data

The creative economy, as defined by the New England Foundation for the Arts (NEFA), consists of more than just artists and performers, and includes some unanticipated categories. It spans a wide range of job types and wages. Portland's creative economy accounts for a small portion of total employment (5-6% of jobs), but creative economy jobs are holding strong over time (3% growth from 2001 to 2008). Additionally, Portland is a center for arts in the region—the city hosts most of the arts, entertainment and recreation jobs (213 jobs) that are found in the county (275 jobs).

Synthesizing our analysis from our various data sources, some strong components of the creative economy appear to be:

- **Architectural Services**—Architectural services provide a large number of creative jobs (248) and the highest average wages of the creative economy ($72,644). Cumberland County has relatively strong representation in this area as compared to the nation.
- **Advertising agencies**—Advertising agencies also compose a large number of creative jobs (177) and high average wages ($64,116).
- **Media broadcasting**—Various media and communications professions show high growth and high representation in the county as compared to the nation.
- **Visual Arts & Design**—Many who work in visual arts are self-employed, and these jobs are high in number, but low in wages.
- **Gift, novelty and souvenir shops** – Retail trade composed the second highest number of jobs in Portland, but offer among the lowest wages
- **Libraries and archives**—There has been a high growth in this area, and it is highly represented in the county as compared to the nation.

Assets

The city of Portland has a strong starting point for the development of the creative economy, with a number of important assets, including:

- **Quality of Life**—The city's attributes include small size, vibrant cultural scene, good regional schools, proximity to outdoor recreation, and delicious local food—all of which attract creative professionals to the city.
- **Strong Anchor Institutions**—Maine College of Art (MECA) and the Portland Museum of Art are examples of institutions that attract and educate new creative professionals.
- **First Friday Art Walks and Development of Arts District**
- O**ngoing Collaborations**—Organic efforts have come from creative professional identifying gaps in the economic growth of their businesses.
- **Existing Financial Opportunities**—These include local and statewide initiatives.

- **Firms with a Unique Niche**—These firms are geographically flexible and attract clientele across the country and internationally.
- **City Efforts to Date**—In particular, the creation of the Creative Portland Corporation.

Challenges

Through interviews with stakeholders, we have identified a variety of challenges for the creative economy, including:

- **Insufficient local market for creative goods—**Portland's success as a center for culture and arts has not translated into a level of consumption that can maintain the arts community.
- **Inadequate funding opportunities**—Because Portland is such a small city, there are limited donors, and organizations often find themselves competing for limited funds.
- **Attracting and retaining professional employees**—Limited competitors and Maine's brand hinder companies that want to attract professional employees.
- **General challenges**
    - Lack of accurate metrics for the creative economy
    - Creative professionals often work multiple jobs
    - High city tax rates
    - Lack of public transportation to downtown
    - Lack of collaboration due to Maine 'independent spirit'

Opportunities

We encourage Portland to take advantage of opportunities in the following areas:

- **Collaboration—Support efforts to build and strengthen partnerships**
    - Create an artists cooperative or business incubator
    - Create forums for information exchange
    - Strengthen Creative Portland Corporation's role in policy
- **Promotion—Market Portland's assets to internal and external audiences**
    - Quantify and study the creative economy
    - Build community within Portland by raising awareness about activities
    - Develop a marketing campaign to attract local and external business
- **Governance—Build the capacity of city government to strengthen the creative economy**
    - Develop strong and sustained leadership within city government
    - Build capacity and expertise of local government to help creative businesses
    - Provide training and workshops for local government and business community
- **Business support—Provide incentives to create and grow Portland businesses**
    - Focus on retaining and growing existing businesses, and recruit new businesses
    - Provide educational workshops and business support services
- **Funding—Maximize opportunities for individual and organizational funding**
    - Create a creative economy revolving loan fund
    - Encourage business and venture capital investments in the creative economy
    - Disseminate information on funding opportunities
- **Quality of Life—Maintain and improve quality of life to retain creative professionals**
    - Ensure rents are affordable for creative professionals, especially in downtown
    - Maintain high quality amenities such as education, healthcare and social services
    - Improve transportation connections to downtown, and prioritize pedestrians
    - Connect immigrant and ethnic communities to the creative economy
    - Highlight and preserve existing environmental conditions

Introduction

Portland's "creative economy" represents a small, visible, and growing part of the city's identity and economy. Portland has many assets that contribute to the creative economy. Several fine arts and educational institutions anchor the city's historic commitment to the arts, and the downtown Arts District features a concentration of creative production and distribution. Several prominent firms and artists have made names for themselves in Portland. The city's high quality of life and the reputation of Mainers as people with integrity have attracted and retained many members of the creative economy. However, this sector also faces some challenges in Portland, including concerns about the local demand for creative goods and services, a scarcity of funding opportunities, and difficulty attracting creative professionals to the region. Many potential approaches exist to address these challenges and continuing the grow Portland's creative economy.

This report aims to describe the major assets, challenges, and opportunities of the creative economy in Portland. These characteristics deal with collaboration, governance and the city, promotion, funding, employment, and quality of life.

Methodology

We completed this analysis using both qualitative and quantitative methods. First, we conducted formal interviews with 14 key stakeholders, identified in conjunction with city staff, both by phone and in person. We attempted to interview institutional and civic leaders that represent a variety of industries within the creative economy. These formal interviews were supplemented by speaking with a variety artists and galleries during the March 2010 First Friday Art Walk.

The second piece of our work involved analyzing employment and wage data. At the request of the City of Portland, we used the definition of the creative economy found in the New England Foundation for the Arts' (NEFA) publication, *The Creative Economy: A New Definition*. This report defines the creative economy as "occupations and industries that focus on the production and distribution of cultural goods, services, and intellectual property," (DeNatale & Wassall, 2007). They ultimately identify both "core" and "peripheral" designations of the creative economy, and we used both in the course of our analysis.

To aid in analyzing this sector, NEFA identifies a set of specific creative economy activities using both the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC). These codes are provided at the finest level of specification available, which allows for differentiation among creative economy and non-creative economy components within larger industry sectors (e.g. the retail industry has several sub-categorizations, including sports stores, which are non-creative, and musical instrument stores, which are creative). Our stakeholder interviews revealed differing conceptualizations of the creative economy. These were typically narrower than the NEFA definition, but sometimes included other types of businesses, such as restaurants.

We used three data sources to complete our analysis:

1. Employment data from 2001-2008, using the ES-202 data series
2. Non-employer data, produced by the U.S. Census Bureau from IRS tax records
3. Occupational data, also collected by the U.S. Census Bureau and published in the American Community Survey, estimated in a three-year average from 2006-2008 (data is released in multi-year averages for cities under 65,000)

Employment and Wage Analysis

Key Findings

Our analysis shows that jobs in Portland's creative economy account for a relatively small portion of total employment (5-6% of jobs), but creative economy jobs overall are holding strong in their numbers over time (3% growth from 2001 to 2008). By taking our analysis from the various sources together, coupled with an understanding of the data limitations, we can provide a snapshot of the creative economy in Portland.

Some strong components of the creative economy appear to be:

- **Architectural services** – Architectural services provides 248 jobs, and its umbrella category of Professional and Technical Services is at the top of the list in several of our data sources. Architectural services also provide the highest wages within the creative economy, with an average wage of $72,644. The location quotient (a measure of an industry's relative strength compared to the nation) for architectural and engineering services in Cumberland County is strong (1.11), indicating that Portland has a strong representation in this area as compared to the nation.
- **Advertising agencies** – Also under the category of Professional and Technical services, Advertising agencies compose a large part of the creative economy with 177 jobs. Average wages are also high, at $64,116 annually.
- **Media broadcasting** – The occupational data indicates that media and communication equipment workers compose the second highest number of occupations (577). It is also highly represented as compared to the nation, with a location quotient for broadcast and wireless communication equipment manufacturing (3.18). Additionally, employment data from 2001 to 2008 showed a high job growth in radio broadcasting.
- **Visual arts and design** – The data supports anecdotal evidence of Portland's growing visual arts scene. Occupational data shows that Art and Design workers are the third largest number of occupations within the creative economy (551 jobs). Nonemployer data, which captures more self-employed individuals, shows the number of independent artists, writers and performers is high (1,330). However, the wages of independent artists, writers and performers do not keep pace with employment. Creative economy nonemployer receipts represent just 11% of the total nonemployer receipts, despite representing 24% percent of nonemployer establishments.
- **Gift, novelty and souvenir shops** – Retail trade composed the second highest number of jobs in Portland (479), according to the ES-202 data. These jobs offer among the lowest wages, however, at an annual average of $22,553.

- **Libraries and archives** - Data show high job growth in libraries and archives from 2001 to 2008. This component of the creative economy also has a large location quotient (3.37), indicating a strong concentration in the city.

Some unique findings about the creative economy include the following:

- Portland hosts most of the arts, entertainment, and recreation jobs that are found in the county (213 jobs in Portland, out of 275 total jobs in the county).
- The creative economy, as defined by NEFA, expands far beyond the reaches of fine artists and performers.
- The nonemployer data indicates that the number of independent artists, writers, and performers is high. They compose the highest proportion of the number of establishments (24%), but their receipts represent just 11% of the total.

These findings suggest that although the creative economy is small as a proportion of the overall economy, it is important in shaping Portland's identity as an arts and cultural center. They also show that although independent artists, writers and performers are large in numbers, their wages and total receipts in the economy are low. This suggests that some areas of focus to expand or strengthen the creative economy might include increasing creative professional employment, improving synergies and collaboration between industries, and connecting artists with new markets, both locally and nationwide.

Data Limitations

The data used for our analysis proved to be highly problematic, due to difficulties inherent to measuring the creative economy. The agencies responsible for this economic data do not release statistics for industries in which there are few establishments or employees due to confidentiality concerns. Because the NEFA codes are as specific as possible, and the fact that many creative economy participants work in niche areas and may have few peer establishments, data is not disclosed for many of the industrial or occupational codes. Therefore, the results are skewed toward industries and occupations with larger numbers of establishments and employees. In order to ameliorate this problem, we also analyzed employer data for Cumberland County as a whole, which allowed us have a more complete picture of creative economy activities in the city and county than would otherwise have been possible.

Additionally, the NEFA definition is not universally accepted. As mentioned earlier, there was considerable variation among definitions of the creative economy among our interviewees. While many think of cultural or creative production as the core of the creative economy, all distributors of arts and media are considered part of the creative economy. As a result, retail stores represent a far greater share of the creative economy than individual artists. For further research and data collection, the city may want to review carefully the NEFA definition, and collect original data, as many who are involved in the creative economy may have other primary occupations, resulting in undercounting of these individuals in available data. We have compiled a set of recommendations to facilitate future research into the creative economy. Please refer to the Future Research section on page 21 for more detail.

Portland and Cumberland County Employment Statistics

In 2008, the ES-202 data shows 2,409 jobs in the creative economy in Portland, which is 6.0% of jobs reported in the data. In Cumberland County overall, there were 7,346 jobs reported in the creative economy, accounting for 5.4% of employment. The division of creative economy jobs according to overall industry area in Portland and Cumberland County is shown in Figures 1 and 2. In Portland, the highest concentration of these jobs falls among professional, scientific, and technical services, which includes architectural services (248 jobs) and advertising agencies (177 jobs). In Cumberland County, retail edged out information (including media and publishing) for the largest sector of creative economy employment, both of which employed more people than professional, scientific, and technical services. The highest concentrations of jobs at the county level were found in newspaper publishers, gift, novelty, and souvenir stores, and radio, television, and other electronics stores. Our data for Portland did not disclose job statistics for newspaper publishers, so while the data suggests that the county is stronger than the city in information services jobs within the creative economy, and that Portland is stronger in professional services, it is difficult to say so with certainty.

The lower number of jobs in arts, entertainment, and recreation (8.8% of creative economy jobs in Portland, and far fewer in the county, at 3.7%) reflects three findings. First, comparing Portland and Cumberland County, Portland hosts most of the arts, entertainment, and recreation jobs that are found in the county (213 jobs in Portland, out of 275 total jobs in the county). Second, the creative economy, as defined by NEFA, expands far beyond the reaches of fine artists and performers, who actually represent just a fraction of the jobs associated with the creative economy. Finally, it is important to note that many artists are self-employed (or have other primary jobs), and thus the ES-202 dataset either does not include them, or categorizes them in other industries.

Figure 1: 2008 Employment in Creative Economy, City of Portland

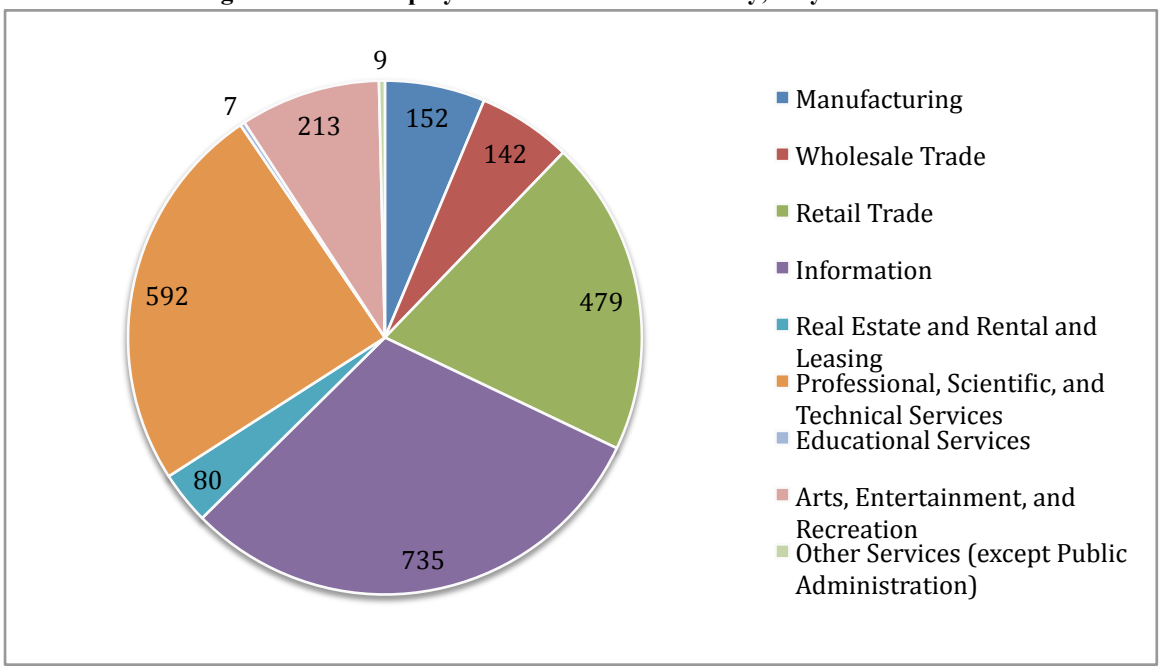
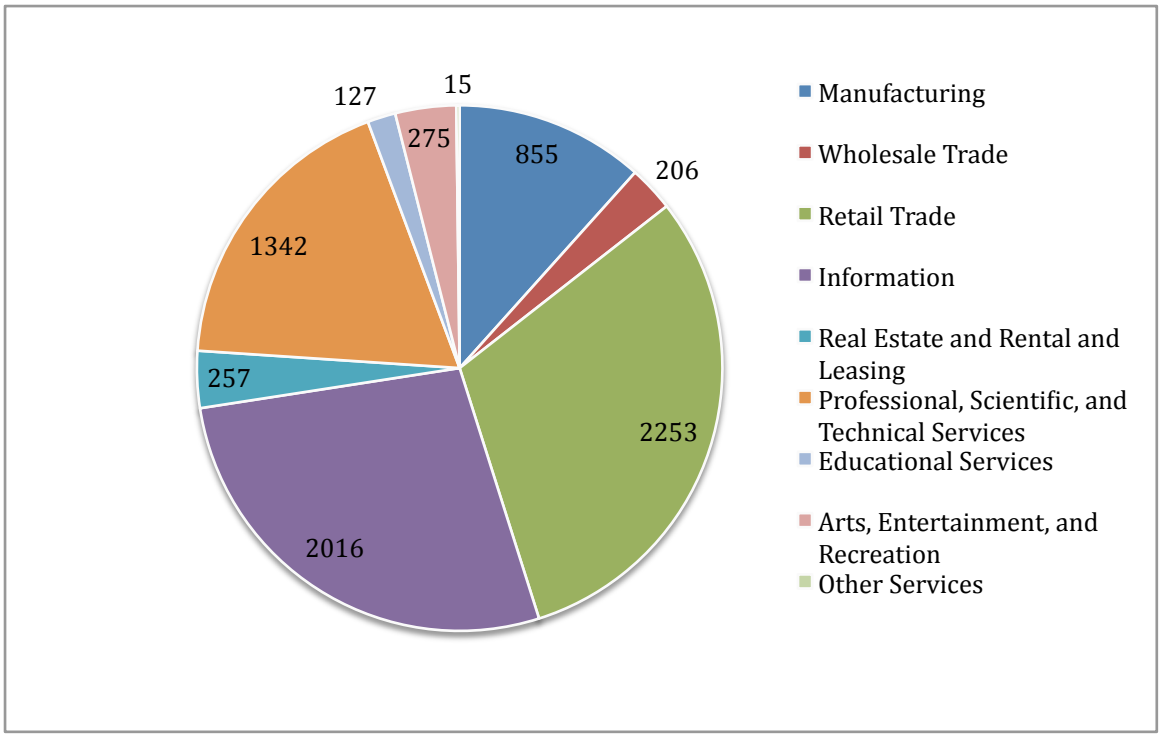


Figure 2: 2008 Creative Economy Jobs, Cumberland County



Occupational Data

The occupational data gives us insight into the kinds of workers who *live* in Portland but might not actually *work* there. The data shows that 3,261 people who reside in Portland are employed in the creative economy, representing 9.4% of employed people in Portland. Of these, the largest category was cooks and food preparation workers, with 733 persons. NEFA occupational codes do not align exactly with industry codes (ES-202); in this case, creative economy occupational codes include chefs and food preparation workers, whereas the industry codes do not include restaurants. Other occupational categories that account for over 500 Portland residents include art and design workers and media and communication equipment workers.

Growth in Employment

We also analyzed the growth in the number of jobs from 2001 to 2008 in the creative economy overall, as well as for individual categories. At the county level, the creative economy lost 9.1% of its jobs during this period. However, this decline reflects the loss of nearly half of the creative economy manufacturing jobs between 2002 and 2004; from 2005 to 2008, jobs in the creative economy overall grew by 1.1%. The greatest growth in employment during the seven-year period occurred in wholesale trade (54.8% increase) and educational services (51.2%), but these industries remain small fractions of the overall creative economy in the county.

In Portland, the creative economy grew by 3% during these same years, despite significant losses in periodical publishing (down 124%) and graphic design services (down 378%, from 86 jobs to 18). However, it is worth bearing in mind that periodical publishing, in particular newspapers, are struggling nationwide with layoffs, and that some of the decrease in graphic design jobs reported in this data could be due transitions to self-employment from firm employment. The data suggests that the most growth occurred in radio broadcasting and libraries and archives, but again, this finding should be received with particular caution because both industries show zero employment in 2001. However, they have shown consistent growth over the years.

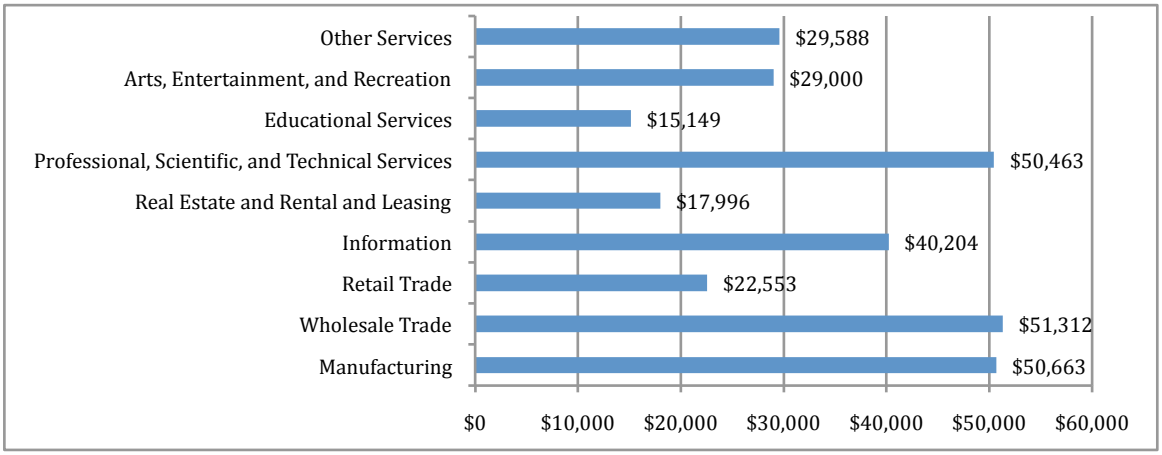
Concentration of Industry by Employment

The location quotient (LQ) measures the relative concentration of jobs in a particular industry compared with the nation. High creative economy LQs for Cumberland County include libraries and archives (3.37), broadcast and wireless communication equipment manufacturing (3.18), and sporting goods and musical instrument stores (2.49). Other important industries for the creative economy have LQs between 1 and 1.5, such as architectural and engineering services (1.11), and newspaper, book, and directory publishers (1.28). However, independent artists, writers, and performers have an LQ of 0.39. This very low LQ suggests the inadequacy of this data, because it is hard to determine if this low concentration is due to difficulty accounting for these workers, inaccurate reporting, or if it reflects the true quotient.

Wages

At the County level, wages vary considerably between each category of creative economy industries (see Figure 3). The highest average annual wages in the creative economy were between $50,000 and $52,000 and were found in relevant jobs in manufacturing, wholesale trade, and professional, scientific, and technical services. Unsurprisingly, retail trade jobs have much lower average annual wages at $22,553. Several industries had even lower average annual wages, including educational services ($15,149, which may reflect a high percentage of student workers) and real estate and rental and leasing ($17,996, which in the creative economy includes only video and other media rental).

Figure 3: 2008 Average Wages in Creative Economy, Cumberland County



In Portland, we examined average annual wages using more specific industry designations, and found that most of the highest wages are found in professional services, and the lowest are found in retail and educational services. Of Portland's creative economy jobs, the highest wages are found in architectural services (average $72,644), agents and managers for public figures ($72,436), advertising agencies ($64,116) and printing paper merchant wholesalers ($61,204). The lowest annual wages are in video tape and disc rental ($11,960), gift, novelty, and souvenir stores ($13,520), and photofinishing laboratories, except 1-hour ($14,768).

Nonemployer Establishments

To get a snapshot of self-employed businesses in the creative economy, we examined Cumberland County Nonemployer Statistics in 2007. Released by the US Census Bureau, this is an annual data series that characterizes businesses without paid employees that are subject to federal income tax, as described in introductory material. Most nonemployers are self-employed individuals operating very small, unincorporated businesses that may or may not be the owner's principal source of income. Due to a lack of data at the six-digit NAICS code level, we analyzed available data at the four-digit level. A limitation of this approach is that codes at the four-digit level include industries that would not be considered creative industries.

With this in mind, at the four-digit NAICS level, the industries with the most individuals are:

(1) Independent Artists, Writers, and Performers: 1,330
(2) Other Professional, Scientific, and Technical Services: 1,256
(3) Other Personal Services: 930

Figure 4: 2007 Creative Economy Nonemployer Establishments, Cumberland County

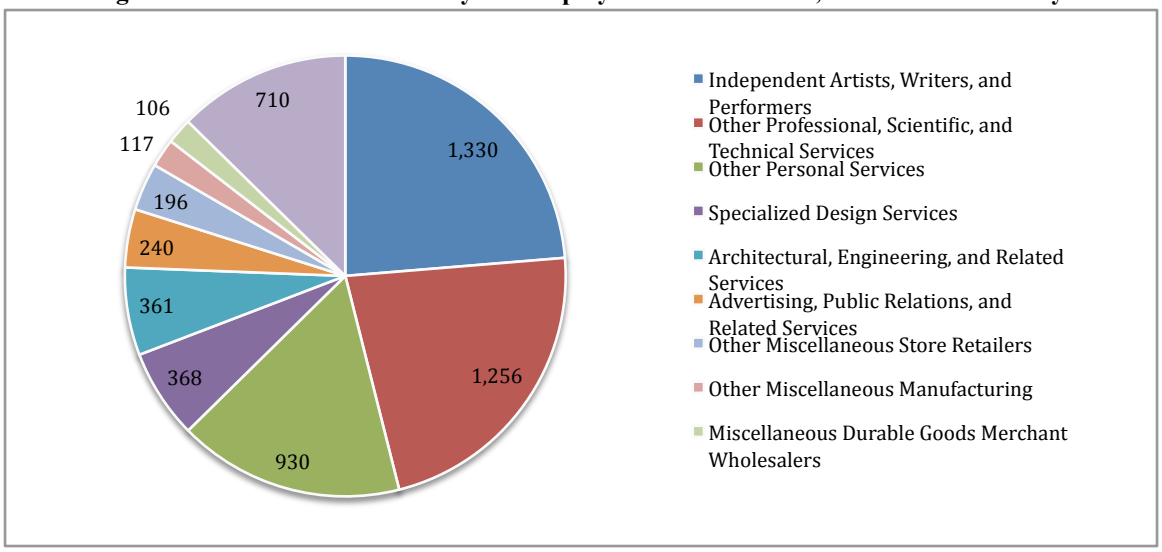
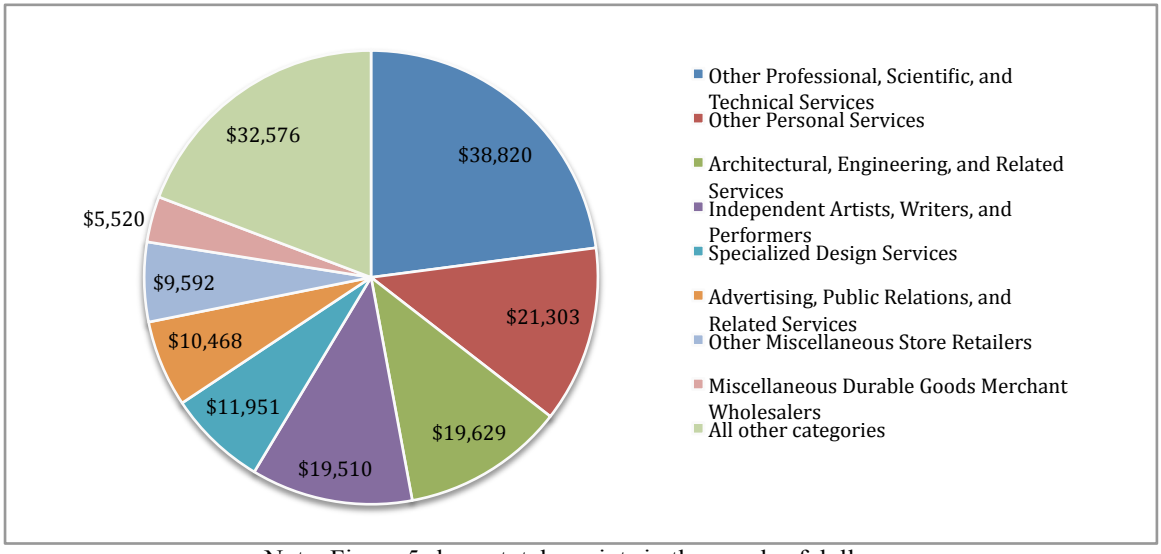


Figure 5 shows that the highest dollar amount of receipts are:

(1) Other Professional, Scientific, and Technical Services $38,820
(2) Other Personal Services $21,303
(3) Architectural, Engineering, and Related Services $19,629
(4) Independent Artists, Writers, and Performers $19,510

Figure 5: 2007 Creative Economy Nonemployer Receipts, Cumberland County



Note: Figure 5 shows total receipts in thousands of dollars.

Therefore, while Independent Artists, Writers, and Performers compose the highest proportion of the number of establishments (24%), their receipts do not keep pace, representing just 11% of the total. This is corroborated by numerous stakeholder interviews, which revealed that independent artists, writers and performers are high in number, but tend to hold multiple jobs to make ends meet. On the other hand, Professional, Scientific and Technical service represents a similar share of both total number of establishments (23%) and total receipts (22%).

Assets

The city of Portland has a strong starting point for the development of the creative economy, with a number of important assets. It is a city whose quality of life draws creative professionals to stay, and such initiatives as the Arts District development and First Friday Art Walks have helped to foster a continuing growth in the creative sector.

Quality of Life

Clearly, one of Portland's great strengths in attracting creative economy professionals is the quality of life that it offers residents, including its small size, a vibrant cultural scene, good regional schools, proximity to outdoor recreation, an attractive waterfront, a sense of safety, and delicious local food. Many interviewees spanning the range of creative businesses and organizations discussed the fact they were first drawn to the allure of Portland, and then from

there attempted to "work it out," in order to find steady employment. Others talked about moving for a specific professional opportunity and then staying. One independent artist in his early twenties said, "I never thought I would end up in Portland—but now there's no way I would leave." Many cited the high concentration of creative professionals and strong creative culture as a draw. Additionally, Portland benefits from the reputation of the state of Maine as a place with dramatic natural resources and good food, and many discussed the importance of Portland balancing this rural reputation with the access to "big city" resources.

Strong Anchor Institutions:
Maine College of Art (MECA) and the Portland Museum of Art

Established in 1882 as the Portland Society of Art, MECA has been a major catalyst within the creative economy. It educates students who tend to stay in Maine after their studies—700 of 1800 alums are living in Maine, with only 30% actually coming from Maine originally (75% from New England). MECA also attracts outside talent to the city, inviting renowned visual artists as guest lecturers and encouraging cross collaboration between students and with other Portland entities. By 1982 the Portland Society of Art had separated to become two independent entities: MECA and Portland Museum of Art. As a curator of European modernist art and progressive exhibitions that address local and global issues, the Portland Museum of Art serves the function of projecting and maintaining Portland's artistic reputation both inside (serving locals) and outside the city (serving tourists). Both institutions play an important role as generators of creative professionals as well as landmarks within the creative economy.

First Friday Art Walks and Development of Arts District

Interviewees overwhelmingly cited the development of the Arts District on Congress Street, and the launch of the First Friday Art Walk as important successes in the city's work to develop the creative economy. Several interviewees mentioned the positive changes that they witnessed from the early '90s to the present, with empty storefronts now housing galleries and other vibrant businesses. A 1996 study of Portland's creative economy estimated that the Arts District generated $24 million annually or $33 million annually including restaurant visits.[1] The First Friday Art Walk, hosted by the Portland Arts and Cultural Alliance (PACA), has over 60 participants and draws a mix of older and younger generations. One professional talked about how this event transforms the city: "It is packed and it feels like a happening place the lights on the street help the city to come alive."

Ongoing Collaborations

The organic collaborations among actors in the creative economy are also great assets to Portland. As creative professionals have identified gaps in the economic growth of their businesses, they have shared resources to target them. One example is the recently formed Pickwick Independent Press, which was started by MECA graduates who pooled their resources

[1] Visit with the Economic Development Plan Task Force, Portland, ME, 3/12/2010

to buy printmaking equipment. It now runs an independent cooperative. The Portland Music Foundation was formed to help local artists expand their market, and includes professional development workshops and panels. Space Gallery is a collaborative effort to provide visual art display space, as well as host talks and dialogues with artists. There are also many informal groupings of creative professionals. As one young artist put it, "It is impossible to do [be an artist] without working with other artists. We are trying to identify creative ways to make a living." Another creative professional emphasized that these efforts have been very organic. This indicates an opportunity for Portland to identify these and other collaborations, which could be strong partners for professional development and exchanging knowledge.

Existing Financing Opportunities

Creative professionals are currently capitalizing on a number of existing financing opportunities, including:

- *Creative Economy Loan Fund*: Created by the Downtown Portland Corporation created a loan fund for the Creative Economy, this provide assistance to creative economy businesses with needs for small loans and to provide assistance to emerging and established artists who wish to grow creative economy businesses. The maximum loan amount in this fund is $5,000 and has a maximum loan term of five years and an interest rate of 6.5%;
- *Creative Portland Corporation:* Included its bylaws are that it develop affordable housing for artists and provide resources and support for community events and cultural tourism;
- *Maine Arts Commission*: Provides a number of grants and fellowships to individuals and cities to support artists and creative efforts; and
- *Percent for Art Program* (through the Maine Arts Commission): Sponsors public art for state buildings—granted in a competition format, this is often given to sculptors, but are also available to abstract wall-mounted works, projects that integrate artwork throughout the building, mobiles, earthwork and new media.

Some Firms Enjoy a Unique Niche

Additionally, a handful of firms in the Portland area are able to capitalize on their unique niche within the creative economy. One example is the company Gateway mastering, which specialized in sound engineering. Another is textile designer Angela Adams, who has gained recognition outside of Portland. Some of these larger firms have been able to use their creative niche to garner clientele across the country and internationally. They also benefit from a geographic flexibility in their work, which doesn't require them to have clients in a concentrated location.

City Efforts to Date

The city of Portland has made some significant steps to stimulate the creative economy, including:

- *Creative Economy Summit*: Held on May 31, 2006, the summit had over 200 attendees, with the goal of planning the growth and development of Portland's creative economy.
- C*reative Economy Steering Committee (CESC):* Composed of 17 members from a broad range of creative organizations and enterprises, this committee was formed in December 2006 with the primary focus to develop ideas and strategies to implement the primary recommendations from the summit.
- *Creative Economy Report:* Creative Economy Steering Committee released their recommendations for next steps in developing the creative economy in October of 2008.
- *Creative Portland Corporation*: In November 2008, the Creative Portland Corporation was formed as a quasi-governmental agency with the purpose of enhancing and creating creative economy business and arts district opportunities. It is tasked with implementing, facilitating, and administering Portland's creative opportunities, including but not limited to:
    1. Promotion of the Creative Enterprises Cluster
    2. Development of the Arts District
    3. Creation of a Center for the Arts
    4. Creation of a Creative Economy Website and Clearinghouse
    5. Identification and Supporting of "Tipping Point" Projects
    6. Conduct Creative Economy Analyses
    7. Creation of Programming Strategy for Current Events and Cultural Activities
    8. Provision of resources and support for community events and cultural tourism
    9. Recruitment of Creative Industries
    10. Promotion of cultural tourism
    11. Maintenance of an information clearinghouse for use by artists, organizations, available space and related information
    12. Creation of a strategic plan.

    The Creative Portland Corporation is a clear asset to the city, as a relatively new entity with the development of creative businesses and organizations as its sole focus.

These efforts indicate an opportunity to build on these critical first steps to further the growth and development of the creative economy.

Challenges

Portland faces a variety of challenges to the continued success and growth of its creative economy. These range from issues facing individual artists and business owners to more broadly based factors. Local demand for creative goods and services may be insufficient, and it can be difficult for actors in the creative economy to pursue markets outside the region. Furthermore, a lack of investment capital, potentially changing philanthropy patterns, and the challenges for individual artists and artisans to access funds all contribute to a more difficult and sparse funding landscape.

Insufficient local market for creative goods

Portland is known as a "city of the arts" and is the cultural center of Maine, but there is concern that the city does not muster enough demand for all the goods and services that the cultural economy sector produces. Despite being the go-to place for cultural activities, Portland's success has not translated into a level of consumption that can maintain the arts community, in particular, from within the city or the surrounding region. Artists report that although locals enjoy the vitality the arts community helps generate in the city, they do not provide enough financial support to sustain the community. Likewise, medium-sized and larger firms must also look beyond Portland to generate a sufficient client base. Corporate consolidation has had an impact, as smaller firms are bought up and sourcing for creative goods and services is shifted elsewhere. Additionally, there is some question about whether Maine's brand helps or hurts businesses compete for work. Being "off-market" in some industries has a pronounced negative effect, as does the fact that there are a limited number of direct flights to and from the jetport. Strategies to market Portland's creative sector may help to strengthen its attraction to outside clients, however it is a complex challenge that requires a multi-faceted approach.

Inadequate funding opportunities

Many organizations and artists also indicated limited funding sources as a challenge for their work. Because Portland is such a small city, there are limited donors, and organizations often find themselves competing for limited donor funds. As one nonprofit creative professional noted, "It's the same 20 people sometimes it seems that have money to invest. If there was more creative capital, it would make a huge difference." Though a number of government grants and programs exist (as mentioned in the previous section), emerging creative professionals face similar challenges as they look to limited resources for venture capital.

Attracting and retaining professional employees

Although Portland receives accolades for its quality of life, this has not yet changed the fact that companies face difficulties attracting new business from markets outside the state.
This is partly due to the fact that there are often few competitors, particularly for those companies that cater to national-level clients, resulting in a perceived credibility gap –as one in interviewee stated, the perception is, "what do they know up in Maine?" This is a significant problem for attracting new employees. More competition would actually help businesses because it would signal to prospective employees that Portland is not only a quality place to live, but it also offers a variety of employment opportunities. As it is now, companies encounter difficulty in recruiting employees from outside the state due to concerns that if the job were not to work out, the prospective employee would lack other employment opportunities in the same field. The limited job market is also an issue because it can be difficult for spouses to find a job in their own field. Portland's cost of living surprises prospective employees, and even though they are lower than places like New York, housing costs represent a higher percentage of income than expected for a small city. Even for companies with strong skill sets, employees can be in tenuous situations due to limited employment alternatives.

General challenges

There are also a variety of other issues that Portland will need to address.

- **Creative economy metrics:** The definition of the "creative economy" is broadly based and includes individual artists all the way up to large companies. Individual artists undertake much of the cultural production for which Portland is known, but their contributions to the vitality (culturally and economically) of the city are not well understood or quantified. There are no comprehensive metrics compiled for the arts and creative sector's contributions to the city's finances. These might include the total value of art sales, wages, and property and income tax generation. Furthermore, there are no metrics on *consumption* of cultural products; for instance, it is clear that the monthly Art Walk in the arts district generates a massive amount of activity, but how many people actually attend? How many make a "complete evening" in Portland, including browsing galleries, dining in a restaurant, or enjoying a performance?

- **Need for multiple jobs:** Many artists must supplement their income by holding one or more jobs to complement their vocation. This is not uncommon in the larger Maine economy, for despite hosting well-heeled tourists year after year, it is not an affluent state. The implication is that the creative economy needs to be better understood in order to target specific groups for various types of support and training.

- **City tax rates:** Portland's relatively high tax rates make other surrounding communities, such as Westbrook, potentially more attractive. This enticement to locate outside of Portland is also accompanied by the fact that other communities may be better equipped to accommodate some types of companies, particularly those needing larger spaces. The creative economy is location-based to some extent—for some businesses and artists, a location on the peninsula in Portland is seen as critical—but this is not necessarily the case for all sectors of the creative economy.

- **Public transportation:** The public transportation system in Portland was cited as a limiting factor in the development of the creative economy. Existing service provision is insufficient to be a real mobility option for people with choices. Not only is there no service on a number of major holidays, but a number of lines do not run or have limited service on Sundays and the different bus lines vary widely in the time of their last runs (from about 6:15 to 11:40). The result is a system that limits access to downtown amenities and the arts district.

- **Maine 'independent spirit':** Although it may in fact have helped the arts community grow organically, the characteristic Maine independence seems to have actually impeded efforts to organize groups within the creative economy, particularly artists, to provide support in a variety of ways. People tend to want to be able to "go it alone," and this is an important consideration for the city as it tries to implement new programs aimed at service provision. Although there are some important collaborative efforts to build upon, it is still important to understand this independent tendency in any network and knowledge exchange effort.

Opportunities

Based on our analysis of Portland's challenges and assets, we are recommending a multi-pronged approach to maintain and maximize Portland's creative economy. The goal of these preliminary strategies is to leverage existing talent, create stable and good jobs, and ensure that Portland's growth is sustainable over time. Our preliminary strategies fall under the following themes:

Collaboration: Build and strengthen partnerships

From our interviews with stakeholders who identify themselves as part of the creative economy, there is a sense that the culture of Maine, and especially in Portland, is based on individual innovation and effort. Past successes in Portland have been due largely to the sheer willpower, passion, and ambition of individual artists and entrepreneurs – not from an organized, collective action. Because of the large concentration of creative minds, businesses and organizations in Portland, there is an opportunity to leverage their energy and creativity to build partnerships, foster collaboration, and benefit from economies of scale.

a. Create an artist cooperative or business incubator
Creative members can work in the same space and share resources, such as administrative support, printers, and meeting space. A cooperative or incubator will also allow interdisciplinary organizations to build and strengthen partnerships. One example is the Frock 'n Roll fundraising benefit organized by the Portland Music Foundation that showcases musicians and fashion designers.

b. Create regular and interdisciplinary forums for information exchange
Having forums where both formal and informal networking can happen will facilitate bigger and better ideas that can save money. A forum could also be a source of information where organizations can talk about their latest project, raise awareness on what they do, and receive input in a supportive setting.

c. Strengthen the Creative Portland Corporation's role in policy
There is an opportunity for the CPC to form partnerships with regional/national business and creative entities that help Portland's creative members to access funding resources and learning opportunities. Moving forward, the CPC could work with other organizations to influence state and national policies that directly impact the welfare of creative sectors nationwide.

Promotion: Market Portland's assets

Stakeholders are calling out for a strategic promotional effort to build community among creative members and build the local, regional and national market. In order for this to happen, there needs to be a better understanding of what creative companies/people exist in Portland and how they impact the economy.

a. Quantify and study the creative economy to build knowledge base
Building on past studies, Portland should quantify and determine ways to better collect information from its creative members in order to understand the full impact of the creative economy.

b. Develop a campaign to build community within Portland
Using print, Internet, and video resources, a campaign to raise awareness of the creative economy within Portland and Maine could further build a community identity and instill pride in the sector. The campaign could profile existing participants, local heroes, highlight the latest news, and recognize and honor best practices.

c. Develop a marketing campaign to promote Portland's assets internally and externally
Some opportunities might include a "Buy Local" campaign for the arts and an external marketing campaign to strengthen Portland's brand as a creative hub and quality place to live. Areas of significant opportunity include Portland's First Friday art events, vibrant local music scene, and the arts district.

Governance: Build capacity of city government to strengthen the creative economy

One important concern that was brought up by multiple stakeholders is the limited ability of Portland's local government to develop and implement important long-term programs that help Portland's overall economy. The following are opportunities that will benefit all areas of Portland's economy.

a. Develop strong and sustained leadership within city government
Stakeholders noted that the creative economy would benefit from political leadership that can sustain a focus on this sector. One specific suggestion was changing the city charter to include an elected mayor. However, regardless of the governance structure, it is important to create sustained leadership.

b. Build capacity and expertise of local government to help creative businesses
There is a critical need for increased capacity to help businesses through planning processes. For example, having a liaison to serve the business community by walking them through permitting and other processes will help retain and attract businesses to Portland. Other programs that the City can help facilitate include allowing temporary leases on vacant retail space for artists and expanding First Friday business opportunities.

c. Provide training and workshops for local government and business community
Leadership and management job training and targeted workshops on economic development, business attraction, plan implementation, and startup support are just some examples of areas in which local government and businesses can gain more knowledge.

Business Support: Creative incentives to establish and grow Portland businesses.

Artists, musicians and entrepreneurs come to Portland for a number of reasons, but once they are here, all of them can benefit from solid business support. The City can help grow existing businesses with training, workshops, incentives, and help establish new ones with better business support services.

a. Provide incentives to existing businesses to encourage growth
First and foremost, the City should preserve existing businesses and encourage their growth and success.

b. Provide incentives to recruit and retain quality businesses
Stakeholders recommended that Portland should **t**arget small and medium-sized companies (up to 500 employees) that fit Portland's culture of integrity, authenticity, and respect.

c. Provide educational workshops and business support services
The business community, especially artists and musicians who are not business savvy, can benefit from workshops on writing business plans, marketing services, program implementation, and networking.

Funding: Maximize opportunities for individual and organizational funding

With a limited number of people and limited resources, many creative economy participants in Portland are stretched thin when it comes to funding. There is a critical need for more funding across all disciplines in a way that is sustainable for the city and for businesses. Some ideas include:

a. Create a creative economy revolving loan fund
b. Encourage the business community to contribute to the creative community
c. Provide information on funding opportunities for all types of organizations
d. Invest in startups through the establishment or attraction of venture capitalists

Quality of Life: Maintain and improve quality of life

Portland's quality of life is its biggest asset. Many stakeholders moved to Portland specifically because of its proximity to the outdoors, richness of arts and culture, family-friendly environment, safety, pace of life, and convenience to Boston. It is therefore important to maintain Portland's high quality of life and ensuring that it is sustainable for all residents.

a. Ensure rents are affordable for creatives, especially in Downtown
To keep artists and businesses from leaving the city in the face of rising rents, there should be programs to ensure that rents remain affordable. This could involve providing

more arts or startup space, housing, and potentially reserving affordable space in the Arts District.

b. Maintain high quality and accessible community amenities such as education, healthcare, social services
Community facilities and services are an essential part of having a high quality of life in Portland. In particular, one area for improvement might be the public education system.

c. Improve transportation connections to Downtown and prioritize pedestrians
Several options for improving transportation options include more frequent bus service, an arts district shuttle, improved connection to (or relocation of) the Amtrak station/Portland Transportation Center, and improving direct flight connections to the Portland Jetport. These improvements could be made hand in hand with improving public space more conducive to walking, biking, and gathering.

d. Connect immigrant and ethnic communities to the creative economy
Ensuring that minority communities have the opportunity to participate in the creative economy may help improve quality of life outcomes for everyone in Portland. This could be in the form of public art programs, documentary series, and educational workshops.

e. Highlight and preserve existing environmental conditions
Portland should continue to consider how its natural amenities could be maintained and integrated into the city, and should prioritize the mitigation of negative environmental outcomes. These amenities are significant assets in attracting creative economy participants. For example, by investing in hiking trails and pedestrian friendly connections, Portland Trails is already helping to improve recreation opportunities for residents.

Future Research

For this report, we used the NEFA definition of the creative economy to analyze three datasets, but were significantly impeded in our ability to provide complete characterization and interpretation of Portland' creative economy due to limitations in the data. In particular, the fine-grained detail required to achieve a complete analysis was not available in the datasets due to data suppression for confidentiality. Based on the challenges and limitations of this data, we offer the following suggestions for future research:

a. Request a Customized Data Run
One important limitation of our analysis was the amount of suppressed data at the city level and at six-digit level of the NAICS codes. Many state departments of labor will run a customized data run at the request of city governments, which will allow a more detailed analysis while protecting the confidentiality of the data. Portland can contact the Maine Department of Labor's Center for Workforce Research and Information at (207) 623-7900 or by email at CWRI.DOL@Maine.gov. The City of Portland might also talk with the Census Bureau to request Nonemployer data at the city level to gain a better

understanding of self-employed creative businesses (currently only available down to the MSA level). Contact information for the Nonemployer Statistics staff is (301) 763-2580 or statistics@census.gov.

b. Examine External Funding

Because interviewees identified funding sources as a challenge for the creative economy, an important next area of study might be to examine external funding into the creative economy. Funding sources may include philanthropic, government (e.g. NEH or NEA) and other donors for public art institutions, and research and development funds for architecture and design industries. This would allow Portland to understand which current sectors receive funding, and where to direct its own investments to foster synergistic relationships.

c. Examine Synergies

Another area for examination is a look at initiatives and opportunities that bridge various components within Portland's creative economy. For example, it would be helpful to understand the extent to which printers work with graphic designers, or how professional components of the creative economy partner with self-employed artists. There may be some unique projects that are worthwhile for the city to support.

d. Study Targeted Creative Sector Components

Portland could benefit by better understanding particular components within the creative sector, particularly those that are important or have potential for growth. Some suggestions would be an analysis of: architectural services, music, broadcasting, and/or advertising.

Works Cited

DeNatale, D. and Wassall, Gregory H. *The Creative Economy: A New Definition*. New England Foundation for the Arts, 2007.

Appendix I: NEFA Creative Economy NAICS Codes

323110 Commercial Lithographic Printing
323111 Commercial Gravure Printing
323112 Commercial Flexographic Printing
323113 Commercial Screen Printing
323115 Digital Printing
323117 Books Printing
323119 Other Commercial Printing
323121 Tradebinding and Related Work
323122 Prepress Services
325992 Photographic Film, Paper, Plate, and Chemical Manufacturing
327112 Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing
327212 Other Pressed and Blown Glass and Glassware Manufacturing
332323 Ornamental and Architectural Metal Work Manufacturing
333293 Printing Machinery and Equipment Manufacturing
334310 Audio and Video Equipment Manufacturing
334612 Prerecorded Compact Disc (except Software), Tape, and Record Reproducing
337212 Custom Architectural Woodwork and Millwork Manufacturing
339911 Jewelry (except Costume) Manufacturing
339912 Silverware and Hollowware Manufacturing
339913 Jewelers' Material and Lapidary Work Manufacturing
339914 Costume Jewelry and Novelty Manufacturing
339942 Lead Pencil and Art Good Manufacturing
339992 Musical Instrument Manufacturing
423410 Photographic Equipment and Supplies Merchant Wholesalers
423940 Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers
424110 Printing and Writing Paper Merchant Wholesalers
424920 Book, Periodical, and Newspaper Merchant Wholesalers
443112 Radio, Television, and Other Electronics Stores
443130 Camera and Photographic Supplies Stores
448310 Jewelry Stores
451130 Sewing, Needlework, and Piece Goods Stores
451140 Musical Instrument and Supplies Stores
451211 Book Stores
451220 Prerecorded Tape, Compact Disc, and Record Stores
453920 Art Dealers
712110 Museums
812921 Photofi nishing Laboratories (except One-Hour)
812922 One-Hour Photofi nishing
511110 Newspaper Publishers
511120 Periodical Publishers
511130 Book Publishers
511191 Greeting Card Publishers
511199 All Other Publishers
512110 Motion Picture and Video Production
512120 Motion Picture and Video Distribution

512131 Motion Picture Theaters (except Drive-Ins)
512132 Drive-In Motion Picture Theaters
512191 Teleproduction and Other Postproduction Services
512199 Other Motion Picture and Video Industries
512210 Record Production
512220 Integrated Record Production/Distribution
512230 Music Publishers
512240 Sound Recording Studios
512290 Other Sound Recording Industries
515111 Radio Networks
515112 Radio Stations
515120 Television Broadcasting
515210 Cable and Other Subscription Programming
516110 Internet Publishing and Broadcasting
517510 Cable and Other Program Distribution
519110 News Syndicates
519120 Libraries and Archives
532230 Video Tape and Disc Rental
541310 Architectural Services
541320 Landscape Architectural Services
541340 Drafting Services
541410 Interior Design Services
541420 Industrial Design Services
541430 Graphic Design Services
541490 Other Specialized Design Services
541810 Advertising Agencies
541830 Media Buying Agencies
541840 Media Representatives
541850 Display Advertising
541921 Photography Studios, Portrait
541922 Commercial Photography
611610 Fine Arts Schools
711110 Theater Companies and Dinner Theaters
711120 Dance Companies
711130 Musical Groups and Artists
711190 Other Performing Arts Companies
711510 Independent Artists, Writers, and Performers
712120 Historical Sites
712130 Zoos and Botanical Gardens
712190 Nature Parks and Other Similar Institutions
323114 Quick Printing
325910 Printing Ink Manufacturing
327215 Glass Product Manufacturing Made of Purchased Glass
327420 Gypsum Product Manufacturing
327991 Cut Stone and Stone Product Manufacturing
327999 All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
333315 Photographic and Photocopying Equipment Manufacturing
334220 Radio and Television Broadcasting and Wireless Communications Equipment
334613 Magnetic and Optical Recording Media Manufacturing

336612 Boat Building
423620 Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers
423920 Toy and Hobby Goods and Supplies Merchant Wholesalers
424990 Other Miscellaneous Nondurable Goods Merchant Wholesalers
451120 Hobby, Toy, and Game Stores
451212 News Dealers and Newsstands
453220 Gift, Novelty, and Souvenir Stores
453998 All Other Miscellaneous Store Retailers (except Tobacco Stores)
511210 Software Publishers
532220 Formal Wear and Costume Rental
532299 All Other Consumer Goods Rental
541820 Public Relations Agencies
541860 Direct Mail Advertising
541890 Other Services Related to Advertising
611519 Other Technical and Trade Schools
711310 Promoters of Performing Arts, Sports, and Similar Events with Facilities
711320 Promoters of Performing Arts, Sports, and Similar Events without Facilities
711410 Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures

Appendix II: NEFA Standard Occupational Classification (SOC) Codes

Core Occupations

11-2011 0040 Advertising and Promotions Managers
11-2031 0060 Public Relations Managers
17-1011 1300 Architects, Except Landscape and Naval
17-1012 1300 Landscape Architects
17-3011 [Part of 1540] Architectural and Civil Drafters
19-3091 [Part of 1860] Anthropologists and Archeologists
19-3093 [Part of 1860] Historians
25-1031 [Part of 2200] Architecture Teachers, Postsecondary
25-1061 [Part of 2200] Anthropology and Archeology Teachers, Postsecondary
25-1062 [Part of 2200] Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1082 [Part of 2200] Library Science Teachers, Postsecondary
25-1121 [Part of 2200] Art, Drama, and Music Teachers, Postsecondary
25-1122 [Part of 2200] Communications Teachers, Postsecondary
25-1123 [Part of 2200] English Language and Literature Teachers, Postsecondary
25-1124 [Part of 2200] Foreign Language and Literature Teachers, Postsecondary
25-1125 [Part of 2200] History Teachers, Postsecondary
25-4011 2400 Archivists
25-4012 2400 Curators
25-4013 2400 Museum Technicians and Conservators
25-4021 2430 Librarians
25-4031 2440 Library Technicians
25-9011 [Part of 2550] Audio-Visual Collections Specialists
27-1011 2600 Art Directors
27-1012 2600 Craft Artists
27-1013 2600 Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014 2600 Multi-Media Artists and Animators
27-1019 2600 Artists and Related Workers, All Other
27-1021 2630 Commercial and Industrial Designers
27-1022 2630 Fashion Designers
27-1023 2630 Floral Designers
27-1024 2630 Graphic Designers
27-1025 2630 Interior Designers
27-1026 2630 Merchandise Displayers and Window Trimmers
27-1027 2630 Set and Exhibit Designers
27-1029 2630 Designers, All Other
27-2011 2700 Actors
27-2012 2710 Producers and Directors
27-2031 2740 Dancers
27-2032 2740 Choreographers
27-2041 2750 Music Directors and Composers
27-2042 2750 Musicians and Singers
27-2099 2760 Entertainers, Performers, Sports and Related Workers, All Other
27-3011 2800 Radio and Television Announcers
27-3012 2800 Public Address System and Other Announcers
27-3021 2810 Broadcast News Analysts
27-3022 2810 Reporters and Correspondents
27-3031 2820 Public Relations Specialists
27-3041 2830 Editors
27-3042 2840 Technical Writers
27-3043 2850 Writers and Authors

27-3099 2860 Media and Communication Workers, All Other
27-4011 2900 Audio and Video Equipment Technicians
27-4012 2900 Broadcast Technicians
27-4013 2900 Radio Operators
27-4014 2900 Sound Engineering Technicians
27-4021 2910 Photographers
27-4031 2920 Camera Operators, Television, Video, and Motion Picture
27-4032 2920 Film and Video Editors
27-4099 2960 Media and Communication Equipment Workers, All Other
39-3021 4410 Motion Picture Projectionists
39-3092 [Part of 4430] Costume Attendants
39-5091 [Part of 4520] Makeup Artists, Theatrical and Performance
41-3011 4800 Advertising Sales Agents
43-4121 5320 Library Assistants, Clerical
43-9031 5830 Desktop Publishers
49-2097 7120 Electronic Home Entertainment Equipment Installers and Repairers
49-9061 [Part of 7430] Camera and Photographic Equipment Repairers
49-9063 [Part of 7430] Musical Instrument Repairers and Tuners
49-9064 [Part of 7430] Watch Repairers
51-5011 8230 Bindery workers
51-5012 8230 Bookbinders
51-9071 8750 Jewelers and Precious Stone and Metal Workers
51-9123 [Part of 8810] Painting, Coating, and Decorating Workers
51-9131 8830 Photographic Process Workers
51-9132 8830 Photographic Processing Machine Operators

Peripheral Occupations

13-1011 0500 Agents and Business Managers of Artists, Performers, and Athletes
29-1125 3210 Recreational Therapists
35-1011 4000 Chefs and Head Cooks
35-2013 [Part of 4020] Private Household Cooks
35-2014 [Part of 4020] Cooks, Restaurant
39-3031 4420 Ushers, Lobby Attendants, and Ticket Takers
39-6021 4540 Tour Guides and Escorts
39-6022 4540 Travel Guides
39-9032 [Part of 4620] Recreation Workers
51-3011 7800 Bakers
51-4061 8060 Model Makers, Metal and Plastic
51-4062 8060 Patternmakers, Metal and Plastic
51-5021 8240 Job Printers
51-5022 8250 Prepress Technicians and Workers
51-5023 8260 Printing Machine Operators
51-6050 8350 Tailors, Dressmakers, and Custom Sewers
51-6051 8350 Sewers, Hand
51-6092 8440 Fabric and Apparel Patternmakers
51-7011 8500 Cabinetmakers and Bench Carpenters
51-7021 8510 Furniture Finishers
51-7031 8520 Model Makers, Wood
51-7032 8520 Patternmakers, Wood
51-7099 8550 Woodworkers, All Other
51-9195 8920 Molders, Shapers, and Casters, Except Metal and Plastic

Preliminary Analysis of the Portland Food Sector

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Executive Summary

Portland's food sector, comprised of establishments involved in production and harvesting, processing and manufacturing, distribution and marketing, and sales of food and beverage products, represents an important part of its economy. It a significant source of employment (11% of all jobs in Portland) and is also central to the character of Portland's evolving identity as a food destination. Portland prides itself on the high quality products manufactured, harvested and sold in the region – from local organic produce to lobster, from milk to artisan specialty products - as well as the range of eating establishments from which one can choose.

This report utilizes quantitative and qualitative methodologies to analyze the status of the sector in Portland, and highlight major trends, changes, and opportunities.

Our preliminary quantitative data analysis has revealed three significant trends: lower paying jobs in the restaurant and retail sub-sectors are growing, while higher paying employment in fishing, wholesale and food manufacturing is on the decline. There also seems to be an opportunity for more restaurants to open in Portland. In the next phase of our work, we will aim to create strategies to support the creation of high-paying quality jobs, while retaining staple industry employment.

Our qualitative research, consisting of more than 15 stakeholder interviews from representatives across the sector, indicates that the food sector is nascent with opportunity. In particular, we believe there is an opportunity to further leverage connections between local farmers and fishermen, wholesale distributors and restaurants. With the guidance of the City, we hope to explore creative ideas to capitalize upon these opportunities.

I. What is the Portland food sector?

A. Introduction and scope of research

In the following report, we seek to characterize and analyze the central components of Portland's "food economy". We draw on both quantitative and qualitative sources of information; based on our analysis of economic data and interviews, we provide a preliminary analysis of trends, challenges and opportunities in the food sector. We also explore the overall size of the food sector and its importance to the city's economy. We hope that these findings can help to frame Portland's economic development efforts related to the food sector.

For the purposes of data analysis, we focus on the following five main components of Portland's food sector: fishing (NAICS code 1141), food and beverage manufacturing (311 and 3121), food and beverage wholesale (4244 and 4248), food and beverage stores (445), and food services and drinking places (722). We explore the overall patterns in these groupings, both for employer firms and for self-employed individuals. We also seek to highlight prominent sub-sectors within these groupings.

In 2008, there were 7781 jobs in Portland's food sector, as defined above, and 438 establishments in the city of Portland. The food sector provides 11.3% of all employment in the city of Portland, and makes up 10.3% of its establishments. Within the food sector, 55% of jobs and 71% of establishments were in food services and drinking places. Twenty-three percent of jobs and 9% of establishments were in food and beverage manufacturing. Eighteen percent of jobs and 12% of establishments were in food and beverage stores. Five

percent of jobs and 5% of establishments were in grocery and alcohol wholesale. Fishing jobs are an insignificant percentage of these statistics because they are recorded as non-employer firms - there are an estimated 500 non-employer fishing firms in the city of Portland.

Industry	Number of Establishments 2008	Number of Jobs 2008	Average Weekly Wage	Percent of jobs in the food sector
Food Services and Drinking Places	311	4253	$323	55
Food and beverage manufacturing	37	1756	$749	23
Fishing, Hunting and Trapping	9	9	$977	0
Food and Beverage Stores	54	1365	$399	18
Grocery and beverage wholesale	27	398	$787	5

It is important to note that the firms engaged in these primary activities rely on businesses that provide a wide range of supporting products and services. These range from transportation and energy services to furniture and laundry businesses. While we were not able to undertake a quantitative analysis of these vital support networks, the qualitative component of our work suggests this may be an area of further study.

In our 15 interviews, we spoke with firms from each of the major groupings about their business activities, relationships, constraints, and about the food sector as a whole. We also spoke with technical assistance providers, representatives of food-related organizations, and government agencies with ties to the food sector. These interviews enabled us to better understand and elaborate upon the trends that appear in the data – and capture information not readily apparent through data analysis. They also provided valuable information about the challenges and opportunities within Portland's food sector. Where possible, we distinguish between factors that are internal to the city of Portland, versus those that are imposed by external conditions in Maine and beyond. Strategic planners must remain cognizant of the factors in the city and beyond that may help or hinder the development of Portland's food sector.

B. Breakdown of the food industry

The five groupings within the food industry (fishing, manufacturing, wholesale, retail, and food services) include a wide variety of occupations. Jobs have drastically different wage levels, work schedules, and employee age distributions. We recognize that there is

significant variation within these groupings as well as between these groupings. However, based on the analysis of patterns and trends in data, we divide these groupings into three occupational categories.

Food and beverage stores and services make up the first occupational category. These are often part-time jobs and thus have low weekly wages ($399 in 2008). They make up a large – and increasing – percentage of employment in Portland's food sector. Food services and drinking places alone provide 55% of jobs in food sector, and together with food and beverage stores provide 5618 jobs, or 72% of all jobs in the food sector. However, because of the low wages, these two groupings provide only 54% of wages. (See Figures A and B.) As discussed in the "Trends and Highlights section", young people make up a significant proportion of employees in these two groupings.

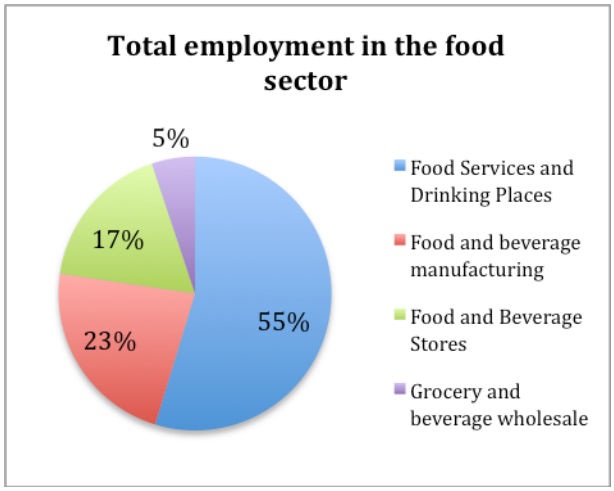


Figure A

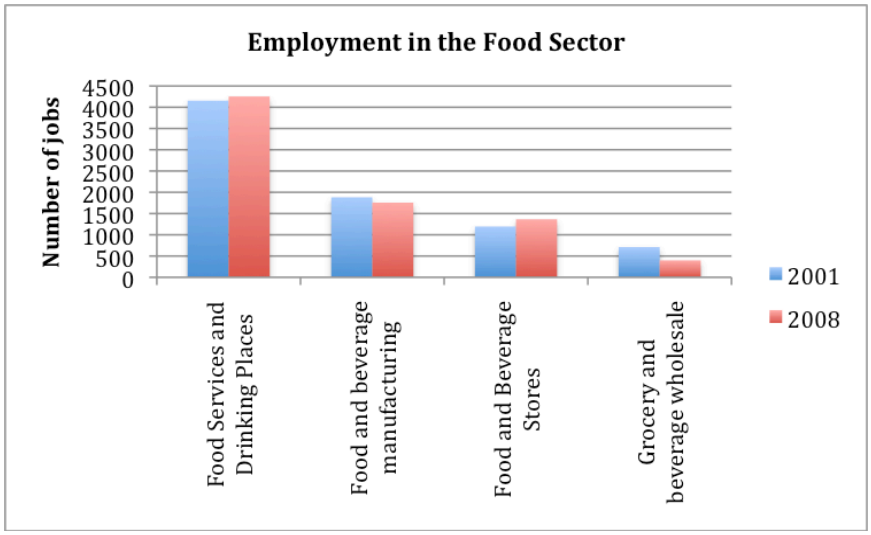


Figure A'

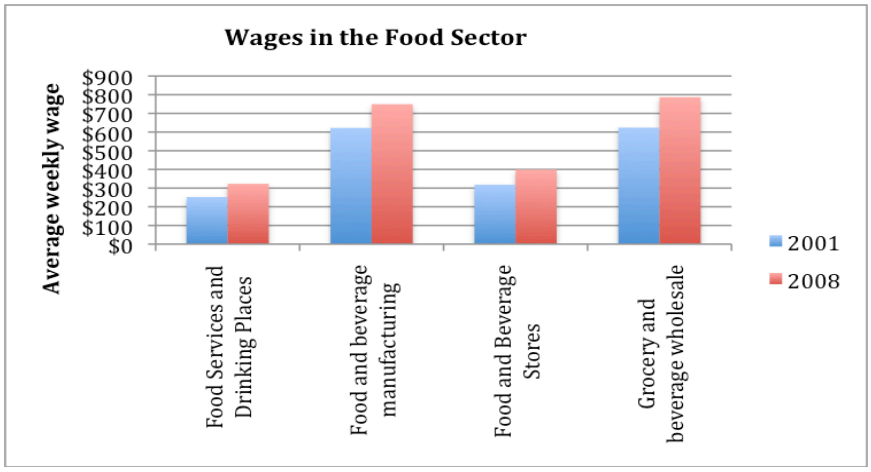


Figure B

Food and beverage manufacturing and wholesale jobs make up the second occupational category. These establishments provide full-time jobs with much higher weekly wages. Although wages have increased, total employment in manufacturing and wholesale has decreased from 2001 to 2008. These 2154 jobs now make up only 28% of the food sector (down from 33% in 2001). However, they continue to provide 46% of wages. Older people make up a significant – and increasing – share of employees in manufacturing and wholesale.

Employment in the fishing industry falls into a third occupational category. These jobs provide high wages and are seasonal in nature. Furthermore, the vast majority of these jobs do not appear in ES202 data. Rather, fishing industry workers appear as non-employer firms because of the nature of their contracts. In 2007, 1,459 non-employer firms in the Portland Metropolitan Statistical Area (MSA) complemented the city of Portland's nine ES202 fishing establishments. It is difficult to ascertain the profits or wages of workers in the fishing industry given the information provided by non-employer firms. However, if non-employer firms are assumed to represent one person, and if expenses are deemed minimal, then workers would net approximately $50,000 per year, or $966 per week. Although sales per firm have remained constant from 2001 to 2008, the number of firms dropped by 8% from 2003 to 2007.

Figure C

We also examined the composition and changes in non-employer (i.e., self-employed) food-related firms in Portland's MSA. Fishing remains by far the largest category. However, all groupings except fishing experienced growth from 2002 to 2007. Entrepreneurship in the manufacturing sector appears particularly prominent, with growth from 75 to 125 firms over this five-year period. Despite this net increase in firms, total receipts declined between 2002 and 2007. Even excluding fishing, these sales have dropped by a dramatic 15%. In 2002, non-employer firms excluding fishing averaged $73,000 in sales per year, while they now average only $51,000.

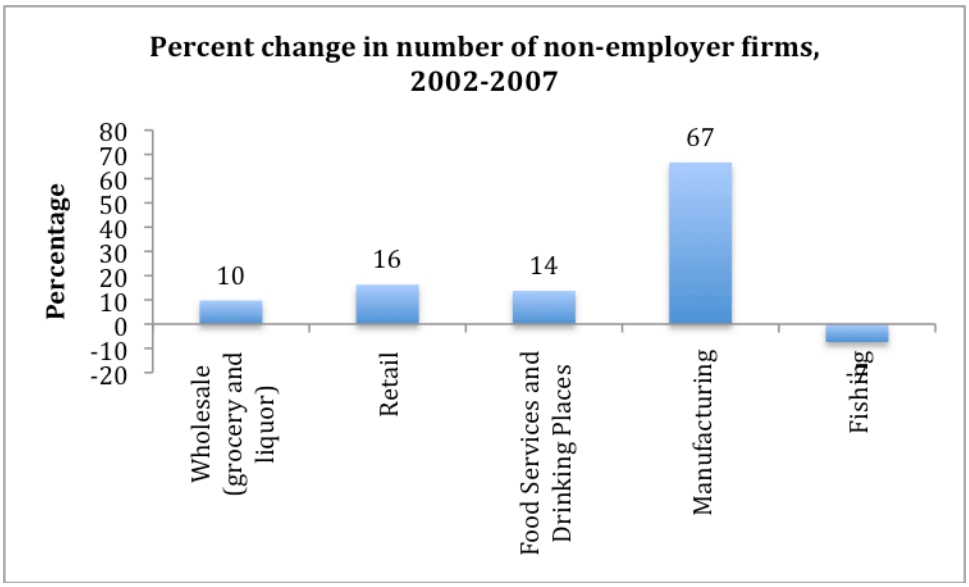


Figure D

It should be noted that non-employer data has been considered independently of employer statistics for all sectors except fishing, because of the difficulty of imputing wages, expenses and numbers of employees. Fishing was not considered within employer statistics because of its minute size in the ES202 data.

II. Overview of the food sector within Portland's economy

The food sector is an important part of Portland's employer economy, comprising 10.8% of establishments and 11.3% of jobs in 2008. Between 2001 and 2008, the total number of jobs in the food sector decreased by 2.1%, from 7948 to 7781; this rate of decline was less than the 3.5% decline in the number of jobs in the city as a whole. However, wages are not proportional to the share of the jobs and establishments; in 2008, the food sector generated only 5.8% of total city's wages – a decline from the high of 6.4% in 2003 (Figure E). This trend is further illustrated by the relative wage growth from 2001 to 2008. Average wages in the food sector increased by 19%, but they did not keep pace with the city as a whole, where wages increased by 32% (Figure F).

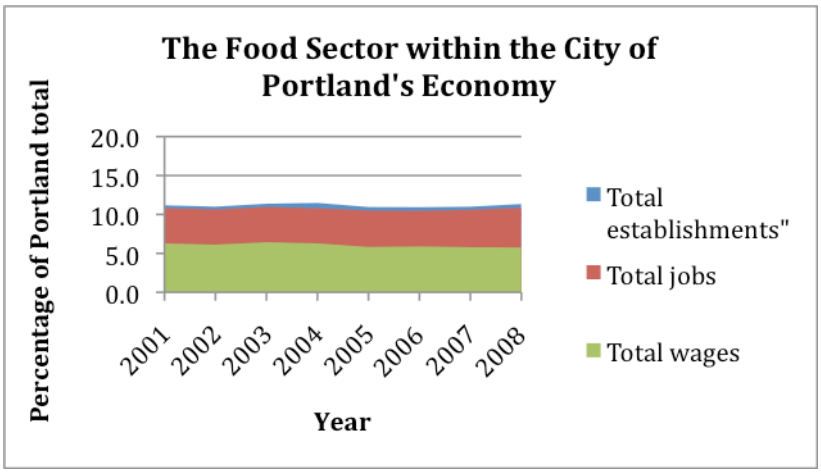


Figure E

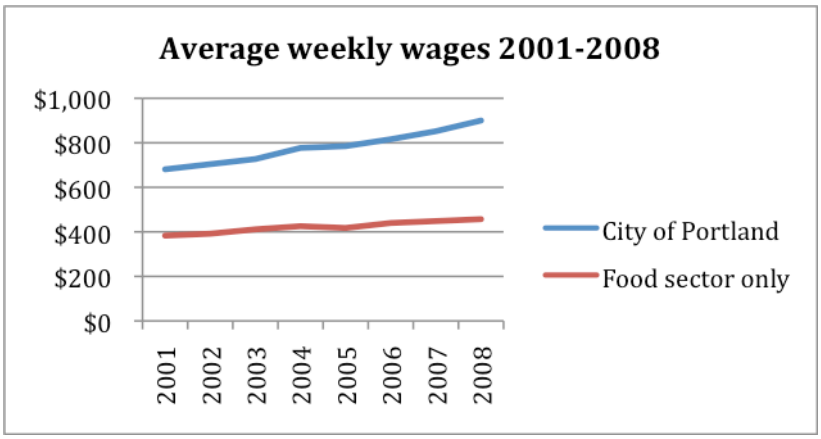


Figure F

The food sector is also relevant to Portland MSA's non-employer economy, comprising 4.5% of MSA's firms and 5.1% of sales in 2007. However, there has been a substantial decline since 2002 when the food sector made up 5.3% of all non-employer firms and 6.7% of all receipts. As discussed, the fishing industry makes up the bulk of these firms and plays a role in this decline. Yet even excluding fishing – and despite increases in the number of firms - total receipts of the food sector have declined from 2.3% of sales to 1.6%. Nonetheless, the average annual sales of a firm ($51,000) remain above the average of $45,000 for all non-employer firms in the Portland Metropolitan Statistical Area.

III. Trends and Highlights

In this section we briefly present specific trends and highlights within the five groupings: food and beverage manufacturing, wholesale, retail, services, and fishing.

A. Manufacturing

Food and beverage manufacturing jobs are the core of Portland's manufacturing sector. As of 2008, they comprised 31% of establishments and 51% of manufacturing jobs. Wages are on par with other manufacturing jobs at 96% of average manufacturing weekly wages. Wages in food and beverage manufacturing have increased by 20% from 2001 to 2008, from $622 per week to $750 per week.

Employment in food and beverage manufacturing has decreased in recent years from a high of 2,031 jobs in 2004 (57% of manufacturing sector) down to 1,756 jobs in 2007 and 2008 (51% of the manufacturing sector). This decline occurred primarily in unclassified subsectors of food manufacturing. It appears that nine food manufacturing establishments that are "unaccounted for" provide 1,289 jobs, down from 1,535 jobs in 2001.

Amongst those classified at the four-digit level of the NAICS codes, seafood and breweries have increased significant growth since 2004, both in establishments and in number of jobs. Since 2001, jobs have almost doubled, from 124 to 220. This appears to have occurred through expansion of existing establishments. Wages have increased, but are not on par with the rest of the sector, at only 70% of average wages in the overall manufacturing sector.

Bakeries have experienced minor declines in both employment and establishments. They stand out amongst manufacturing for their low wages, with an average of $357 per week. Though they are classified as manufacturing, jobs in bakeries may in fact more closely resemble the occupation profiles of jobs in the retail sector. Breweries are increasing in number and in employment, though they still provide only 6% of food and beverage manufacturing jobs.

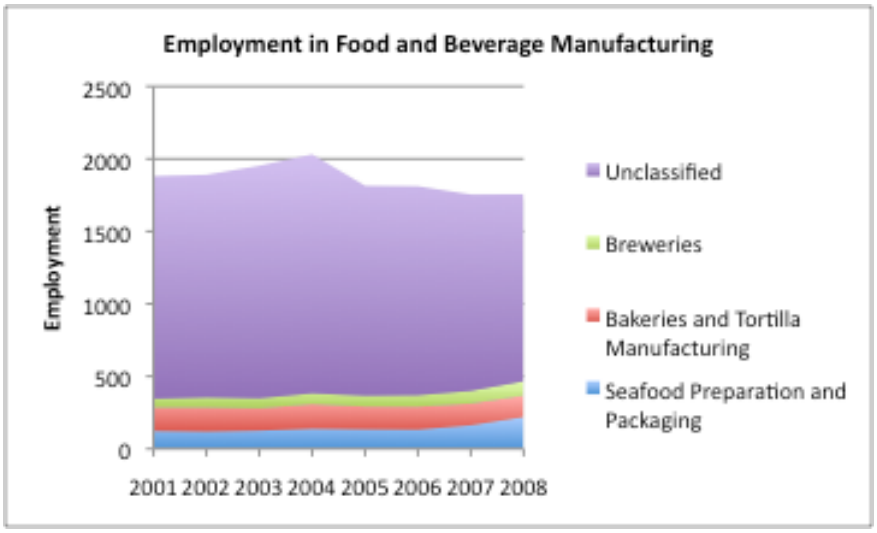
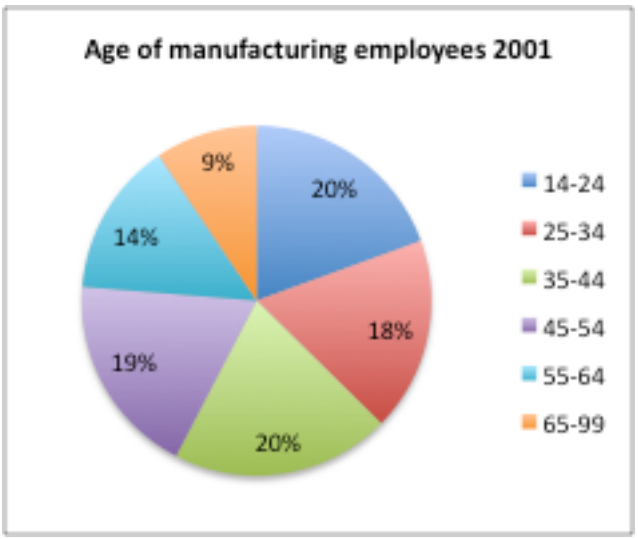
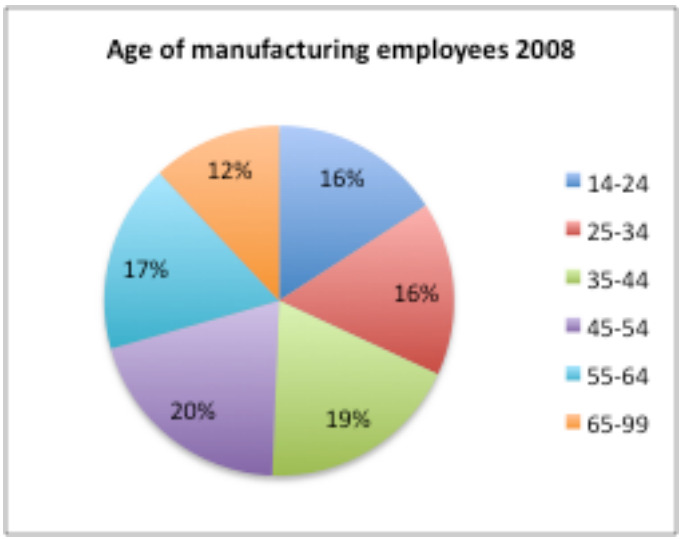


Figure G
Employment in Food and Beverage Manufacturing, City of Portland





Figures H and H': Age distribution of manufacturing employees residing in Portland MSA

There have been small but important shifts in the demographics of the manufacturing employees living in the MSA. A 6% decrease in the percentage of employees 14-34 has been accompanied by 6% increase in the percentage of employees aged 55 and over. This may reflect that cuts have affected young (and new) employees rather than older workers with many years experience.

As noted earlier, the number of non-employer manufacturing firms in the MSA has increased rapidly between 2001 and 2008, while total receipts have dropped. In addition, annual receipts diverge drastically by type of manufacturing operation as well as over time (see figure below).

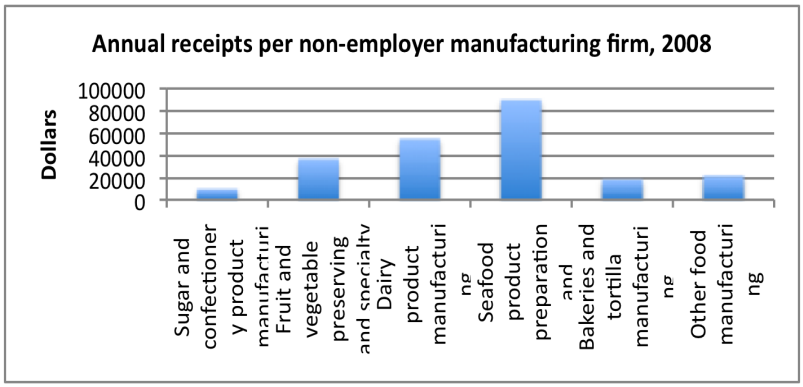


Figure I: Receipts per firm, Portland MSA

Based on data from 2005 to 2008, it appears that the decrease in overall sales is partly due to declines within specific types of firms - particularly those handling seafood products. However, changes in reporting for beverage manufacturers may actually constitute the bulk of the decline in receipts, so the data may be somewhat misleading. For data on the number of non-employer firms within each sub-sector of food manufacturing and the change in receipts over time, see figure 1 in Appendix A.

B. Food Wholesale

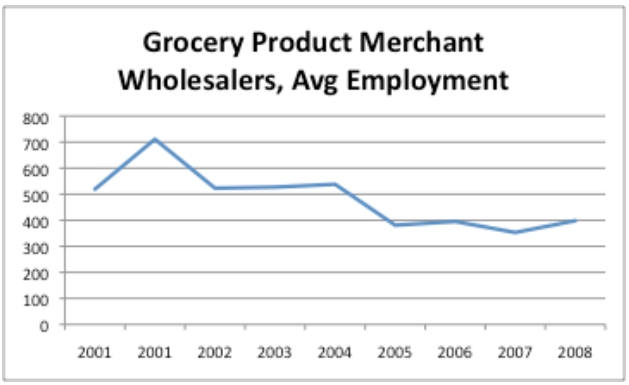


Figure J

Jobs and firms in food and beverage wholesale have declined between 2001 and 2008, both in net numbers and as a percentage of total wholesale. The loss of 12 establishments and 313 jobs from 2001 to 2008 means that food wholesale has declined from 15% of establishments and 20% of all wholesale jobs to 10% of establishments and 14% of wholesale jobs. MSA data on establishment size indicates that establishments are not closing at random. From 2001 to 2008, the number of medium sized establishments with 10-99 employees dropped from 27 to 14, while small and large establishments remained constant in the MSA. In 2007, over half of food wholesalers (40/67) were very small, employing 1-4 people. Fish and seafood wholesalers are prominently featured, as 36 of the 67 wholesale food-related establishments in the Metro area.

Wages in the city of Portland's food-related wholesale establishments remain below wages for other wholesale operations (at around 80% of average wholesale wages). They have increased on par with the rest of the wholesale industry, by 26% from 2001 to 2008.

The city of Portland's fish and seafood markets stand out within the wholesale sector as having fared well in recent years. Although the number of establishments has declined, new jobs have been created and wages have grown by 32%.

Figure K

The demographic changes in food wholesaling within the MSA closely parallel those in the manufacturing sector. Between 2001 and 2008, there has been an 8% decline in employment of younger age groups 14-44, and a corresponding increase in the percentage of older employers age 45+.

C. Fishing

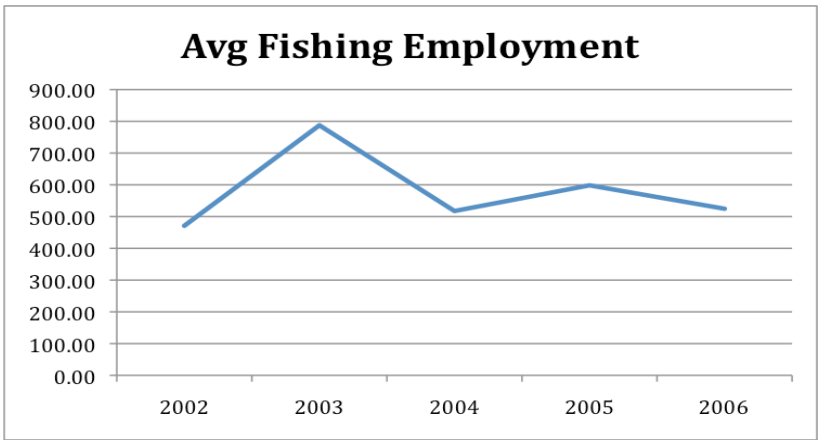


Figure L

The Fishing Industry in Portland makes up 38% of the Fishing Industry in the Metro area by employment rates. The average fishing employment is declining and drastically dropped from 787 to 534 employees from 2003

through 2006 (ES202 + Non-employer data). However, while employment in the fishing industry is dropping, the average weekly wage has remained relatively constant, ranging from $962 to $928 from 2002 to 2006.

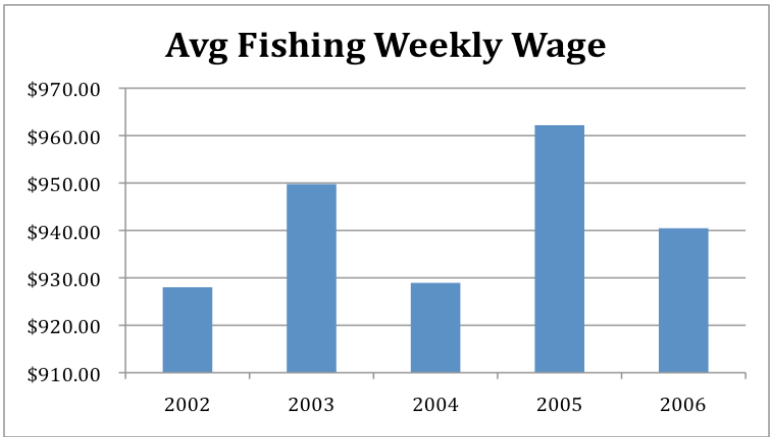
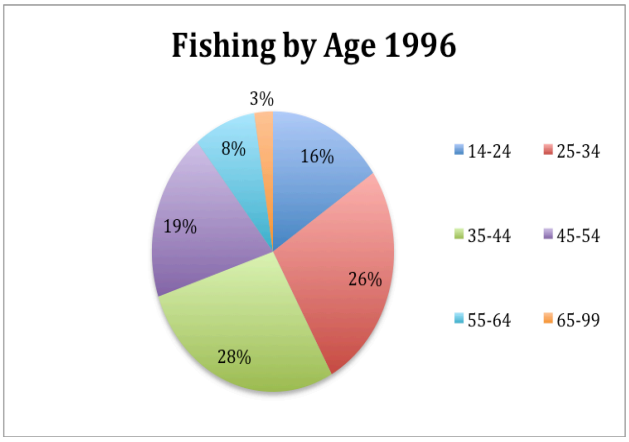


Figure M

The population of fishermen living in Portland is aging with the 55-64 year old category increasing from 8% in 1996 to 10% in 2001 to 15% in 2008. The data suggests that young, career fishermen are declining (ages 25 to 34) dropping from 26% in 1996 to 21% in 2001 and to 19% in 2008. The 14 to 24 year old range has remained somewhat constant. Our interviews confirmed these trends and suggested it is because the 14-24 age range is mostly seasonal help, which includes college students, who pursue other careers after graduation.



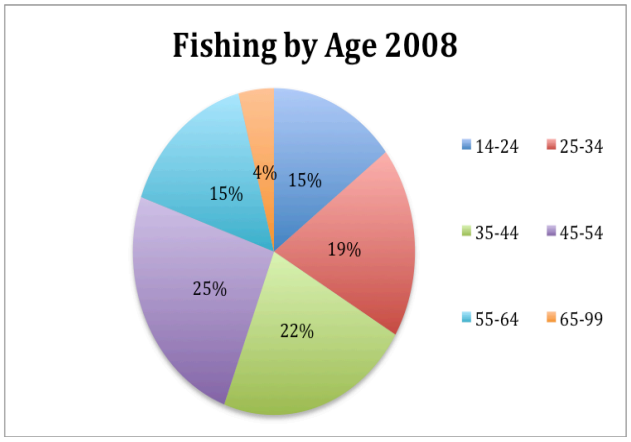


Figure N and N'

D. Retail

On the whole, the food and beverage retail sector has been steady over the course of the last eight years, with average weekly wages climbing slowly but steadily from $318 to $399. Employment has also been steadily increasing from 1,194 in 2001 to 1,365 in 2008. However, there has been some decline within more specific industries. For example, employment in specialty food stores has drastically decreased over the last eight years from 252 to 121.

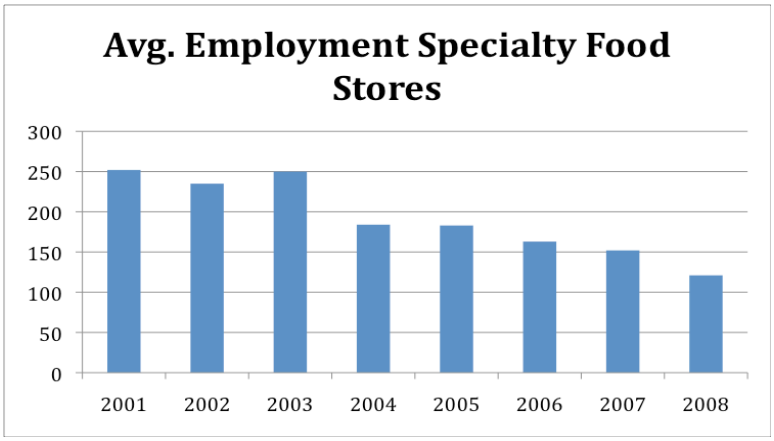


Figure O

Another significant trend is the drastic decrease in employment in the Fish and Seafood Markets from 112 to 40 employees; establishments have also decreased from eight to five. Wages have hovered around $500 a week throughout the eight year period, suggesting an inelastic labor supply.

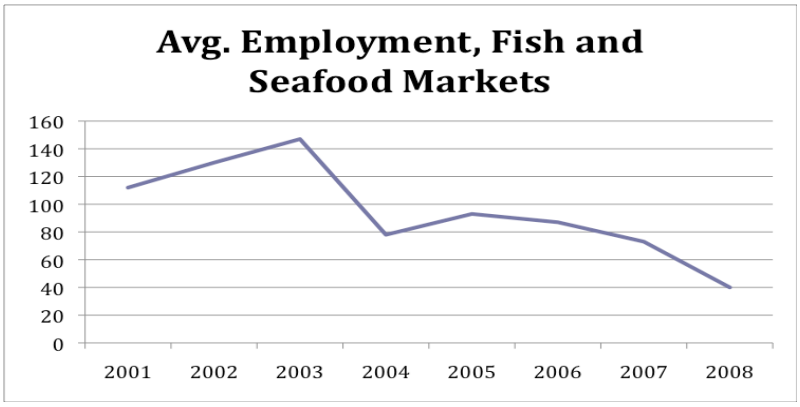


Figure P

Lastly, the Beer, Wine, and Liquor retail wages have increased steadily over the past eight years, begininng at $320 in 2001 and landing at $429 in 2008. Average establishments have also been steady, with an average of four across the eight years with a variance of two. Employment has dropped from 50 jobs to 34 jobs.

E. Restaurants

The number of full service and limited restaurants have both grown from 2001 to 2008, from 126 to 147 and from 90 to 122 respectively. The number of special food services and drinking places have decreased from 13 to 11 and from 39 to 31 respectively.

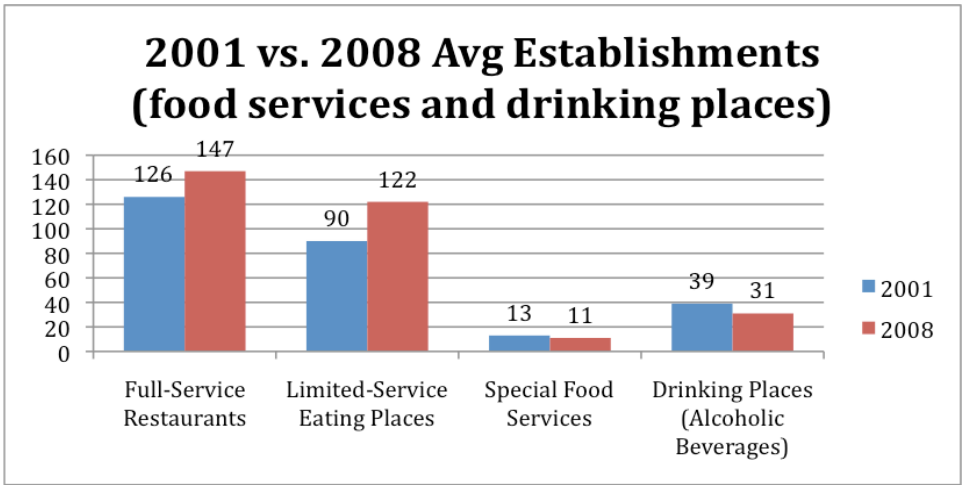


Figure Q

Despite the growth in establishment size, employment at limited service restaurants has decreased, along with specialty food services and drinking establishments. Employment in full-service restaurants is the only sub-sector that has increased.

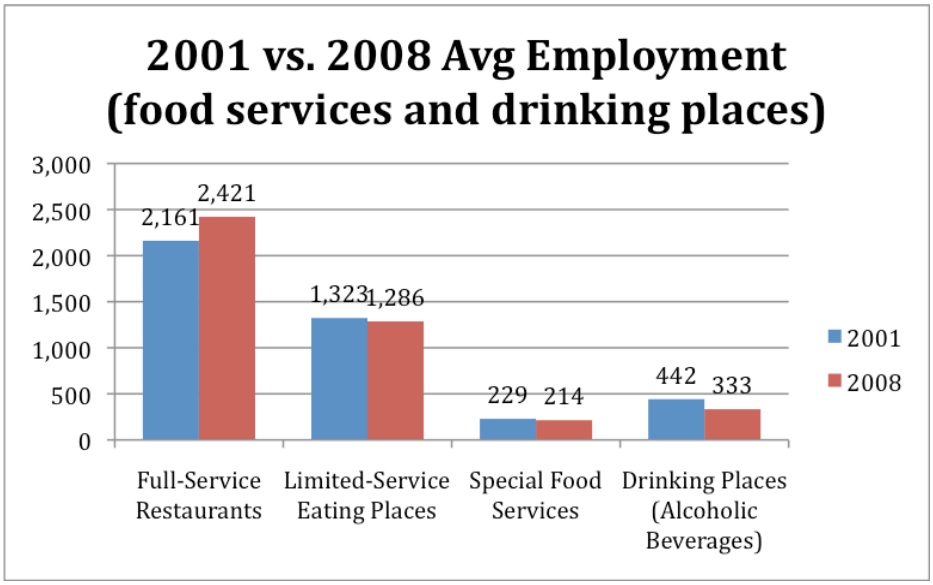


Figure R

Weekly wages have gone up in all sectors, but have increased the most in drinking establishments followed by full-service restaurants, then special food services and limited service eating places coming in last. Limited service eating places still yield a weekly wage of $234 per week while special food service is $370 per week.

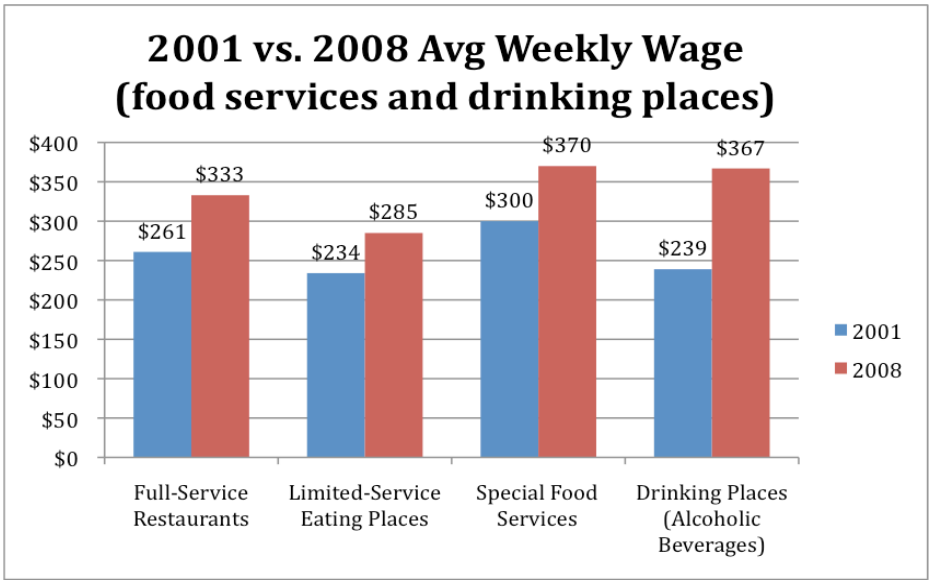


Figure S

F. Location quotients

Location quotients were calculated for each of the five main sectors of Portland's food economy (see figure T). These location quotients compare the percentage of Portland's jobs that are related to food (or a subsector of the food industry) to the percentage of such jobs in the nation as a whole. If the value of a location quotient is greater than 1, this indicates that the type of job in question is more concentrated in Portland than in the average location in the USA. The location quotient for three sectors, manufacturing, fishing, and wholesale were greater than 1, suggesting that these industries are among the city's strengths, and likely provide products for export. The remaining two sectors, food and beverage services and stores, have location quotients slightly below 1. This suggests that there may be room for expansion in these sectors. The location quotient of 0.73 for food services and drinking places is particularly notable, given Portland's desire to establish itself as a cultural center, and suggests that Portland could sustain more restaurants. Unsurprisingly, the fishing industry has the highest location quotient of the five main groupings. Seafood-related manufacturing, wholesale and retail operations are also of great prominence, with locations quotients of up to 12.

However, when considering a city's strengths and potential for growth, location quotients only tell part of the story. They portray the relative concentration of a certain type of job, but economic development planners must also consider the absolute number of jobs and the quality of these jobs. Figures T, U, V and W illustrate these three factors for different components of the food sector. The size of a bubble corresponds to the number of jobs in a given sub-sector (color-coded). The location quotients and average weekly wages for the sub-sectors are located on the Y-axis and X-axis, respectively.

Looking at these three elements simultaneously, certain sub-sectors are noteworthy. At the broadest level of analysis, food manufacturing is notable; not only does it have a high location quotient at 1.85, but it also employs a large number of workers and pays high weekly wages. The seafood manufacturing and wholesale industries maintain prominence when considering wages and numbers of jobs, and breweries also emerge as relevant.

Within food services, jobs in drinking places are relatively prevalent and pay relatively well, but restaurants and eating places still dominate in terms of absolute job numbers.

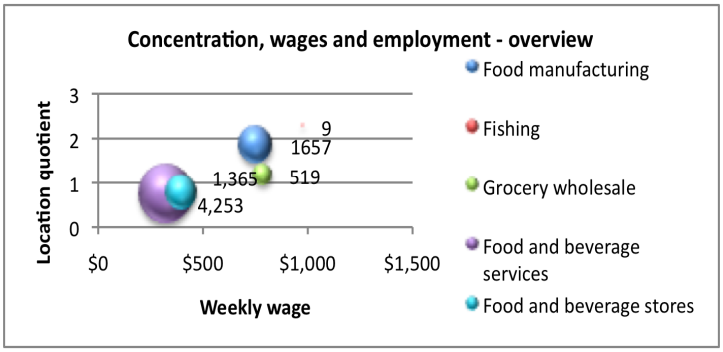


Figure T

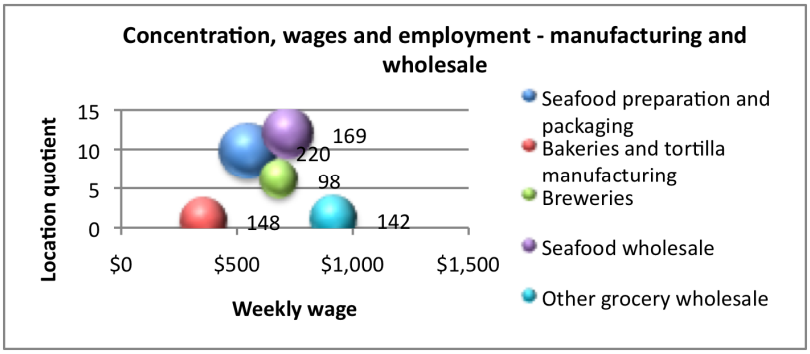


Figure U

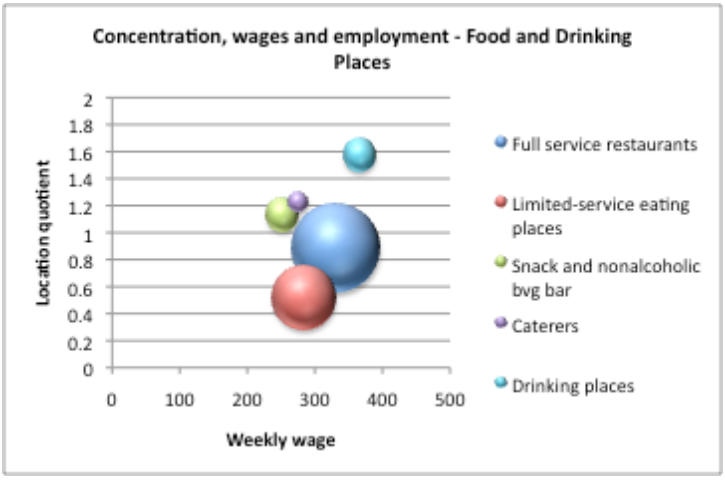


Figure V.

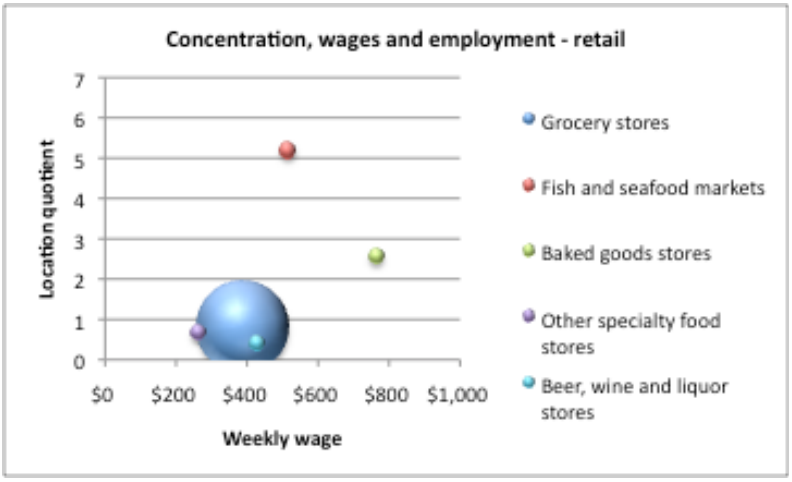


Figure W.

IV. Trends from Stakeholder Interviews

A. Neighborhood food-related businesses are on the rise

This includes restaurants ranging from upscale to family style. The number of tea houses and coffee shops has also increased because they are popular with young customers who like to work on laptops while in their establishments. Several businesses report that because they rely on customers who maintain year-round residency, they have steady receipts throughout the year and are less susceptible to seasonal/tourist swings. Growth of food related businesses is expanding toward the East End, particularly down Middle St.

B. Increased focus on local and organic

Over the past several years, there has been a growing population of people that focus on buying local and organic food. Overall, the general populous is still most concerned with price, but health and environmental concerns among consumers are driving the demand for locally grown products in Portland. Some interviewees cite the trend of people moving back into the city as helping change the food industry in Portland. Interviewees feel there is

more choice, including more locally produced goods as well as international products. Several business owners refer to Portland as a "foodie" city and cite the national press the city has received.

C. **Skilled workforce for smaller businesses; challenges for larger businesses**
Based on preliminary interviews of primarily smaller businesses, there is a sufficient pool of skilled workers in Portland's food sector. No training concerns or needs were highlighted. One large business noted the need for a specialized workforce, particularly trained sales route drivers. This is not an experience unique to Portland specifically, but rather to the industry as a whole.

D. **Proximity to end customers**
One fish wholesaler reports that there is a competitive advantage to locating fish wholesale operations in close proximity to restaurants. This allows restaurants whose fish supplies run low in the middle of the day to quickly drop by to purchase more product. Given that there are other wholesalers located within close proximity to restaurants in this area, we expect this trend applies to other wholesalers.

E. **Supply chain relationships**
The development of trust through long-term relationships with specific suppliers is important for several businesses interviewed. This includes food businesses dependent on their security system providers, knife sharpeners, laundries, as well as customers such as law firms and other large companies.

F. **Local funding**
Preliminary findings indicate that some food sector businesses receive financing through local banks as opposed to the City of Portland. These loans may be financed through the Finance Authority of Maine (FAME) or the Small Business Administration (SBA).

G. **Connection to tourism**
Of the year round businesses interviewed, there are generally higher sales in the summer when there is a larger volume of people in Portland due to tourists and summer residents.

H. **Internet businesses**
Several businesses within the food sector report growth opportunities through Internet sales.

I. **Regional networks and organization**
The Maine Food Producers Alliance, the Maine Brewers Guild and the Maine Restaurant Association are among the organizations working to promote the visibility and reputation of the State's food sector. These organizations have been increasingly successful in securing funding to expand their activities. Some food-related businesses in the City of Portland have been involved in these organizations and have benefited from their activities.

J. **New immigrant-owned businesses**
An example is the increased number of immigrant-owned groceries and restaurants. Eight to 10 Halal markets have opened recently, which cater to the growing Somali and Iraqi populations, and are considering wholesale sourcing methods.

V. Challenges

A. Health insurance

Health insurance is unaffordable for many small businesses we interviewed and several food related businesses we interviewed expressed this as a major concern. It is either unattainable for businesses, or it is an increasing cost that will be passed on to employees in coming years.

B. Difficulty of doing business with the City of Portland

i. *Cost of permits*. The outdoor seating permit, for example, was cited as a great expense for several local business owners. The permit recently changed from an annual fee to a policy where the City rents sidewalk space by the square foot, leading to large cost increases; one business's permit increased from $80 to over $500 for the summer season. The new permits are too expensive, and businesses have lost outdoor seating opportunities as a result.

ii. *Contractors don't want to work in Portland*. Businesses interested in expanding indicate experiencing a difficult time finding contractors willing to work in Portland as the City's reputation is one of constant inspections and micro-managing, particularly if the business is near the waterfront.

iii. *Strict regulations.* This applies both to development by the waterfront as well as elsewhere in the downtown. Businesses interviewed express a general sense of inflexibility from the City that creates a business-adverse environment.

iv. *Loans from the City come with micromanaged oversight.* This has led businesses to bypass working with the City and instead reach out to the SBA or private banks – even though one business reported that bank interest rates are higher than the City's loans.

v. *Point person in planning office for forms, process, etc. is often absent.* As indicated by several business owners, this makes it difficult to find or provide information when businesses need to work with the planning department.

vi. *There is a lack of transparency around code enforcement and requirements, which creates variable business costs.* Questions regarding zoning mean a long, arduous process that is unclear and seems to be based on the personal preferences of City staff. This is hard for start-up businesses because they cannot accurately predict required costs for accurate budgeting.

vii. *Businesses have left Portland for Yarmouth, South Portland, or Westbrook because working with the City of Portland is so difficult.* There seems to be no sense of urgency to support small businesses and to help them grow.

viii. *Existing businesses choose not to expand.* Several interviewees mentioned this.

C. Space

i. *Finding space to expand operations or to open an alternative location*. Businesses do not know where to go, and do not think the City would be helpful in locating space.

ii. *Dealing with landlords*. A business that rents is at the mercy of a landlord, and some have experienced violations and do not know where to turn.

D. **Lack of parking throughout the downtown**

There is very little short-term parking throughout the downtown. Small food businesses explain that large parking garages near the downtown do not aid their customers who are only stopping in for short excursions or errands. The City has removed parking spaces, which hurts business.

E. **Sourcing**

There is a lack of local sourcing by City institutions.

F. **Updated waterfront zoning**

Ground fishing products are no longer brought in by boat as the fishing fleet has declined, but wholesale and processing operations remain by the waterfront. The zoning needs to be updated and allow for increased ground transportation to allow for product movement.

G. **Division**

Within the farming sector, there is a distinct division between small and large producers, and a lack of mid-sized producers.

H. **Barriers to entry**

Currently, wholesale food distribution and smaller farmers feel there is little space or opportunity for them to enter the market.

I. **High property taxes**

There is currently a perception that taxes go to schools and not to support local businesses. There is no local option tax to support Portland's businesses.

J. **Low wages**

Interviewees report that the retail and restaurant subsector generally has low wages.

K. **Limited capacity at City level**

The City of Portland has limited capacity to support food-related tourism.

L. **Under appreciation of Food Sector**

There is an under appreciation of local food production beyond activists in Portland. Customers are unwilling to pay the true price of food.

M. **Funding**
Small business owners report that funding is a primary constraint for new startups.

N. **City/State discrepancies**
There is a lack of cooperation between City, County, and State.

VI. Opportunities

The following opportunities are for city actions that can help sustain and grow the food economy in Portland. The majority of these ideas came directly from food sector stakeholders interviewed for this analysis, and are preliminary based on the number and type of stakeholders interviewed.

A. **Support Local Food Festivals**
The City could continue supporting local food festivals such as Harvest on the Harbor, which has been described by some as successful in attracting tourists at a non-peak time of year for visitors. Portland could build off this success and help establish other local food festivals, such as the smaller festivals being pursued by Slow Food Portland.

B. **Increased Focus on Small Businesses**
Based on our preliminary interviews with stakeholders, business owners feel that the Portland city government needs to have an increased focus on local businesses. The City should examine the impact of regulations on small businesses based on the information learned in interviews; some fees or taxes could be relaxed, and regulations could be more flexible to consider the needs of small businesses. Also, the City could pursue measures to make it easier on businesses to expand and incentives to attract small, local businesses.

C. **Streamlined Processes**
The City application and permitting process could be streamlined or automated to increase capacity to serve businesses.

D. **Public-Private Partnerships**
Portland could pursue partnerships and joint ventures with the local food business community. For example, the city could make efforts to source locally when purchasing foods (e.g., locally grown vegetables, locally roasted coffee) for schools, city offices, and city events. In addition, there is demand from the business community to pursue projects in conjunction with the city that will help grow their businesses.

E. **Food Education**
Food education could be integrated into the curriculum in Portland public schools to foster an increased awareness of the food production process, which in turn can lead to increased demand for local food products.

F. **Centralization via a Public Market**
A centralized food wholesale and distribution facility in Portland could be established to help local products, especially from mid-sized producers, access the Portland market and external markets. This could also include on-site production with the ability to spur local markets regionally. The City could sustain and grow businesses with the Public

Market. Several interviewees mentioned New York City's Chelsea Public Market as a successful model market.

G. **Bring Manufacturing to the City**
The City could encourage the development of manufacturing facilities within the city, as these are sources of high-paying jobs within the food sector.

H. **Health Insurance**
Several interviewees said that the number one thing the City of Portland could do to help small business would be to develop a co-op health insurance plan for small businesses or support a similar effort through another organization such as the local SBDC or Chamber of Commerce.

I. **Focus Exports**
The City could help Portland food manufacturers pursue markets in Florida and California to access "snowbird" residents that have an existing affinity for Maine products.

J. **Improved Coordination with State**
The City could improve coordination with the county and state to help ensure efficient use of resources.

K. **Housing**
Portland could encourage housing in the downtown to help revitalize it and ensure adequate consumer base for food businesses located on peninsula.

L. **Zoning**
The City could relax the zoning along the waterfront to allow for short-term, temporary uses that could be relocated if the fishing industry picks up.

M. **Parking**
Additional short-term parking (external from garages) in Portland could be added to increase the accessibility of downtown food-related establishments.

N. **Exports via Online Sales**
Due to the fact that Portland has a goal of growing its population at a slow rate, a major area for economic growth is in marketing local producers and manufacturers through the Internet to New York and to the wider market by utilizing airfreight.

X. Appendix

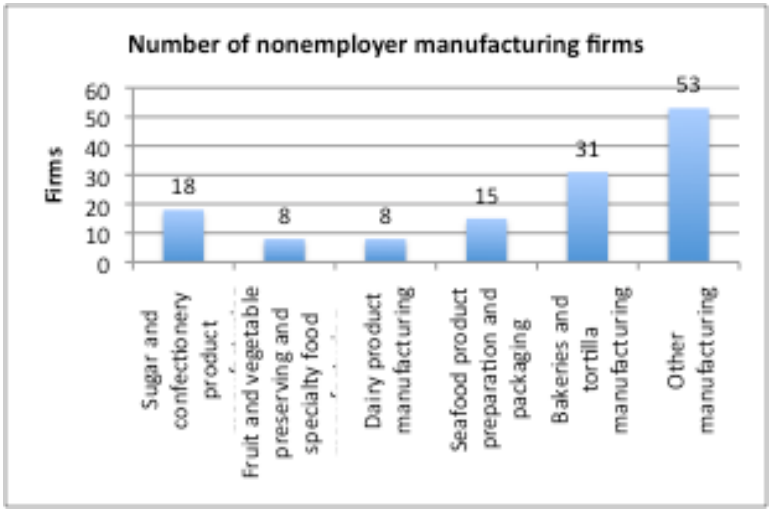


Figure 1. Non-employer firms in the manufacturing sector

Portland Economic Development Strategy: Phase I Findings

March 19, 2010

DUSP MIT

THE PROJECT

Introduction	Orientation to City Task Force Meeting
PHASE 1	4 Teams: Economic Profile Stakeholder Analysis Food Sector Creative Economy
PHASE 2	Preliminary Recommendations 3-4 Focus Areas April 30th
PHASE 3	Final Product May 19th

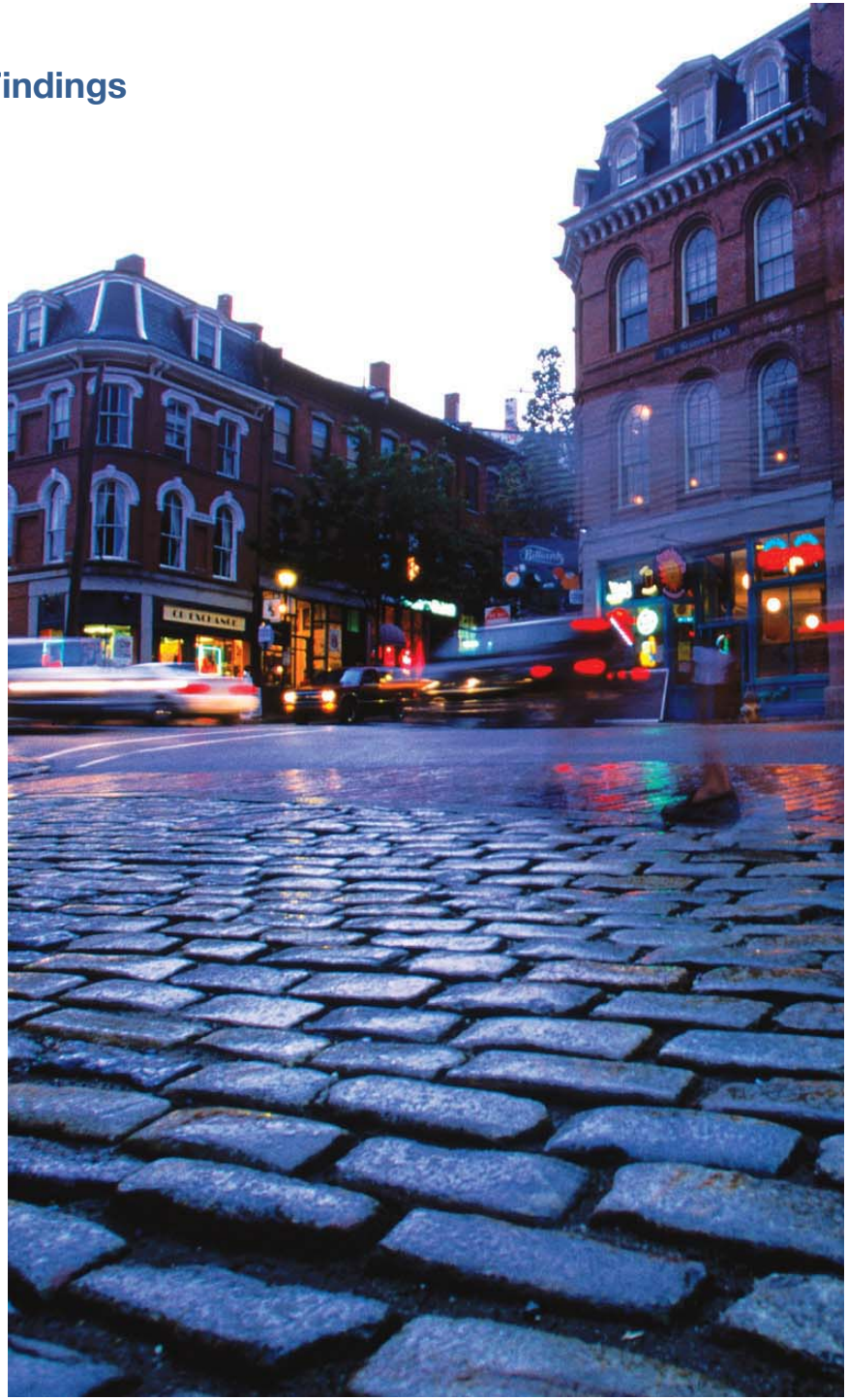
Key Questions

- How is Portland's economy performing overall?
- Key characteristics? Growing, declining, unique assets?
- What do stakeholders see as a shared vision for the city?
- What is the importance of the food and creative sectors?

TODAY'S AGENDA

- **Presentation of findings**
  - Demographic and economic overview
  - Key economic characteristics
    - Creative economy
    - Food sector
  - Key challenges/issues
  - Shared visions, goals
  - Potential priority areas

- **Dialogue with Task Force**
  - Discussion of findings
  - Set priorities for Phase II



How is Portland's Economy Performing?

Demographic and Economic Overview

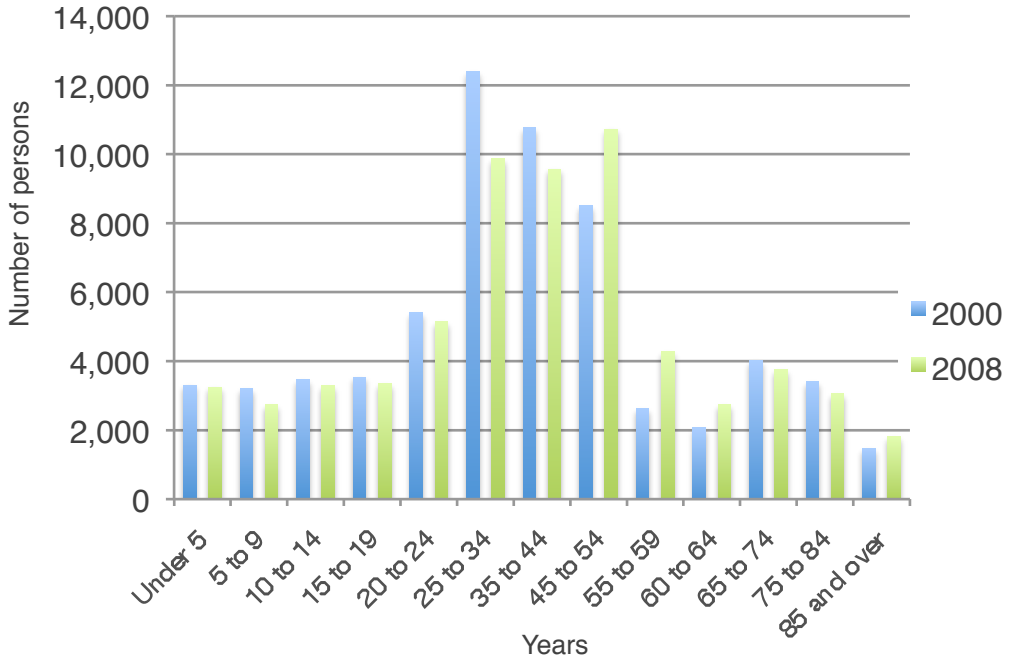
DEMOGRAPHIC OVERVIEW

- Population has **declined slightly in Portland, but increased in the region**
- Aging population
  - Largest age group is 45-54
  - Median age in 2006-2008 was 39, compared to 36 in 2000
  - Decline in population aged 25-44

PERCENT CHANGE IN POPULATION, 2000-2008

	% Change
Portland	-1%
MSA	5.1%
Cumberland County	3.5%
Maine	3.2%

AGE OF POPULATION IN PORTLAND, 2000-2008

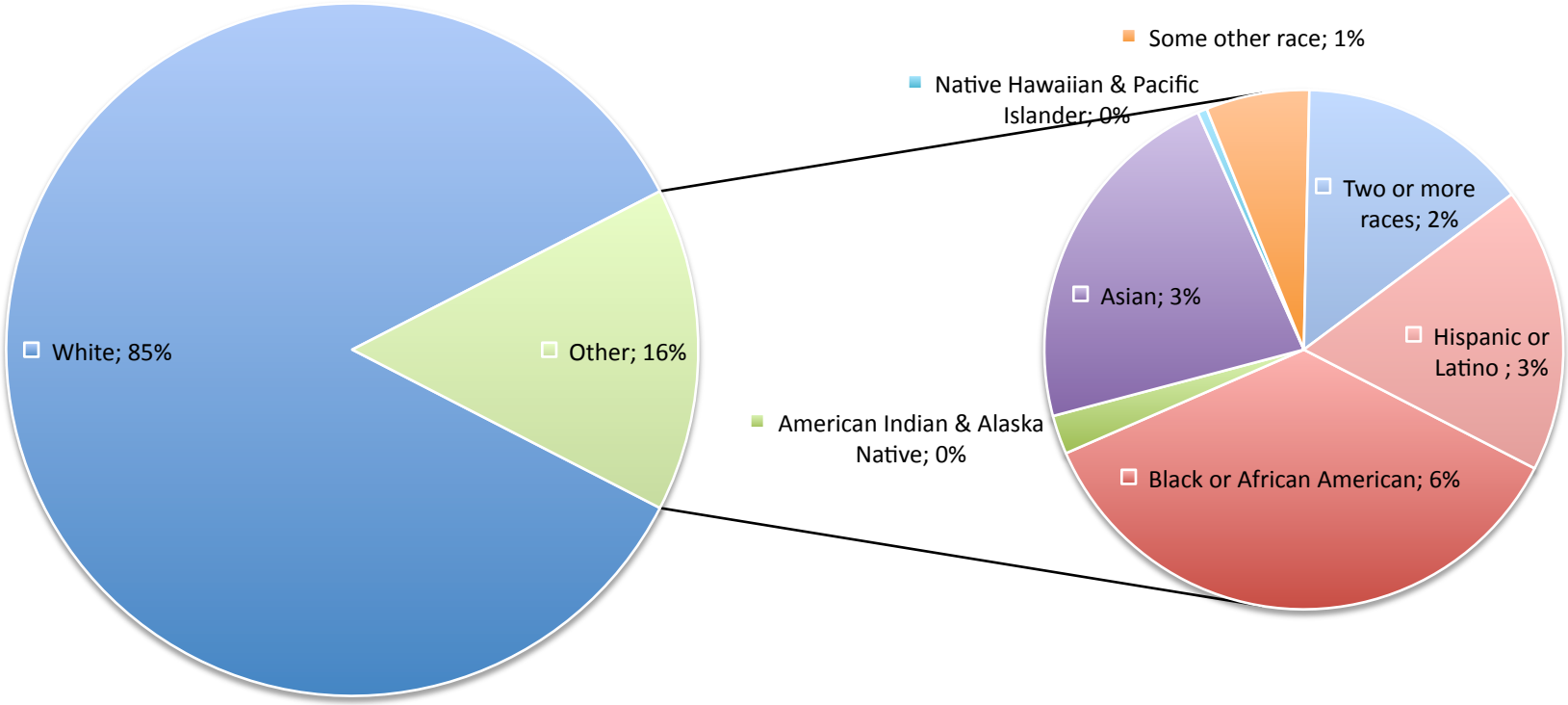


Source: US Census Bureau, 2006-2008 American Community Survey

DEMOGRAPHIC OVERVIEW, CONT.

- Portland predominantly white but **minority population growing**
    - Black or African American: 1,665 in 2000 to 3,548 in 2008 - 113% increase
    - Hispanic or Latino: 974 in 2000 to 1,756 in 2008 - 80% increase
- Increasing foreign-born population: over 6,000 foreign-born residents in 2006-2008
    - 10% total population
    - 25% increase from 2000

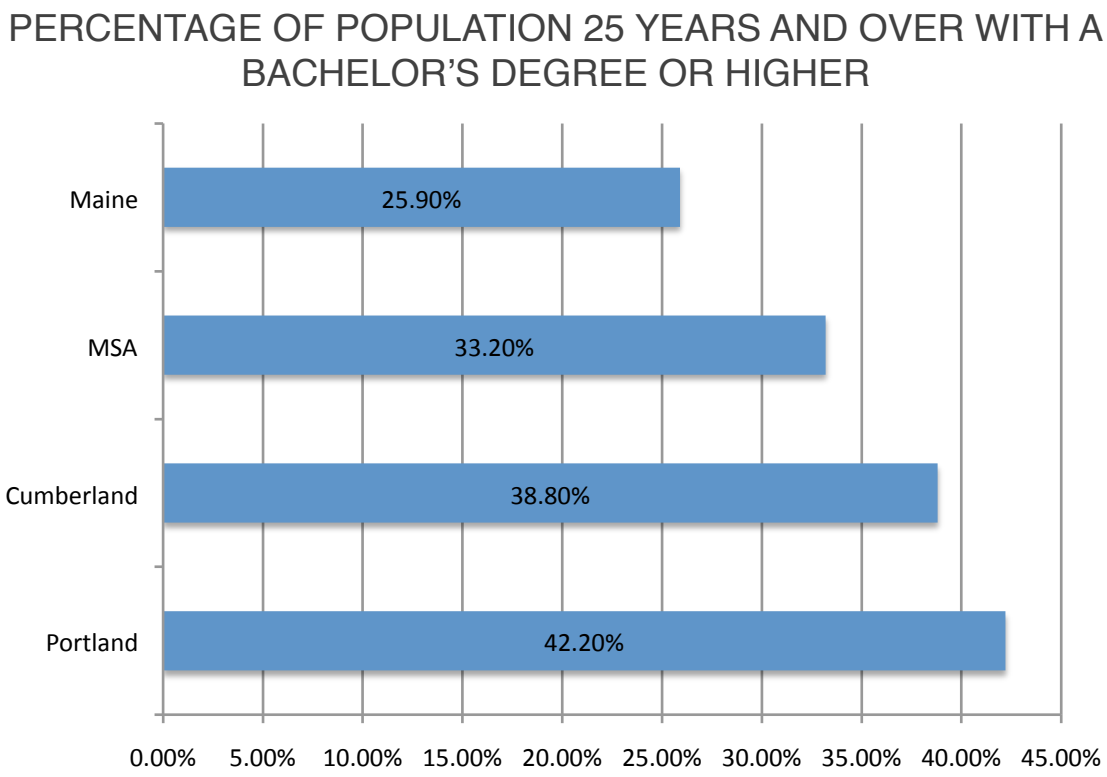
PORTLAND RACIAL COMPOSITION, 2008



Source: US Census Bureau, 2006-2008 American Community Survey

DEMOGRAPHIC OVERVIEW, CONT.

- **Highly educated population**
- Education level has increased from 2000
  - In 2008 92% population has high school diploma, compared to 88% in 2000
  - In 2008 42% population has bachelor's degree, compared to 36% in 2000



Source: US Census Bureau, 2006-2008 American Community Survey

INCOME

- Median household income is below that of the region, state, and nation, but has declined less since 2000

CHANGE IN NOMINAL MEDIAN HOUSEHOLD INCOME FROM 2000-2008*

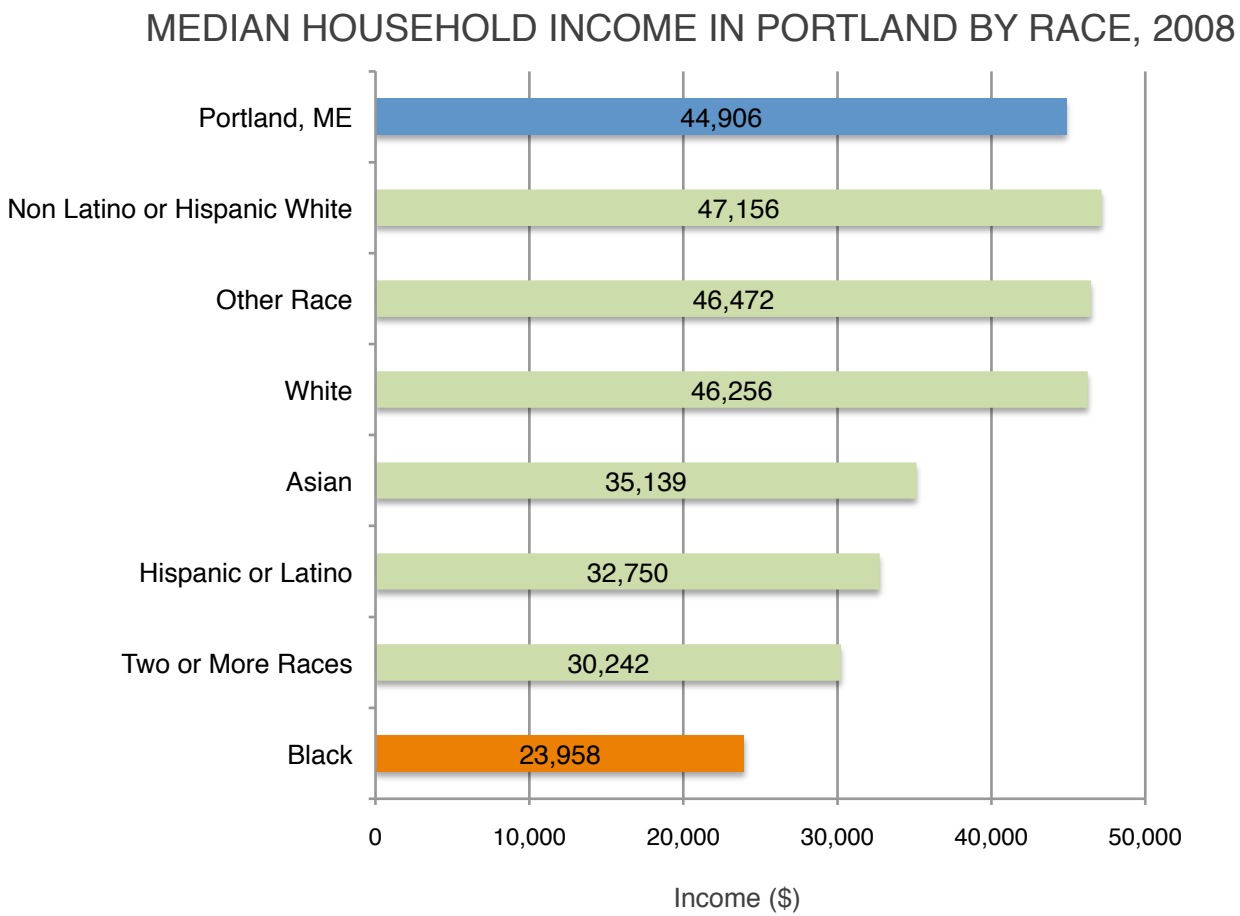
	2000	2008	% Change
Portland	$45,654	$44,906	-1.6%
MSA	$57,253	$54,400	-5.0%
Cumberland County	$56,409	$53,900	-4.4%
Maine	$47,690	$46,600	-2.3%

*Not adjusted for inflation.

Source: US Census Bureau – 2000 Census, 2006-2008 American Community Survey

INCOME, CONT.

- **Significant income disparities by race**
  - Black residents have lowest average income, nearly half that of white residents
  - Hispanics, Latinos, and Asians earn over $10,000 less than whites on average

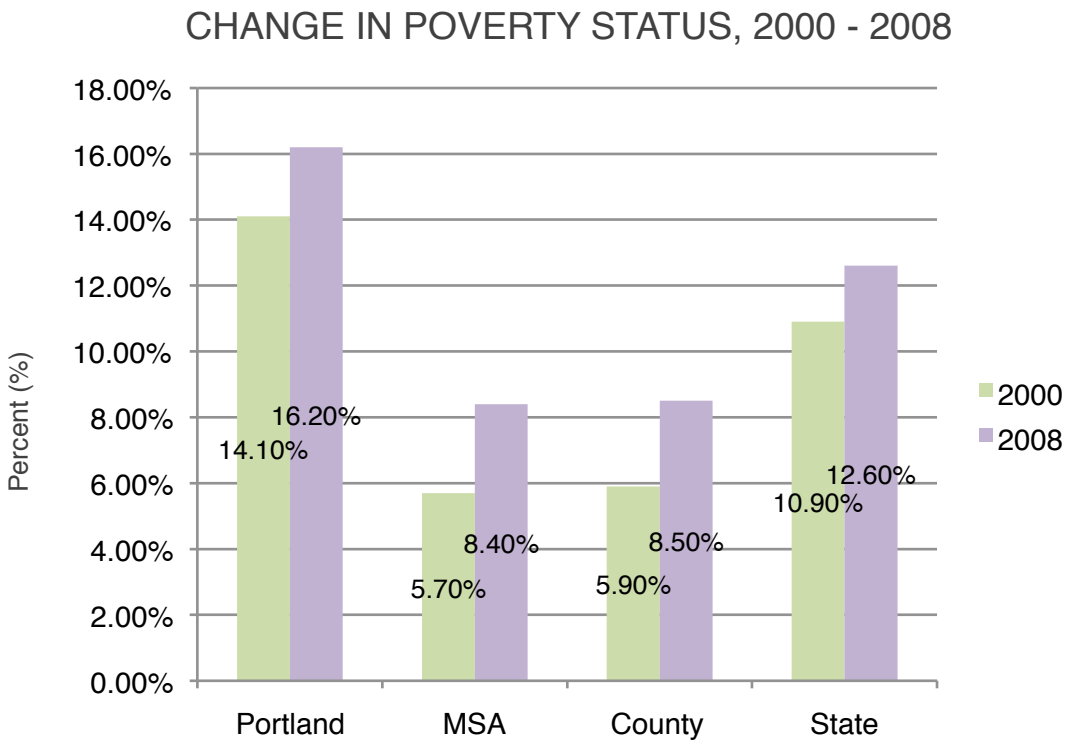


Source: US Census Bureau, 2006-2008 American Community Survey

How is Portland's Economy Performing?

POVERTY RATE

- Portland poverty rate **higher** than MSA and state and is **growing**
  - 16.2% for Portland, 8.4% for MSA, and 12.6% for Maine in 2008
  - 2.1% increase for Portland, 2.7% for MSA, 1.7% for Maine over 2000 rate
- Foreign-born residents more likely to be poor; 25% below poverty rate



Source: US Census Bureau – 2000 Census, 2006-2008 American Community Survey

How is Portland's Economy Performing?

KEY ISSUES

- Population and job loss
- Loss of younger workers
- Highly educated workforce is an asset
- Income disparities
    - Racial
    - High education levels not paying off for all residents

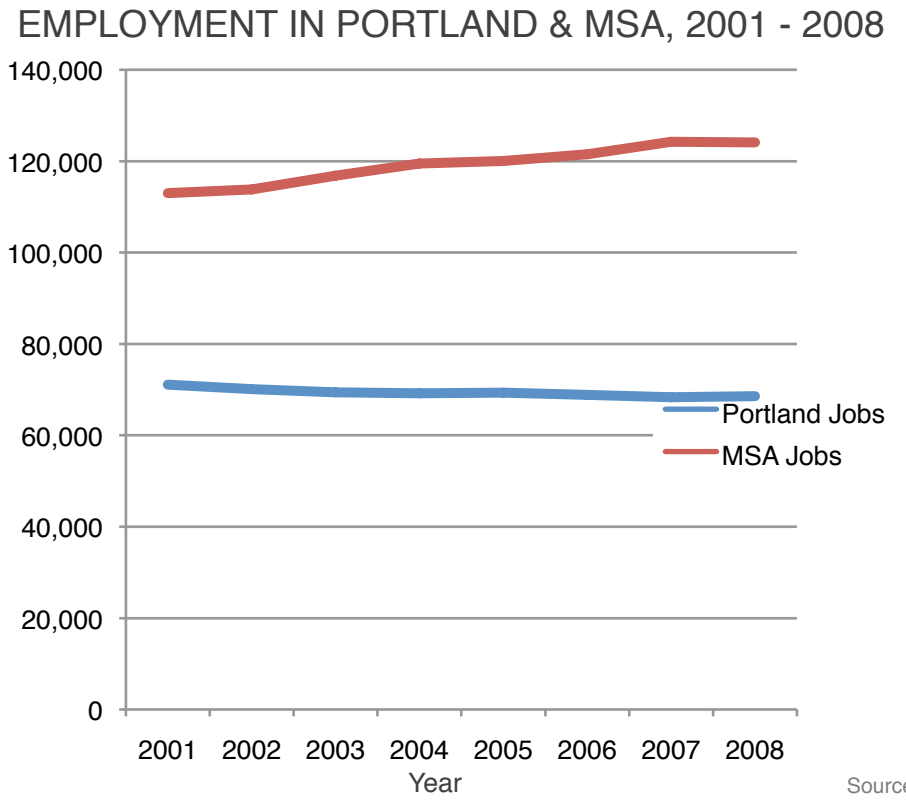
Key Characteristics of Portland's Economy

KEY POINTS

- Portland is losing population and jobs relative to region
- Healthcare sector employs the most people in Portland of any sector, and the numbers are growing
- Three sectors comprise half of Portland's payroll
- The creative economy represents a broad range of industry sectors, and despite smaller relative numbers, it has an important cultural role
- The food sector is the second largest sector in Portland
- The fastest growing parts of the food sector have the lowest-paying jobs

EMPLOYMENT OVERVIEW

- As of 2008, Portland has 68,600 jobs, and the MSA has 113,006 additional jobs
- Employment has decreased in Portland but increased in the region from 2000 to 2008
  - Portland lost **2,487** jobs, a **3.5%** decline
  - MSA added **11,094** jobs, a **9.8%** increase
- 2009 Portland unemployment rate: **6.4%**, below state (8.0%) and national (9.0%) averages



Source: ES-202 Data Series, Maine Department of Labor

EMPLOYMENT BY INDUSTRY

- **91% of Portland's jobs are in service industries** compared to 84% in region

EMPLOYMENT BY INDUSTRY FOR PORTLAND AND MSA, 2008

Industry	Portland	MSA	% of City	% of MSA
Total, all industries	68,600	124,100		
Accommodation and Food Services	5,188	12,167	7.56%	9.80%
Administrative and Waste Services	3,994	5,254	5.82%	4.23%
Educational Services	4,647	11,247	6.77%	9.06%
Finance and Insurance	6,157	6,087	8.98%	4.90%
Health Care and Social Assistance	15,990	16,047	23.31%	12.93%
Information	2,618	2,429	3.82%	1.96%
Manufacturing	3,445	11,117	5.02%	8.96%
Professional and Technical Services	5,301	5,410	7.73%	4.36%
Retail Trade	5,333	20,601	7.77%	16.60%
Transportation and Warehousing	2,500	6,161	3.64%	4.96%
Wholesale Trade	2,894	5,356	4.22%	4.32%

Source: ES-202 Data Series, Maine Department of Labor

EMPLOYMENT CHANGE

- Portland **lost jobs in 11 of 19 industry sectors,** while the MSA has gained jobs in 17
- MSA has only declined in retail trade and manufacturing
- Portland shows significant losses in transportation and warehousing, finance and insurance, administrative and waste services, and wholesale trade

EMPLOYMENT CHANGE BY INDUSTRY, 2001-2008

Industry	Portland		MSA	
	Absolute change	% Change	Absolute Change	% Change
Total, all industries	-2,487	3.50%	11,094	9.82%
Accommodation and Food Services	194	3.88%	1,452	13.55%
Administrative and Waste Services	-921	-18.74%	670	14.62%
Educational Services	488	11.73%	748	7.12%
Finance and Insurance	-2,119	-25.60%	1,681	38.15%
Health Care and Social Assistance	2,411	17.76%	3,424	27.13%
Information	-349	-11.76%	72	3.05%
Manufacturing	-320	-8.50%	-2917	-20.79%
Professional and Technical Services	391	7.96%	1,152	27.05%
Retail Trade	-456	-7.88%	-592	-2.79%
Transportation and Warehousing	-1,485	-37.26%	2,559	71.04%
Wholesale Trade	-537	-15.65%	549	11.42%

Source: ES-202 Data Series, Maine Department of Labor

WAGES & PAYROLL

- **Health care & social assistance, finance & insurance, and professional & technical services generate almost half of Portland's payroll**
- Other significant contributors in MSA: manufacturing and retail trade

ESTIMATED PAYROLL FOR PORTLAND AND MSA, 2008

Industry	Portland		MSA	
	Total	% of city	Total	% of MSA
Total, all industries	$3,210,480,000		$5,001,230,000	
Accommodation and Food Services	$90,644,736	2.82%	$199,295,460	3.98%
Administrative and Waste Services	$128,558,872	4.00%	$173,760,288	3.47%
Agriculture, Forestry, Fishing & Hunting	$697,216	0.02%	$11,654,240	0.23%
Arts, Entertainment, and Recreation	$26,488,904	0.83%	$51,069,928	1.02%
Construction	$112,473,088	3.50%	$338,341,276	6.77%
Educational Services	$192,106,980	5.98%	$416,408,928	8.33%
Finance and Insurance	$471,921,736	14.70%	$398,503,716	7.97%
Health Care and Social Assistance	$735,028,320	22.89%	$658,376,316	13.16%
Information	$133,413,280	4.16%	$120,750,448	2.41%
Management of Companies and Enterprises	$135,228,288	4.21%	$237,167,424	4.74%
Manufacturing	$139,370,920	4.34%	$550,914,052	11.02%
Other Services, Ex. Public Admin	$53,366,040	1.66%	$88,899,408	1.78%
Professional and Technical Services	$395,560,620	12.32%	$347,711,520	6.95%
Public Administration	$113,141,600	3.52%	$144,691,872	2.89%
Real Estate and Rental and Leasing	$60,143,616	1.87%	$61,984,104	1.24%
Retail Trade	$144,481,636	4.50%	$497,060,928	9.94%
Transportation and Warehousing	$101,140,000	3.15%	$242,521,604	4.85%
Utilities	$28,393,040	0.88%	$33,913,776	0.68%
Wholesale Trade	$148,230,680	4.62%	$278,233,488	5.56%

Source: ES-202 Data Series, Maine Department of Labor

SPECIALIZATIONS AND UNDER-REPRESENTED INDUSTRIES

- Comparison of local share of employment by industry to national distribution

  < 1 indicates under-representation, **> 1** indicates area of specialization

Industry	Maine	MSA	Portland
Health Care and Social Assistance	1.42	0.94	1.69
Ambulatory Health Care Services	1.04	0.95	1.03
Hospitals	1.52	0.32	2.73
Nursing and Residential Care Facilities	1.72	1.39	1.31
Social Assistance	1.76	1.55	1.75
Insurance carriers and related activities	1.13	1.41	3.44
Finance and insurance	0.94	0.95	1.74
Credit intermediation and related activities	1.01	0.83	0.53
Securities, commodity contracts, investments	0.36	0.28	1.48
Manufacturing	0.99	0.75	0.42
Food Manufacturing	0.9	0.47	1.85
Printing and Related Support Activites	0.84	1.84	1.07
Chemical Manufacturing	0.53	2.14	0.27

Source: ES-202 Data Series, Maine Department of Labor

OCCUPATIONAL TALENT WITHIN PORTLAND

- Health care, education, arts, design, media and entertainment, food processing, and community and social services are important occupational strengths in Portland

LARGEST OCCUPATIONAL GROUPS
PORTLAND, 2008

Professional and Technical Workforce:	9,741
Health Care	2,301
Education	2,154
Arts, Design, Media, Entertainment	1,337
Community and Social Service	1,295

PORTLAND OCCUPATIONAL
LOCATION QUOTIENT, 2008

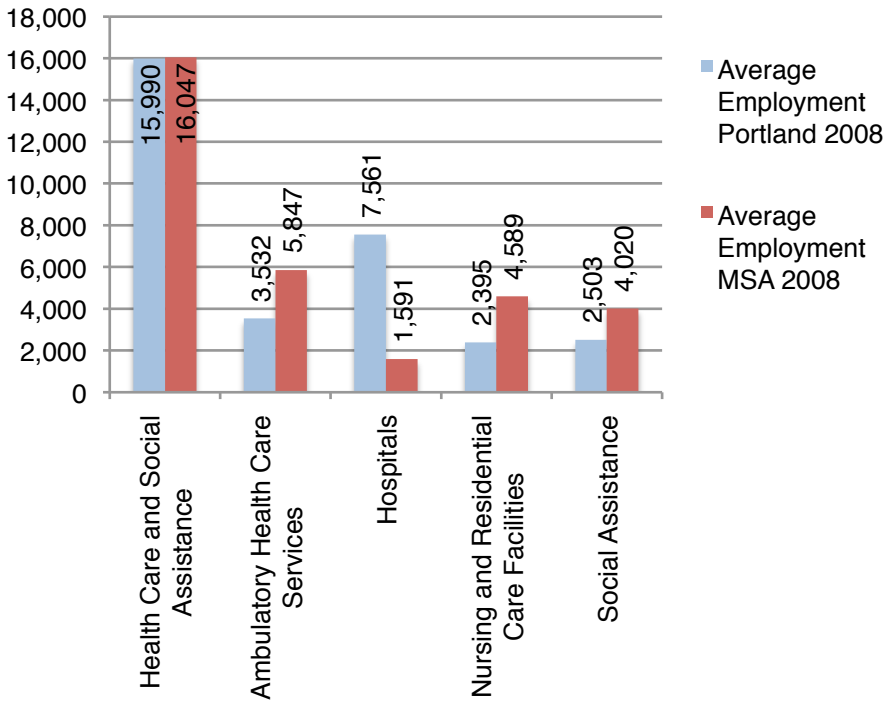
Food Processing	2.34
Social Scientist	2.34
Art/Design Workers	2.3
Media/Communications	2.26
Architects, Surveyors, Cartographers	2.06
Printing	1.86
Life, Physical Scientist	1.47
Computer Specialist	1.25

Source: US Census Bureau, 2006-2008 American Community Survey

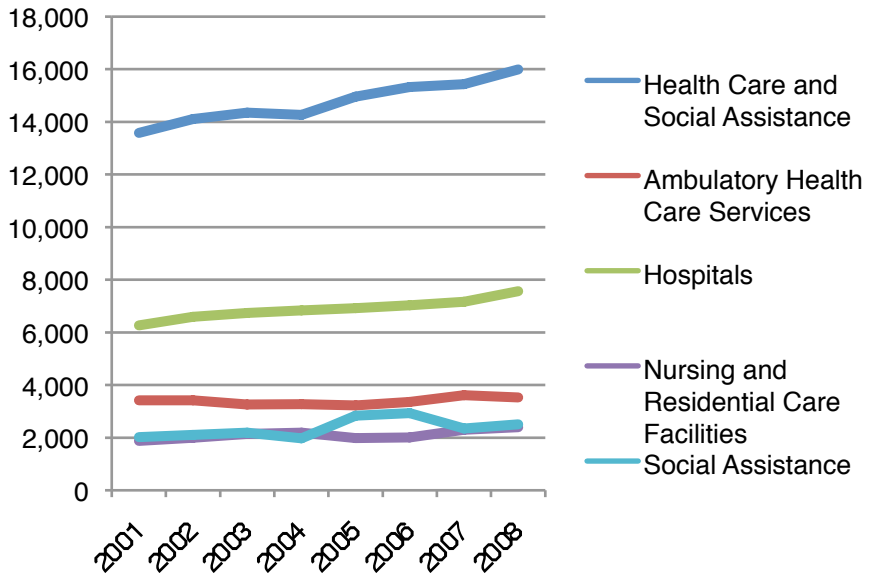
HEALTH CARE

- **Hospitals are one of the most important contributors of jobs** in Portland
- Ambulatory health care services are the most important contributor of jobs in MSA
- Health care and social assistance sector in Portland added 2,401 jobs since 2001, an increase of 18%
- Hospital subsector jobs grew 21% from 2001-2008

AVERAGE EMPLOYMENT FOR PORTLAND AND MSA, 2008



AVERAGE EMPLOYMENT FOR PORTLAND AND MSA, 2001 - 2008

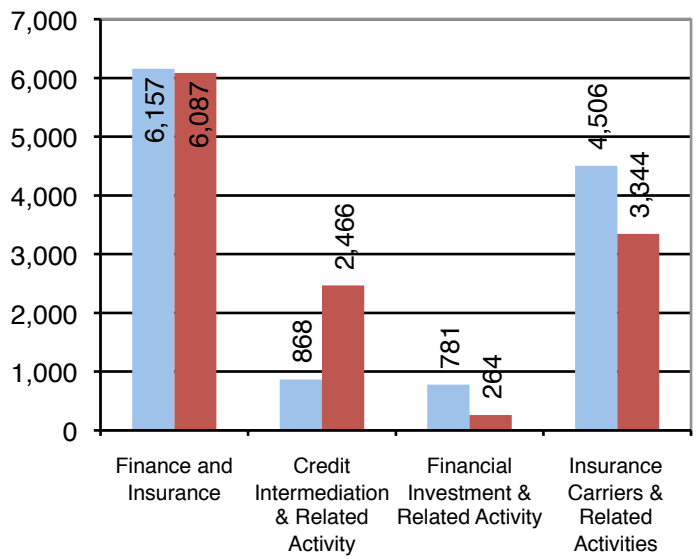


Source: ES-202 Data Series, Maine Department of Labor

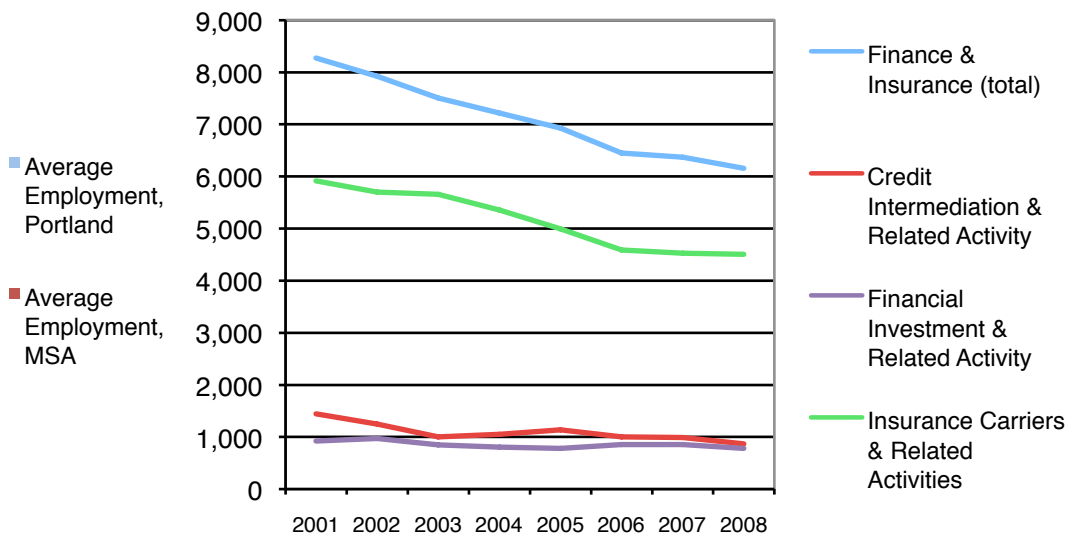
FINANCE AND INSURANCE

- **City has lost approximately 2,000 jobs in this sector**—mostly in insurance carriers—since 2001 while the **region has gained** a similar number of the same jobs
- Wages in Portland are significantly higher than in the region

AVERAGE EMPLOYMENT FOR PORTLAND AND MSA, 2008



AVERAGE EMPLOYMENT FOR PORTLAND, 2001 - 2008

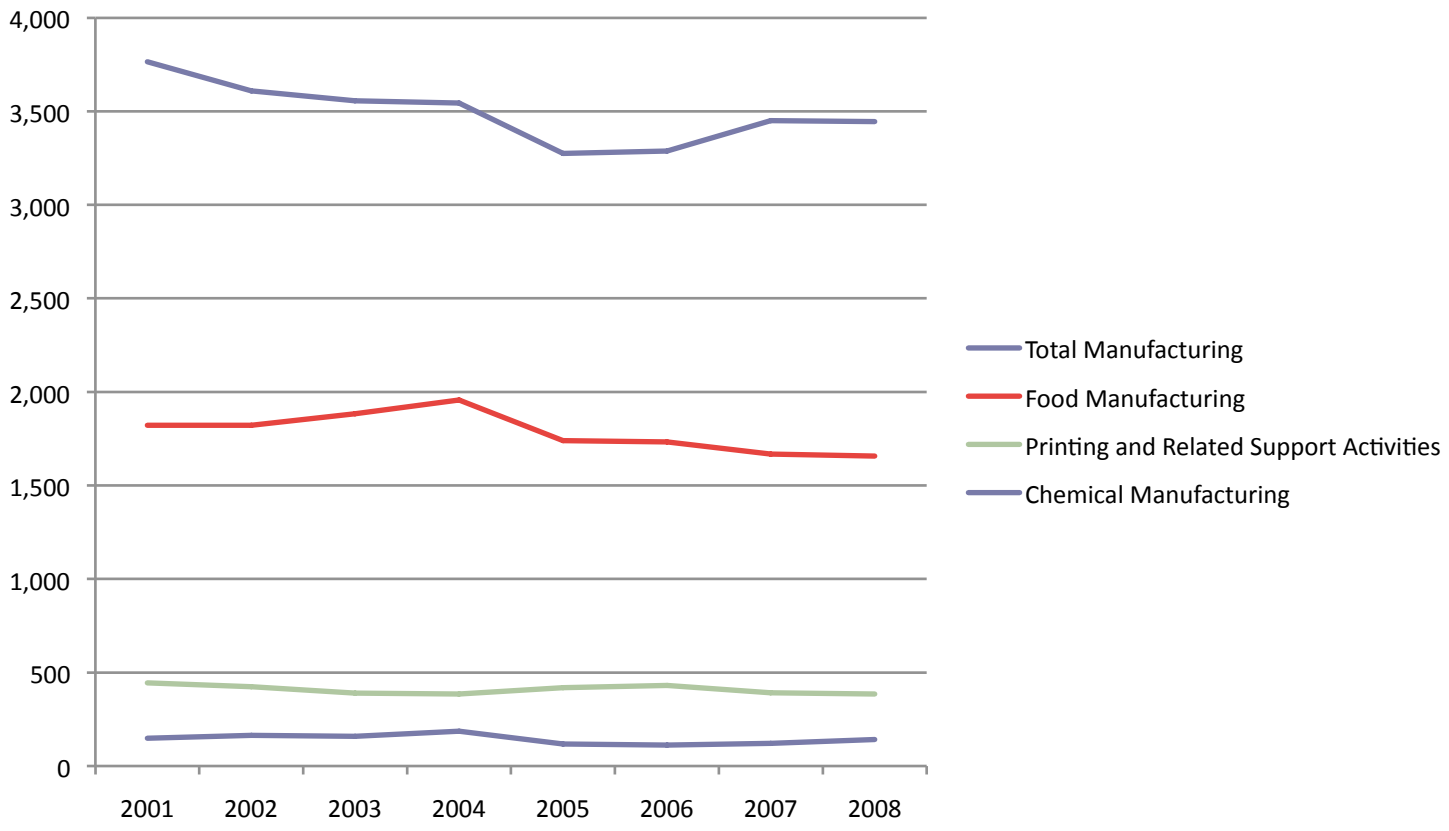


Source: ES-202 Data Series, Maine Department of Labor

MANUFACTURING

- Manufacturing jobs have **declined 8.5%** in Portland since 2001, smaller than regional and national declines
- Food manufacturing comprises half of Portland's manufacturing jobs and has declined 18.2% since 2001

AVERAGE EMPLOYMENT FOR PORTLAND, 2001 - 2008



Source: ES-202 Data Series, Maine Department of Labor

Key Characteristics of Portland's Economy

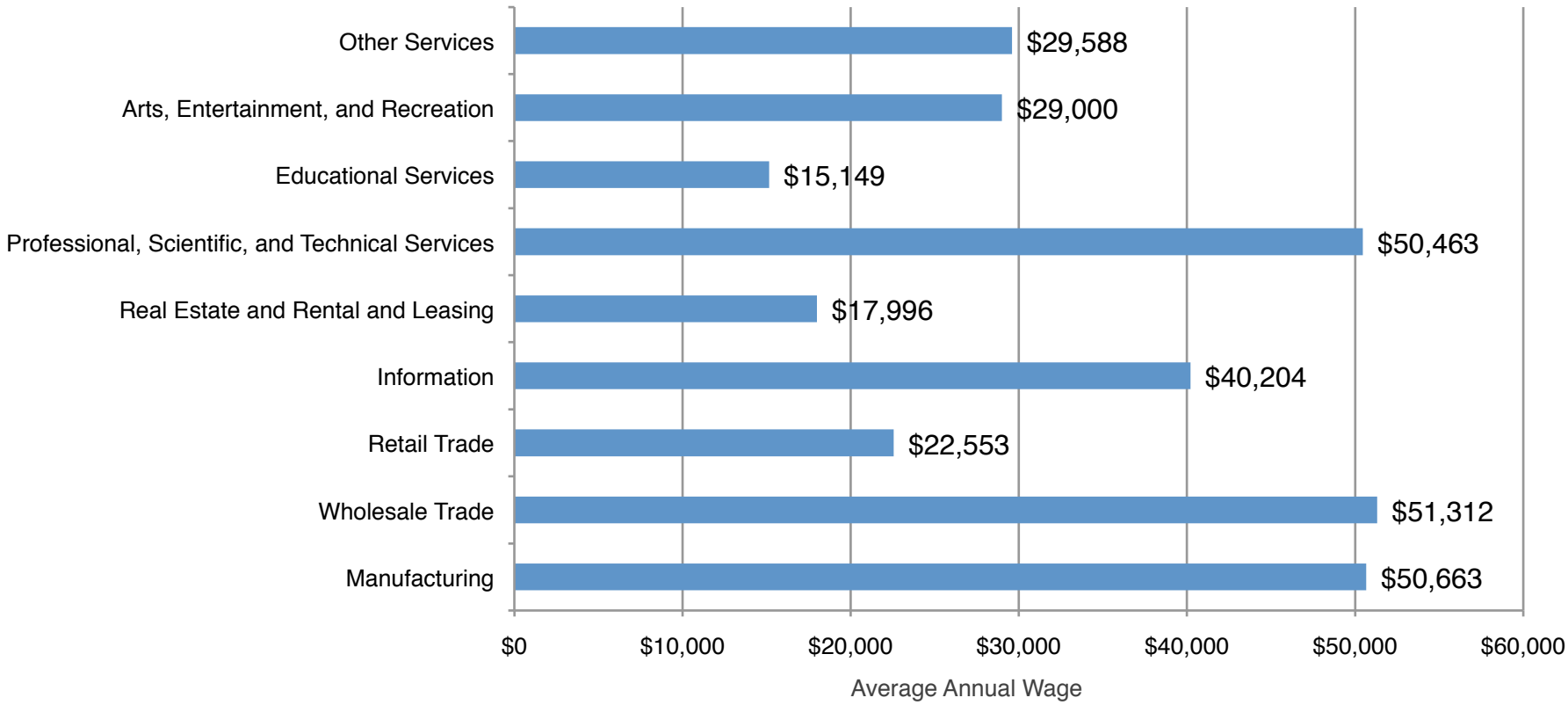
CREATIVE ECONOMY

- Creative economy includes broad range of industries, not just the arts
- High number of self-employed businesses limits data scope
- Preliminary analysis indicates most of the creative economy jobs are in professional services (e.g., architecture and advertising), media, publishing, and retail in Portland
- Small number of jobs, but important factor in city's image as cultural and creative center in region and state

CREATIVE ECONOMY, CONT.

- Creative economy offers **a variety of job types**, ranging from high skill-high pay to low skill-low pay
- In 2008, the creative economy provided 2,409 jobs in Portland*

AVERAGE CREATIVE ECONOMY WAGES, 2008 (CUMBERLAND COUNTY)



*Excludes non-employer establishments.

Source: ES-202 Data Series, Maine Department of Labor

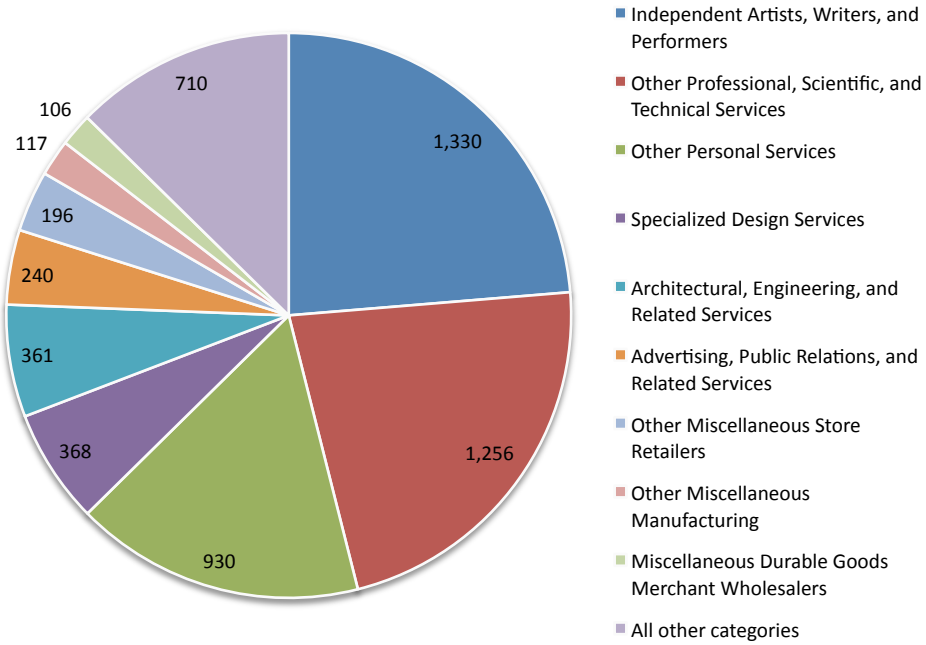
Key Characteristics of Portland's Economy

CREATIVE ECONOMY, CONT.

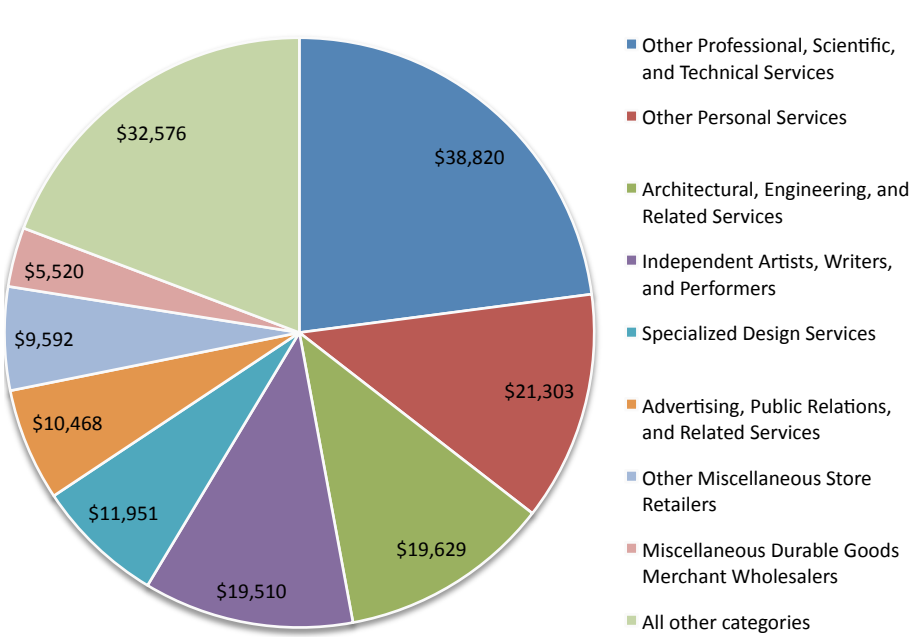
- Over 5,600 non-employer establishments in the creative economy

NON-EMPLOYER ESTABLISHMENTS, 2007
(CUMBERLAND COUNTY)

Number of Establishments



Receipts (measured in $1,000s)



Source: U.S. Census Bureau Non-employer Statistics, 2007

Key Characteristics of Portland's Economy

CREATIVE ECONOMY, CONT.

Challenges

- Insufficient local market for creative goods
- Inadequate funding opportunities
- Attracting/retaining professional employees
- Maine 'independent spirit'

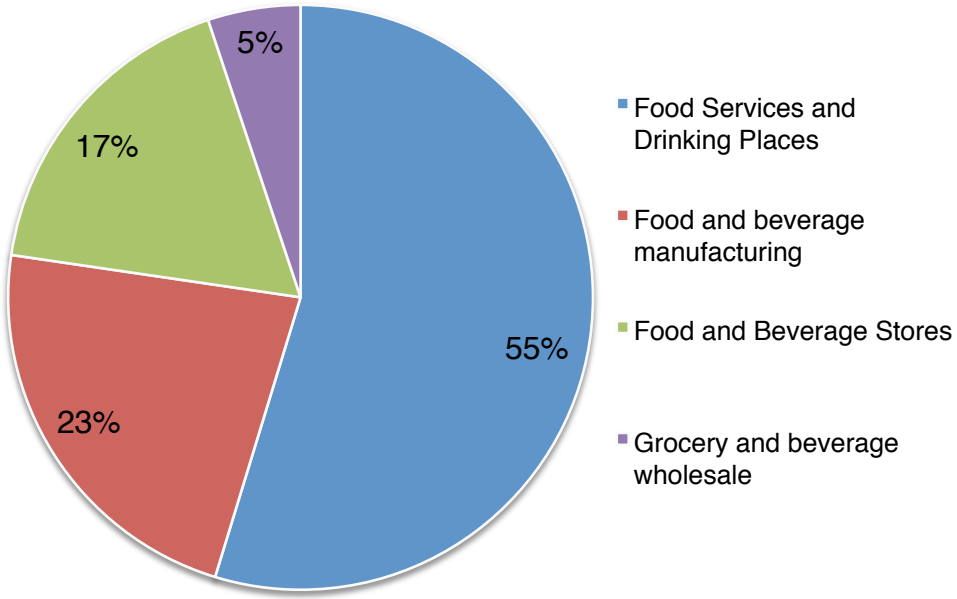
Assets and opportunities

- Part of the city's identity
- Generates activity downtown
- Portland's quality of life
- Strong anchor institutions
- First Friday Art Walks/Arts District
- Ongoing collaborations
- Existing financing opportunities
- Unique niches

FOOD SECTOR

- Food sector is the **second largest sector** in Portland after healthcare
- Represents 11% of Portland's establishments and jobs, but only 6% of wages (2008)
- 7,781 food sector jobs in 2008, slight decrease from 2001 (7,948 jobs)*
    - Restaurants, bars, retail growing
    - Manufacturing, wholesale, fishing decreasing

FOOD SECTOR TOTAL EMPLOYMENT, 2008

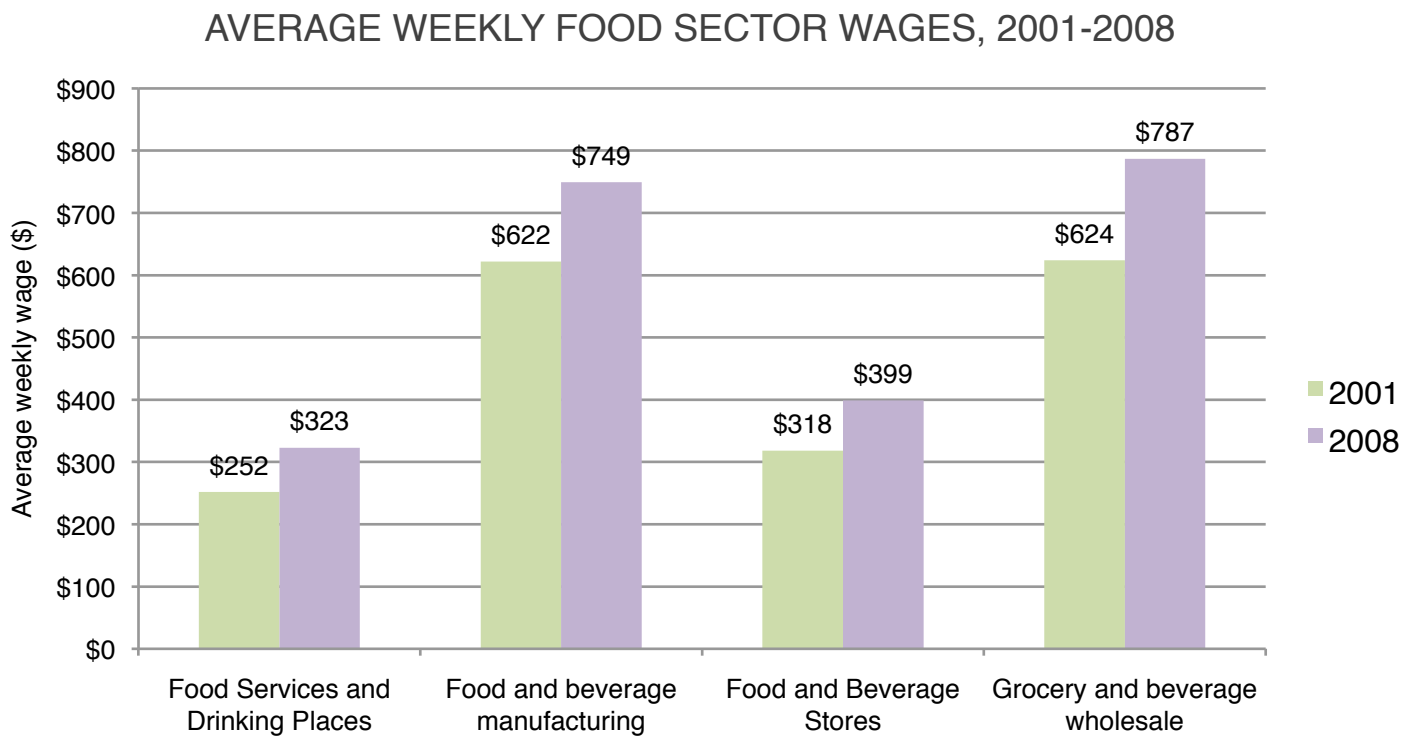


*Excludes non-employer establishments.

Source: ES-202 Data Series, Maine Department of Labor

FOOD SECTOR, CONT.

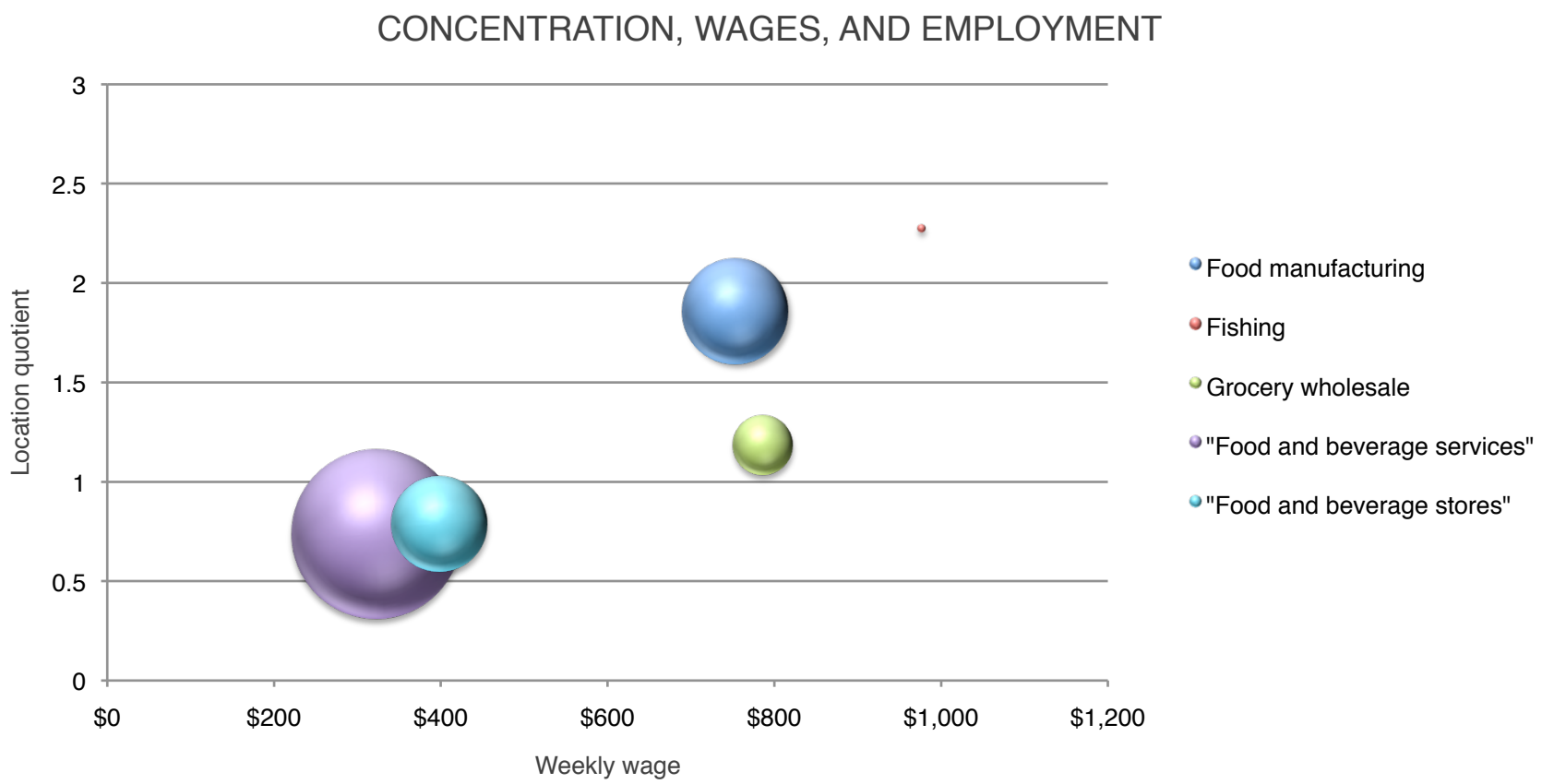
- Lowest wages in food retail and services, which are the growing segments
- Highest wages in manufacturing and wholesale
- Over 2,000 non-employer firms
  - Predominantly fishing
  - From 2002-2007 number of non-employer firms increased in all sectors except fishing, but receipts decreased



Source: ES-202 Data Series, Maine Department of Labor

FOOD SECTOR, CONT.

- Location quotients for fishing, manufacturing, and wholesale > 1; suggests higher concentration these sectors in Portland compared to nation
- Location quotients for restaurants, bars, and retail < 1; suggests room for growth



Source: ES-202 Data Series, Maine Department of Labor

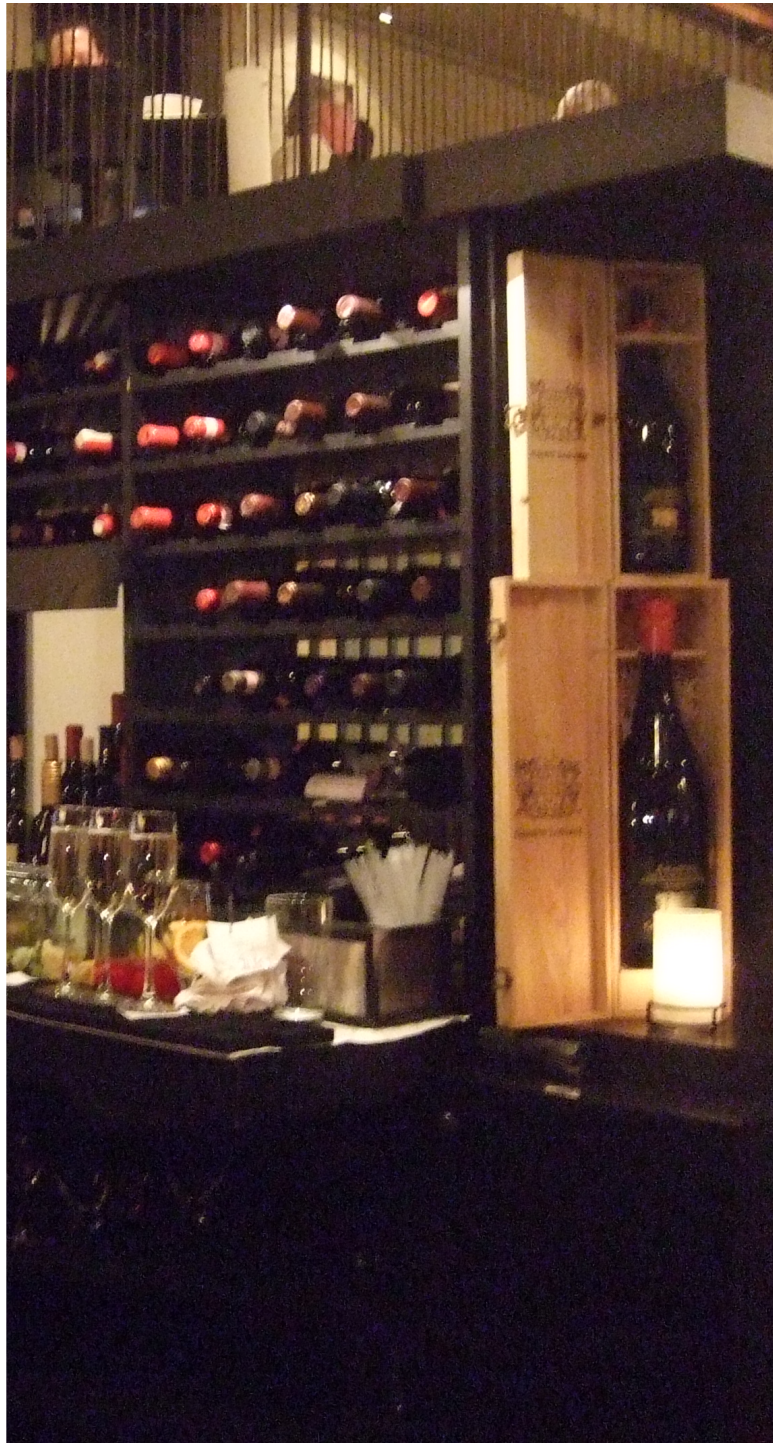
FOOD SECTOR, CONT.

Challenges

- High cost of doing business
- Difficulty doing business with the city
- Space constraints and lack of parking downtown

Assets and opportunities

- Increased focus on local and organic foods
- Skilled workforce
- Strong supply chain relationships
- Public market incubator
- Connections to tourism, creative economy
- Growth through Internet sales



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- The creative economy represents a broad range of industry sectors, and despite smaller relative numbers, it has an important cultural role
- The food sector is the second largest sector in Portland
- The fastest growing parts of the food sector have the lowest-paying jobs

Summary and Next Steps

Shared Vision, Goals, and Challenges

SHARED VISION

- No ‘shared’ economic vision
- Agreement on:
  - Importance of independent/ family-owned businesses
  - Importance of working waterfront
  - Creative and cultural center
  - Important to preserve quality of life
  - More residential uses needed
  - City efforts seem focused on the peninsula

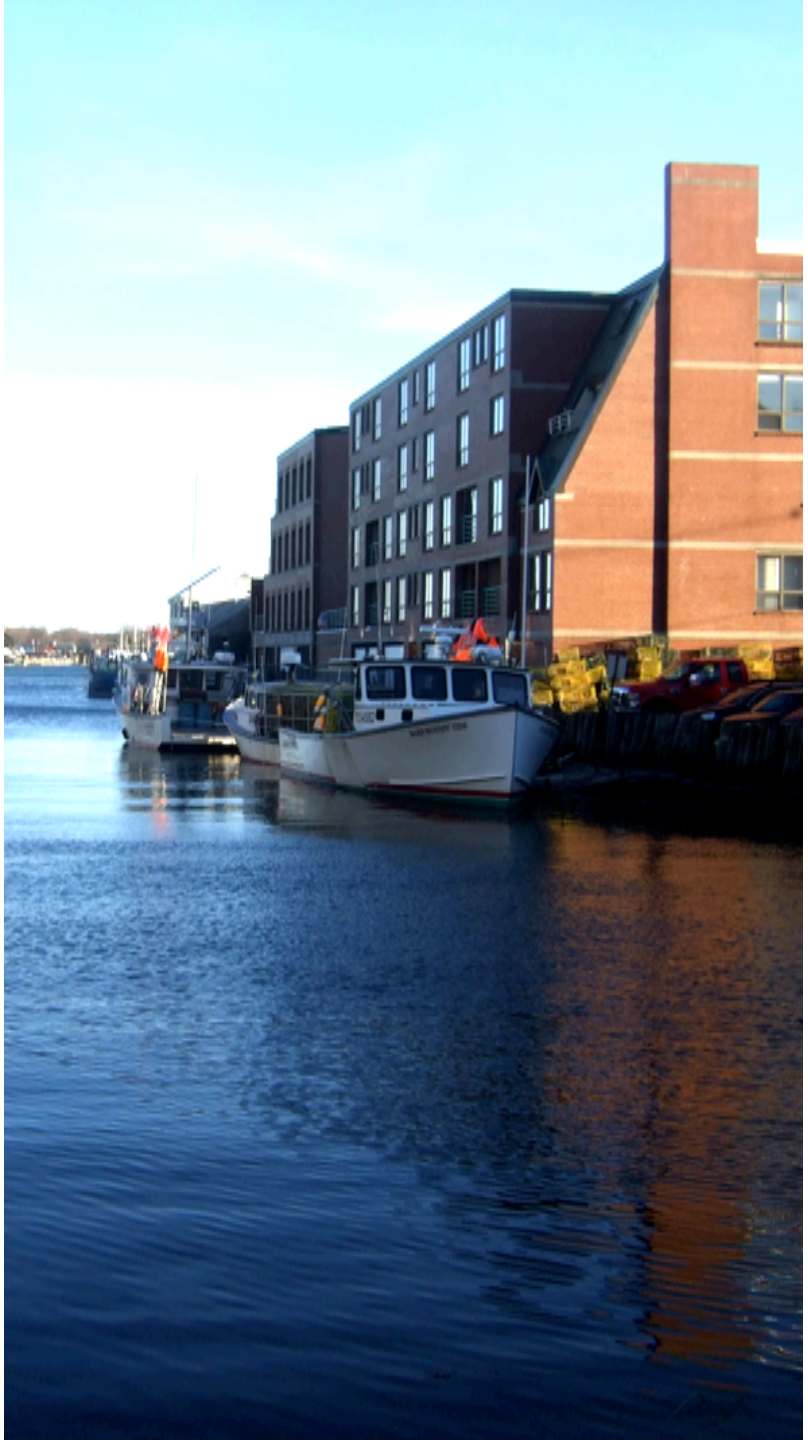
SHARED CHALLENGES

- Small businesses have difficulty working with the city
- Perception of Portland (attracting clients, prospective employees)
- Transportation into downtown
- Quality of schools, arts programs
- High taxes but benefits for the business community are unclear
- Permitting process is difficult
- Perception of unwelcoming business climate

Summary and Next Steps

SHARED GOALS

- Plan for the future of the waterfront
- Effective city economic development leadership
- More collaboration and coordination between businesses/organizations, as well as with the city
- Support small business development



Summary and Next Steps

CRITICAL CHALLENGES FOR PORTLAND

- Establishing a **shared economic development vision** and greater collaboration to achieve the vision
- **Retaining key industries** and reducing job losses, especially in well-paying industries
- **Improving job/career opportunities** and incomes for immigrants and poorer workers
- Improving the environment and **reducing barriers for business** start up and growth
- **Strengthening Portland's image** and recognition of Portland as an economic/cultural center and desirable place to live and start a business
- **Retaining and attracting more young workers** to Portland

PROPOSED STRATEGIES (PHASE II)

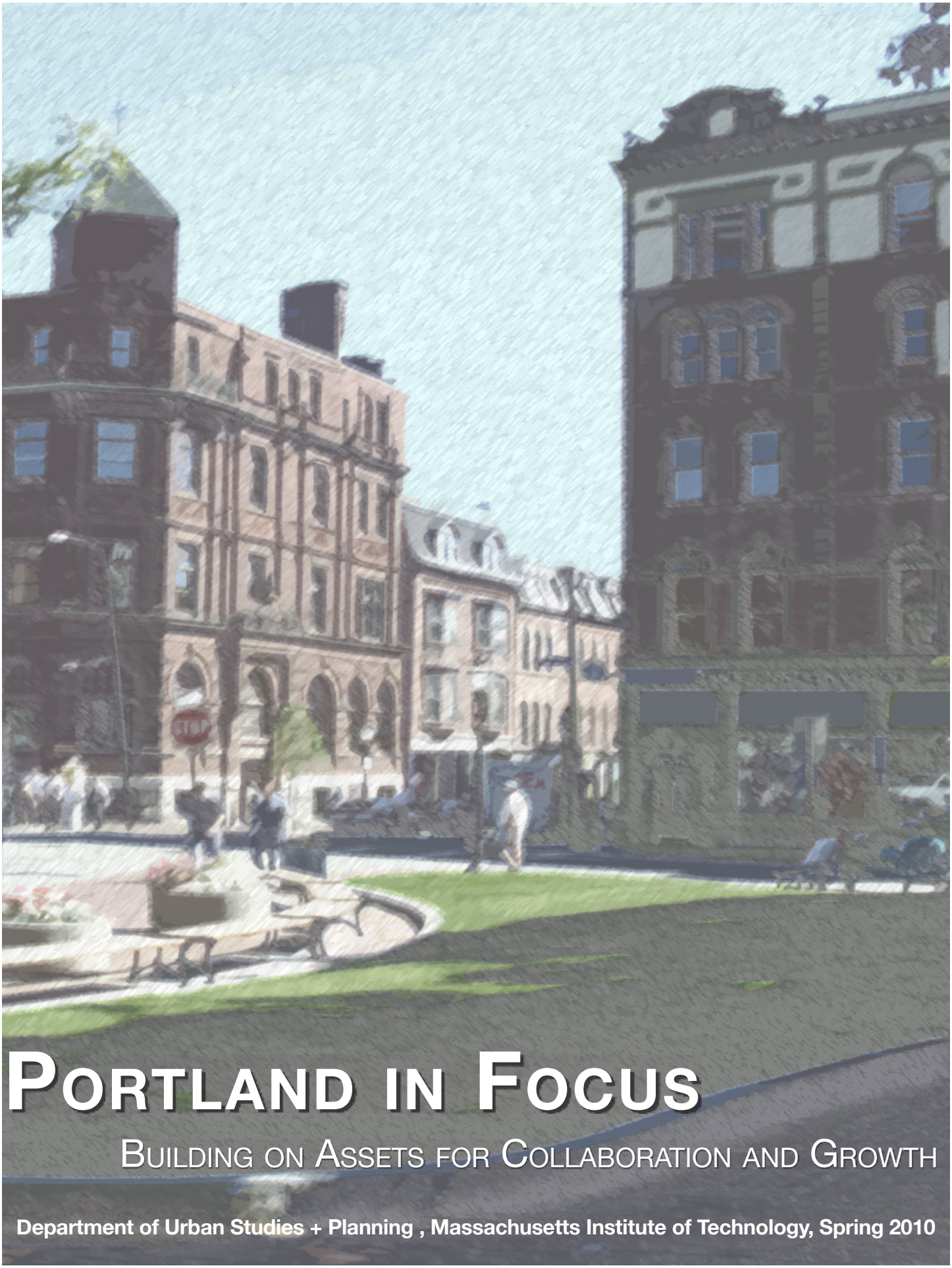
- **Shared Economic Development Vision**
  - Undertake a broad participatory process to formulate a shared vision and plan
- **Assess Permitting and Licensing Process**
  - Assess and reform processes for permits/ license/approvals need for business start-up and expansion
- **Innovation and Entrepreneurial Development**
  - Linked to city's educational, creative, and research assets

PROPOSED STRATEGIES (PHASE II)

- **City process**
  - Map the permitting and loan approval processes
  - Identify points in the process that can be streamlined
  - Investigate strategies other cities have employed to facilitate city/business relationships
  - Ombudsman
- **Business retention**
  - Design business retention program
  - Financial services – investigate job loss and how to reverse
- **Business attraction**
  - Marketing strategies
  - Tax or other incentives

TASK FORCE DISCUSSION

1. General thoughts and feedback?
2. Do we agree that these are critical challenges?
3. Are these appropriate strategies? Should there be others?
4. What 3-4 strategies should we focus on in Phase II?
5. How can we go about our work in a way to build credibility for the city?



Portland in Focus

Building on Assets for Collaboration and Growth

Department of Urban Studies + Planning , Massachusetts Institute of Technology, Spring 2010

Prepared as part of MIT Course
11.438 - Economic Development Planning
Department of Urban Studies + Planning
Spring 2010

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Introduction

SECTION I

Portland is Maine's largest city and economic hub. As a city of approximately 64,000, it provides an urban center for the region but maintains the friendly atmosphere of a New England town. Many of the qualities of Portland that contribute to its high quality of life are also economic assets, such as its restaurants and fresh seafood, arts district, and public parks and coastline. As the historic center of economic activity in Maine, many larger businesses in the state have headquarters or offices in Portland.

At the same time, Portland faces many of the same economic challenges experienced by small cities in the United States. The recent economic downturn, while not particularly detrimental to Portland, has put a damper on major development projects and tightened city budgets. The city constantly competes with suburban towns in the region to attract and retain businesses and jobs. In addition, the Portland's population is aging, and there is concern about the city's ability to attract young people who will stay.

In the context of these assets and ongoing challenges, a team of MIT urban planning graduate students, under the supervision of Professor Karl Seidman, analyzed Portland's current economy and developed strategies to support healthy and sustainable economic development in the city. *Portland in Focus: Building on assets for collaboration and growth* is the result of a three-month-long process that included input from the City of Portland, the Portland Economic Development Plan Task Force, over 100 stakeholders, and economic development experts from other cities.

The goal of the report is to provide guidance for city and business community leadership on how to grow Portland's economy, provide jobs and income to the city, and support its quality of life. The strategies build on a broad base of economic development approaches, utilizing the city's assets and expanding existing capacity to promote innovation and collaborative relationships. The recommendations focus on three key areas: business retention, life sciences, and the food sector. These areas emerged from quantitative and qualitative analysis of the Portland economy and also take into consideration the City's priorities. Life sciences and the food sector are both a large part of the city economy with diverse assets that provide a strong foundation for future economic development. A shared agenda and coordinated public-private strategy to enhance their future development promises to bring significant economic and quality of life benefits to Portland. Making business retention a key economic development priority will improve city-business community relationships, minimize business and job losses to the suburbs, and nurture the in-city growth of strong local enterprises.

Process

Over a three-month period, strategies for economic development were developed utilizing a three-phase process.

Phase 1:
Profile of Portland's current economy and key sectors

Phase 2:
Development of preliminary recommendations for economic development

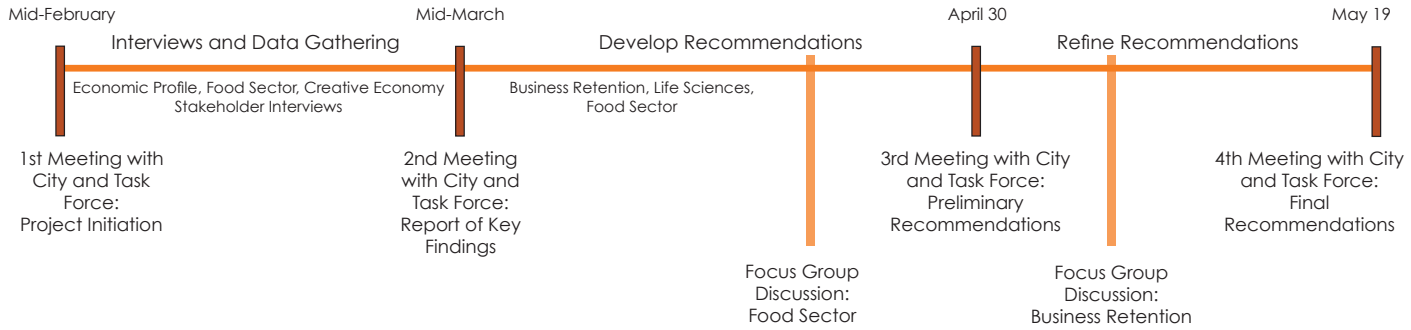
Phase 3:
Refining the recommendations based on feedback

To first gain a general understanding of Portland, students were tasked with reading previous reports on Portland's economy, followed by a day-long visit to Portland that included briefings from the City of Portland Economic Development Division, Planning Department, Downtown Development District and a newly formed Economic Development Plan Task Force.

The Portland Economic Development Division identified four focus areas for Phase 1, and students divided into teams to cover each topic. The Phase 1 focus areas consisted of a data driven demographic and economic profile, stakeholder interviews, and in-depth analyses of Portland's creative economy and food sector. The Phase 1 research was compiled into detailed reports for each sector and was presented to the Economic Development Planning Task Force on March 19, 2010, along with options for strategy areas to address during Phase 2 . After receiving feedback from the Task Force and in discussion with City staff, three areas to formulate economic development strategy proposals were chosen to organize work for Phase 2.

In Phase 2, students divided into three teams to develop proposed strategies for business retention, life sciences, and the food sector. Each group conducted sector-specific research, including stakeholder interviews and relevant case studies, to support recommendations. The food sector and business retention groups also conducted focus groups. At each focus group, stakeholders were invited to discuss and provide feedback on initial recommendations. On April

Figure I-1
Project Process



30, 2010, each team presented recommendations to the Portland Economic Development Plan Task Force, who provided additional feedback and suggested improvements for the final phase of the project.

During Phase 3, feedback from the Task Force meeting, the City, and the focus groups was used to refine recommendations. Phase 3 culminated with this final report, which offers recommendations and implementation strategies to inform Portland's Economic Development Plan, and a presentation to stakeholders, city officials, and Task Force members on May 19, 2010.

Economy & Key Sectors

SECTION II

This section provides a brief overview of the Phase 1 research, including an overall summary of Portland's demographics and economy, key sectors including the food and creative sectors, and findings from stakeholder interviews. Data collected for these sections came from a variety of sources including the Census Bureau American Community Survey, Bureau of Labor Statistics ES 202 Dataset, as well as telephone and in-person interviews. More detailed information is available in four reports provided to the Economic Development Division. The following is a summary of the findings, assets, challenges, and opportunities for the City of Portland identified during Phase 1.

A. Demographic and Economic Profile

The demographic and economic analysis of Portland provided important information to quantify the economy and contextualize findings from stakeholder interviews. The demographic analysis revealed that Portland's population is highly educated, with 42% of residents having a college degree or above, and that a majority of residents hold jobs in high-skill industries including law, technology, and health care. The city's population is becoming older, marked by a decrease in the number of individuals aged 24-35 and an increase in individuals aged from 45-59 between 2001-2008. Over that time period, Portland's

population declined, although it remains the largest city in the state of Maine. One notable exception to that trend is the city's foreign-born residents, which increased between 2000 and 2008 and now makes up 9.7% of Portland's population. Portland residents have struggled to keep pace economically with the region; Portland's poverty rate in 2008 was over 16%, compared to 8% in the region (the Portland Metropolitan Statistical Area, or MSA). Although there was a decline in the real median household income in Portland from 2001-2008, this decline was less than at the regional and state level.

Table II-1
Percent Change in Population, 2000-2008

Portland	-1%
MSA	5.10%
Cumberland County	3.50%
Maine	3.20%

Table II-2
Change in Poverty Levels, 2000-2008

	2000	2008	% Change
Portland	14.10%	16.20%	2.10%
Cumberland County	5.70%	8.40%	2.70%
MSA	5.90%	8.50%	2.60%
Maine	10.90%	12.60%	1.70%

Table II-3
Change in Median Household Income, 2000-2008

	2000	2008	% Change
Portland	45,654	44,906	-1.60%
Cumberland County	57,253	54,400	-5.00%
MSA	56,409	53,900	-4.40%
Maine	47,690	46,600	-2.30%

Workforce skills are increasingly important to the economic advantage and desirability of Portland. The occupational composition and strength of Portland's workforce represents an economic asset for the city that can help to attract and support the growth of businesses and serve as a base for entrepreneurship, innovation, and invention. Among major occupational groups in Portland, professional and technical occupations have both the largest workforce at 9,741 employees and the largest relative concentration of jobs of a particular industry compared to national average concentrations (location quotient of 1.36)[1]. Financial specialists, businesses operations specialists, and teachers are strong occupational groups in Portland, as well as computer specialists and registered nurses.

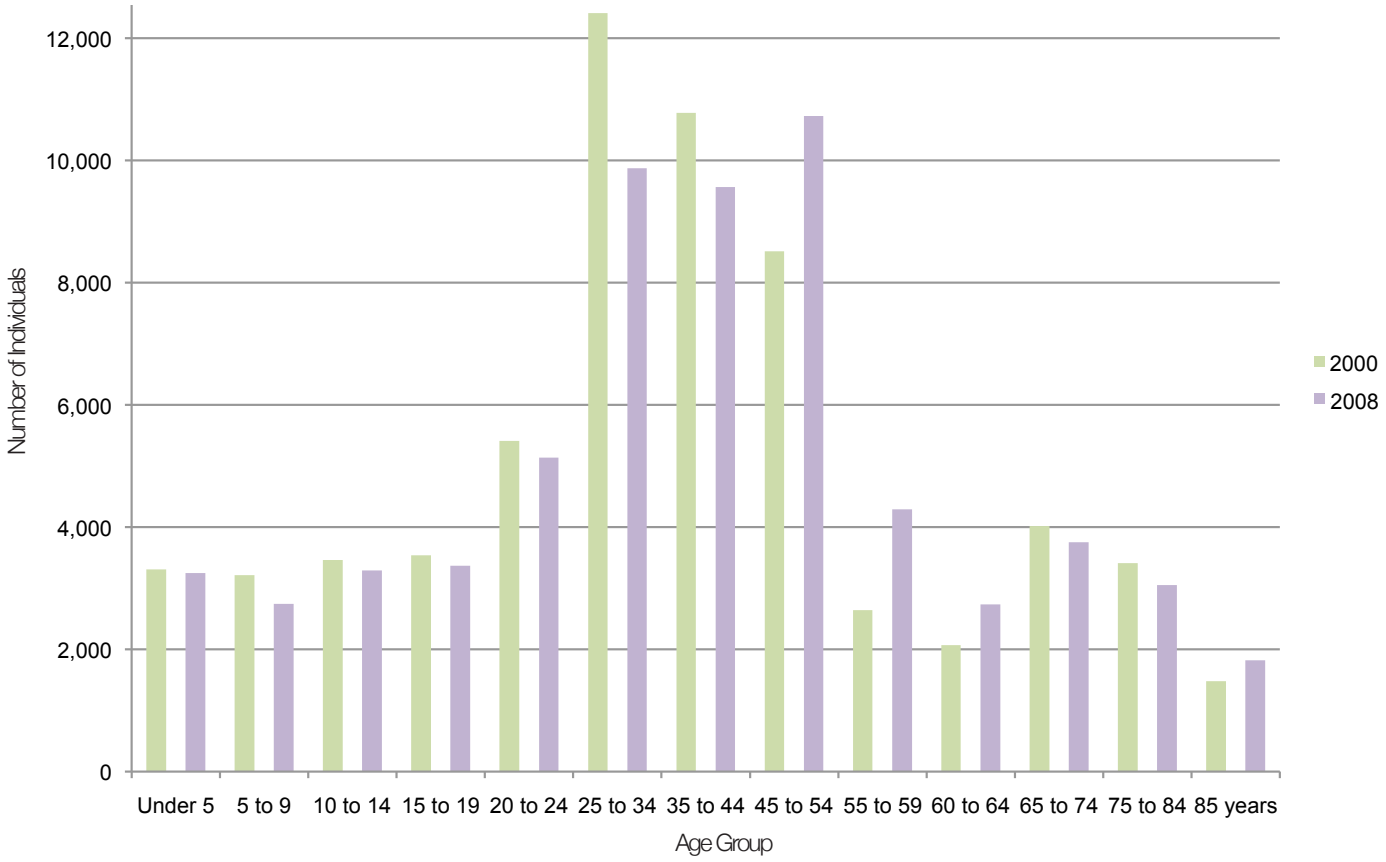
Table II-4
Largest Occupations Among Portland's Labor Force, 2008

Professional and Technical Workforce	**# of Jobs**
Computer Specialist	990
Registered Nurses	755
Media and Communications	577
Health Technicians	562
Art and Design Workers	551
Lawyers	464
Other	
Financial Specialist	750
Business Operations Specialist	746
Teachers	818

The economic outlook for the city is positive despite increases in unemployment and number of jobs. The Portland unemployment rate in 2009 was 6.4%, well below the state and national rates of 8.0% and 9.7%, respectively. Moreover, Portland serves as a key economic center and destination with the region and state for education, health care, arts, culture and entertainment, and professional services. The

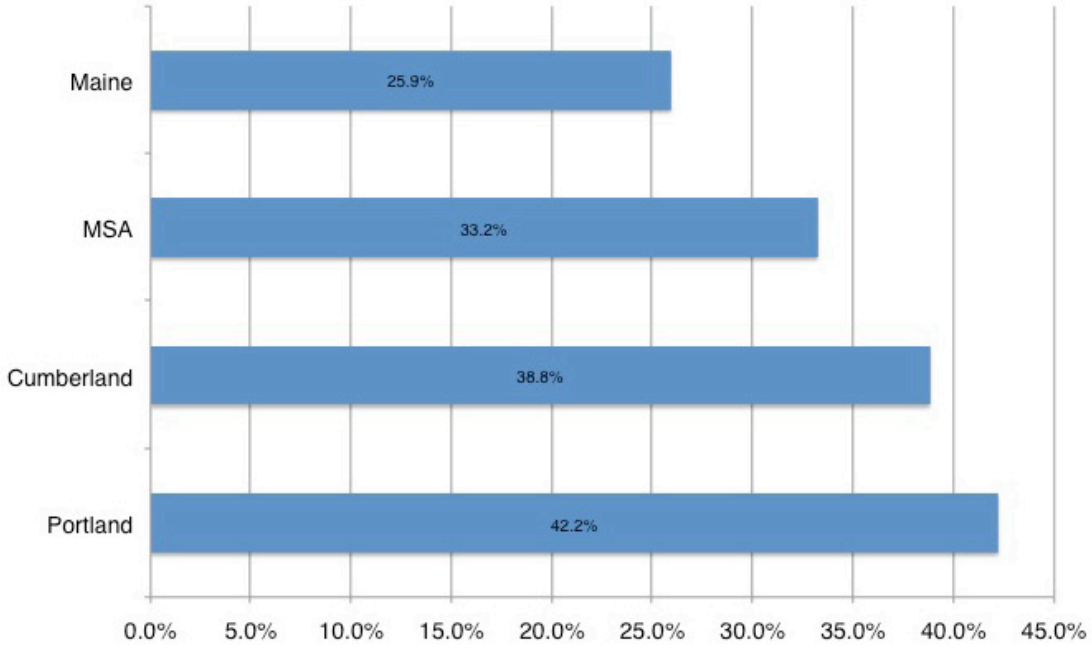
1. A location quotient is a ratio of analysis in this case industry employment in the analysis area to base-industry employment in the analysis area divided by the ratio of analysis-industry employment in the base area to base-industry employment in the base area.

Chart II-1
Change in Population by Age Group, Portland, 2000 and 2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey, Census 2000

Chart II-2
Percentage of Population 25 Years or Over with a Bachelor's Degree or Higher, 2008



Source: U.S. Census Bureau, 2006-2008 American Community Survey

table below gives an overview of all jobs per industry for both Portland and MSA in 2008; 57% of jobs in Portland were in education, health care, arts, culture and entertainment, and professional services. Moreover, the service-providing domain accounts for over 90% of all jobs offered in Portland.

Table II-5
Employment Overview, 2008

Industry	Employment in Portland	Employment in MSA	% of Portland Total Employment	% of MSA Total Employment
Total, All Industries	**68,600**	**124,100**		
Agriculture, Forestry, Fishing & Hunting	16	431	0.02%	0.35%
Utilities	460	556	0.67%	0.45%
Construction	2,414	7,811	3.52%	6.29%
Manufacturing	3,445	11,117	5.02%	8.96%
Wholesale Trade	2,894	5,356	4.22%	4.32%
Retail Trade	5,333	20,601	7.77%	16.60%
Transportation & Warehousing	2,500	6,161	3.64%	4.86%
Information	2,618	2,429	3.82%	1.96
Finance and Insurance	6,157	6,087	8.98%	4.90%
Real Estate and Rental and Leasing	1,506	1,686	2.20%	1.36%
Professional and Technical Services	5,301	5,410	7.73%	4.36%
Management of Companies and Enterprises	1,052	2,736	1.53%	2.20%
Administrative and Waste Services	3,994	5,254	5.82%	4.23%
Educational Services	4,647	11,247	6.77%	9.06%
Health Care and Social Assistance	15,990	16,047	23.31%	12.93%
Arts, Entertainment, and Recreation	1,046	2,378	1.52%	1.92%
Accommodation and Food Services	5,188	12,167	7.56%	9.80%
Other Services, Ex. Public Administration	1,890	3,372	2.76%	2.72%
Public Administration	2,150	3,228	3.13%	2.60%

Since 2001 Portland has lost jobs in several sectors in which MSA has gained employment. The table below gives an overview of the job gains and losses in each industry for Portland and the MSA between 2001 and 2008. It illustrates that Portland lost jobs in 11 of 17 sectors during that period. Employment in the MSA declined in only two sectors: Manufacturing and Retail Trade.

Table II-6
Number or Jobs, Portland and MSA, 2001-2008

Industry	Change Employment in Portland 2001-2008	Change of Employment in MSA 2001-2008	% of Portland of Employment in Portland 2001-2008	% of MSA of Employment in MSA 2001-2008
Total, All Industries	-2,487	11,094	-3.5%	9.82%
Agriculture, Forestry, Fishing & Hunting	-3	86	-15.79%	24.93
Utilities	-213	302	-31.65%	118.90%
Construction	51	216	2.16%	2.84%
Manufacturing	-320	-2,917	-8.50%	-20.79%
Wholesale Trade	-537	549	-15.65%	11.42%
Retail Trade	-456	-592	-7.88%	-2.79%
Transportation & Warehousing	-1,485	2,559	-37.26%	71.04%
Information	-349	72	-11.76%	3.05%
Finance and Insurance	-2,119	1,681	-25.60%	38.15%
Real Estate and Rental and Leasing	-75	181	-4.74%	12.03%
Professional and Technical Services	391	1,152	7.96%	27.05%
Management of Companies and Enterprises	348	705	49.43%	34.71%
Administrative and Waste Services	-921	670	-18.74%	14.62%
Educational Services	488	748	11.73%	7.12%
Health Care and Social Assistance	2,411	3,424	17.76%	27.13%
Arts, Entertainment, and Recreation	55	374	5.55%	18.66%
Accommodation and Food Services	194	1,452	3.88%	13.55%
Other Services, Ex. Public Administration	-14	199	-0.74%	6.27
Public Administration	67	219	3.22%	7.28%

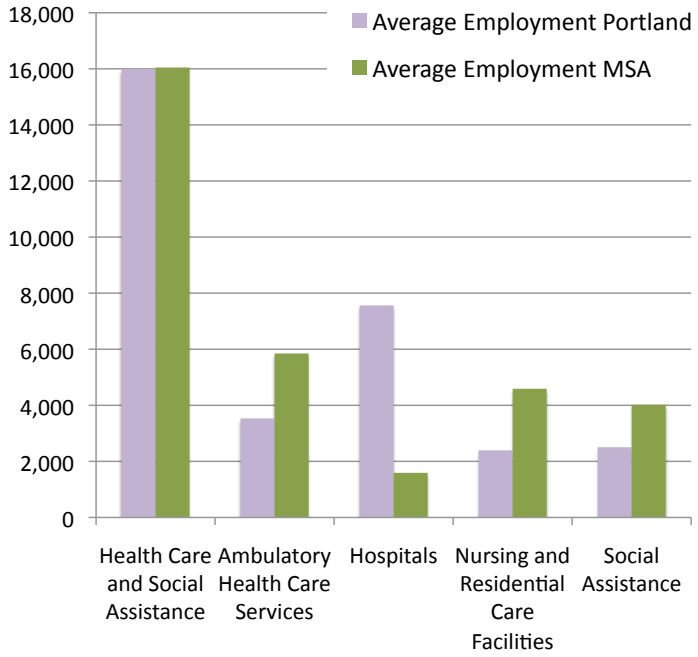
In 2008, the largest payroll contributor in Portland was Healthcare and Social Assistance, comprising 23% of Portland's total payroll. This occupational group also accounted for a 13% share of the MSA's total payroll. Finance and insurance services were the second most significant contributor to Portland's payroll, followed by Professional and Technical Services. Together, these three sectors accounted for half of the city's estimated 2008 payroll. In the MSA, Manufacturing is the second greatest contributor to the payroll, while Retail and Trade is third.

Table II-7
Wages by Industry, Portland and MSA, 2008

Industry	Estimated Payroll Portland	Estimated Payroll MSA	% Estimated Total Payroll Portland	% Estimated Total Payroll MSA
Total, All Industries	**$3,210,480,000**	**$5,001,230,000**	**100%**	**100%**
Agriculture, Forestry, Fishing & Hunting	$697,216	$11,654,240	0.02%	0.23%
Utilities	$28,393,040	$33,913,776	0.88%	0.68%
Construction	$112,473,088	$338,341,276	3.50%	6.77%
Manufacturing	$139,370,920	$550,914,052	4.34%	11.02%
Wholesale Trade	$148,230,680	$278,233,488	4.62%	5.56%
Retail Trade	$144,481,636	$497,060,928	4.50%	9.94%
Transportation & Warehousing	$101,140,000	$242,521,604	3.15%	4.85%
Information	$133,413,280	$120,750,448	4.16%	2.41%
Finance and Insurance	$471,921,736	$398,503,716	14.70%	7.97%
Real Estate and Rental and Leasing	$60,143,616	$61,984,104	1.87%	1.24%
Professional and Technical Services	$395,560,620	$347,711,520	12.32%	6.95%
Management of Companies and Enterprises	$135,228,288	$237,167,424	4.21%	4.74%
Administrative and Waste Services	$128,558,872	$173,760,288	4.00%	3.47%
Educational Services	$192,106,980	$416,408,928	5.98%	8.33%
Health Care and Social Assistance	$735,028,320	$658,376,316	22.89%	13.16%
Arts, Entertainment, and Recreation	$26,488,904	$51,069,928	0.83%	1.02%
Accommodation and Food Services	$90,644,736	$199,295,460	2.82%	3.98%
Other Services, Ex. Public Administration	$53,366,040	$88,899,408	1.66%	1.78%
Public Administration	$113,141,600	$144,691,872	3.52%	2.89%

The average employment for the Health Care and Social Assistance sectors was comparable between Portland and its surrounding MSA in 2008. Portland has a higher concentration of hospital jobs, while the MSA offers more jobs in the Ambulatory Health Care including dentists, health physicians, and health practitioners.

Chart II-3
Health Care Employment, 2008



As indicated in the table below, all industries within the Healthcare and Social Assistance sector are characterized by a location quotient higher than 1 and provide a strong base for Portland to build upon. Hospitals are the economic development anchor as they are characterized by a location quotient of 2.73. This means hospital jobs are 2.7 times more concentrated in Portland than the nation.

Hospitals are by far the largest healthcare establishments in both Portland and the surrounding region. Hospitals in Portland, which employ an average of 2,520 employees per hospital, are considerably larger than hospitals in the MSA, which average 398 employees per hospital. In addition, the healthcare industry has been growing in Portland since 2001. The largest growth occurred among hospitals, while ambulatory health care services, nursing and residential care facilities, and the social assistance sector remained relatively stable. Overall, the Healthcare and Social Assistance sector in Portland added 2,411 jobs from 2001 to 2008, an 18% increase. The MSA has also gained 3,424 jobs in the Healthcare and Social Assistance sector, which accounts for a 27.1% increase. There were 7,561 jobs in hospitals in Portland in 2008, an increase of 1,295 from 2001.

Tourism is widely considered to be an important component of Portland's economy, and the city has supported the tourism industry with recent investments, such as providing $3.6 million in funds for the new Ocean Gateway ferry terminal. In 2008, the Greater Portland and Casco Bay region received an estimated 5.57 million overnight visitors and 2.82 million day visitors, according to the Maine Office of Tourism. Respectively, these visitors represent 15% and 17% of the total visitors to Maine. Shopping is the focus of day leisure visits to the region, while rest and relaxation is the primary purpose of overnight leisure visits. Many overnight visits to Greater Portland also center on activities such as sporting events, concerts, and festivals. Of the visitors to the Portland region, roughly 75% visit the city of Portland itself.

Table II-8
* Location Quotient for Healthcare & Social Assistance, 2008

Industry	Maine	MSA	Portland
Health Care and Social Assistance	1.42	0.94	1.69
Ambulatory Health Care Services	1.04	0.95	1.03
Hospitals	1.52	0.32	2.73
Nursing and Residential Care Facilities	1.72	1.39	1.31
Social Assistance	1.76	1.55	1.75

*Note: In general, location quotients are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. For example, location quotients can be used to compare State employment by industry to that of the nation; or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic sub-area to that in the State. - Source: Bureau of Labor Statistics

As the table below shows, roughly 4,000, or about 6%, of the city's jobs can be attributed to tourism spending. At the same time the average annual wages of tourism-related jobs are lower than other jobs in the city. This is expected and partly due to the seasonal nature of tourism in Maine.

Portland has many economic assets, including an educated workforce, a strong health care industry, a substantial finance and insurance sector, educational resources, and a solid manufacturing base. Those are key areas with opportunities for growth in Portland.

Table II-9
Estimated Portland visitor expenditures and jobs attributed to tourism, 2008

Spending Category	Estimated Portland Visitor Expenditures*	Total Portland Receipts	% Receipts Attributable to Tourism	Jobs Attributable to Tourism
Lodging		$58,667,000	100%	953
Food Services and Drinking Places	$96,488,300	$187,320,000	52%	2,119
Retail Goods[2]	$86,625,505	$109,204,000	79%	599
Recreation and Arts	$23,260,798	$50,699,000	46%	361

B. Creative Economy

The creative economy is a small part of Portland's economy (5-6% of the city's jobs), but it plays an important and visible role in shaping the city's identity as an arts and cultural center for the region. Strong industries in the creative economy include architectural services; media and broadcasting; advertising services; visual arts and design; gift, novelty, and souvenir shops; and libraries and archives. The Portland creative economy's assets include strong anchor institutions, such as Maine College of Art and Maine Museum of Art, as well as the city's Arts District, which hosts the First Friday Art Walk. Beyond these institutions, individual self-employed artists and small entrepreneurial firms are especially important, which makes measuring and fostering this part of this sector challenging. Stakeholders identified several key challenges to working in Portland: an insufficient local demand for creative goods, scarce funding opportunities, and difficulty in attracting and retaining professional employees in creative firms. Moving forward, there are several opportunities for this small, but critical, part of Portland's economy, such as collaborative efforts to promote products of the creative economy in Portland and elsewhere, and technical assistance for emerging creative businesses.

2. Only receipts from retail establishments that tourists would likely visit were included. These establishments were: home furnishings stores; specialty food stores; clothing and clothing accessory stores; sporting goods, hobby, book, and music stores; gift, novelty, and souvenir stores; and art dealers.

C. Food Sector

The food sector is an important part of Portland's economy. Comprised of retail, restaurants, manufacturers, wholesalers, and fishing, the food sector provides 11% of Portland's jobs, making it the city's the second largest sector behind health care and social assistance in terms of total jobs, and it is central to Portland's evolving identity as a food destination. The strength of this sector is underscored by the large number of organizations and associations working on food-related issues in the city. An analysis of food sector employment data revealed significant trends: lower paying jobs in the restaurant and retail sub-sectors are growing, while higher paying employment in fishing, wholesale, and food manufacturing is on the decline. In addition, stakeholders highlighted major challenges for Portland's food sector such as fragmentation in the local supply chain and overlap among multiple organizations currently working independently or with a small group of collaborators. These challenges present opportunities to further leverage connections between different segments of the food sector in order to expand business opportunities and increase jobs.

Table II-10
Food Sector Portland Jobs and Average Annual Wages, 2008

Industry	Number of Jobs	Average Annual Wages
Food Services and Drinking Places	4,253	$16,796
Food and Beverage Manufacturing	1,756	$38,948
Fishing, Hunting and Trapping	9*	$50,804
Food and Beverage Stores	1,365	$20,748
Grocery and Beverage Wholesale	398	$40,924

* The data source does not include jobs from self-employed firms. Because many fishermen own their own business, they are largely uncounted by this dataset. However, in 2007, Portland was home to 1,459 non-employer, or self-employed one-employee fisheries firms.

D. Stakeholder Interviews

Nine stakeholders from Portland's Economic Development Division and Economic Development Plan Task Force were interviewed during Phase 1. From the interviews the team identified assets, challenges, and opportunities for Portland. Assets include a high quality of life with quality public schools, safe communities, physical assets such as the waterfront, and low traffic congestion; a robust banking industry with the capacity to finance projects and businesses; a strong legal services sector; and rail, sea, and air transportation infrastructure with room for improvements and expansion. Stakeholders also identified a series of challenges that include an aging population, affordability of housing and commercial space, and regulatory and zoning uncertainty. Additionally, the current zoning of the waterfront was cited as creating challenges for maintenance and viability of the waterfront properties. Stakeholders also discussed what they saw as areas of economic opportunities for Portland, including tourism, the creative economy, and the waterfront.

These quantitative and qualitative analyses illustrate the diverse range of assets and needs in Portland's economy. After reviewing these findings, the Portland Economic Development Division, the Portland Economic Development Plan Task Force, and the MIT students collaborated to prioritize areas for the development of strategic recommendations. Three areas were selected to address the city's greatest needs as well as to suggest new ways to capitalize on economic strengths. The departure of businesses across 11 sectors from the city is a critical problem for provision of jobs and revenue; the Business Retention strategy provides recommendations to address this issue. The Life Sciences strategy addresses mechanisms to build on the health care industry's contributions to employment and payroll in the city, and includes the city's interest in expanding biotech as well as the presence of other related industries such as pharmaceuticals. Finally, the Food Sector strategy recommends ways to strengthen and create new economic opportunities for a significant employer and visible contributor to Portland's identity. Together, these recommendations address three focus areas that will play critical roles in Portland's economic future.

Business Retention

SECTION III

A. Introduction

Portland, like cities across the United States, faces the challenge of retaining and supporting its businesses to ensure a thriving economic environment, growing employment opportunities, and a stable tax base. The combination of decreased operating costs outside of central cities and increased workforce and consumer mobility is causing businesses to leave cities for suburban communities. During Phase 1 interviews, businesses across sectors indicated challenges in growing, expanding, and remaining in Portland for reasons including high costs, better amenities outside the city, an unfriendly business climate in Portland, and difficult permitting and licensing processes for business start-up, expansion, and growth. Task Force members and City staff also indicated that there are concerns about Portland's businesses moving to the suburbs or even out of state. Data from the Phase 1 economic profile analysis support these qualitative reports, indicating significant migration of the FIRE (financial, insurance, and real estate) companies out of the city to the metro area.

Despite the challenges facing Portland, the city has important strengths, particularly its quality of life and highly educated workforce, which can be leveraged to support a business retention strategy. Data analysis also indicates the growth of the food sector, strength of the life sciences and health care industries, and a growing number of thriving immigrant-owned businesses as major strengths of the economy. Interviews and data point to a

need for distinct strategies to retain and address the needs of small, large, and immigrant-owned businesses, which are all important components of a healthy economy. A business retention strategy can help the City capitalize on its strengths, anticipate key industry needs, and take advantage of opportunities in burgeoning sectors. Perhaps most importantly, a thoughtful business retention program will create and foster a more business-friendly environment.

Given Portland's economic makeup and recent trends, the cornerstone of its retention strategy should be the development and implementation of a business visitation program. The visitation program should be supported by ancillary activities including centralizing information on business resource and regulations, sponsorship of industry networking, educational events for key industry clusters, and streamlining the business licensing process. This combination of activities will help Portland systematically engage and communicate with the business community, create more business-friendly processes, and foster the growth of existing and nascent industry clusters.

These recommendations are based on the research and analysis that was completed in Phase 2, which includes:

- An in-depth analysis of the out-migration of FIRE companies;
- Best practices research on business retention strategies nationwide to determine the structure, funding, factors, and partnerships necessary to manage a successful program;
- Analysis of the assets, challenges, and opportunities in Portland through a diagnostic study of business and economic development organizations that currently work with businesses;
- Research on ways to improve the licensing process for ongoing business activities; and,
- A focus group to review business retention recommendations with key business development organizations.

These tasks, and the final recommendations, are described in full below.

B. FIRE Industry Analysis

Portland, like many cities, has been losing finance and insurance jobs to its suburbs. From 2001 to 2008 the City lost over 2,000 jobs in these sectors while the region gained over 1,400 similar jobs. The competitive arena in which FIRE industries, particularly insurance, are operating can largely explain this.

The insurance industry is characterized by:
"stiffening international competition, new entrants from the blurring of traditional market boundaries between banks, brokerages, insurance carriers, and nonbank financial institutions, slower revenue growth, fluctuating interest rates, shifts in socioeconomic trends, greater product innovation, shorter product life-cycles, and more diversified products. The competitive pressures in the industry have resulted in less profitable products, more intense price competition, lower product persistency, and a greater need to reduce overall administrative costs. With these changes, the insurance industry has become more cost oriented." (Life Office Management Association and Arthur Andersen Report)

In addition to the need to reduce administrative costs, firms in the FIRE industries rely less on foot traffic, and with the rise of telecommunications, can essentially conduct their business from anywhere. This relatively new phenomenon, coupled with rising rents ($18 per square foot in Portland as compared to $13 per square foot in surrounding cities) and significant parking costs (one firm of 10 employees cited that they incur $13,000 in parking expenses annually) have caused many firms, particularly insurance firms, to move from Portland to the surrounding suburbs where costs are less.

Although out-migration of FIRE companies is a national trend, interviews with more than 11 representatives of Portland FIRE firms (both local and branches of national companies) focused on Portland-specific challenges that might be exacerbating businesses flight. Across all interviews, the paramount concern is a perception that the City of Portland lacks a business-friendly atmosphere. Several interviewees commented that they would not consult the City regarding their business needs or if they were considering a move. However, multiple representatives stated that there was nothing the City could have done to convince them to stay,

and that it was purely a financial decision. Firms, or branches of firms, that focus on commercial lending and wealth management largely remain in Portland and continue to place great value in this location.

While many firms state there is no financial benefit to being in Portland, their employees enjoy working in the City, and the firms' preference is to be located in Portland as long as it is financially feasible. Furthermore, firms cite quality of life and the quality of the workforce as major assets in the region, although this is not necessarily confined to the city itself.

Given these findings, the City could provide incentives to encourage businesses to stay, as it has done for businesses in the past, but may also want to focus more creatively on networking events to support the cluster of commercial lending and wealth management that remains in Portland. Moreover, the implementation of a business visitation program will allow the City to keep abreast of concerns and needs of these companies; for example if they are growing or downsizing and need new space, the City needs to be responding proactively. Portland may also want to explore if there is a way for new development in the Bayside area to provide more cost-competitive locations for some financial services operations.

It is important to recognize that FIRE firms, particularly larger firms, support a host of smaller businesses and industries including caterers, printers, legal staff, etc., in addition to providing a significant portion of Portland's tax base. While interviewees indicated that they would not speak with the City about a decision to leave, this could be caused by the perception that the City does not support business needs and fosters anti-business culture or climate. Including FIRE firms in a business visitation program may help change the perception and culture, shifting the industry towards a new, more collaborative direction where the firms view the city as a partner in their success.

C. Best Practice: Business Retention, and Engagement Programming

Economic development requires business support service programming and activities specifically crafted to meet the needs of a city or region's businesses, growth sectors, workforce, and key employers. These services range from business planning to finance, job training, and help navigating city regulations and politics. Typically, business support programming is designed to be responsive both to business needs and larger policy goals or initiatives. The ultimate goals of these programs are to grow, expand, and retain businesses in a city to create a thriving business environment, stable tax base, and employment opportunities for residents. Business retention strategies may evolve to become attraction strategies over time.

Business retention is a critical issue cited by cities around the country as businesses nationwide increasingly move to the suburbs, globalization threatens traditionally secure markets, and the current economic climate raises new challenges for business operations. In an atmosphere of limited resources for both businesses and the economic organizations that support them, cities must work together with business associations and business support organizations to address business retention in specific ways that concentrate efforts and resources and maximize impact. Research conducted for this report on business support services demonstrates that specific business retention programs, managed in conjunction with general business support services, is an important activity to understand and respond to the needs of businesses and the economic development community.

The business retention team conducted 10 interviews with cities, chambers of commerce, and business assistance organizations around the country that manage business retention and engagement programs. Six individuals in Portland representing the City, the Chamber of Commerce, and other technical assistance providers at both the local

and state level were also interviewed to develop a strong understanding of the business engagement activities Portland has currently to ensure that these recommendations build off of existing assets and collaborations. Interviews were supported by general research on business retention strategies in the economic development field (See Appendix A for Business Retention Interview Questions).

D. Findings and Analysis

Interviews revealed that the cities with the most robust economic development programming and positive business climates maintain strong programs specific to business engagement and retention, most often in the form of a business visitation and calling program. Across the board, interviewees operating such programs spoke to success in understanding business' needs, concerns, and opportunities; responding to information collected from businesses through direct action, policy changes, and resource allocation; and ultimately, increasing trust and building strong relationships between businesses and economic development organizations as well as the city or organization that runs business support and management activities. Interviewees spoke frankly about increased success in retention as a direct result of this program, explaining that businesses feel heard and have a direct relationship with someone listening to their concerns, and that visitation and follow-up provides a chance to respond directly to business needs, proactively preventing their departure.

Anatomy of a Business Visitation Program

As is depicted in the diagram on the next page, a business visitation program is a cyclical process of business outreach, information gathering, and follow-up designed to maximize communication and collaboration among businesses, the city, and economic development organizations.

The strongest programs had several steps and success factors in common that are critical to designing a new business visitation program and will help avoid common pitfalls. The specific model and operations of business visitation programs differ slightly from city to city; however, the following are key elements found across all programs:

- **Generate a list of businesses to visit based on criteria important to the city.** These criteria often pertain to the city's economic drivers and key employers. For example, cities may prioritize businesses in the city's key sectors and industries, businesses with the most employees or who pay the highest weekly wages, growth sectors that the city or region endeavor to support, or businesses that align with state and national incentive systems.

- **Create a list of key questions to ask every business that will be visited.** Software systems like E-synchronist are designed to generate questions around business retention from which answers can be both qualitatively and quantitatively analyzed.

- **Make appointments** to visit with executives and leaders of selected businesses; **conduct visits**.

- **Analyze and respond to information learned**, either immediately if there is an urgent concern, or through longer-term strategies in working groups with economic development partner organizations. Share information collected with partner organizations.

- **Follow up** with businesses visited, through a larger industry event, newsletter, or direct call to address specific and collective concerns raised.

- **Review key questions** and criteria for visitation program; revise as necessary.

- **Repeat**.

The actual model and operations of a business visitation program vary depending on the capacity of organizations to work together, funding, and the role of the city compared to other economic development organizations. Three excellent, and very different, models of business visitation programs are highlighted in Table III-1 to demonstrate the range of structure, methods, and funding options available in creating a program. Full narratives are found in Appendix B: Business Visitation Case Studies.

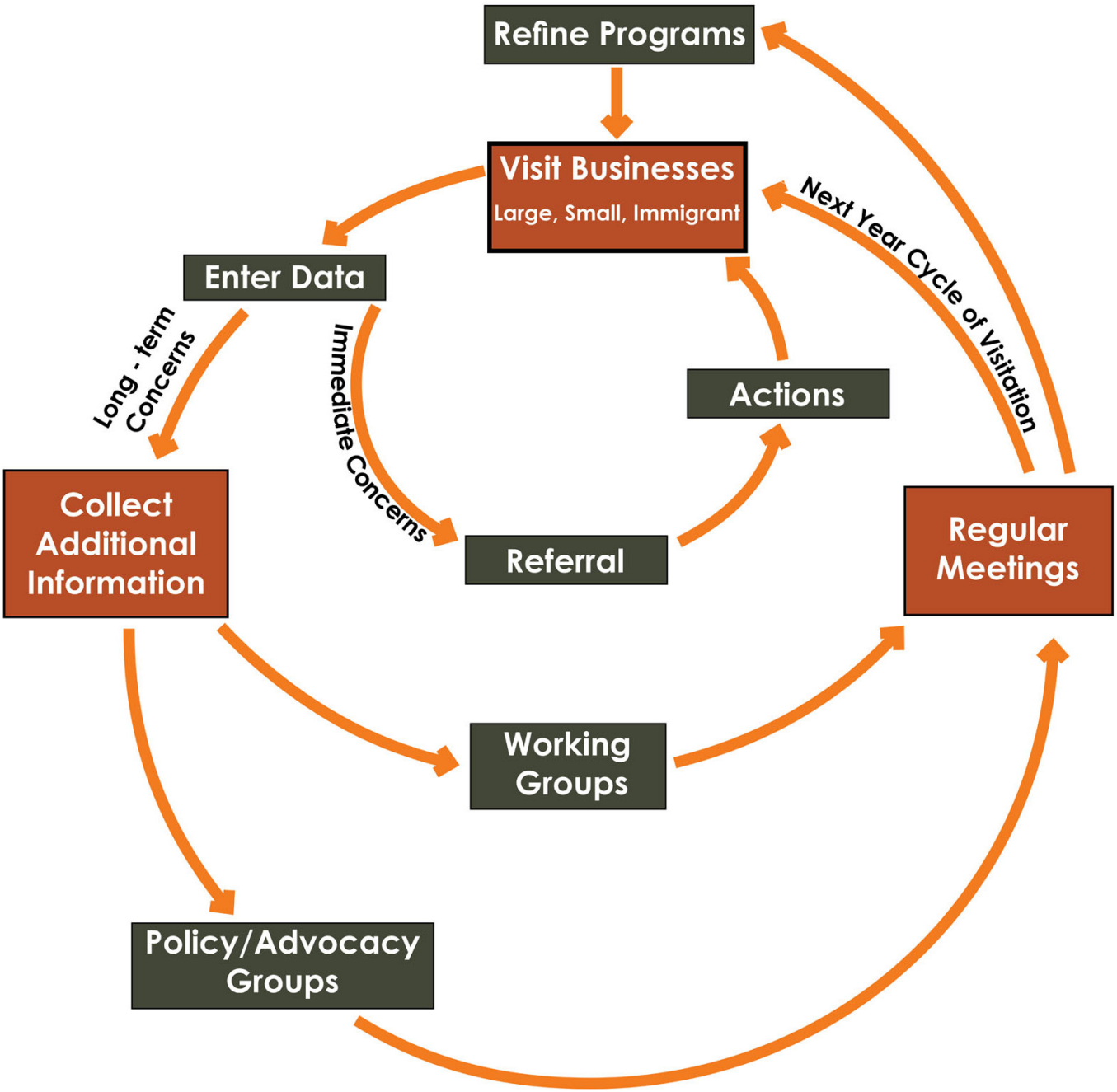

Refine Programs
Visit Businesses
Large, Small, Immigrant
Enter Data
Long - term Concerns
Immediate Concerns
Actions
Next Year Cycle of Visitation
Collect Additional Information
Referral
Regular Meetings
Working Groups
Policy/Advocacy Groups

Table III-1
Business Visitation Case Studies Summary

Factor	Scarborough, ME (20,000 residents)	Greenville, SC (438,000 residents)	Charlottesville, VA (40,000 residents)
Program Host/Structure	Scarborough Economic Development Corporation (SEDCO)	Independent outside org; Memorandums of Understanding (MOUs) through area economic development organizations	City's Economic Development Office, Regional Economic Development Partnership
Who Does the Visitation?	30 volunteers from Chamber of Commerce Board and SEDCO Board, two SEDCO Staff	Two hired contractors managed by independent economic development organization board	Two city staff work on business visitation part time; one focuses on large businesses, the other on small businesses. At the Regional Economic Development Partnership, one staff member works full-time on regional business visitation efforts.
Who Manages the Program?	SEDCO	Economic Development Board	Economic Development Office
How is Information Disseminated Back to Businesses?	Public presentation, accessible on website	Presentations; follow-up visits	n/a
How is Information Collected and Stored?	Excel spreadsheet	E-Synchronist database	Executive Pulse database
Cost	Staff time, postage	$80,000 in first year	n/a
Funding Source	Scarborough town government funds SEDCO	Board members contribute; primarily through Workforce Investment Act	At city level, funded out of normal operating budget. City contributes funds to regional Economic Development Partnership.
Key Advice	■ High commitment from the organization and volunteers ■ Test run with 50 businesses to gauge responsiveness ■ Approached businesses seeking to get to know them instead of seeking information about problems ■ Brought information about SEDCO and Chamber of Commerce on site visits ■ Follow-up is critical. SEDCO publicly presented their findings, posted them to the website	■ MOU was critical ■ Having contractors manage the program was essential so that the work plan was not dominated by any single groups' political agenda ■ Shared funding is critical ■ Important to have all partner organizations involved ■ Follow-up and consistency is key	■ Program can be very informal, as long as you make sure to document what you learn ■ Try to set a goal for visits (ours is 2 per person per month), then try to meet that goal ■ Be diligent about inputting information into database and about follow-up ■ Being regular and consistent is key

Portland's Capacity and Current Programming

The analysis of Portland's capacity for business retention focused on identifying its current assets and challenges. The study included six interviews with service providers across the city, including the Economic Development Division of the City of Portland (EDD), Portland Regional Chamber of Commerce, Small Business Administration (SBA), Small Business Development Center (SBDC), and Coastal Enterprises, Inc. (CEI). In addition, a focus group convened with these and additional service providers to discuss the feasibility and capacity of organizations to manage a business retention program in partnership with the city (see Appendix A: Business Retention Interview Questions and Appendix C: Focus Group Attendees).

Portland's Assets

Though the community of technical assistance (TA) providers for businesses in Portland is small, they provide critical services to businesses, often filling in programming gaps that the City is unable to offer. Several important assets in Portland were identified in interviews, including the following:

- **Specialized Services for Businesses:** Many acknowledged that large, small, and immigrant businesses all have distinct needs, and TA providers often step in to provide specialized services where there are gaps. TA providers offer services including one-on-one orientation through the permitting and regulatory process and lending to small businesses. For example, immigrant businesses can require guidance that spans from creating a feasibility study to programming the retail store's cash register, in easily accessible in-person meetings to overcome language barriers. CEI is one anchor organization in the Portland region, serving as a Community Development Corporation (CDC) and Community Development Financing Institution (CDFI) and providing specialized programming including lending, business assistance tailored toward immigrants and women, and workforce development.

- **Big Picture Thinking:** TA providers view their role within a larger context of creating a business-friendly climate on a city, regional, and statewide level, and have a desire to collaborate on a larger vision for Portland's future. For example, the Portland Regional Chamber of Commerce engages in advocacy on a city and state level to advance business-friendly policies. A majority of the service providers have multiple offices throughout the greater Portland region.

- **Workforce Development Initiatives:** Portland's service providers see workforce development as an important link to retain businesses in Portland. It is a way to connect skilled labor with businesses in the city, providing financial bonuses to companies and direct job opportunities for Portland residents. For example, CEI's Workforce Development program incentivizes companies to sign employment and training agreements by linking them to reduced rate business loans.

- **Economic Development Division (EDD) Services:** Despite a staff of just three people, Portland's Economic Development Division currently provides a number of important services for business retention, particularly in personalized assistance and financing. In terms of personalized assistance, the EDD provides permitting, regulatory, and site location assistance on a walk-in and case-by-case basis. In terms of financial assistance, several TA providers identified the EDD as providing key gap financing. EDD also administers programs for real estate development and sales of city property, and business assistance programs such as the Façade Program and assistance to property owners on filling vacant space.

Portland's Challenges

Service providers spoke candidly about the challenges of retaining businesses in Portland. The following are common themes:

- **Need for better relationships with the City:** TA providers cited a general perception by businesses that the City of Portland is often not responsive to business needs. Most providers have good relationships with particular individuals within city government, but do not see the City as a source of innovative initiatives for businesses.

- **Disparate needs for large, small, and immigrant businesses:** Different types of businesses have different needs; however, the city does not have

a strategy for retaining these three different types of businesses. Though the city has some focus on attracting businesses and provides financing and site location to companies on a case-by-case basis, ongoing relationships with the city are lacking. TA providers fill gaps in assistance to small and immigrant businesses; however, with limited staffing assistance providers often struggle to meet the demand for services in these areas.

- **Need to consolidate resources:** Useful services for businesses exist throughout Portland; however, service providers noted that there is not a single location where businesses can go to find out about them.

- **Complications, delays, and lack of transparency in city processes:** City processes are complicated, and businesses are often frustrated by with contradictory information regarding permitting and regulations. Additionally, grant applications have a slow turnover, and small businesses in particular lack funding sources for working capital to help them meet immediate needs.

- **Need for a citywide strategy:** Service providers cited the need to bring together a range of actors to understand what the plan is for the future of Portland, and the City's strategy to retain businesses so that each entity could move forward its part of the work.

In sum, TA providers offer businesses critical services where city resources are lacking, however they also struggle with high demand and conflicting information. These service providers have innovative ideas for how Portland can retain large, small, and immigrant businesses, but find barriers to collaborating with the City. There is an opportunity for the City to build stronger relationships with businesses and tap into this insight. A coordinated business visitation program is a good way to build such relationships with businesses technical assistance and development organizations.

E. Recommendations and Implementation

In light of national best practices as well as Portland's challenges, strengths, and capacity in regard to business retention, three key strategies to meet an overarching goal of maintaining and growing businesses in Portland are:

1. Systematically engage businesses;
2. Create business-friendly processes; and
3. Increase business interaction.

In Table III-2 on page 23, specific recommendations accompany each respective strategy, with action items, key tasks, and potential parties involved identified. The cornerstone of these recommendations is the implementation of a business visitation program.

Strategy 1: Engage Businesses

Action: Implement Business Visitation Programming in Portland

On May 7, 2010, a group of stakeholders were convened to discuss the above strategies and action items and to gather feedback regarding the potential structures for a business visitation program. Representatives were present from the Chamber of Commerce, Coastal Enterprises, Inc., Portland Downtown District, Maine SBDC, Learning Works, Coastal Counties Workforce, Gorham Savings Bank and the Maine SBA. Generally, the stakeholders were very receptive to the idea of business visitation program. However, they raised legitimate concerns including creating a time- and labor-intensive process, as well as an environment that invites businesses to be overly critical. Additionally, they expressed concerns about the ability of the business visitation team to follow-up on matters raised in conversations with businesses and the need to create a targeted and achievable strategy for outreach.

Despite these concerns, the group recognized the value of a business visitation program and felt that it could help gather timely information on business needs, connect businesses to existing resources, and promote a more open customer service-based atmosphere. Based on this feedback, the following are steps that could be taken to immediately, with

Table III-2
Business Retention Preliminary Recommendations

Strategies	Actions	Key Tasks	Potential Parties
Engage Businesses	Develop a Business Visitation Program	1. Set goals for program (x amount of visits per month) 2. Establish process for reaching out and mechanisms for follow-up 3. Create database 4. Prioritize Outreach 5. Conduct Outreach 6. Data Entry 7. Conduct Follow-Up 8. Periodic Analysis of Findings to Inform Larger Department Goals	- Chamber of Commerce - Coastal Enterprises - City of Portland's Economic Development Office - SBDC - WIB - Muskie School of Public Policy
Create Business - Friendly Processes	Examine Business Permitting Process	1. Map permitting process 2. Conduct cost of service analysis 3. Assess staff performance	- Interdepartmental - Coordination at the City Level
	Centralize Information	1. Map all available resources related to business development 2. Create a web page with consolidated information 3. Create an information desk or information hot line staffed by a knowledgeable person	- City of Portland - SBDC - CEI
	Evaluate Business Registration Process	1. Map current process 2. Edit business registration forms in order to gather useful data 3. Create mechanism to be notified when new businesses register 4. Send to all new businesses welcome kit	- City Hall - City of Portland's Economic Development Office
Increase Business Interaction	Promote and Facilitate Industry Meet-ups and Networking Events	1. Identify industry clusters 2. Identify existing networks 3. Identify additional partners 4. Facilitate industry meet-ups around relevant topics	- City of Portland - Chamber of Commerce - Industry Associations and Networks

current resources, to initiate the program. These action steps respond to the stakeholder concerns listed above while incorporating the strongest elements of successful business visitation programs around the country.

1. Convene a small working group who will determine priority businesses to be visited. This group should include the Economic Development Division, the Chamber of Commerce, and CEI. As the visitation program does not yet have dedicated staff, a small group of target businesses should be selected for the first visitation cycle. Prioritizing visitation is critical. Portland should employ prioritization strategies used elsewhere, such as selecting businesses from the strongest sectors (Life Sciences and Food), the top ten employers, and key areas of growth (immigrant-owned businesses).
2. Develop key interview questions and a shared spreadsheet to input answers. Decide who will be responsible for these tasks and data analysis.
3. Set up and conduct interviews with selected businesses over a period of two months. Again, at this stage few businesses will likely be visited. Each partner organization should interview two to five businesses to help share the workload. Urgent concerns raised by businesses should be resolved immediately. The working group should identify funding for translators to ensure inclusion of immigrant-owned businesses.
4. Reconvene working group after interviews are completed to review data and determine next steps. Information compiled and next steps can be shared through trade or industry association meetings or Chamber of Commerce events.
5. Repeat.
6. Simultaneously, all partners work with the Chamber of Commerce and the City to identify funds to sustain and grow program going forward. This could involve reallocation of current funds, making a request of the City Council or City Manager, or applying for grants.

As the visitation program goes through an initial cycle, organizational partners should be working to grow and expand capacity. Ideally, the visitation program will have a point person conducting interviews, managing data analysis, and convening working groups to determine overarching business needs and policy agenda. A longer-term strategy for a business visitation program, based on the best practices researched and Portland's capacity, could include the following actions:

1. Hire staff to maintain this program, either one person full time or two people part time, who would report to either the group of partner organizations or be hosted at the Chamber of Commerce.
2. Purchase the E-Synchronist software from Blane, Canada Ltd. to create a centralized, automated database of information storage. This software will generate business retention questions and allow for easy analysis.
3. Expand the number of businesses visited in first stage of visitation cycle based on prioritization of sectors and employers.
4. Convene working groups to review analysis; report back to business community.
5. Continue to seek funds to sustain program.

While the business visitation program is the crux of the business retention strategy, it should be supported by the following ancillary activities, which support Strategies 2 and 3 under the proposed business retention effort:

Strategy 2: Create Business-Friendly Processes

Action: Examine Business Licensing Process

Interviews with Portland businesses identified the City's business licensing process as a critical area for improvement. At the request of the City of Portland's Economic Development Division, a separate memo (see Appendix D: Business Permitting Best Practices) was prepared addressing next steps and actions with regard to improving the City's business permitting and licensing process. The memo compiles best practices identified by other states and municipalities that have prioritized improving their permitting and licensing processes. These best practices fall under three broad categories: improving communication both among municipal regulators and between regulators and applicants, streamlining the application and review process, and maximizing information technology and staff resources. The first step toward improving the permitting and licensing processes in Portland is an analysis of the current processes, including mapping the process, analyzing cost-of-service, and assessing staff performance. This analysis will help the City identify areas for improvement or efficiency.

Action: Centralize Information
A wealth of resources and information currently exists in Portland to help establish, grow, and support businesses. However, interviews with TA providers and businesses revealed that information is fragmented and often difficult to find. In order to address this, Portland should undertake a series of both short- and long-term actions to identify and aggregate resources, and create a more customer-friendly experience for businesses seeking resources and information.

One immediate activity includes creating a 311-style hotline staffed by a knowledgeable person, who can answer questions and refer callers to appropriate resources and support organizations. This line should be prominently featured on the City's website, and a maximum time should be enforced for returning calls. Preferably this person would have access to translators or be fluent in one of the languages spoken by Portland's immigrants.

A medium term (6-12 months) recommendation is to revise the "links" section of the City's website so that it has a more transactional focus (e.g., "click here to apply for a permit"), and to include links to business resources beyond the City such as Maine's Small Business Association, CEI, etc. Before the City can create this new page, it will need to undertake a mapping exercise to identify an exhaustive list of support areas (finance, technical assistance, workforce, etc.) and a list of contacts, phone numbers, and websites for every organization that falls within each support area.

Once information and resources have been mapped and displayed on the website, the city should create a "New Business Welcome Kit" and update the "Guide to Doing Business in Portland." Both documents could be sent to every new business that registers with the City.

Action: Evaluate Business Registration Process
A crucial time to gather information and establish positive relationships with new businesses is during the registration process. The Economic Development Division could work with City Hall to revise current forms to ensure that information regarding the size, nature, and needs of new businesses is being collected. The City should also use this as an opportunity to disseminate information on the available resources in Portland, such as the "New Business Welcome Kit" and update the "Guide to Doing Business in Portland."

Lastly, a mechanism should be in place so that the Economic Development Division is notified when new businesses register, so that they can be added to the City's business retention database. Moreover, the registrar's office should be a useful resource in creating a comprehensive list of businesses in Portland to begin the business visitation database. This activity should not require a lot of staff time and could be implemented immediately.

Strategy 3: Increase Business Interaction

Action: Promote and Facilitate Industry Meet-ups and Networking Events
The initial economic analysis of Portland's economy revealed several burgeoning industries including the creative economy, the food sector, and the life sciences sector, in addition to more established industry clusters such as health care and insurance. The City has also recently put forth a significant effort to attract and retain a biotechnology cluster. In order to encourage and support existing and nascent industries, the City could promote and facilitate industry meet-ups and networking events in order to leverage the "knowledge spillovers" that make clusters grow.

One way the City could approach this task without extending a significant amount of staff time or money, is to plug into existing events such as the Chamber of Commerce's networking breakfasts as well as more industry-specific events such as Portland's Buy Local events which are attended by owners of small, locally independent businesses. Lastly, the City could make these events more topical by helping recruit industry representatives to speak about national trends and best practices. This activity could begin immediately and should continue indefinitely.

Life Sciences

SECTION IV

A. Introduction

The City of Portland and its surrounding communities support a specialized and unique infrastructure of core technical and knowledge-generating industries in the life sciences. These industries are interdependent and can be better coordinated to create a viable economic foundation for the Greater Portland region and the State of Maine. The life sciences sector holds the ability to unite ideas, innovations, resources, and capital from many topic areas related to biological systems.

The life sciences sector encompasses a broad subset of Maine's economy, including (but not limited to) health care and biomedicine, biotechnology, pharmaceuticals, medical device manufacturing, and supporting services.

The Portland region boasts an important share of Maine's life sciences activities. With a diversity of these industries, the City and greater region of Portland have a strong opportunity to foster, sustain, and grow a viable life sciences sector. Moreover, life sciences are a means to link Portland and its surrounding region to a key area of future technology development and innovation.

In March 2008, Maine's Office of Innovation identified four potential clusters that demonstrate a high profit potential: medical sciences, crop and soil sciences, forestry and environmental sciences, and marine

technology. Portland is well positioned to capture some of this potential due to its strong health care industry. As stated in the Demographic and Economic Profile, over 30% of jobs in Portland are concentrated in education and health care services. Health care and social assistance industries also contribute the most to payroll in Portland and the metropolitan region. To capture the benefits of Maine's life sciences industry, the City of Portland should pursue a cluster-based development strategy that includes biotechnology and complementary industries and interrelationships with firms and sectors defined as Life Sciences.

What is a cluster?

Industry clusters are geographic concentrations of both competing and collaborating firms, and their related supplier network. They are agglomerations of interrelated industries that foster wealth creation in a region, principally through the sharing of knowledge, human capital, and the export of goods and services beyond the region's immediate boundaries. A cluster-based strategy is dependent upon assumptions about the dynamics of the product innovation chain. The innovation and financial environment of the life sciences industry is nuanced with both risky and stable ventures embedded into numerous production phases.

Phases of life science activities

Life science cluster relationships are closely tied to product cycles and supply chains illustrated in Figure IV-1, rendering much of the industry a complex enterprise. However, industry ties can be broadly understood in two key stages:

1. **Research and discovery.** This stage includes research exploration, assessment of industry needs and technological capacities, and identification of key focus areas. These activities are generally concentrated within a few large biotechnology and pharmaceutical firms, as this stage carries with it the burden of substantial costs associated with securing patents or academic novelty, not to mention the risk that the research may not result in marketable products. Research and discovery is also conducted at universities and research institutes. Bringing an idea into production entails a risky financial process that is explained in the second "Development" phase.
2. **Development.** Once a particular idea has shown therapeutic, diagnostic, or other commercial promise, the idea enters the development phase. This section represents phases two, three, and four in Figure IV-1. These phases are less financially risky and may be less capital intensive (although pharmaceutical manufacturing is very capital intensive), and begin with product prototype development, tests through clinical trials or pilot manufacturing, manufacture in larger quantities, and finally commercialization when the product is brought to the market. These final phases of the product cycle involve not only the company that has developed the product, but also a variety of supporting services. High-tech industries, such as medical device manufacturing, are needed to construct and duplicate a certain product or idea. Commercializing a product—i.e., bringing it to the general public—requires a host of other supporting industries, including information technology, lawyers, physicians, and other knowledge based-activities in order to expand the product from prototype to the market. If the product ultimately shows practical market applications, it eventually is brought into usage locally and/or exported abroad.

Figure IV-1 provides a broad theoretical overview of the activities and connections within the life sciences sector and attempts to illustrate the ways in which industry activity mutually reinforces product development and delivery. As shown in the graphic, "Typically" pursued activities are those that are common activities for those subsectors while "Infrequently" pursued activities are much less commonly undertaken in Portland area firms.

Some areas of life sciences, such as medical devices and pharmaceuticals, are present in all phases of product development, from concept to testing to manufacturing, while others are typically undertaken only in certain phases. The farther down the product development process, the lower the risk to firms and investors. This is important to note because there are less risky opportunities in the testing and commercializing or manufacturing phases that yield the highest potential returns.

Methodology

In order to recommend a set of strategies for the development a life sciences cluster in Portland, data were collected on scope of the city's current life science activities. This was done through interviews with 16 different organizational leaders representing Portland's various life science industries. Internet-based research on existing life science organizations in Portland supplemented the interviews. After an in-depth analysis of life science cluster initiatives pursued in other cities and a meeting with the Massachusetts Life Science Center (MLSC), best practice cluster strategies were identified and adapted to meet the needs of Portland.

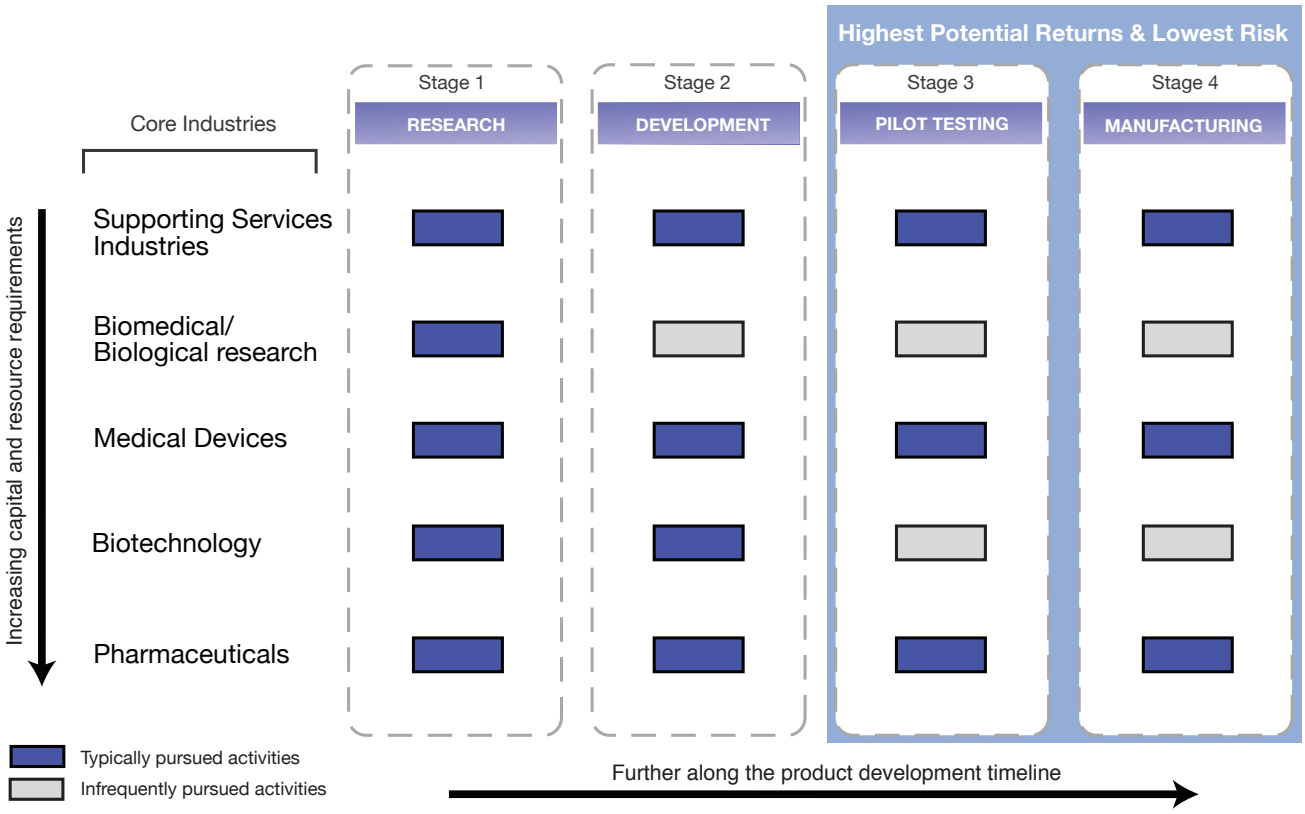
B. Life Sciences Analysis

The Greater Portland area has a number of institutional assets, geographic advantages, and existing partnerships that make it well-positioned to anchor a robust life sciences cluster. Since the life science sector is not incorporated into the North American Industrial Classification System (NAICS) as a single code, the definitional variation of the industry makes the task of grouping tangible assets and connections difficult. To overcome this difficulty, the MLSC offers the best mapping of both core and subsidiary functions of the life sciences sector. The MLSC created a framework based NAICS codes, separating the sector into the following groupings: core industries, high technology industries, knowledge industries, service industries, and supporting industries. As noted earlier, Portland holds sizable components of each category. From the MSLC framework, the core life science industries include biomedicine, biotechnology, pharmaceuticals, medical device manufacturing, and supporting services.

Assets & opportunities

Considering the business and educational landscape in Portland and the region, the city should focus efforts on expanding their existing assets and capitalizing on opportunities provided by its unique assets and strengths.

Figure IV-1
Life Sciences Sector Composition and Activities



Strong educational capacity and partnerships. Successful industry development relies not only on entrepreneurship and infrastructure, but also on the skill sets of the workforce. To that end, the Portland region boasts a unique educational infrastructure, which includes a variety of academic and healthcare programs that support life sciences industries, including:

- University of New England's (UNE) College of Pharmacy, which started its first doctoral program in Fall 2009 and is active in pharmacology research
- UNE's College of Osteopathic Medicine, which includes the Center for Excellence in the Neurosciences and medical research programs.
- University of Southern Maine's (USM) Applied Medical Sciences Program.
- Maine Medical Center, the state's premier referral hospital.

Additionally, the Maine Medical Center has established academic ties outside the Greater Portland area, including with the University of Maine at Orono, University of Vermont Medical School, Dartmouth Medical School, the Jackson Laboratory, and the University of New England College of Osteopathic Medicine. To expand on the medical knowledge base, a new partnership with Tufts University School of Medicine was started in 2008 with a focus on rural and small town health care. The potential for market expansion in this area of medical research and practice is also available through the city's proximity to rural communities for research and services in rural health.

Network of niche research institutions. In addition to educational programming, the Portland region has a network of research institutions, such as the Maine Medical Center Research Institute (MMCRI), the Foundation for Blood Research, several life sciences-related "centers of excellence" at the University of New England (including focuses on neuroscience and marine research), and an existing partnership between the Center for Marine Biodiversity and the University of Southern Maine (USM) that is focused on marine and ecosystem research in the Gulf of Maine.

Although it strongly benefits from a workforce that includes highly educated principal researchers working in organizations with a vibrant intellectual community, the life sciences sector provides employment opportunities for a wide variety of skill and educational levels. The Greater Portland region has an opportunity to address socioeconomic concerns by reaching a broader set of community residents through strong community college programs that train less educated workers for jobs in the Life Sciences cluster. This will require aligning these programs with the workforce needs of firms to strengthen successful job placement and retention among training program graduates.

Existing support for advancing biotechnology. Lastly, the City of Portland is already working to grow the biotechnology industry through developing a biotechnology park and other efforts to grow the sector's capacity. For example, Portland explored a joint application for educational laboratory funding with UNE's College of Pharmacy, although the university was ultimately able to acquire funding from the State. The city's openness to supporting these kinds of initiatives sends an important signal to entrepreneurs and institutions, while successful outcomes do not necessarily require a significant amount of capital on the city's part.

Challenges

Some factors pose challenges to the Portland regions' ability to grow the life sciences cluster successfully. By recognizing these challenges and addressing them with steps towards short- and long-term goals, the City can help strengthen the foundation that already exists for the sector.

Lack of mechanism for collaboration and coordination. Ultimately, Portland's success in capitalizing on these assets depends on effective collaboration among the diverse stakeholders and interests in the life sciences sector and the surrounding community. However, Portland will face some initial challenges in building a more collaborative environment. First, although there is significant capacity in life sciences, there is no structured mechanism for collaboration and few formal connections between businesses and educational institutions. The Maine Office of Innovation has already been engaged in larger conversations about biotechnology in the state, while Portland has focused on fostering a joint strategy at the regional level.

Limited government and private funding for life sciences. Insufficient cooperation can also be attributed to the lack of federal and state funding to support non-research based life science industry development. Second, the culture of Maine has historically been very independent, as opposed to working collaboratively, but if the City and State want to develop life sciences industries, agenda-setting for policy and program development must include multiple stakeholders Portland, its neighboring communities, and the state.

Technical workforce shortage. Finally, coordination among the educational institutions and with employers is needed to ensure that there are no workforce shortages within the health care and life sciences industries due to misaligned educational curricula and job training programs.

C. Recommendations

The City of Portland has an opportunity to recognize and build upon the assets of the Greater Portland region to expand and strengthen its life sciences related industries, but must do so in a strategic and collaborative manner. Given the regional nature of the cluster and its supporting resources and that much of the life sciences industry requires substantial investment from both the federal government and private capital, it is understandably difficult for any city to advance the industry itself without working with a large set of organizations to advance a shared vision. The aforementioned opportunities and challenges inform the following recommendations, based on proven strategies in other cities.

Primary recommendation: Develop the Greater Portland Life Sciences Collaborative to advance a shared vision for the life sciences industry.

The first priority is to pursue the creation of a Greater Portland Life Sciences Collaborative that would be in charge of developing the life sciences cluster. The success of a cluster strategy is dependent upon how knowledge is formed and shared within Portland's industries. The Life Sciences Collaborative will be composed of leaders from public, private, and non-profit organizations that represent the different facets of the Greater Portland area's life sciences industry in order to facilitate dialogue and networking between firms, government, and non-profit institutions. The objective of the Collaborative is to provide a neutral forum to sustain dialogue among life science leaders in academia, business, and government at all levels. Working in partnership with the City, the Collaborative will develop an outreach and implementation strategy that will engage all of Portland's relevant stakeholders and opinion leaders to craft a cohesive vision and mobilize behind a shared agenda.

Leadership & membership

To represent the multifaceted nature of the life science sector, the leadership of the new organization should represent, at a minimum, educational institutions, industry businesses, research organizations, investors, and law and finance firms from the Portland region. A broad range of influential leaders who are committed to advancing the cluster initiative in the Portland area and who recognize the importance of a cross-sector collaborative approach is critical to growing the life sciences in an innovative and cost-efficient manner. One example of a potential organizational structure is to have a Leadership Council composed of the region's top educational, research, medical, business, and government institutions and have a larger Collaborative membership drawing from interested organizations or individuals. Both leadership and membership would include:

- Government/Organizations, such as the City of Portland Economic Development Division, Maine Technology Institute, Maine Jobs Council, Greater Portland Council of Governments, the Biotechnology Association of Maine, and other local cities (Westbrook, Scarborough, etc.).
- Educational institutions and programs, including USM, UNE, Southern Maine Community College, Portland Arts and Technology High School, and other vocational training programs.
- Research and medical institutions, including Maine Medical Center, Maine Medical Center Research Institute, Foundation for Blood Research, and Gulf of Maine Research Institute.
- Industry businesses, such as Idexx, Immucell, Inverness, as well as small industry businesses.

- Venture capital firms and investors, such as CEI Ventures.

- Supporting services firms, including legal/ intellectual property, information technology, and financial organizations.

Objectives

Once Portland has established an organizing entity that has the expertise and authority to push forward a life sciences cluster initiative, the Collaborative should focus on the following three objectives:

1. Create and promote an entrepreneurial environment for life science enterprises.
2. Expand on Portland's existing assets and strengths in life sciences.
3. Increase workforce capacity to supplied skilled workers for core and emerging life science occupations.

As Figure IV-2 shows, the Life Sciences Collaborative will be the central organization in charge of moving the life sciences sector in the region forward. Its three core objectives are mutually beneficial and, when taken together, are critical to creating the right environment to catalyze the development of new life sciences-related products, increase chances of successful product commercialization, and generating a thriving live sciences cluster in the Portland region. These objectives are described in more detail in the following pages.

From a broader perspective, the Collaborative will ideally serve as a unified voice for the Portland region's life sciences sector. Ultimately, it will be a valuable resource for emerging and established life sciences businesses to find sources of funding for research, as well as commercialization of new technologies. Having a set of organized life sciences leaders will facilitate building relationships among industry professionals, academic researchers, and potential investors.

Additionally, the Collaborative should be in charge of convening local industry meetings and will participate in regional conferences relevant to the life sciences industry. Regulation of drug development and intellectual property rights makes legal issues very important for professionals in this sector. The Collaborative should advocate for key regulatory policies that benefit the life sciences on a local, regional, and national level. Through its work, the Collaborative will increase the visibility of the region's life sciences assets and create the appropriate environment for Greater Portland to expand research directions, open new funding avenues, and increase commercialization of technologies.

The following sections detail a range of activities that the Life Sciences Collaborative could spearhead based on the assets, needs, and opportunities revealed by interviews and research on what other cities, regions and states are doing. One of the first steps for the Life Sciences Collaborative after its formation is to review these objectives and develop priorities for implementation.

Case Study:

Massachusetts Life Sciences Collaborative

The Massachusetts Life Science Collaborative (MLSC) is composed of life science leaders from local higher education institutions, government agencies, and life science companies and organizations. MLSC's goals are to develop a comprehensive strategy and vision for the life science cluster and to collectively work towards expanding and strengthening the cluster.

Their current strategic priorities include increasing federal funding for research, further developing the local human capital pool, increasing and enhancing clinical trials, and exploring opportunities for bio-manufacturing in Massachusetts.

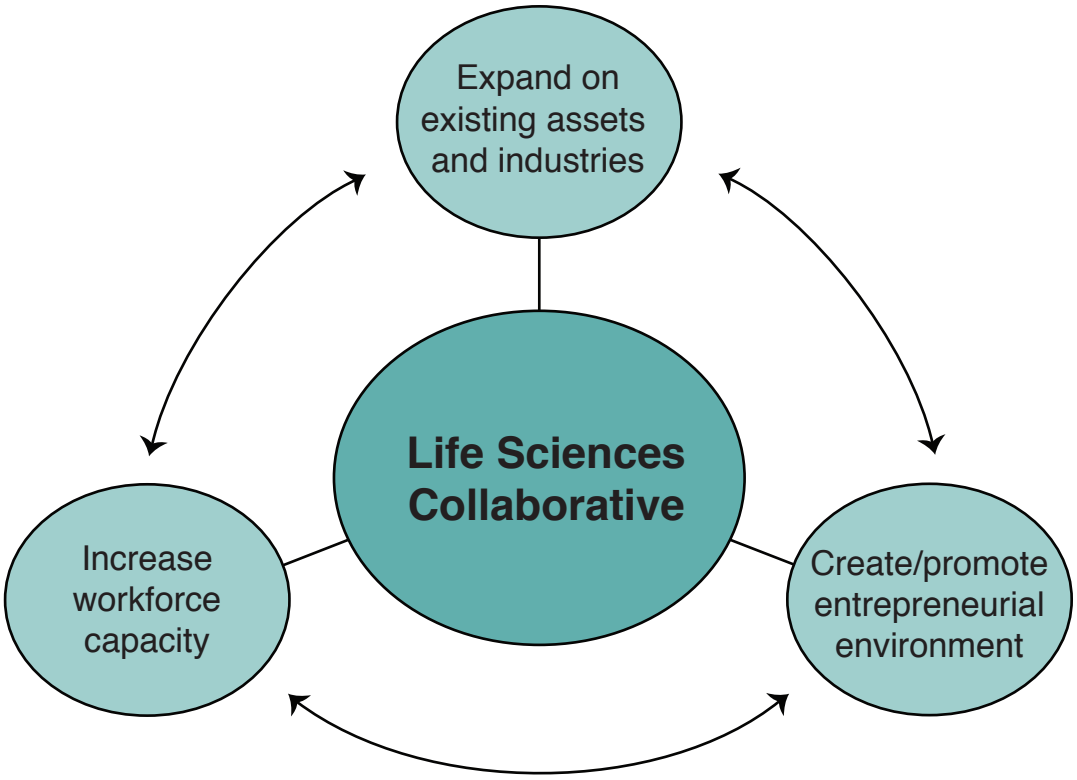
The collaborative has been successful in advising the governor on how public funds can be leveraged to foster an environment conducive to life sciences, collecting input from life science business leaders through surveys, and producing reports on the current life science environment and opportunities for growth. To learn more about the MLSC's accomplishments and goals, visit www.masslsc.org.

Objective 1: Create and promote an entrepreneurial and supportive environment for life sciences.

The key to successful cluster development is the presence of an entrepreneurial and collaborative environment that encourages knowledge and resource sharing, and supports the creation of "home grown" life sciences businesses. Cultivating this entrepreneurial spirit in Portland's academic and corporate settings will foster research innovation and spur formal and informal means of information exchange. Additionally, framing Portland's assets and success stories related to the life sciences industry will change perceptions about Maine as just a state of "lighthouses and lobsters" and put Portland on the map for cutting-edge research and technology. The following recommendations are designed to promote and support life science activities:

Create a specialized life sciences business incubator that reduces the barriers to entry for emerging businesses. Startup businesses in the life sciences and biotechnology areas are in need of assistance in the areas of physical space, business management, and funding. A specialized business incubator can be a valuable resource for emerging life science businesses by providing shared low-cost office/laboratory space and equipment, reducing administrative and purchasing costs through consolidated purchasing, fostering informal and informal knowledge spillovers and collaborations, and cultivating business ideas by providing the infrastructure and support network to make business possible.

Figure IV-2
Life Sciences Collaborative Objectives



Anecdotal evidence from interviews show that some startups have informally leased laboratory space in Portland businesses or organizations and others moved out of the state when there was a need for more laboratory space, knowledge spillovers, and capital resources. In addition, tapping into the resources and research strengths of the Maine Medical Center Research Institute, UNE College of Pharmacy, and USM's Wise Toxicology Lab will add knowledge capacity to the Life Sciences business incubator. The incubator can explore ways to make educational programs, seminars, laboratory space, and equipment at these institutions more accessible to interested businesses.

A reputable life sciences business incubator that is connected to key players in the industry will nurture and keep homegrown life sciences businesses in Maine and encourage more life science activity in the Portland area. The Maine Center for Enterprise Development currently runs a technology-oriented business incubator in Portland that is supported in part by Maine Technology Institute grants and state funds. The incubator has successfully grown a variety of companies, including some life sciences and biotechnology businesses through its Applied Entrepreneurship Program, or "Top Gun," mentoring program that identifies talented entrepreneurs in Maine and matches them with mentors who will guide them as they continue to develop their innovative business and help them improve the odds of successfully raising capital.

The City or the Life Sciences Collaborative should evaluate this program as a potential partner or look into expanding the current Enterprise Development incubator program to have a specialized life science focus. The Life Sciences Collaborative could potentially manage and oversee the operations of the business incubator itself or find an appropriate partner to run it.

Develop a marketing campaign to attract investment, both domestically and internationally. Marketing is a form of recognizing successful companies and encouraging pride and awareness of the Portland area's strengths in the life sciences industry. It is also a way to position the Portland region as a viable and practical place to locate companies that are interested in research, product development, or commercialization. Because of Portland's proximity to Boston, which has a vibrant life sciences cluster, any marketing campaign needs to highlight the reasons why a company should locate or stay in Portland by emphasizing its many assets and by showcasing the most compelling success stories in financial and quality of life terms.

An approach could also address the workforce shortage in which highly educated and experienced technical professionals—whether or not they are from

Case Study:
NYC ACRE

New York City Accelerator for a Clean and Renewable Economy (NYC ACRE) is an incubator for clean technology and renewable energy startup companies that are helping to transition New York City to a low-carbon future. NYC ACRE is a cleantech/renewable energy initiative of NYU-Poly and partners with the New York City Economic Development Corporation, New York State Energy and Research Development Authority, New York City Investment Fund, Pratt Institute, and Columbia University.

The initiative is seeded by a four year, $1.5M grant from NYSERDA aimed at growing an ecosystem of entrepreneurs, international companies, and innovative local businesses that provide solutions to climate and energy issues while growing the cleantech/renewable energy sector and creating jobs in NYC. Physical tenants are provided with permanent office space where the open floor plan nurtures innovation through the continuous exchange of ideas between entrepreneurs. Virtual tenants do not have physical office space but benefit from the same level of assistance as physical tenants with access to conference room facilities.

Other services include commercialization resources, access to support services such as legal, marketing, and business plan assistance, mentorship with a network of professionals, and access to "wet labs" and advanced research facilities at partner universities. The incubator currently has five physical tenants and three virtual tenants, and works closely with the New York venture community to help tenants access growth capital. For more information, visit www.nycacre.com.

Maine—find it difficult to stay in or move to Maine. Marketing the opportunities and reasons why people decided to work in the Portland area will reduce the barriers of perception associated with this workforce issue.

Portland and its surrounding communities should expand current marketing efforts to target a broad set of life sciences industries and to use a more diverse set of marketing tools. Using primarily video and the internet, a cost-effective and visually compelling marketing campaign should emphasize Portland's current assets and the potential for emerging and established companies to grow in the region. This will involve highlighting the current financial success of companies and the cutting edge technologies that are being developed in Portland. For example, the MaineBiz news source published an article on April 19, 2010 about the product export success of life sciences companies in Portland and the rest of the state to companies in Asia and Europe.

This story can be told to a larger audience that showcases the global success of local companies. Through a marketing campaign, it is also important to highlight not just companies, but a range of professionals, students, and higher educational institutions that are dedicated to the life sciences. Lastly, Portland's high quality of life will play a crucial role in attracting companies and individuals from outside of Maine and should thus be a central feature of the marketing campaign, including testimonials from existing entrepreneurs, scientists, and workers.

Provide business support services to grow existing companies. One of Greater Portland's biggest assets is its wealth of life sciences companies that span the fields of animal and veterinary science, pharmaceuticals, immunodiagnostics, and medical devices and technology. Part of the focus for Portland and the Life Sciences Collaborative should be to grow and support existing businesses by providing essential business support services and identifying funding sources. They should recognize and nurture businesses that show potential or are already successful, especially those in the export market, by utilizing a marketing campaign as mentioned previously, and by providing opportunities to learn about business management, marketing products, tapping into global markets, and mentorship, among other topics.

These services could be provided through the life sciences business incubator program since business leaders, whether they are new or existing, need to constantly learn about new methods and practices to adapt to changing business environments. In addition, the City and the Collaborative should play a role in identifying and addressing areas of concern for existing businesses that pose as challenges to growth or success.

Such challenges for businesses may include tapping into a global market, securing laboratory space and equipment, and addressing workforce capacity needs in an efficient manner. Identifying these areas could be tied into the business visitation program, described in the Business Retention recommendations.

Identify new avenues of funding for R&D and commercialization. The City and Collaborative should work together to develop new public and private funding mechanisms for research and development (R&D), especially for educational research institutions, startups, and early-stage businesses that are often

Case Study:
Select Greater Philadelphia

Select Greater Philadelphia is an economic development marketing organization dedicated to promoting business, and in particular, supporting life sciences activity in the region. The Greater Philadelphia region was ranked third in the nation for biosciences by a Milken Institute study in 2009 and ranks second nationally in its number of life sciences workers. A promotional video geared towards company decision makers highlights the region's assets and advantages for life sciences companies, and features video testimonials from top CEOs telling compelling success stories about why they chose to start or locate a company, work, or live in the Greater Philadelphia region.

As an organization, Select offers a one-stop connection to numerous resources that help companies make informed decisions about locating in Greater Philadelphia, including information on workforce and occupations, academic activity, funding, and market data. For more information and to view marketing media, visit www.selectgreaterphiladelphia.com.

the source of the greatest innovations. According to the National Science Foundation, universities in Maine generally underfund R&D compared to other states, and Maine's private sector has a lower share of funding when compared to New England and the U.S. In fact, for all R&D expenditures by colleges and universities in 2008, Maine ranks in the bottom six in the nation, while its life sciences R&D expenditures rank in the bottom four, spending more than only Wyoming, Delaware, and Alaska. There is an opportunity for the Collaborative to work with public and private entities on a local, state, and national level to secure funding. Currently, sources of R&D funding include grants from the Maine Technology Institute, low-interest loans, tax credit, and tax exempt bond programs from the Finance Authority of Maine, grants from science foundations, venture capital, and private investors.

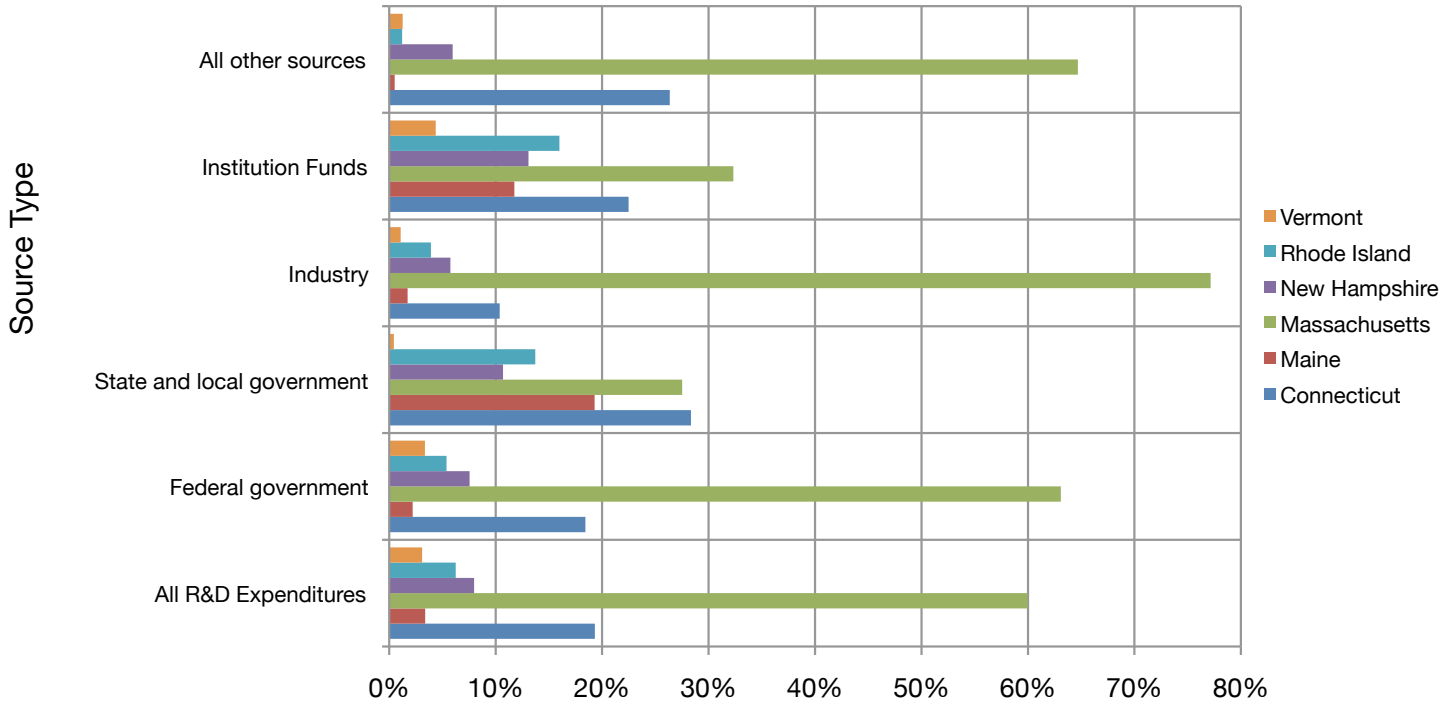
As shown in Figure IV-3, university R&D funds from private industry have been relatively low in Maine compared to other New England states. This suggests that there is an opportunity to tap into private funds as potential new avenues of funding for R&D and commercialization.

Figure IV-4 shows that Maine spends the lowest percentage of R&D funds on the life sciences compared to other New England states. Maine may want to dedicate more of its R&D funds to research in the life sciences.

Strengthen relationships between educational institutions and private companies. To create a self-sustaining network of life sciences organizations, the Collaborative should promote formal and informal interactions between Portland's major educational and research institutions and private companies. It is common for research arms of universities to drive innovation in the bioscience and technology arenas. Portland's educational institutions, including the UNE College of Pharmacy, USM, Southern Maine Community College and area vocational and high schools, can benefit from stronger interactions and collaborations with each other as well as with local companies.

Research experts from educational and private companies can form research teams and encourage the commercialization of innovations within the academic sector. Together, these organizations can identify, promote, and facilitate methods of

Figure IV-3
Sources of R&D Expenditures in New England Universities and Colleges, 2008



Source: National Science Foundation, Academic Fiscal Year Expenditures, FY2008, Table 17

commercialization within the academic setting as well as expose young talent to the life sciences field. For example, product competitions sponsored by educational and private organizations can educate students on what is necessary for commercialization and serve as a tool for the Collaborative to identify new talent and new ideas.

Courses taught by industry professionals and internship programs between local institutions and companies can teach business management, laboratory, research, and technical skills to budding scientific entrepreneurs. Exposure to these skills and entrepreneurship can shape Portland's future life science leaders and innovators.

Explore the possibility of attracting life sciences and biotechnology firms that complement Maine's strengths. There is a need for a critical mass of stable and high wage jobs. Attracting a number of medium sized firms will allow for easier recruitment, as the challenges of taking a job in Maine is that if one job does not work out, there is an insufficient number and variety of other job opportunities available.

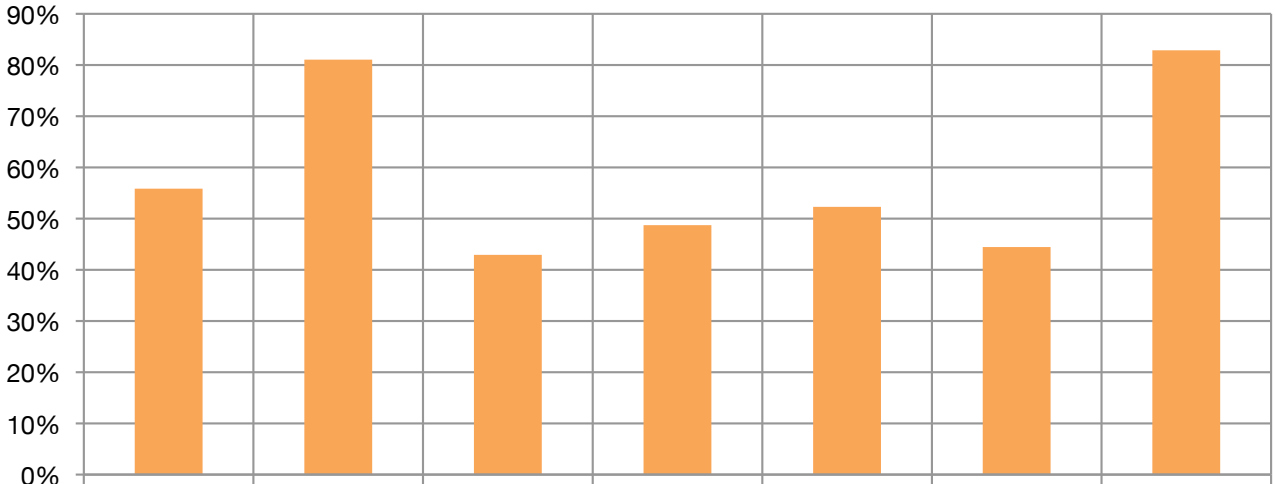
In addition, when recruiting for leadership positions in companies, a common deterrent has been the inability of spouses to find satisfactory jobs within the region. For this reasons, increasing the number of life sciences firms and jobs will contribute greatly to the future of the sector. Taking into consideration the City's work to plan a biotechnology park, one possibility is to look into a life sciences business park that includes a business incubator as well as related companies from sectors that are already strong, for example, immunodiagnostics, healthcare provision, marine science, drug discovery, and biomedical testing.

Pharmaceutical or supportive companies that will benefit from locating near UNE's growing College of Pharmacy could also be located in the life sciences park. The emphasis for any long-term business attraction strategy should be to identify companies that will gain from the area's unique set of educational, research, and workforce assets.

Objective 2: Expand on existing assets and industries: healthcare, supportive services for life sciences, and manufacturing

Grow clinical trials industry. Several stakeholder interviews revealed that there may be an opportunity to expand clinical and medical device trials in the region. Maine is currently involved in 944 clinical trials, and in comparison to the rest of the nation, Maine has the fourth lowest clinical trial involvement (after Alaska, South Dakota, and Wyoming). Despite this,

Figure IV-4
New England University and Colleges R&D Expenditures in Life Sciences



	New England	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
Life sciences	56%	81%	43%	49%	52%	44%	83%

Source: National Science Foundation, Academic Fiscal Year Expenditures, FY2008, Table 18

Portland has the infrastructure and knowledge base to expand the number of clinical and medical device trials taking place. Additionally, Maine also has the 13 highest physician-to-patient ratio in the county. This suggests that there is the potential for more doctors to pursue clinical trial research in Maine.

In Portland, there are already doctors and institutions engaged in clinical research, with Maine Medical Research Institute spearheading this effort. Positioning the City as an opportune site for clinical trial and research will require a coordinated effort between the City, state, and local medical and educational institutions. The Collaborative should consider the following points as it evaluates growing clinical trial activity in Portland:

- Support the development of a clinical trial workforce by investing in training programs for lab assistants and offering a tax break to professionals engaged in clinical research.
- Collaborate with organizations in Portland currently engaged in clinical research to expand infrastructure and facilities and foster the sharing of resources among facilities.
- Identify a larger pool of patients interested in participating in clinical trials by creating a website that connects patients to local trials and launching a campaign to promote clinical trials in Maine.
- Explore other opportunities for engagement in Phase I clinical trials. Maine is primarily engaged in Phase II and Phase III drug trials, which each represent about 40% of Maine's clinical research trials.

Strengthen rural health care capacity. Portland may be able to position itself as a "center of expertise" in rural health care provision. This would make Portland a center for research on rural health and effective health care practices, the development of innovation approaches for rural health care and medical practice, and a training center for rural health care practitioners. Rural health care is a growing focus of research, particularly as rural hospitals face greater pressure due to the current economic situation and a decline in government payments.

Recent health care reform also has an incentive to reduce health care costs by improving prevention and the cost efficiency of the treatment delivered. Since 1992, the Maine Rural Health Research Center at the USM has been the main facility focusing on these issues in the state. Positioning the City of Portland as a rural health care center of expertise will also require a joint effort between the federal government, the City, the state, and local medical and educational institutions. Some potential focus areas include:

- Rural health system monitoring.
- Integration of rural health care research into larger research agendas.
- Provision of innovative services to vulnerable rural communities.
- Use of new information and communication technologies to improve rural health care.

Explore marine research and applications. Marine research and applications offer promising opportunities for the life science sector in Portland. Some partnerships between institutions, such as USM and the Center for Marine Biodiversity, already exist, and a variety of firms and research centers have been established, including the Gulf of Maine Research Institute and the Marine Science Center at UNE. In fact, the nation's largest repository of marine cell lines is located at USM.

As concern for the environment is growing, the Portland region could grow its existing network of marine-oriented industries and research centers. Possible areas for the Collaborative to explore include:

- Reinforce partnerships between research centers, firms, and universities to enable more collaboration within the professional and educational sectors.
- Further develop research capabilities on toxic metals and chemicals in the ocean, expanding on the type of work being pursued by the Wise Laboratory of Environmental and Genetic Toxicology at USM.
- Boost the commercialization of marine research and development activity by encouraging innovation in the area of marine performance evaluation and simulation.

Objective 3: Increase workforce development capacity linkages.

Investment in Portland's human capital is equally important to the development of the life sciences sector as increasing collaboration, creating an entrepreneurial environment, and making sure the region's capabilities are well known. The region must be able to provide the kind of skilled workforce that the life sciences sector requires. The life sciences generate employment at a variety of education and skill levels, from lab technicians to principal investigators. Capacity can be improved by expanding access to educational opportunities in the region and better coordinating educational programs with industry needs. Specifically, the collaborative should work to:

Increase capacity of community colleges and vocational schools. Interviews revealed that the local educational institutions have high quality programs that produce skilled workers for the life sciences sector, but are operating at maximum capacity. By increasing the capacity of local education programs, such as the health sciences program at the Portland Arts and Technology High School and the multiple life sciences related programs at Southern Maine Community College, the region will be better able to provide workers with the skills needed by life sciences companies and entrepreneurs.

Coordinate training and degree programs with workforce needs. Despite the reportedly high quality of programs that exist in the region, there is a need to create a dialogue between educational institutions and the life sciences sector to ensure that the curriculum offered is aligned with business needs. Programs are needed at multiple levels (including associate degree, baccalaureate, graduate-level, and non-degree) to serve the full range of the sector. It is also important for workers to be able to access continuing education while working so they can enter or climb career ladders.

Furthermore, to support these programs, the Collaborative could assist in creating formal exchange programs (internships or clinical and laboratory experience) for students enrolled in local educational programs. A variety of educational programs in Greater Portland with clinical experience components—such as the nursing programs at USM and UNE—already partner with local medical offices and hospitals, and this type of program could be expanded to provide laboratory experience in other types of programs. For example, medical technician programs could partner with clinical trials programs for internship and job pipeline priority.

Coordinate programs and services offered at education and research institutions. To use resources most effectively, educational and research institutions in the Greater Portland area should work together to coordinate the training and degree programs they offer to prevent duplicate programs and ensure that they can provide a full complement of the programs needed by life sciences industries.

For example, USM and UNE should coordinate their programs. Key institutions, including USM and the Maine Medical Center Research Institute, are already engaged in informal equipment and lab services sharing as a strategy for reducing the substantial capital costs these present. The addition of lab bench space and equipment at the UNE's College of Pharmacy will help fill key gaps in analytic capabilities for the sector.

D. Implementation

The primary action for the City of Portland is to initiate the planning process for the Life Sciences Collaborative. The City has the opportunity to bring together stakeholders from the diverse industries that are part of, or are linked to, the life sciences sector. Once this initial step is completed, the Collaborative should undertake the remaining cluster development tasks detailed earlier in the Recommendations section.

Specific implementation steps include:

- **Identify "planning team" to pursue funding for planning the collaborative organization.** The City should work with active members of the life sciences community to begin the planning process, the first step of which is to marshal funds to support the Collaborative's mission. One potential local source of funds is the Maine Technology Institute's (MTI) Cluster Initiative Program, which offers $50,000 cluster planning awards on a rolling basis, as well as separate awards for up to $500,000 for improving or adding infrastructure, facilities, and networks within the cluster.

- **Carefully evaluate the State of Maine's role in the Collaborative.** As part of identifying stakeholder participants, the Collaborative must evaluate the role that statewide agencies and organizations should play in its activities. The Collaborative will be well served by joining the larger statewide discussion of life sciences and technology development, both in order to understand its role within a larger framework, as well as to help focus the conversation on the region's existing and growing assets and capabilities.

- **Establish leadership, staffing mechanisms, and identify potential stakeholders from a wide variety of organizations.** The planning team must identify participant organizations and stakeholders; once it has done this, it can devise a leadership structure, as well as identify staffing and funding mechanisms. The Recommendations section enumerates some of the wide variety of stakeholders who could provide valuable input in the creation and operation of the life sciences collaborative.

- **Create subcommittees ("strategic working groups") to further develop the Collaborative's initiatives and activities.** To help give structure to the organization's activities, several subcommittees should be created to pursue the initiatives proposed in the Recommendations section. One subcommittee could be formed to work on each of the three main strategy areas detailed above.

- **Pursue "early action" initiatives, described below, to get the ball rolling.**

Next Steps for the Life Sciences Collaborative

After the Collaborative has been created and has secured a funding stream, there are a wide variety of tasks that must be undertaken to create a supportive environment for the life sciences sector. These next steps can be organized into two groups:

1. Strategic working groups

The Collaborative could form three subcommittees to lead efforts in the three main strategy recommendations:

- *Entrepreneurial Environment*: Create and promote an entrepreneurial environment for life sciences in both the public and private sector, including the creation of a business incubator, a marketing program, and fostering interaction both within the business community and between institutions.

- *Expanding Assets*: Expand on existing assets and industries by focusing on health care, supportive services, and manufacturing. The group should evaluate the feasibility and value of pursuing areas such as clinical trials, rural health capacity, and marine research and applications.

- *Workforce Capacity*: Increase workforce capacity by strengthening connections between business and educational communities and coordinating educational programs to maximize offerings targeted at industry workforce needs.

2. Next Steps

Although all of the recommended strategies would provide important benefits for the sector, some of these can be prioritized. There are three relatively discrete, achievable goals that the Collaborative could begin work on immediately and that it would benefit from having completed (or considered) as it pursues the remaining recommendations. Individual strategic working groups would undertake the initiatives below as they pertain to the group's goals:

- *Marketing campaign to attract investment.* Portland must make its newly developed capacity in the life sciences known beyond Maine's borders to attract new entrepreneurs, businesses, workers, and venture capital funding.

- *Life sciences business incubator.* The capacity for basic and clinical life sciences research, including the necessary equipment and facilities, is growing, but laboratory space is still needed in Greater Portland.

- *Coordinate educational programs with workforce needs.* This task will be a significant undertaking but is an extremely important piece of creating a strong life sciences cluster. The Workforce Capacity strategic working group should begin identifying possibilities for collaboration immediately, including formal information exchange programs, as it will take time for any changes to educational offerings to influence the supply of skilled workers.

Food Sector

SECTION V

A. Introduction

The food sector is an important part of Portland's economy and character. Bon Appetit's 2009 recognition of Portland as the "Foodiest Small Town in America" confirmed what residents have long known – that the city's food products, food entrepreneurs, and food culture are unique in the nation.

The Phase 1 qualitative and quantitative analysis revealed the sector's many assets, including its diversity, energy, and ability to foster relationships. At the same time, the analysis suggested areas for improvement. Based on these preliminary findings, follow-up interviews, and input from a focus group, the multi-phase strategy outlined below will strengthen Portland's food sector by addressing gaps and by building on existing assets.

Primary goals of the proposed economic development strategy around the food sector are:

- Supporting and encouraging food-related businesses.
- Creating and sustaining high quality jobs in the food sector.
- Providing income and revenue for Portland workers and businesses.
- Use of new information and communication technologies to improve rural health care.

The food economy also contributes to quality of life in Portland. Related goals include:

- Increasing the availability of fresh, healthy food for all city residents
- Connecting residents by providing opportunities for food and beverage related social gatherings
- Supporting and complementing related economic drivers in the city such as tourism and arts and recreation
- Supporting sustainable food systems in the broader region and state

B. Food Sector Analysis

An understanding of Portland's food sector provides crucial knowledge to inform economic development initiatives. The nature of the sector, including current assets and gaps, forms the basis of our recommendations. The following are key findings related to Portland's food sector:

Food is an important source of jobs and revenue. The food sector plays a significant and visible role in Portland's economy. The sector includes food manufacturing, wholesale, restaurants, retail, and fishing. These food-related industries provide a significant source of employment: 7,781 jobs, or 11% of all jobs in Portland in 2008. Food and beverage manufacturing businesses provide over half of all manufacturing jobs in Portland. These percentages have been stable since 2001.

Food is an important aspect of Portland culture. In addition to serving as an economic driver, the food sector is integral to Portland's character. The City prides itself on its fresh seafood and excellent eateries, bakeries, and breweries. Many Portland residents are engaged in the local "food scene" and are excited about the role of food in Portland. In addition, food-related events such as the Harvest on the Harbor attract visitors from out of town and out of state.

Findings suggest that there is room for growth in Portland's food sector. Various sub-sectors of Portland's food economy have experienced growth in the period from 2001 to 2008. Seafood preparation and packaging, breweries, and full-service restaurants are notable examples, with increases in the number of jobs from 120 to 220, from 60 to 98, and from 2,161 to 2,421, respectively. In addition, despite Portland's reputation as a "foodie" city, its ratio of restaurant-related jobs to total jobs is actually below the national average, suggesting that there may be further opportunities for the creation of new food and drinking establishments.

Shared interest in food has stimulated the creation of numerous groups and organizations. Businesses and residents with a passion for food have connected with like-minded people, and there has been an explosion of groups working on food-related issues in the Portland area. In addition, businesses in Portland have connections with statewide associations including the Maine Restaurant Association, the Maine Grocer's Association, the Maine Lobstermen Association, the Maine Organic Farmers and Gardeners Association, and most recently the Maine Food Producers Alliance.

However, food-related organizations are not coordinating their efforts. The many food-related organizations are not necessarily working in tandem, despite often overlapping goals. Moreover, their lack of communication often means that they are not even aware of the parallel projects and initiatives within the city. One focus group participant described an "identity crisis" as his organization's goals and activities are now shared by an array of similar organizations.

There is a large and growing consumer interest in local food. In cities across the nation, consumers are showing a growing interest in eating local food and supporting local businesses for social, economic, and environmental reasons. Portland is certainly no exception to this trend. Portland has a history of family-owned business, and the Portland Buy Local initiative now helps customers identify local businesses.

Businesses are seeking reliable local supply chains. Large and small businesses alike report actively seeking reliable local sources of food for their manufacturing, retail, and restaurant operations. The use of local supply chains not only reduces transportation costs; it also guarantees the quality and freshness of food and provides valuable marketing opportunities for businesses. Restaurants actively promote their use of local fare, and some retailers are interested in the benefits of sourcing locally, even if it

might decrease profit margins.

However, fragmentation in distribution systems is a barrier to the use of local supply chains. Many businesses that are interested in local supply chains have struggled in their efforts to secure reliable local food sources because of the lack of adequate distribution systems. For example, focus group participants describe the pattern of transporting Portland fish to Boston for auction, and then trucking it back to Portland for sale. Farmers, wholesalers, and large manufacturers also discuss the "challenge of aggregation;" large purchasers require the products of dozens of small farms in order to fill their orders but there is currently no system for connecting these many individual suppliers to buyers.

Fish and value-added food products lack venues for sale to customers. Bakers, fishermen, and value-added manufacturers lack venues for direct sale of their products to customers. The Public Market House and its outdoor tables host a few local food businesses, but regulations prevent the widespread sale of these products at farmer's markets. Value-added manufacturers discuss a shortage of dedicated distributors to market their products to local retailers; they currently rely on door-to-door "hustling" to get their products featured in restaurants. Fishing businesses are reportedly unable to sell fish to the public from trucks or from farmer's market tables.

Many businesses report challenges in navigating city administrative processes. Businesses describe city administrative processes as a barrier to starting and growing food-related businesses in Portland. Delays in licensing have threatened the survival of businesses in the startup phase when time is a critical factor. Businesses have struggled to gain timely access to permits for expansion. Other businesses have raised zoning and taxation as concerns with respect to relationships between businesses and the city. We do not take this issue up in depth; the Business Retention strategy addresses promotion of business-friendly processes in Portland.

C. Recommendations

Our proposed food sector strategy builds on Portland's many existing assets in the food sector and addresses the gaps identified through our analysis. The strategy is comprised of three main recommendations:

- Create a collaborative, cross-cutting Portland food organization
- Strengthen distribution systems in the local supply chain
- Capitalize on ties to other industries and programs.

Create a Collaborative Food Organization

A collaborative organization that cuts across fishing, farming, distributors, manufacturers, restaurants, and retail centers could spur innovative business ideas and new market opportunities. This association, formal or informal, could build relationships and harness the excitement about food to strengthen the food sector in Portland. A collaborative organization provides the opportunity for diverse food-related businesses and organizations to develop a shared vision and collective set of priorities for the city's food sector.

This group could work together to improve efficiency of business operations, organize distribution and warehousing mechanisms, oversee marketing and events, create new market opportunities, or spearhead other programs, depending on interest and priorities. It would enhance communication between food businesses and city government regarding both opportunities and matters of concern.

Many business relationships in the regional food economy are based on historical ties, and a crosscutting organization could provide additional mutually beneficial relationships by bringing together actors from manufacturing, wholesale, restaurants, retail, and fishing. A collaborative could include local organizations whose work revolves around schools, organic cultivation practices, food appreciation, and food education to incorporate specific social benefits in food sector strategies.

In addition, a collaborative food sector organization could engage Portland's immigrant business owners, provide a forum for their new ideas, and enable new valuable connections to form. Finally, a collaborative could also include representatives of regional and statewide groups and industry associations for planning at broader geographic scales. The geographic scope of the group's work may vary based on the projects of greatest initial interest. The availability of resources may also vary according to scope.

Many cities in the United States and Canada have such groups that work on a combination of economic development, community health, sustainability, education, and accessibility initiatives. By aligning efforts, businesses and non-profits in Portland that currently work independently can expand their capacities and innovate more effectively.

Portland's food sector collaborative could take many formats. Depending on interest, capacity, and need, the collaborative could incorporate as a formal organization, act as an advisory group, or work as an informal network. There are several options for the role of the City in the collaborative. In the case of Toronto, the organization is housed within city government, which provides funding for their activities.

However, given the City's resource constraints and the current energy from food-related non-profits and businesses, the City of Portland may want to convene the organization and maintain an economic development presence in its membership, but not administer or fund the group's activities. Alternatively, the City may prefer to take a less active role, simply providing space or other basic resources. Decisions about the organizational structure should be made by a representative group of stakeholders. Details regarding convening a collaborative organization will be further outlined in the "Implementation" section below.

Strengthen Local Supply

Improved distribution mechanisms will strengthen local food supply chains by creating new buyer/supplier relationships, expanding local food consumption, and increasing efficiency. Large and small Portland businesses have expressed enthusiasm for selling local products, but many have found some barriers to utilizing local supply chains. Several stakeholders believe that it is possible to meet the demand for local food products, but that the logistics of creating new supply chain relationships and meeting the demands of scale present barriers.

Many farms and fisheries are not systematically connected to restaurants and retail outlets. In addition, food and beverage wholesale businesses have declined during the past decade. Between 2001 and 2008, twelve such establishments closed in the metropolitan area, and 313 jobs were lost. There are no Portland-based trucking companies for the beverage sector, and the number of Portland-based food transportation firms is unknown. Improving distribution capacity will provide crucial links between local suppliers and buyers. It will also spur new businesses and create new jobs. The following options for distribution mechanisms may be considered individually or in conjunction with one another.

Case Study:
Toronto Food Policy Council

The Toronto Food Policy Council (TFPC) provides an outstanding example of a collaborative food sector organization and some of the economic development outcomes it can provide. Members of TFPC include City Council members and volunteer representatives from consumer, business, farm, labor, multicultural, anti-hunger advocacy, faith, and community development groups.

The TFPC partners with business and community groups to develop policies and programs that promote food security and build economic opportunity in the sector. For example, the group worked with provincial and local government and business and community groups on a proposed food-processing center in Toronto that will retain manufacturing jobs and advance sustainable food processing practices. In addition, TFPC promoted farmers' markets in collaboration with local business improvement associations. TFPC's accomplishments demonstrate the co-benefits of building relationships across different interests and parts of the food economy. For more information, visit http://www.toronto.ca/health/tfpc_index.htm

A Wholesale Market. Wholesale markets provide a centralized location for packaging, warehousing, selling, and buying food products for local markets and export. A market would provide a physical space to channel large quantities of food products through the local supply chain, from regional growers and producers to distributors, and from distributors to manufacturers, retail, restaurants and institutional purchasers.

Focus group participants expressed interest in developing and using a wholesale facility in Portland. A full feasibility study could assess not only the need for a wholesale market, but the different possible options regarding its size, location, and operation. The study could also explore alternative possibilities for improving distribution. It is important to closely involve prospective users of a distribution system in its research and design.

Online Database of Local Buyers and Sellers. Other types of distribution systems would require less investment. For example, an online, database-driven tool can facilitate distribution of local foods to local buyers. An easy-to-use interface would provide information for interested buyers on available options for suppliers and distributors of local food. For example, the City and County of San Francisco have teamed with FarmsReach and Om Organics, a local non-profit organization, to a bring searchable databases of sources for sustainable, healthy food to business and institutional purchasers as well as individual consumers. Such a tool could be tailored to overcome the challenges of fulfilling the needs of large purchasers with many small producers.

Maine currently has an online "bulletin board" exchange, "Maine Food Trader," in which individuals post food items wanted or for sale. Crown O'Maine Organic Cooperative is another statewide effort to distributes locally grown produce to buying clubs and retailers. An expansion of this and other similar strategies, in collaboration with potential users, could facilitate connections in local supply chains.

New Retail Opportunities. Although farmers markets are currently important venues for individual customers to purchase locally grown food, the markets in Portland are mainly limited to produce vendors. An exploration of the feasibility of new retail venues for fisheries, value-added food, and beverages may benefit new and existing businesses by enhancing market opportunities. Small-scale entrepreneurship in food manufacturing is strong, with growth from 75 to 125 one-person firms in the metropolitan statistical area between 2002 and 2007. Retail outlets for the products made in these firms will ensure the viability of this entrepreneurial trend. In addition, declines in catches in some fisheries make the issue of market opportunities urgent for fishermen. Two possible options to expand market settings for local food products are presented below:

- The City and stakeholders might also explore the creation of a year-round public retail market to fulfill the demand for produce, fish, bread, and other value-added products. This could help prevent the challenge that seasonal farmers markets face of having to recapture customers from the grocery stores.

- One emergent direct-to-customer fish retail opportunity is the Community Supported Fisheries model (CSF), which has been piloted in several New England towns, including Rockland, Maine. In a CSF, customers purchase shares at the beginning of a season and periodically receive a share of the catch, ensuring a steady income for fishermen and fresh fish for the consumer.

Capitalize on Ties to Other Industries and Programs

Strengthening the food sector's relationships to other industries and resources in the Portland area can provide broad economic benefits for Portland businesses. Links with tourism and the creative economy may prove valuable due to the connections between these sectors. In addition, many resources already exist at the local, regional, and state level that could be harnessed to support the development of Portland's food economy. Priorities and actions for developing partnerships with other industries and programs will depend on the interests and needs of food sector stakeholders and the City.

Links to Tourism and the Creative Economy. Tourism is an important contributor to Portland's economy, although it is highly seasonal. An emphasis on food-related tourism can help bring visitors into the area during the off-season. In addition, Portland's strength in the creative economy complements the food sector, particularly restaurants. Consumers

of arts entertainment such as concerts, plays, and ballets, often pair the artistic event with a meal nearby. Events and marketing opportunities can link restaurants and bars with companies within the creative economy, and the Portland food sector can look to develop new relationships and projects with leaders within the creative economy.

There are several ways that Portland might continue to capitalize on the linkages between the food sector and related industries. The Greater Portland Convention and Visitors Bureau is a non-profit membership based organization that undertakes the majority of the tourism promotion in Portland. The food sector could strengthen its tourism-based business by developing initiatives with the Bureau to incorporate Portland's array of food destinations as a tourist attraction.

Specific projects could include organizing events, marketing campaigns, business profiles, and food tourism programs. Portland can look to existing models for inspiration, as there are several businesses and organizations that already blend food sector economic development and tourism. For example, the Maine Lobster Promotion Council provides marketing and advertising for the state's lobster industry as well as promoting visits to Maine, boat tours, and seafood restaurants.

Links to Business Development and Support Program. There is substantial potential to use capacity and resources within existing programs to better support the food sector. Select examples of opportunities are described below. The takeaway message is that for any food business support initiative, a collaborative food organization could develop systematic partnerships to improve program development and implementation.

Energy efficiency programs have the potential to significantly reduce operating costs and increase profit across food sector businesses. Efficiency Maine, a program of the Maine Public Utilities Commission, provides educational resources and funding for retrofitting lighting, HVAC systems, hot water, and office and refrigeration equipment. The program's penetration into Portland food-related businesses could be expanded, particularly with the help the networks provided by a food collaborative.

A food collaborative could work with Efficiency Maine to tailor efficiency programs and resources to the needs of food sector restaurants and bars, retail stores, manufacturers, and wholesale operations. Efficiency Maine may also prove valuable in planning and funding for efficiency in a wholesale market or distribution system.

Maine colleges and universities represent another underutilized source of resources with the potential to support and strengthen food sector businesses. College and university internships programs have benefited select food businesses in the past. A food group could help to connect food sector businesses to internship programs. Portland's food sector stakeholders may also look to develop programmatic partnerships with educational institutions to support existing businesses and to foster new ones. Courses and degrees could be tailored to the skills needed by food businesses in the twenty-first century. Partnerships around the food economy that involve sharing space or facilities is another potential option.

The Maine Manufacturing Extension Partnership (MEP) provides resources, technical assistance, and support to small and large manufacturers. Although the Partnership currently has five branch offices in the state of Maine, there is no MEP office or contact person specifically for the Greater Portland area. Food-oriented personnel within the MEP have expressed the desire to expand the MEP resources and presence in the Greater Portland area. The MEP could be a valuable source of resources and support for initiatives including expansion of shared kitchen facilities and food-tailored efficiency programs.

Links to Marketing and Branding Programs. The City or relevant stakeholders might explore possible contributions or connections to the ongoing efforts to brand and market Maine foods to outsiders, including tourists and out-of-state consumers. Existing initiatives include "Get Real Get Maine" (Maine Department of Agriculture), "Maine Made" (Maine Products Marketing Program), "Maine Produces New England's Best" (Maine Farm Bureau), and "Eat Maine Foods!" (Eat Local Foods Coalition).

The Maine Food Producers Alliance is interested in branding (and in streamlining existing branding efforts), and the Maine International Trade Centre also works on promotion of businesses outside of Maine. The City and food sector may seek to connect with these efforts. At the local level, working with the Portland Buy Local initiative, Maine Foodie Tours, and

the Maine Ambassadors of Food and Drink may prove valuable.

D. Implementation

The food sector offers the City of Portland an opportunity to achieve concrete results in a short period of time. By taking steps to support the sector immediately, the City can spearhead action on many of the recommendations discussed above. Different actions require varying levels of investment. It is also important to emphasize that the City's role in the different components of this economic development strategy will vary. For example, the City would be directly responsible for improvements to administrative processes and would likely want to maintain an active role in discussions of a wholesale market facility.

However, for the majority of the other projects, the City may choose to delegate leadership to individuals and/or organizations external to city government. As discussed below, convening a collaborative will enable the City to support food businesses and remain closely involved without actually leading all efforts. The table below summarizes the diverse components of implementation. In the final implementation section of the report, recommendations are divided into actions that can be completed within the first six months, one year, or two years.

First Steps and Sequencing. The formation of a crosscutting food sector collaborative is a key first step in implementing this strategy, and there appears to be substantial support for such an effort. Many focus group participants emphasized the importance of greater organization and expressed a strong interest in being a part of such a group. Not only would this organization improve the capacity of Portland food sector stakeholders to communicate, innovate, and generate new business opportunities, the group might be interested in taking a leadership role on one or more of the subsequent recommendations within this strategy.

After the formation of a collaborative, the City may choose to tailor and prioritize items within the strategy to reflect the interests and capacity of the group. In addition, the roles and responsibilities surrounding implementation of other measures will vary based on whether a collaborative group exists and whether they can take a leadership role.

Convening a Collaborative. Convening a food sector collaborative can occur in several ways. One possible starting point would be for the City to organize a large-scale conference around food in Portland to bring together as many stakeholders as possible. Alternatively, the City may choose to sponsor and host a smaller-scale meeting targeted towards a smaller group of established leaders within the food sector. The two models each have distinct advantages. The conference offers the benefit of engaging stakeholders without well-established ties to existing organizations. On the other hand, the meeting format would facilitate connections between organizations with existing resources and capacity.

For both formats, in its convening role, the City will want to ensure that all stakeholder groups are represented within a collaborative (see implementation table for key stakeholder groups). Targeted outreach may be required to achieve this goal. For example, despite the invitations issued, the focus group did not include representation from the fishing industry. In addition, the City may choose to use existing resources (e.g., technical assistance providers) and networks to disseminate information to groups with unique perspectives, such as immigrant-run food businesses. Finally, the City will want to include state-level actors in the conversation to ensure access to all existing resources and networks.

It is important to note that the event used to spearhead the group may affect its membership and their levels of energy and enthusiasm. Invitations can be designed to appeal to all relevant stakeholders by discussing the diverse opportunities around marketing and distribution, and by providing inspiring examples such as the Toronto Food Policy Council. Reference to the City's interest in streamlining its administrative processes with the help of businesses may also draw relevant businesses to participate in a collaborative organization, given the importance of permitting and licensing to food sector businesses.

Locating Funding for a Feasibility Study of Distribution Options. Locating funding for a feasibility study will be a key step to build momentum and enable implementation, and can be initiated immediately. The City may choose to play a lead role in applying for grants, collaborate with other organizations on grant applications, or support a new crosscutting food

Table V-1
Food Sector Strategy Implementation

Strategy	Action	Key Tasks	Potential Parties
Promote leadership and collaboration across the food sector	Create a cross-cutting Portland food organization	1. Identify all stakeholders whose representation would benefit the collaborative 2. Convene a broad range of stakeholders to develop a model for collaborative 3. Solidify relationships by starting with project(s) of interest to many	The City, food sector businesses*, state industry associations**, non-profits working on food in Portland***, technical assistance providers, Maine Businesses for Sustainability, Maine Department of Agriculture
Address gaps between producers and buyers	Strengthen distribution systems in local supply chain	1. With a broad range of stakeholders, analyze current distribution system for gaps and determine most appropriate means of filling them, such as: a. Locate funding for a feasibility study for a wholesale market /distribution options in Portland b. Assess models of wholesale markets and online distribution tool c. Create new retail opportunities for fish and added-value products, such as through extending or expanding farmer's markets	a & b. The City, all businesses and organizations within the collaborative, farming and fishing businesses in the surrounding region, c. The City, fishing businesses, specialty manufacturers, current farmer's market retailers, Portland Public Markethouse
Create additional opportunities for growth and efficiency through related industries and programs	Capitalize on ties to other industries and programs	1. Assess current food-related tourism promotion efforts and develop relationships between tourism promotion, restaurants and retail, and the creative economy 2. Work with Efficiency Maine to bring efficiency programs tailored to the food sector to Portland 3. Develop programmatic and internship partnerships between food sector groups and relevant college and university degree programs 4. Work with Maine Manufacturing Extension Partnership to develop mechanisms to reach Portland businesses 5. Reach out to existing food branding and promotion efforts to collaborate on and streamline these efforts in Portland	1. The City, Greater Portland Convention & Visitors Bureau, Creative Economy business leaders, Efficiency Maine/ Maine Public Utilities Commission, Maine Manufacturing Extension Partnership, existing Maine and Portland food promotion programs (see report for details), Maine College of Art, Southern Maine Community College

*Food sector businesses include the fishing industry, food and beverage manufacturing, grocery and alcohol wholesale, food and beverage services, and retail, including immigrant-owned businesses
**Industry associations include the Maine Restaurant Association, the Maine Grocers Association, the Maine Food Producers Alliance, Maine Lobstermen's Association, Maine Brewers Guild
***Non-profit organizations include Slow Food Portland, Portland Food Co-op, Cultivating Community, Gulf of Maine Research Institute, Maine Organic Farming and Gardening Association

group in pursuing funding sources. Possible funding sources that emerged from the focus group and from online research include: Maine Environmental Funder's Network and Quality of Place Initiative, the USDA's Community Food Projects (CFP) Competitive Grants Program, the New England Environmental Finance Center and the Pepsi Refresh Project.

Online resources currently at [*http://www.umaine.edu/umext/MaineNewFarm/grantpage.htm]* and [*http://www.mac.umaine.edu/index.php?tab=7&pg=GRANTS]* list agencies including the Maine Community Foundation and the Maine Department of Agriculture that provide grants and funding for projects and activities related to agriculture in Maine.

Exploring Retail Opportunities for Fish and Value-Added Products. Identifying retail opportunities for local fish and value-added food products is another action step that can be initiated immediately by the City. This can be achieved in collaboration with a food sector organization or with individual leaders from the fishing sector and from the Maine Food Producers Alliance. Given concerns about table space and limited traffic of current farmer's markets, Portland may consider a new business model and location for farmers to sell produce in conjunction with fish and value-added foods.

Focus group stakeholders discussed the potential benefits of a year-round market to retain and increase the customer base of current farmer's markets. Alternatively, an auxiliary market that is focused exclusively on value-added and fish products may be created, possibly near the existing farmers market. Location and scheduling of a public retail market are also important factors for consideration. The City and food sector stakeholders can begin work on this question by exploring the business models of markets in other cities in New England, or engaging with farmers to discuss the benefits of shared versus separate markets.

Solidifying Links with Related Industries and Programs. Finally, the City and/or a food sector collaborative can quickly and easily reach out to the organizations and programs within the City, the region, and the state to work together on exciting food-related programs and initiatives. As mentioned earlier, the key partnerships and resources sought by Portland's food sector will depend on the specific needs and interests of businesses. However, by defining Portland's food economy as a cluster and by organizing around this, food businesses will be well placed to pursue key initiatives.

Whether it is the City or a crosscutting food group reaching out to industries and programs outside of the food sector, links between organizations can promote new opportunities for economic growth and broad social benefit.

Examples of opportunities and partners are listed below:

- Links to tourism and the creative economy: Greater Portland Convention and Visitors Bureau, Maine Lobster Promotion Council, Maine Foodie Tours, Maine Ambassadors of Food and Drink, Portland Creative Economy leadership

- Targeted energy efficiency resources: Efficiency Maine, Maine Manufacturing Extension Partnership (MEP)

- Connection of college interns to businesses: Maine College of Art, Southern Maine Community College

- Shared kitchen facilities, food manufacturing start-up support: Maine MEP

- Links to marketing and branding: Maine Department of Agriculture, Maine Products Program, Maine Farm Bureau, Maine Food Producers Alliance, Portland Buy Local

Maximizing long-term potential. These concrete steps provide a starting point for directing and investing the future of the food sector. The successes associated with these initial efforts can enable Portland's food sector to gain additional momentum: For example, there are many different ways of encouraging different types of startup businesses. The Public Market House's shared kitchen facility currently has a small pool of users, and stakeholders might explore ways to expand the incubator or make it more accessible or attractive to potential users. Food carts or food trucks provide a low-cost way for an entrepreneur to enter the food sector, and they can offer healthy and affordable meals or even produce.

In the long term, there are unlimited opportunities for innovative projects and partnerships to generate economic returns and improve quality of life. These programs can connect people and food, economy and society, land and water, and environment and health in Portland and in the broader region.

Organizations in Portland and beyond are exploring new ways of improving the accessibility of healthy food, for example through farm-to-school/ hospital/ institution programs. The food sector may also wish to build upon programs promoting diversity, sustainability, and food-related education.

Implementation & Next Steps

SECTION VI

A. Introduction

To help the City Economic Development Division and its many partners in tackling implementation of the three proposed strategies, a phased action plan is provided below that details the key steps to be taken and proposed phasing of these actions over the first six months, the second six months and the second year of implementation.

B. Economic Development Action Plans

The action plans in the following pages summarize next steps for the food sector, business retention, and life sciences. The plans take advantage of Portland's strengths, address gaps, and suggest collaborative, mutual gain efforts.

- Business retention programs could improve the City's relationship with existing businesses. The highest priority strategy is a business visitation program. Other strategies for the City and businesses:
  - -Examine the business permitting process
  - -Examine the business registration process
  - -Centralize information
  - -Create industry meet-ups and networking events

- A life sciences initiative would bring together key stakeholders around a cluster strategy to expand on Portland's assets. The implementation matrix is a multiple-phase guide that suggests necessary steps to foster a life science collaborative. The matrix addresses the following objectives:
  - -Foster leadership and membership to develop a life sciences collaborative
  - -Create and promote an entrepreneurial and supportive environment for life sciences
  - -Expand on Portland's existing assets and industries: health care, supportive services for the life sciences and manufacturing
  - -Increase workforce development capacity and linkages

- The food sector action plan prioritizes the creation of a collaborative organization. The collaborative would be comprised of Portland food stakeholders, and could identify projects of mutual interest. Additional food sector strategies are to:
  - -Identify retail venues for local fish and value-added food
  - -Perform a feasibility study for a wholesale market
  - - Identify opportunities to improve tourism and marketing
  - - Pursue additional opportunities, such as partnerships with business support, educational and energy efficiency organizations

Table VI-1
Business Retention Action Plan

Engage Businesses			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Implement pilot business visitation program	0 - 6 months	1. Convene small working group to determine priorities and begin identifying and pursuing ongoing funding 2. Develop key interview questions and responsibility for tasks and data analysis 3. Set up & conduct interviews with selected businesses 4. Reconvene working group to review data and determine next steps 5. Repeat	Leads: Chamber of Commerce, City of Portland's Economic Development Division Supporting: Coastal Enterprises, SBDC, WIB, Muskie School of Public Policy
Develop and implement business visitation program	6 - 12 months	1. Hire staff to maintain this program or establish official group of partner organizations 2. Purchase the E-Synchronist software 3. Expand the number of businesses visited in first stage of visitation cycle based on prioritization of sectors and employers 4. Convene working groups to review analysis; report back to business community 5. Continue to seek funds to sustain program 6. Repeat	Leads: Chamber of Commerce, City of Portland's Economic Development Office Supporting: Coastal Enterprises, SBDC, WIB, Muskie School of Public Policy
Create Business Friendly Processes			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Examine Business permitting process	0 - 6 months	1. Map permitting process 2. Conduct cost of service analysis 3. Assess staff performance	Lead: City of Portland's Economic Development Office Supporting: Interdepartmental coordination at the City level

Centralize Information	6 - 12 months	1. Create an information desk or information hotline staffed by a knowledgeable person 2. Map all available resources related to business development 3. Create a web page with consolidated information 4. Create a business welcome kit	Lead: City of Portland Supporting: SBDC, CEI
Examine business registration process	6 - 12 months	1. Map current processes 2. Edit business registration forms in order to gather useful data 3. Create a mechanism to be notified when new businesses register 4. Send businesses welcome kit to all new businesses	Leads: City of Portland's Economic Development Division, Registrar's Office
Increase Business Interaction			
Promote Industry meet-ups and networking events	12 - 24 months	1. Identify industry clusters 2. Identify existing networks 3. Identify additional partners 4. Facilitate industry meet-ups around relevant topics	Leads: City of Portland's Economic Development Division, Registrar's Office

Table VI-2
Life Sciences Action Plan

Foster Leadership and Membership to Develop a Life Sciences Collaborative			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Identify a "planning team" to organize Collaborative	Short and Long Term	1. Seek funding (MTI Cluster Initiative grants, foundations, local/state government, private) 2. Identify Collaborative organizational structure 3. Formally establish Life Sciences Collaborative 4. Hold kick-off meeting with Life Sciences Collaborative leaders and industry stakeholders 5. Develop shared vision and prioritized goals 6. Determine staff roles & needs	City of Portland, State Agencies, Universities, businesses, research institutions, industry associations
Promote an Entrepreneurial Environment			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Create a specialized life sciences business incubator	Long Term	1. Evaluate existing business incubators as potential partners eg. Maine Center for Enterprise Development 2. Develop program/goals for incubator 3. Identify the ways laboratory space can be shared or jointly used across multiple firms 4. Identify funding and available office/ laboratory space 5. Identify and reach out to professional partners, mentors and investors	Life Sciences Collaborative, Maine Office of Innovation, Business Incubator Partner

Actions	Timeframe	Key Tasks	Potential Partners
Develop marketing campaign to attract investment	Mid Term	1. Develop marketing goals/strategy in-house or with a marketing agency 2. Identify key messages and stories to highlight 3. Design and produce marketing content (video, web, print) 4. Launch marketing campaign 5. Track feedback and metrics of success	Life Sciences Collaborative, Marketing agency/ director
Provide business support services to grow existing companies	Long Term	1. Hold series of events for life sciences networking 2. Hold workshops, conducted by life sciences, specialists and experts, on topics relevant to creative enterprises 3. Identify new funding opportunities 4. Participate in Business Visitation program	Life Sciences Collaborative, City of Portland
Identify new sources of funding for R&D and commercialization	Mid Term	1. Foster trust and strengthen partnerships with the State Economic Development Agencies 2. Investigate other incentive mechanisms such as Loan Guarantee Programs, tax incentives (abatement of increment financing), tax exempt-bonds 3. Identify partnerships with private companies and investors	Life Sciences Collaborative, City of Portland, Venture Capital firms and private investors
Strengthen relationships between educational institutions and private companies	Short Term	1. Develop on-going dialogues between public and private sector entities 2. Ensure industry needs are aligned with public programs (e.g. state funding, workforce development programs, etc) 3. Identify, promote, and facilitate methods of commercialization within academia 4. Promote occupational development, internship programs	Life Sciences Collaborative, Maine Office of Innovation, City of Portland, Maine Council of Governments

Explore Possibility of attracting life sciences/ biotech firms	Long Term	1. Identify and target companies that complement Portland's strengths 2. Identify and promote incentive programs	Life Sciences Collaborative, City of Portland, Biotech Association of Maine State Economic Development
Expand on Existing Assets and Industries			
Actions	**Time-frame**	**Key Tasks**	**Potential Partners**
Grow clinical trials industry Strengthen rural health care capacity Explore marine research and applications	Long Term	1. Coordinate with research institutions and universities to identify new areas of research and collaboration	Life Sciences Collaborative, Research institutions and universities
Increase Workforce Development Capacity Linkages			
Actions	**Time-frame**	**Key Tasks**	**Potential Partners**
Increase capacity of community colleges and vocational schools Coordinate training and degree programs with workforce development needs Coordinate programs/ services offered at education and research institutions	Mid Term	1. Survey businesses to determine what types of technical skills and training experiences are desired in workforce 2. Survey educational institutions to determine how their programs can align with business hiring practices 3. Identify career ladders within the Life Sciences Industry 4. Expand access to educational opportunities in the region 5. Identify state/federal workforce development grants	Life Sciences Collaborative, Maine Jobs Council, Educational institutions, Workforce Investment Board

Table VI-3
Food Sector Action Plan

Create and Implement Collaborative Models Between Food Sector Stakeholders			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Convene and develop Portland Food Collaborative	0 - 6 months	1. Identify all stakeholders whose representation would benefit collaborative, including difficult to reach groups 2. Organize large-scale food sector conference or city-sponsored meeting to develop model for collaborative 3. Identify shared interests among stakeholders	Leads: Portland Economic Development Division, DCP Supporting: Businesses and non-profit organizations, state and regional economic development and food organizations, Coastal Enterprises, SBDC, WIB, Muskie School of Public Policy
Solidify relationships with project(s) of interest to many	6 - 12 months	1. Identify project(s) 2. Identify funding sources 3. Initiate project(s)	Collaborative
Capitalize on Ties to Other Industries and Programs			
Actions	**Timeframe**	**Key Tasks**	**Potential Partners**
Strengthen distribution systems in local supply chain	0 - 6 months	1. Identify immediate opportunities for local retailers to provide local value-added and fishing products	Varies by program
	12 months - ongoing	1. Identify additional opportunities to improve local supply chain	Varies by program
Evaluate need for wholesale market	6 - 12 months	1. Perform feasibility study	Businesses, small manufacturers, distributors, non-profit food organizations
Improve food sector Tourism and Marketing efforts	6-12 months	1. Identify opportunities	Businesses and other interested stakeholders from Collaborative

Small Steps, Big Changes

This report identifies many opportunities for Portland to build off of its current assets in order to strengthen the local economy, create jobs, and make the city a more attractive place to live and to do business. The above sections provide specific recommendations for initiating and developing strategies to promote business retention, the food sector, and life sciences. These recommendations include both short- and long-term steps. The elements of these strategies are sequenced to maximize the benefits that can be achieved with minimal initial resource inputs. Early action initiatives aim to generate energy and resources external to city government, thereby enabling the pursuit of longer-term goals.

While on the one hand it is extremely useful to think of an economic development strategy as a series of achievable steps, it is also important to have an understanding of these steps as part of a broader vision. Taken together, these recommendations for business retention, food, and life sciences can lead to a new approach to strengthening Portland's economic future. Implementation of the above strategies can be considered in the context of the following three themes:

1. Collaborative models of economic development
2. Support from City Hall
3. Regional ideas of growth and innovation

Beyond guiding implementation of the three proposed strategies, these themes provide a foundation for formulating the city's overall economic development plan in the coming months.

Starting Point: Collaborative Models of Economic Development

Convening the important players. The three focus areas of this report are already characterized by energetic and innovative businesses and organizations. However, these groups lack structured mechanisms for coordinating their efforts. Thus, collaboration between inter-related businesses and organizations is the starting point for all three strategies developed in this report.

- The business retention strategy recommends convening a working group that includes the City Office of Economic Development, the Chamber of Commerce, and Coastal Enterprises Inc. to determine priority businesses for visitation and initiate a visitation program.

- The food strategy emphasizes the pivotal first step of bringing together business owners from across the food sector to spearhead priority projects.

- The life science strategy issues the primary recommendation of creating a Greater Portland Life Sciences Collaborative led by the region's top educational, research, medical, business, and government institutions.

Rather than starting from a blank slate, Portland will be building off of ongoing activities by bringing together the most important players in technical assistance, food systems and life sciences. Collaboration will enable these groups to share ideas and knowledge, to build relationships, to coordinate efforts and to direct their energies to advance common causes.

Developing a shared vision. Going beyond common causes as currently identified, all three strategies emphasize the importance of developing a shared vision.

- What are the city's priority businesses and what is the strategy to retain businesses?

- What concrete projects can unite stakeholders in the food sector?

- What cohesive vision of a life science cluster can mobilize stakeholders behind a shared agenda?

Developing shared visions and goals will require pointed effort. However, it is worth investing the time into laying these foundations. The identification of priorities and directions for future growth will generate the energy and commitment needed to sustain these collaborative ventures.

Identifying resources. Finally, uniting stakeholders around a sense of shared purpose will support the identification of resources to pursue the larger projects discussed above. All three strategies acknowledge the challenge of securing funding to enable these

collaborative programs. However, they also discuss opportunities to harness new or existing resources if the will and organizational capacity exist.

- Human and financial resources from existing programs can enable a small-scale first cycle of business visitation.

- Many organizations fund food-related projects in Maine, and any one of these grants would enable stakeholders to study options for food distribution in the Portland area.

- Resources from Maine Technology Institute's Cluster Initiative Program may be able to spur the formation of the life science collaborative.

For all three areas, locating an initial funding source will kick start implementation of early action initiatives, and will enable realistic planning around long-term priority projects.

The collaborative model of economic development has great potential to stimulate gains for the workers, businesses, and citizens of the city of Portland. Fostering ongoing collaboration will pave the way for new jobs, products, and income streams as well as exciting future initiatives in food, life sciences, and business support.

The Backdrop: City Hall Support

Many businesses report the challenges of navigating the city's administrative processes, while few identify the city government as an ally. Whether or not this perception is warranted, Portland's future success in attracting and retaining businesses will depend in part on its ability to promote a business-friendly atmosphere. Spreading the image of Portland as a friendly place to do business will not require new investments in direct financial rewards. Rather, it can be achieved with small but concrete actions to show businesses that they have support from City Hall.

- First, a business visitation program will demonstrate the city's commitment to its major employers and industries. Its ability to address business' needs – and communicate honesty when it cannot respond to concerns immediately – will greatly improve its reputation in the eyes of existing businesses. Sharing the information it gains from its business visits and engaging the businesses community on how to best respond to emerging issues and needs can also foster trust and a sense of partnership between city government and businesses.

- In addition, its willingness to take on the reform of city permitting and licensing processes will be an important acknowledgment that there is room for improvement. Actual increases in the efficiency and reliability of administrative processes will smooth the path for the start-up and expansion of businesses in the food sector, in life sciences, and in all other sectors of Portland's economy. The life science strategy issues the primary recommendation of creating a Greater Portland Life Sciences Collaborative led by the region's top educational, research, medical, business, and government institutions.

- Finally, fostering collaboration between related businesses will also demonstrate the City's commitment to improving the local business environment. Actively convening cluster initiatives and organizing networking events will convey the positive message that the City understands the role of inter-personal and inter-corporate interactions in innovation and growth.

Overall, City support for businesses need not be resource-intensive. However, it must convey the message that the City is in tune with the unique needs of businesses in the 21st century. Implementation around collaboration, business visitation and administrative reform can help to create the supportive environment needed for a vibrant economy.

Building Outward from Existing Assets: Regional Ideas of Growth and Development

At times in the past, the City of Portland has viewed its relationship with the surrounding region as competitive in nature. The city has lost jobs and businesses to suburban towns and the poverty rate is currently double that of the region. This view has been shifting in recent years as Portland and surrounding communities have begun to cooperate on some economic development activities. Stakeholders linked to all three strategies identify the need to combine the emphasis on supporting City businesses with regional thinking about growth, change, and economic development. As clusters nationwide

promote regional economic identities, Portland may want to consider expanding regional partnerships to promote growth and development in key industries and clusters.

- Technical assistance providers have offices across the Portland area and view their role in the broader context of city, regional, and statewide business promotion. The activities of the Portland Regional Chamber of Commerce span regional boundaries to include advocacy at the state level. Considering only the resources available at the city level would greatly limit the scale and scope of efforts to create a favorable business climate for clusters and industries identified as priorities.

- Connecting residents by providing opportunities for food and beverage related social gatherings.

- Food systems inherently span geographic boundaries. Agriculture and seafood remain important economic drivers at the state level, and the City of Portland's vibrant food sector could not exist without ties to primary producers and harvesters. Improving distribution systems will create economic benefits at both the city and regional level. However, innovative distribution systems will only be effective if their design involves both buyers and sellers – inside and outside of city limits. In addition, efforts around branding and marketing of food products out of state will encounter greatest success if resources are directed into a single effort. Links to education institutions and tourism resources may also benefit from a regional focus.

- Businesses, education institutions and research organizations in the life sciences are interdependent, and are located not just in the City of Portland but in its surrounding communities. The recommendation to create a Greater Portland Life Sciences Collaborative acknowledges the importance of building from these existing connections and assets. The Collaborative can serve as a unified voice to advocate for policies that benefit the life sciences from the local to the national level. Investments in marketing and in coordinating training programs with workforce needs will also benefit from the regional focus.

- Finally, the City of Portland may benefit from considering the role of the state of Maine in all aspects of its economic strategy, from retaining businesses to promoting life science and food sector development.

From its place as the state's major city, Portland is well placed to spearhead initiatives that will generate economic benefits in the City and in the broader region. Encouraging regional actors to harmonize their efforts with Portland's economic development agenda will increase the Greater Portland's ability to capitalize on existing strengths and develop a sustainable economic niche in the national and global marketplace.

Next Steps

The current report describes small steps towards broad changes in the City of Portland's approach to economic development planning. Building from the analysis of socio-economic data and extensive interviews, the report presents an economic development strategy aimed at supporting existing City businesses, fostering collaboration in the food and life science sector, and building off of assets in the greater Portland region and state of Maine. Specific short-term recommendations include initiating a business visitation program, a crosscutting food sector organization, and a regional life science cluster organization. However, this strategy is just one component of economic development planning in Portland. Before adopting a comprehensive economic development plan, the City of Portland will want to revisit its internal priorities, evaluate different possible approaches, and ensure that community and business leaders share their vision of what will make Portland a better place to live and work.

Appendices

Appendix A.....Business Retention Interview Questions

Appendix B.....Business Retention Case Studies

Appendix C.....Business Retention Focus Group Attendees

Appendix D.....Permitting Best Practices Memo

Appendix A
Business Retention Interview Questions

1. Case Study Questions:

- What is the structure of program?
  - (Eg. Is the program based in city government or in a nonprofit? Etc)
- Program(s)
  - What programs do you employ to retain local businesses?
  - Do you have a business visitation program?
- Why did you choose these approaches? (In other words, what is your philosophy behind your business retention & growth programs?)
  - (Eg. Low costs cause businesses to expand; Quality of life or other amenities cause businesses to stay in the city, etc.)
- What physical/social attributes of the city have made you decide to take these approaches?
- When did this program start?
- Which businesses do you target?
- How do you fund this program?
- Who do you partner with to make this work?
- Do you have presence of immigrant-owned businesses? Where in the city are they located, and how do they access city services? Integrated into downtown, separate initiatives?
- How do current permitting processes align with your business retention strategies?
- How many staff do you have employed to work specifically on business retention/growth?
- If you could distill the program into the major parts that make it successful, what are the critical elements that make the program work?
- What are some of the challenges of this program?
- What advice would you share with another City that is about to start a business retention initiative?

2. Technical Assistance Provider Questions

- What services do you provide in business retention/growth?
- How does the Chamber work in partnership with the City to implement programs?
- What other organizations does the Chamber partner with to implement programs? What roles does the Chamber play, other organizations?
- What are some successes/challenges?
- From talking with small businesses in Portland, what do you think are some of the challenges that small businesses face? What are some ways that these could be remedied?
- What could the city of Portland do to help businesses stay in Portland and grow?
- What do you think could be some of the key elements of an ideal business retention plan?
- Who do you think should be involved in implementing this?

3. Economic Development Division Questions

- What is your role within the Economic Development Division with respect to small businesses?
- Can you describe Portland's business attraction and retention strategies to date? Current programs? Past programs?
- Do you have any of the following programs? If so, please describe. What are the successes and challenges with these?
  - Workforce development/training programs
  - Loan programs (revolving, microloan, small business in particular, empowerment/enterprise zones)

- Helping businesses find new space
- Assisting with the permitting process
- General Technical Assistance

- When did these programs begin? How are they funded?
- What businesses do you target? (By size, sector, etc)
- How does Portland advertise its business assistance programming and efforts?
- What has been the biggest success for business retention in the city? Challenge? If you could create your ideal retention program, what would it be?
- Does the city have an ombudsman office? How do you work with them?
- Who/what are the major business organizations in the city? Do you partner with them for any business retention programming? What opportunities might exist for partnering?

4. Finance Industries Questions

- Tell me about your business - what are its core functions?
- How many employees? Where is your workforce from - Portland, the region, telecommuters?
- Where did you begin operations, and where are you currently based?
- What are/were the benefits of working in Portland?
  -Amenities, workforce, space availability, access to City Staff, cluster/business networks, infrastructure, hub of state, banking access

If Stayed:

- Why have you continued to operate in Portland?
- Are there city services or needs that you need met in order for you to remain in Portland? Have you considered leaving the city? Where would you go?

If Left:

- Why did you leave Portland? Can you give me specific examples of what the City could have done, if anything, to encourage you to stay?

5. Permitting: Process Questions

Process:

- Please describe from start to finish, the permit application process.
- What are online resources?
- What are human resources?
- What are the outlets for obtaining help in the process?
- How do you disseminate information to interested business owners?
- How does the permitting office coordinate with other agencies within the city that might be a part of permitting?
- What is the process to change current regulations and processes?
- How is the process different when applying for a new business as opposed to a change of use?
- Is there a process for receiving feedback from business community to streamline process?

Volume/Capacity:

- How many permit applications do you receive a year?
- How many are you able to process?
- How many staff people are dedicated to this process?
- What is the typical turn-around time (expected vs. actual)?
- What is the break-down of applications per year according to size (large vs. one-person operation), types (food, financial) etc.
- How many applications fall into an “easy to process” bucket?
- How many require extensive back and forth and personal
- What currently works well about the process?

- What are the major hang-ups? What causes the major delays? What is the city doing now to address these issues? What might be long-term ideas for this class to explore?

6. Permitting: Business Questions

- What is your business?
- How long have you been in Portland?
- Have you applied for a permit in the last five years? What type of permit? Please describe the process?
- How long was the process? Did this differ from expectations set by the City?
- How did you find out the process for applying for a permit? Was this information thorough?
- What went well with the process?
- What caused the major frustrations/delays?
- Who was your point of contact throughout the process? How often did you speak with him or her? Describe your interaction?
- Do you have specific ideas of ways in which the process could be improved?

Appendix B
Business Retention Case Studies

1. Scarborough, ME (Population 20,000)

Initiated by the Scarborough Economic Development Corporation (SEDCO), a private nonprofit corporation responsible for the town's economic development, Scarborough's business visitation program contacted a total of 160 businesses over the course of three months. SEDCO partnered with the local chamber of commerce and brought all hands on deck, as the boards of both organizations (about 30 people total) volunteered to contact about 3-5 businesses each, with two SEDCO staff filling in where necessary. Each business received a letter, followed up by a phone call, and a site visit. SEDCO compiled the responses from the businesses in an Excel sheet to determine themes, presented findings in several public meetings and posted findings in a clearly accessible place on their website. The SEDCO board decided to take the program a step further, and these findings became the impetus for an economic development vision for Scarborough.

Julie Basset, SEDCO Assistant Director observed, "One of the questions was, 'why did you locate here?' and a lot of them picked things that we wouldn't have thought of. Tax incentives and cost were far down the list, and quality of life factors rose to the top…. This impacted the way that we thought about economic development."

What Worked:

1. There was high commitment from the organization and from volunteers to do this, and volunteers had a connection to the people and the city.
2. SEDCO conducted a test run of 50 businesses to gauge responsiveness.
3. Volunteers approached businesses seeking to get to know them instead of seeking information about problems.
4. Volunteers brought information about SEDCO and Chamber of Commerce. One of the main benefits of this program was that businesses became more aware of their services.
5. Follow up was critical. SEDCO publicly presented their findings, posted them to the website.

Cost: Staff time, Postage
Time: 3 months for calls, plus time for analysis
Contact: Julie Basset, SEDCO

2. Greenville, SC, (Population 438,000)

Greenville's Business Retention and Expansion Program (BREP) started within the Chamber of Commerce, and has since spun out into an independent nonprofit, Greenville Works. It is managed and funded by 8-10 partner organization members through an Memorandum of Understanding (MOU), and run by 1 full time contractor and 2 part time contractors who manage the business visitation and BREP programs. Through this program, Greenville focuses primarily on the manufacturing sector, which has a long heritage in the region and is currently the driving sector in the city, and target both small and large businesses.

The business visitation program is integral to the city's business retention and expansion initiatives. Staff collect and synthesize information from business visits, which in turn inform the strategic objectives that drive Greenville Works. They use E-Synchronist software, which provides and up-to-date repository of information that all partner organizations can access. Greenville addresses immediate concerns through facilitating connections with the right people in city government, and bring long term concerns back to Greenville Works.

Greenville receives funding from partner organizations, although this year 60-70% of funding came from the Workforce Investment Board.

The structure of this program has important advantages and Greenville has received a positive response from the business community. Because all partners work together to leverage resources and relationships, if Greenville works has difficulty contacting a business, a board member will step in to give a warm recommendation. The consistency of program outreach with concentrated follow up has generated trust and buy in allowing them to move into other areas of support. Hank Hyatt, Vice President of Economic Development for the Greenville Chamber of Commerce offers this advice, "Patience is very important, and you can start small, but you MUST stay within your strategic objectives for business retention and expansion."

What worked:

1. MOU was critical
2. Having contractors manage the program was essential so that the work plan was not dominated by any single groups' political agenda
3. Shared funding is critical
4. Important to have all partner organizations involved
5. Follow-up and consistency is key

Cost: First year cost $80,000 two part time contractors; today it costs $175,000 for three people and software.
Time: Ongoing
Contact: Hank Hyatt, VP of Economic Development for the Greenville Chamber of Commerce;
John Baker, Contractor, Greenville Works

3. Charlottesville, VA (Population 40,000)

Run out of the city's Office of Economic Development, Charlottesville's business visitation program has been in place for over ten years. Though the program started out more informally, it has become increasingly formal over time. The city's business visitation efforts are supported by a regional economic development organization, the Thomas Jefferson Partnership for Economic Development (TJPED). TJPED, which receives funding from Charlottesville and other regional cities, has one staff member dedicated to business visitation who assists regional cities and counties with their visitation efforts. TJPED recently purchased Executive Pulse, a data tracking software package, to help track regional business visitation efforts. The software is shared among the region's cities and counties, which saves money.

At the city level, two of the Office of Economic Development's four staff work part-time on the business visitation program. Because of the inherent differences between the needs of different sized businesses, one staff member focuses on large businesses, while the other focuses on small businesses. Although the City tries to target visits to technology businesses, an important and high paying sector of the local economy, Charlottesville's business visitation program does not have an explicit system for prioritizing visits. Rather, staff may choose businesses to visit based on a recent relocation, or an article about the business in the newspaper. Charlottesville has a goal of conducting two visits per staff per month (i.e., four visits total). Charlottesville's visitation program is supported by partnerships with local business and workforce development organizations. For example, if a particular workforce need is identified during a visit, the City alerts the appropriate workforce development organization.

Advice:

- Program can be very informal, as long as you make sure to document what you learn
- Try to set a goal for visits (ours is 2 per person per month), then try to meet that goal
- Be diligent about inputting information into database and about follow-up
- Being regular and consistent is key

Cost: At city level, program is funded from the Economic Development Office's normal operating budget
Time: Ongoing, two part-time staff
Contact: Hollie Lee

Appendix C
Business Retention Focus Group Attendees

Name	Organization
John Entwistle	Maine SBDC-USM
Chris Hall	Chamber of Commerce
Jack Lufkin	Gorham Savings Bank
Bill Getz	Learning Works
Alden Turner	SBA - Portland
Janis Beitzer	Portland Downtown District Alliance
Scott Jacqmin	Coastal Counties
Jennifer Sporzyski	SmartStart -CEI
Gerard Salvo	Workforce Solutions - CEI

Appendix D
Permitting Best Practices Memo

Permitting Best Practices

Interviews with Portland businesses identified the city's business permitting process as an area for improvement. Streamlining business permitting practices can help the city save time and resources, make Portland a more efficient and desirable place to start and expand a business, and improve relationships with the business community. Portland can learn from the experiences of other states and municipalities that have prioritized improving their permitting practices. These efforts have resulted in several best practices, outlined below (links to resources on these best practices are provided at the end of this document). These best practices fall under three broad categories: improving communication among municipal regulators and between regulators and applicants, streamlining the application and review process, and maximizing information technology and staff resources.

1. Improving communication among municipal regulators and between regulators and applicants.

- *Make customer service the top priority*. There are many large and small changes that can be made to improve the customer's experience dealing with the city. Specific strategies pursued by other municipalities include creating comfortable meeting locations, quickly responding to emails, and creating a permitting "information counter" staffed during business hours by someone knowledgeable about the permitting process.
- *Foster an atmosphere of continuous training and improvement*. City staff should be continually trained for increased efficiency and customer service. This might also include having a standard or benchmark for completing permitting decisions, tracking performance against that standard, and identifying reasons and solutions for delays.
- *Build mutual understanding* of the "how" and "why" of the permitting process among agencies, industry, elected officials, and the public. "Permitting 101" forums, regularly scheduled inter-departmental meetings, and locating offices of staff responsible for various aspects of permitting near each other can help build understanding and increase communication. In addition, cities can improve transparency by providing clear, easy to understand explanations of the permitting requirements, process, and purpose.
- *Engage regulators and applicants early in the process*. A pre-application meeting with the applicant and representatives from relevant regulatory agencies to outline the process and discuss the project can help identify potential issues, clarify requirements, and build relationships.
- *Establish a single point-of-contact* for each project that is responsible for coordinating the necessary permits across agencies and departments.

2. Streamlining application and review process.

- *Assess current permitting process*. Analyzing the permitting process, staff performance, and costs by mapping the permitting process and conducting a cost-of-service analysis can reveal opportunities for improvement and serve as a basis for determining permit fees. Specifically, the city can use the analysis to look for opportunities to consolidate information requirements, reviews, and inspections and to identify permits or approval steps that may no longer be necessary.
- *Coordinate application reviews within the municipal government.* Holding regular meetings with various permitting agencies or assigning a technical review team for each project can help provide a coordinated, efficient response to applications. Involving department heads (and even the city manager) in this process is especially important for complex projects, as these decision makers can help to resolve problems and move the process forward.
- *Develop materials to help applicants understand the requirements and process.* A "quick reference guide" for local permitting can provide, in one document, practical information such as contact information, step-by-step details on the process, fees, and timeframes. This guide can be combined with permitting flow

charts and checklists. Municipalities can also provide examples of good applications on their permitting website.

- *Develop clear submittal requirements and ensure complete applications*. City staff should define what makes a complete application, make the requirements clear to applicants, and require them at submittal. An intake checklist can help staff identify the documents necessary for a conclusive review.
- *Streamline submittal requirements.* Municipalities should standardize forms and minimize the number of forms required. Some cities have developed "master permit applications" that can be combined with necessary supplemental forms.
- *Implement a tiered assessment process*. A tiered assessment process can improve efficiency by providing different levels or priorities of review depending on clear thresholds of scale or impacts of a project. For example, projects with significant economic development impacts or projects located within designated Brownfield areas could qualify for expedited permitting process.
- *Pre-permit sites for desired new uses.* When there is a high priority to attract specific uses, pre-permitting targeted sites can help attract businesses by reducing the time and cost a developer or firm must spend to acquire the necessary approvals.

3. Maximizing information technology and staff resources.

- *Initiate an electronic permit tracking system*. Electronic tracking systems can reduce staff time spent on administrative tasks by producing status reports, highlighting problems that may hold up the permitting process, and archiving supporting documents. Other benefits include decreased administrative errors, improved communication and transparency (e.g., by allowing applicants to check the status of their permit online), and easily accessible project records.
- *Implement an electronic application filing process*. An electronic filing system has similar advantages to an electronic tracking system, including improved accuracy and transparency. The electronic system, which could be in the form of a "one-stop" system, would save businesses from having to come to City Hall to file in person and would allow for filing outside normal business hours.
- *Develop systems for staffing flexibility*. Municipalities can establish provisions such as temporary hiring, contracting, and on-call consultants to maintain capacity during high-volume periods and to quickly add specialty skills as needed.

It is likely that only some of the best practices identified by other states and cities will be feasible for Portland. An analysis of the current permitting process, including assessment of staff performance, mapping of the process, and cost-of-service analysis can help the city identify areas for improvement. Although there are many benefits to a more streamlined permitting process, initiating any of the best practices described above will require resources and dedication from the city.

Resources

- "A Best Practices Model for Streamlining Local Permitting;" developed by the Massachusetts Association of Regional Planning Agencies: http://www.mass.gov/Ehed/docs/permitting/permitting_bestpracticesguide.pdf
- "Local Government Permitting Best Practices;" developed by Washington State Governor's Office of Regulatory Assistance: http://www.ora.wa.gov/documents/lgp_best_practices_report.pdf
- "Information Technology: Creating Real Change for Small Business;" developed by National Governors' Association: www.nga.org/Files/pdf/SMALLBIZ.pdf
- "Permitting Streamlining Initiatives;"
- City of San Carlos, California
- Permit streamlining initiative website: http://www.cityofsancarlos.org/gov/depts/building/smart_permit/permit_streamlining.asp
- Document: www.cityofsancarlos.org/pdf/scstreamlinelist.pdf
- "Doing Business in Salem;" an example of a quick reference guide for businesses: http://salem.com/pages/salemma_webdocs/businessguide.pdf
- "Permitting Streamlining Initiatives;" developed by Enterprise Florida: http://www.scpl.lib.fl.us/gm/ecodev/pdf/incentives_PermitStreamliningInitiatives.pdf

Portland in Focus

Building on Assets for Collaboration and Growth

DUSP MIT

Spring 2010

Portland in Focus

Building on Assets for Collaboration and Growth

May 19, 2010

DUSP MIT

TODAY'S AGENDA

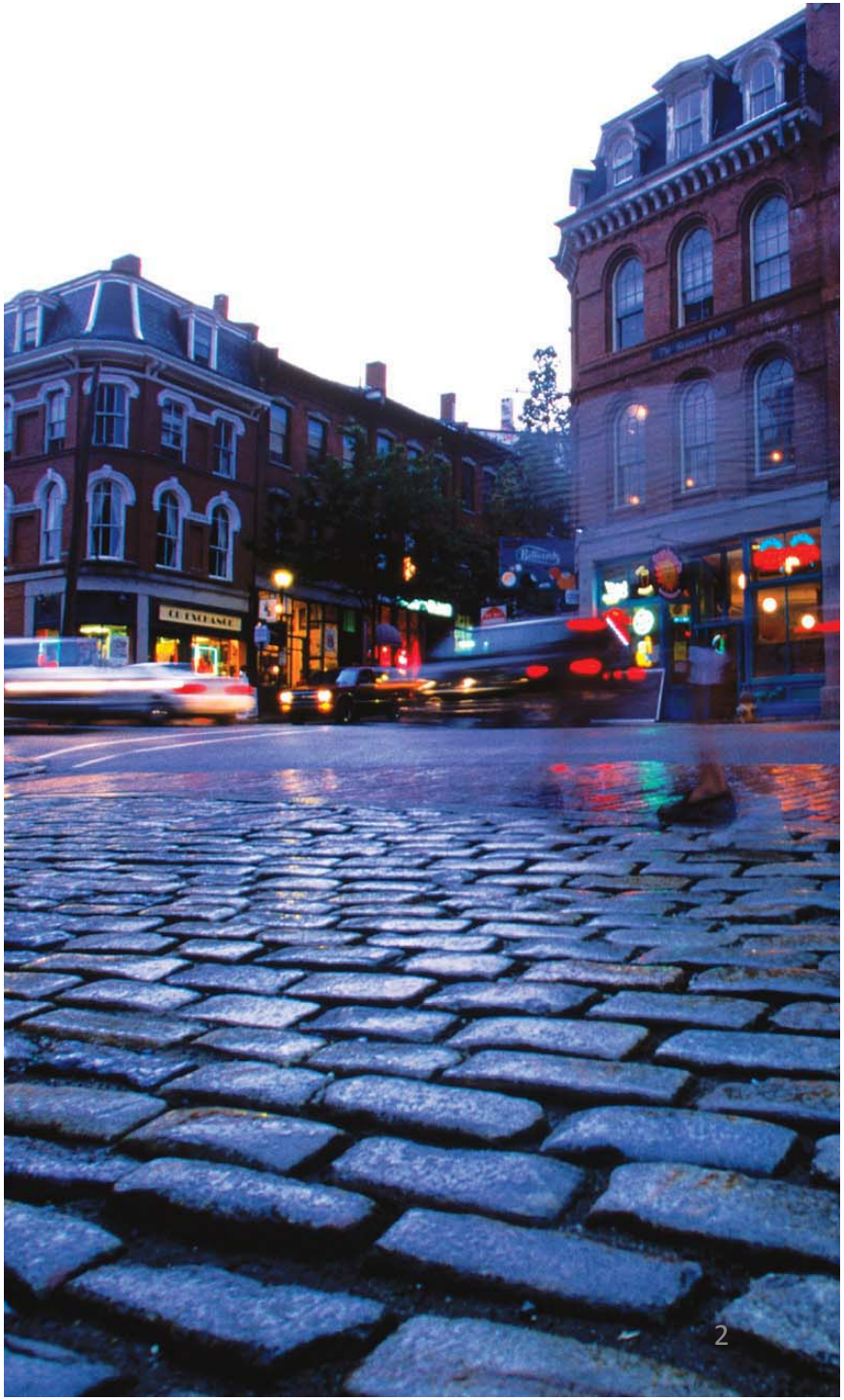
Project Overview

Presentation of Findings

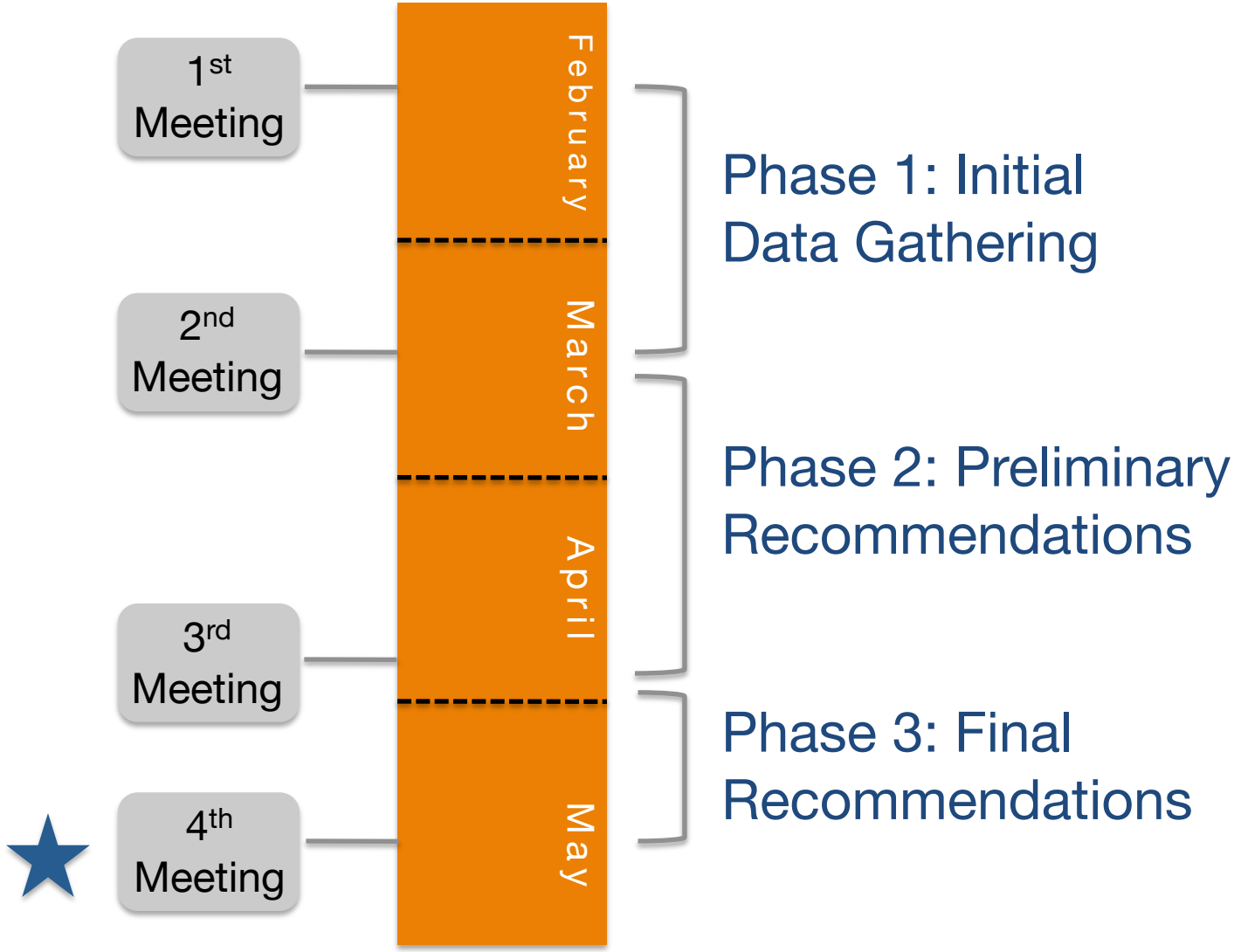
Proposed Strategies

- Life Sciences
- Food Sector
- Business Retention

Discussion



PROJECT OVERVIEW



ASSETS IN PORTLAND

- Strong New England character
- High quality of life with reputation of talented, friendly people
- Economic and cultural hub of the state
- Strong anchor institutions in health, education and creative sectors
- Diversity of sector networks/organizations
- Successful downtown revitalization and creative economy initiatives

CHALLENGES IN PORTLAND

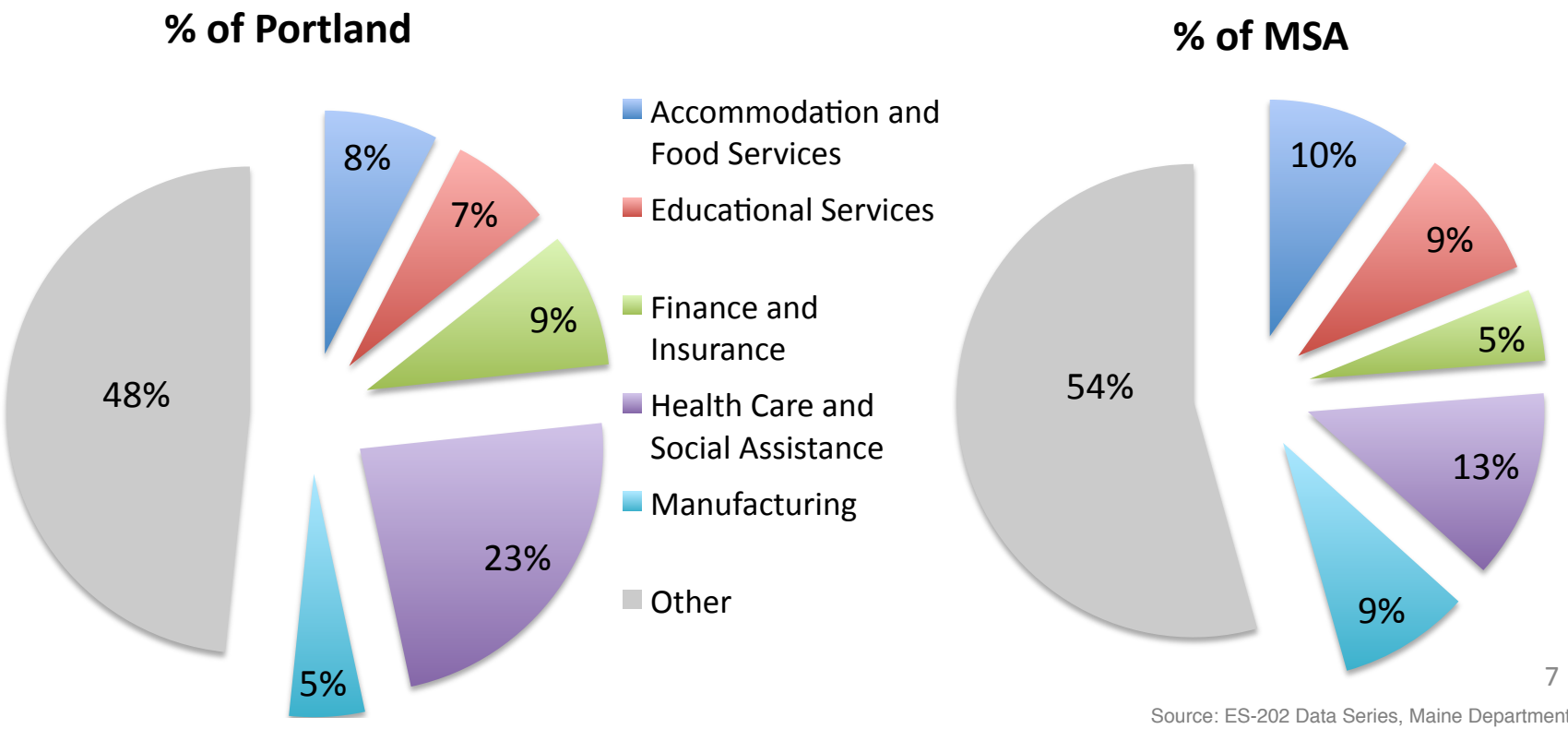
- Unfriendly business environment
- Lack of shared vision
- Key assets and opportunities overlooked in City's current initiatives
- Funding challenges at city and state level
- Local government structure not supporting businesses
- Weak collaboration among major institutions and within key clusters

Portland's Economy

EMPLOYMENT BY SECTOR

- As of 2008, Portland has 68,600 jobs; the MSA has 124,100 additional jobs
- **91% of Portland's jobs are in service industries** compared to 84% in region
- **Almost half of Portland's payroll** is generated by the top 3 sectors: healthcare & social assistance, finance & insurance, and professional & technical services

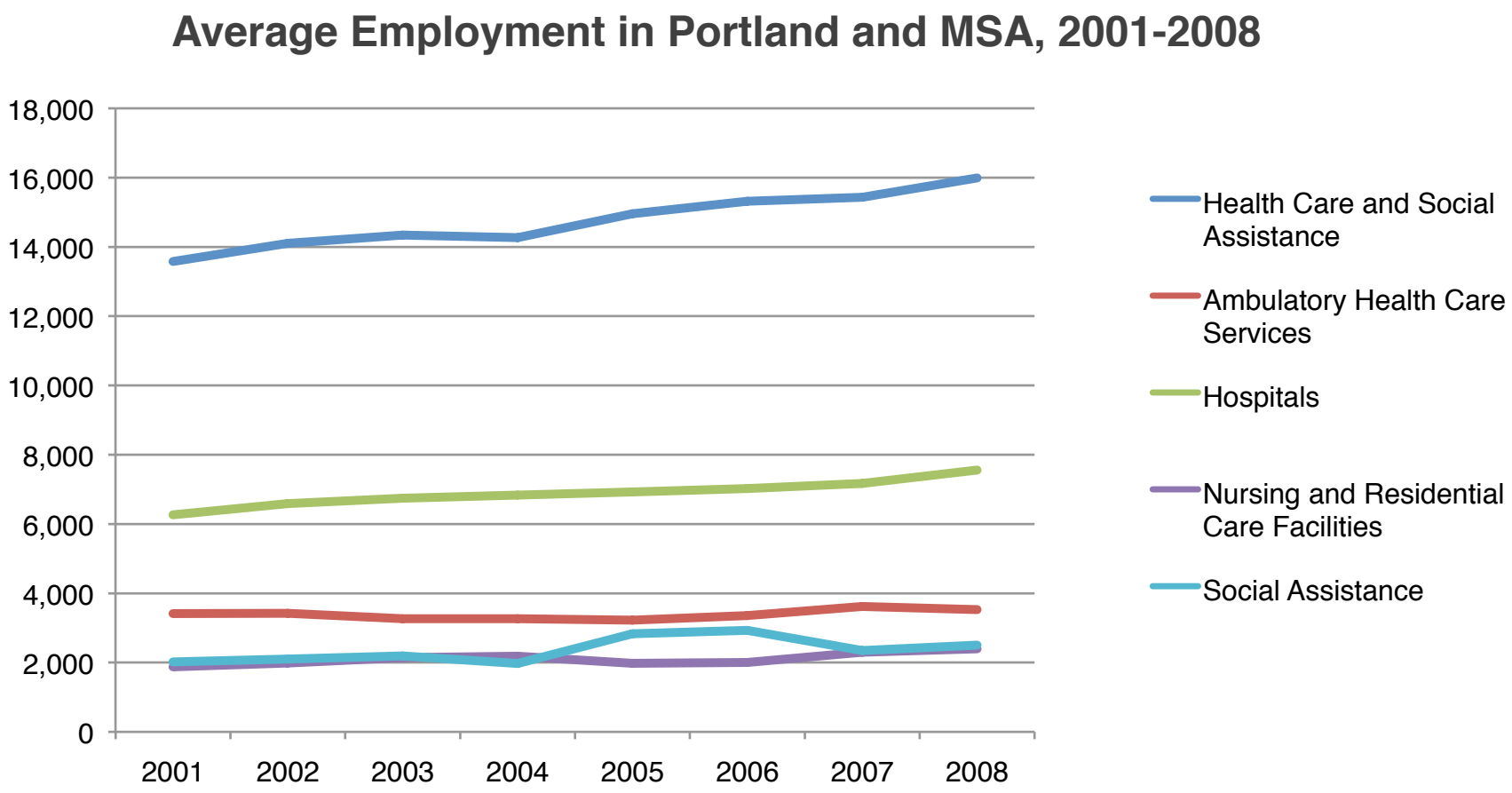
Employment by Sector for Portland and MSA, 2008



Source: ES-202 Data Series, Maine Department of Labor

HEALTH CARE

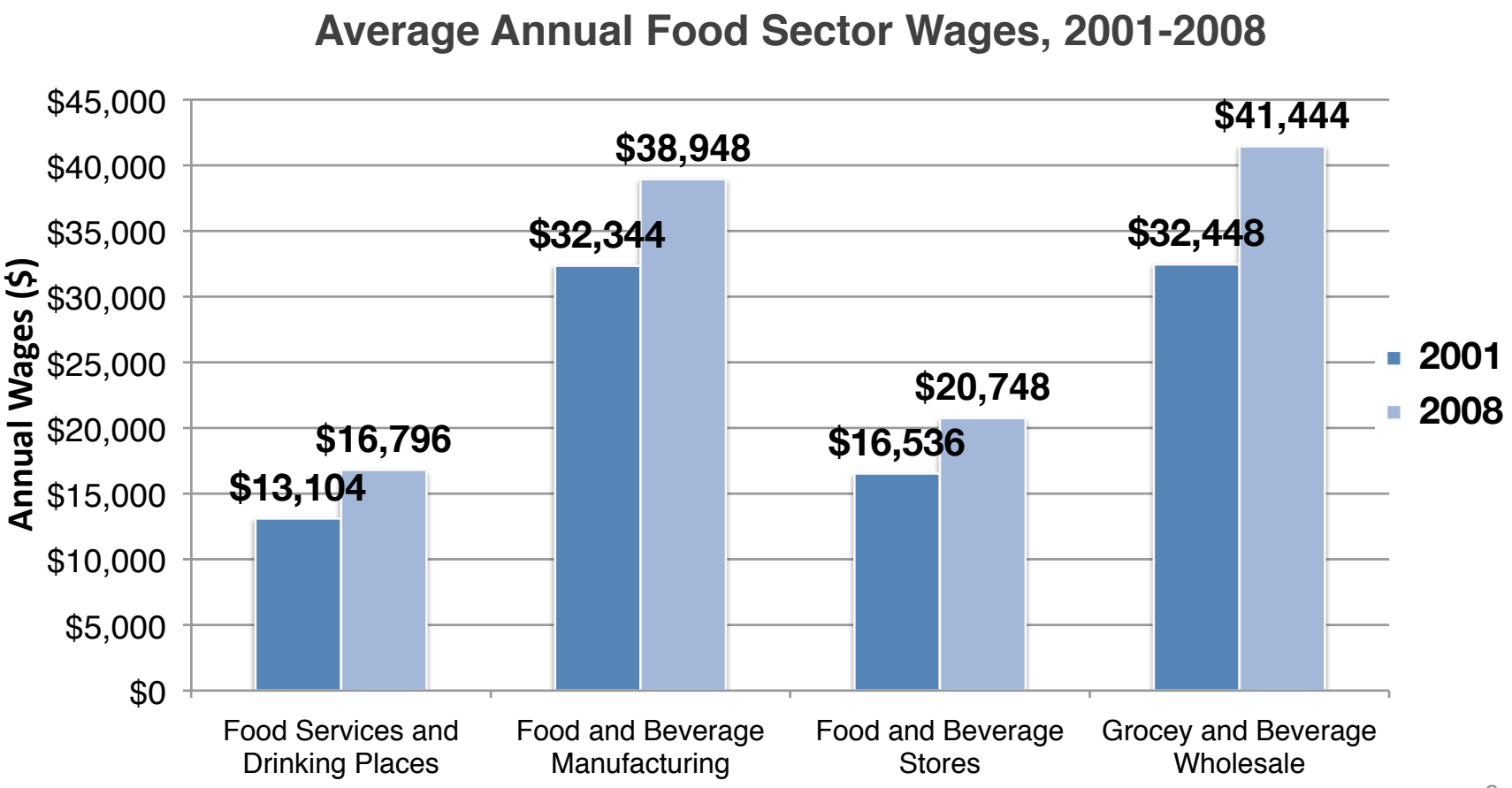
- **Healthcare is one of the largest employment contributors** in Portland, representing 18% of jobs
- Hospitals make-up the largest percentage, with 7,561 jobs



Source: ES-202 Data Series, Maine Department of Labor

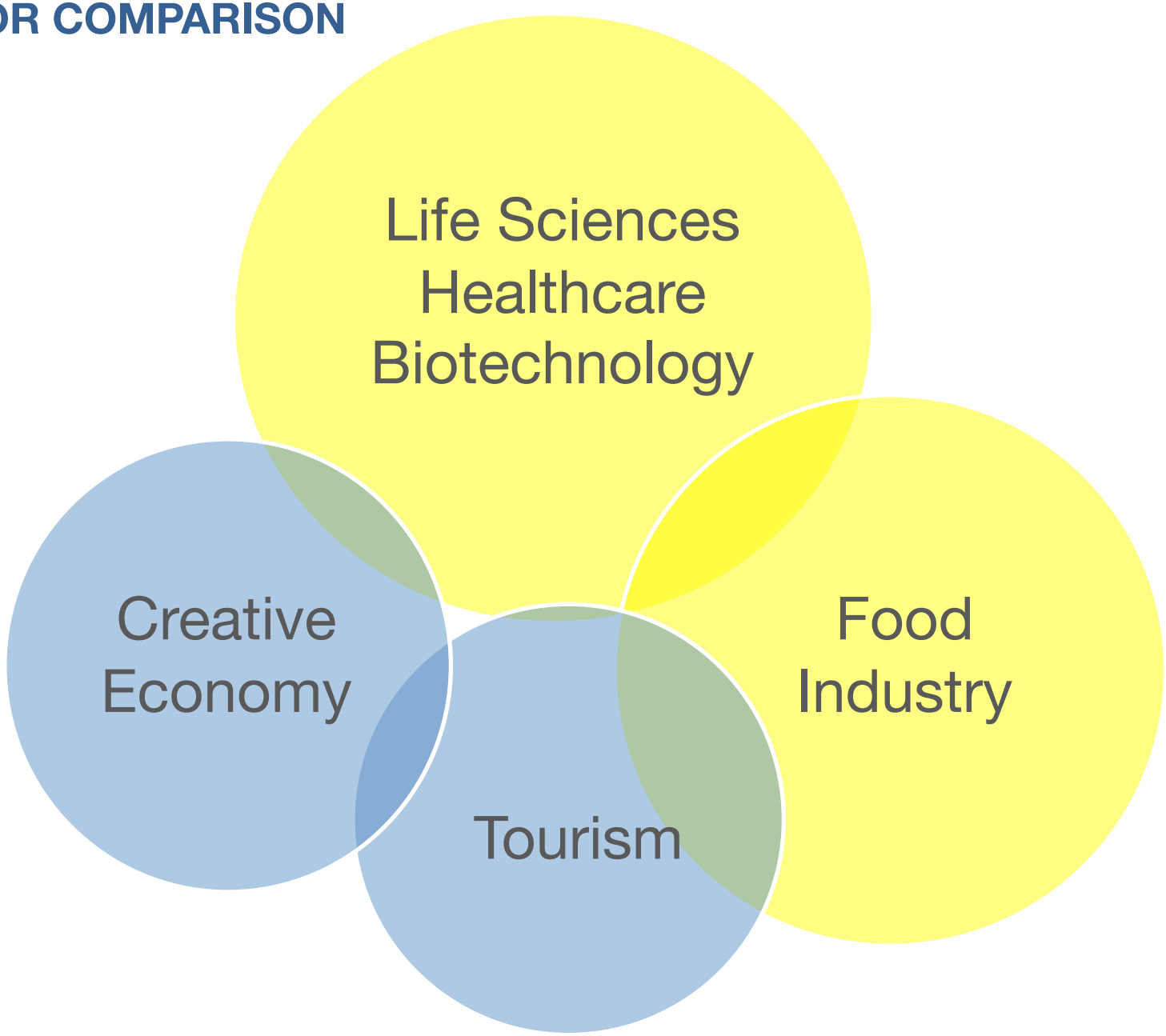
FOOD SECTOR

- Food sector, with 11% of jobs in 2008, is the **second largest sector** in Portland after healthcare
- **Lowest wages in food retail and services**, which are the growing segments



Source: ES-202 Data Series, Maine Department of Labor

SECTOR COMPARISON



Source: ES-202 Data Series, Maine Department of Labor

EMPLOYMENT TRENDS

- Portland **lost jobs in 11 of 19 industry sectors,** while MSA has gained jobs in 17
- Businesses stakeholders cite many examples of business flight or stagnation

EMPLOYMENT CHANGE BY SECTOR, 2001-2008

Industry	Portland		MSA	
	Absolute change	% Change	Absolute Change	% Change
Total, all industries	-2,487	3.50%	11,094	9.82%
Accommodation and Food Services	194	3.88%	1,452	13.55%
Administrative and Waste Services	-921	-18.74%	670	14.62%
Educational Services	488	11.73%	748	7.12%
Finance and Insurance	-2,119	-25.60%	1,681	38.15%
Health Care and Social Assistance	2,411	17.76%	3,424	27.13%
Information	-349	-11.76%	72	3.05%
Manufacturing	-320	-8.50%	-2917	-20.79%
Professional and Technical Services	391	7.96%	1,152	27.05%
Retail Trade	-456	-7.88%	-592	-2.79%
Transportation and Warehousing	-1,485	-37.26%	2,559	71.04%
Wholesale Trade	-537	-15.65%	549	11.42%

Source: ES-202 Data Series, Maine Department of Labor

KEY FINDINGS

Assets

- Highly educated population
- High concentration of professional, technical workforce
- Center of healthcare
- Recognized food destination with large and diverse food business base
- City's work on the creative economy, tourism and waterfront
- Unemployment rate is lower than State's and Nation's
- Multiple higher education institutions and research centers

Challenges

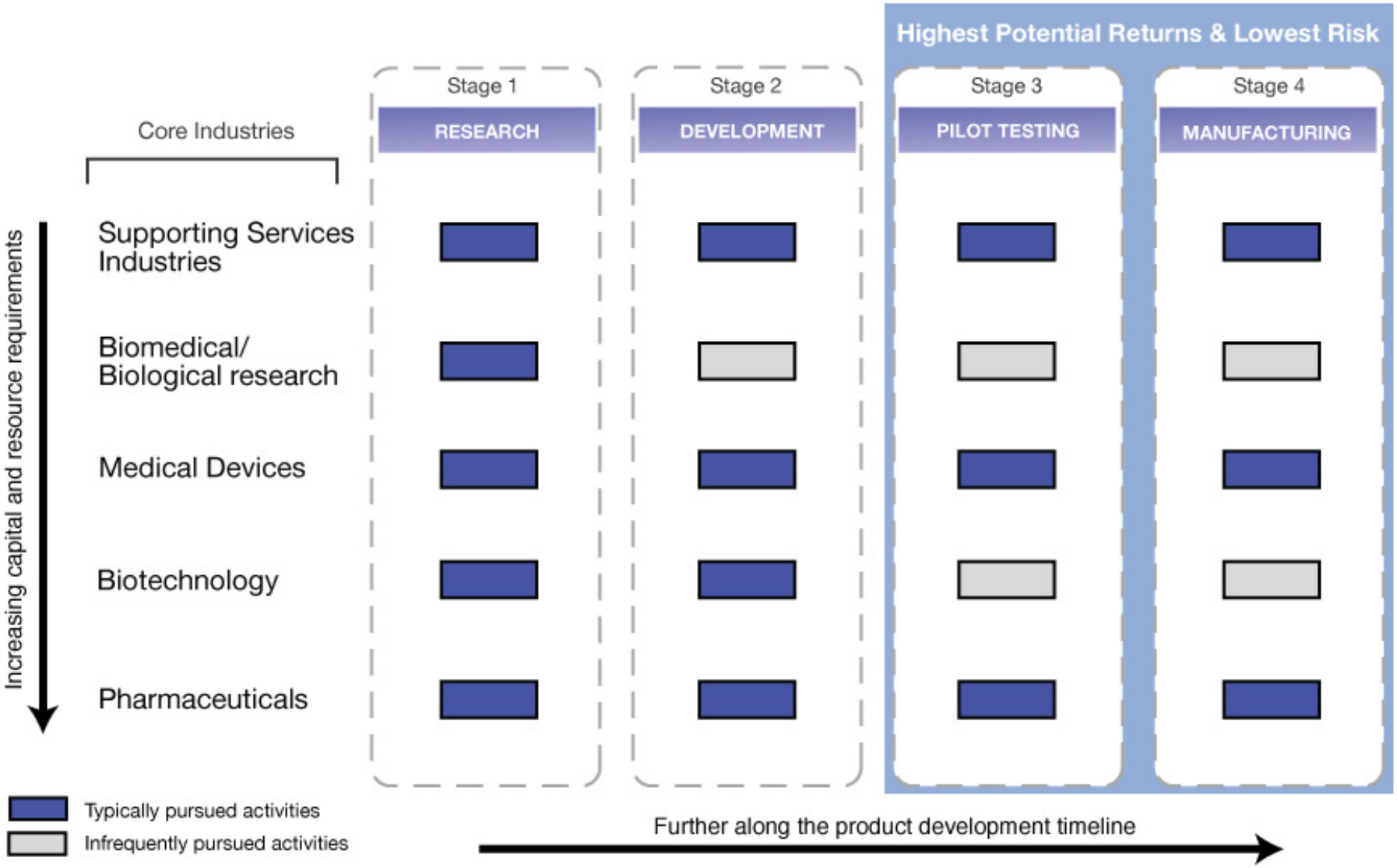
- Select industries are declining, especially high wage industries
- Job losses and low-wage jobs
- Income disparity by race; new immigrants face challenges
- Barriers for business startup and growth
- Improve local, state, regional relationships
- More than just lobsters and lighthouses

THREE STRATEGY AREAS

- Life Sciences
- Food Sector
- Business Retention

Life Sciences

SECTOR COMPOSITION AND ACTIVITIES



ASSETS AND CAPACITIES

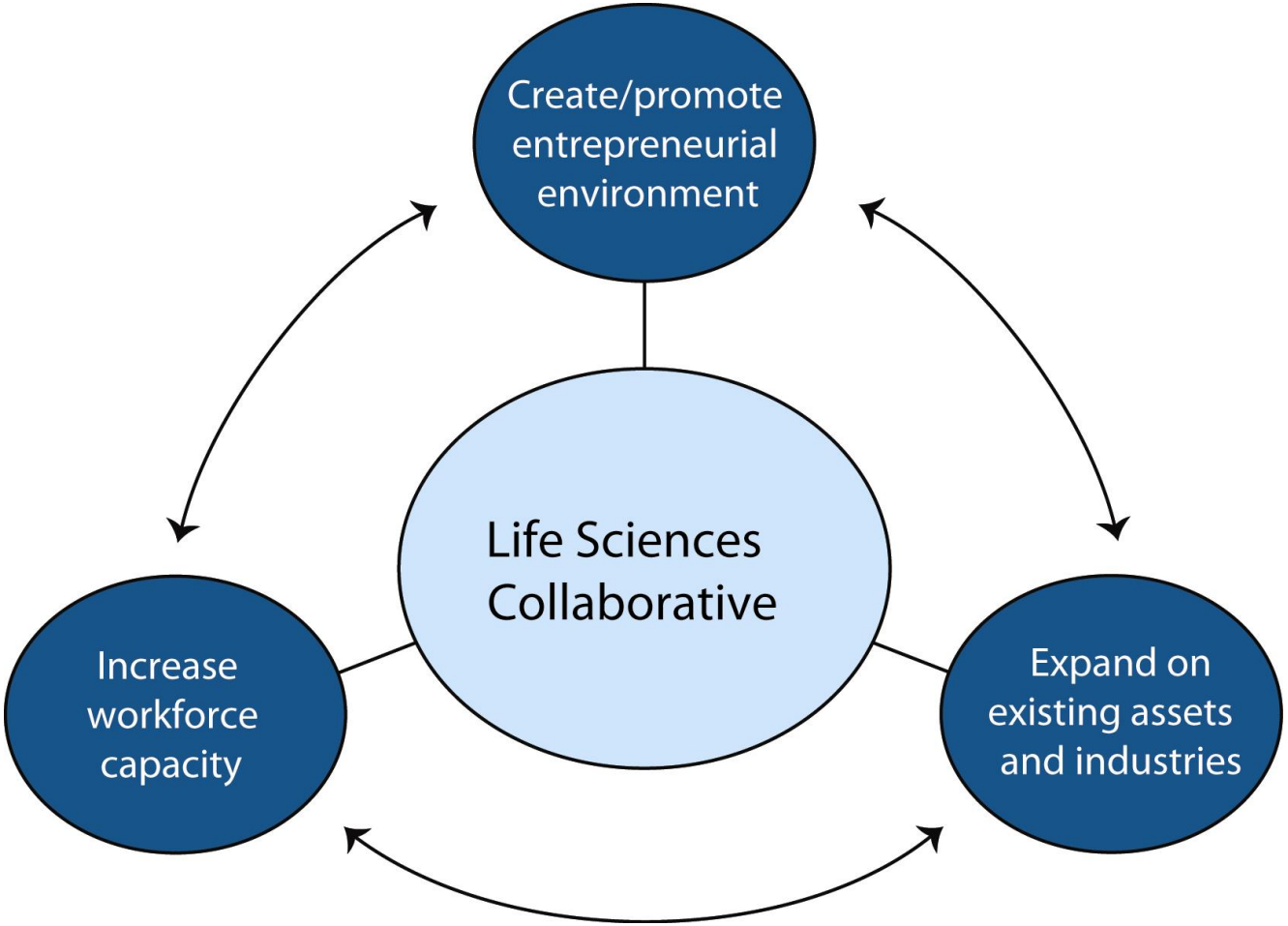
Assets

- Growing educational capacity
- Largest concentration of related businesses in Maine
- Research institutes
- Strong medical sector
- Existing partnerships

Capacities

- Chemistry/pharmaceuticals
- Clinical trials
- Health professions training
- Laboratory equipment
- Molecular biology
- Marine research
- Neuroscience research
- Toxicology
- Rural healthcare training

KEY RECOMMENDATION: FORM LIFE SCIENCE COLLABORATIVE



IMPLEMENTATION AND NEXT STEPS

Short-term

- Convene Life Sciences Collaborative
- Identify new funding sources
- Strengthen relationships between education and the private sector

Mid-term

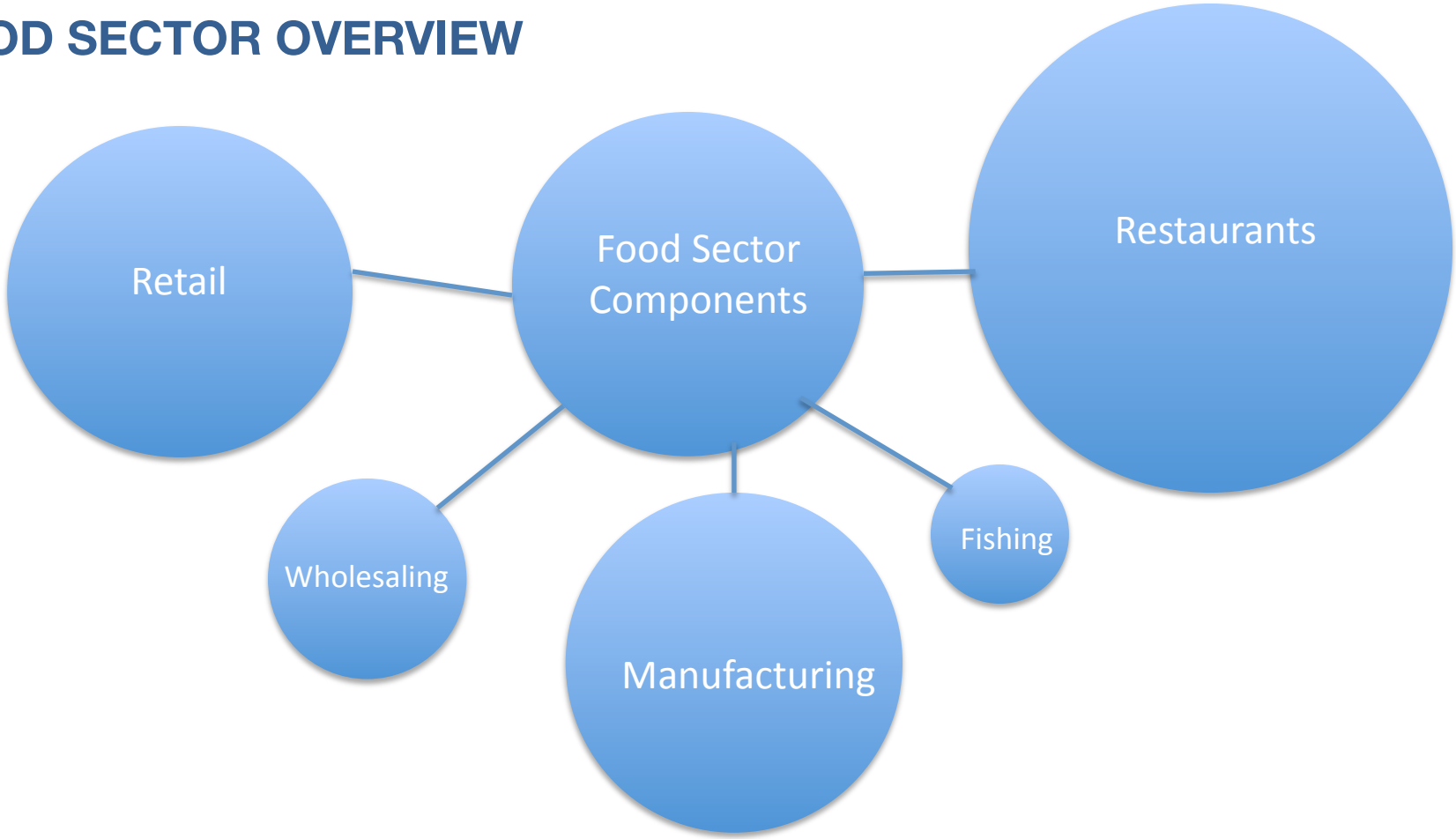
- Develop marketing campaign
- Create business incubator
- Coordinate workforce training

Long-term

- Provide business support services
- Expand on existing assets for research
- Explore business attraction

Food Sector

FOOD SECTOR OVERVIEW



An important part of Portland's **economy, culture & quality of life**

Source: ES-202 Data Series, Maine Department of Labor

FINDINGS

Sector Assets & Strengths

- Many enthusiastic groups and organizations
- Growing consumer interest in local food
- Room for growth

Sector Challenges

- Organizations are not coordinating efforts
- Fragmentation in distribution systems is barrier to use of local supply chains
- Fish & value added foods lack retail venues
- Difficulty navigating city administrative processes

CHALLENGES, OPPORTUNITIES AND RECOMMENDATIONS

Challenges & Opportunities →	Recommendations
Food-related organizations are not coordinating efforts	Create a **Collaborative Food Organization**
Businesses and consumers are seeking reliable local supply chains	Improve **Distribution Mechanisms**
The food sector can complement related economic drivers and harness existing resources	Build **Ties to Other Industries & Programs**

IMPLEMENTATION AND NEXT STEPS

Short-term

Convene Food Sector Collaborative

Develop shared vision and priorities for food

Identify funding for wholesale distribution feasibility study

Explore public retail opportunities for fish and value-added products

Mid-term

Establish relationships with tourism and the Creative economy

Pursue resources for food collaborative projects

Long-term

Implement improved distribution systems

Develop priority projects

Business Retention

CONTEXT FOR BUSINESS RETENTION

Data Findings:

- 11 of 19 sectors are losing jobs
- Employment growth stems from existing businesses
- Growing number of immigrant-owned businesses

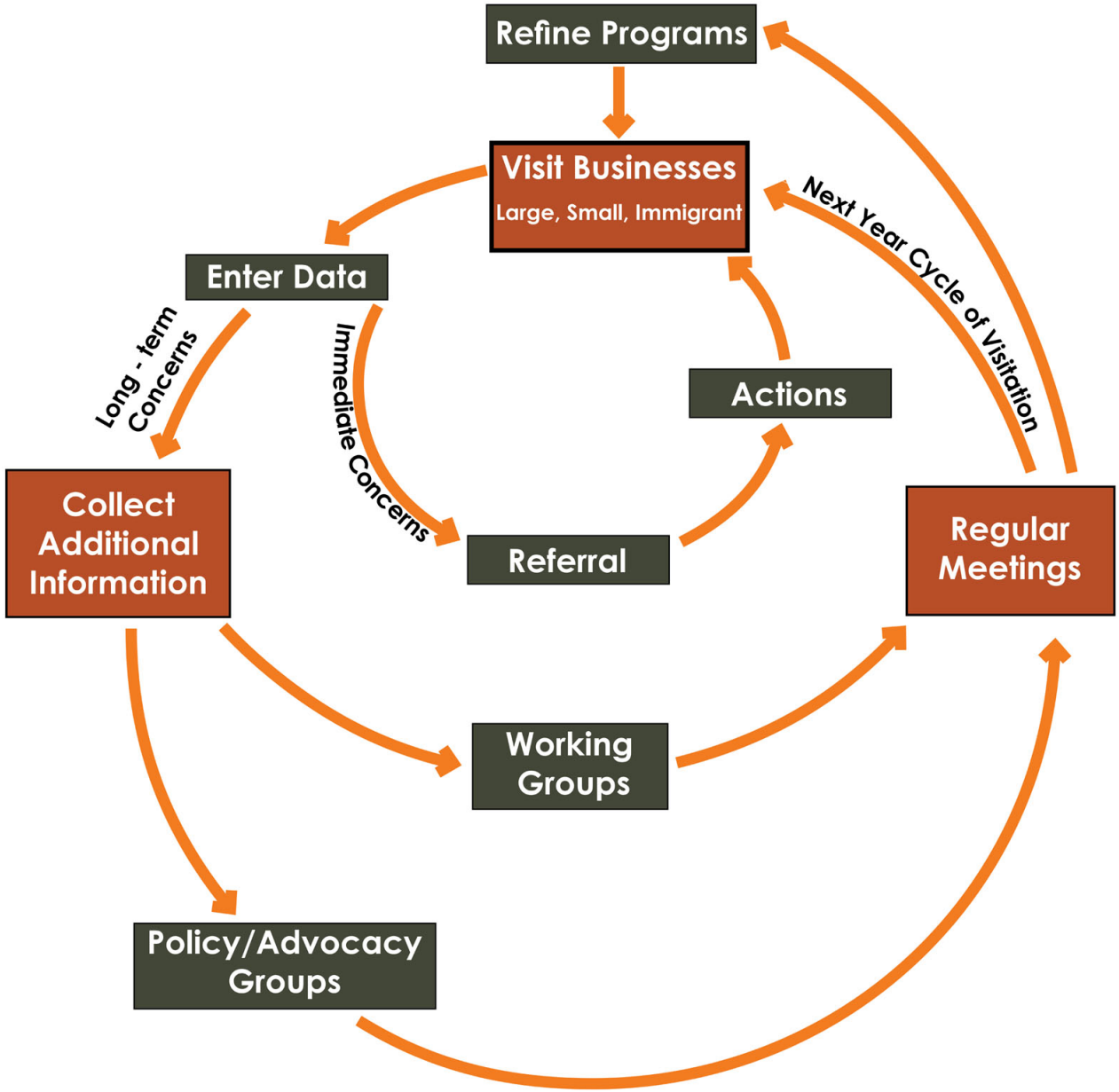
Interview Findings:

- Business environment could be improved
- Difficulties growing and expanding
- Need for a City liaison to address concerns
- Difficulties with inspection and permitting processes

WHY BUSINESS RETENTION?

Challenges & Opportunities →	Recommendations
Business flight Difficult to expand/grow in Portland Existing support organizations	Develop **Business Visitation Program**
Complicated permitting/ licensing processes	Improve **Business Permitting/ Licensing**
Existing resources not consolidated	**Centralize Information**
Support for industry clusters lacking	Facilitate **Industry Networking**

KEY RECOMMENDATION: BUSINESS VISITATION PROGRAM



BUSINESS VISITATION PROGRAM PARTNERS

Potential Partners

- Office of Economic Development
- Chamber of Commerce
- Coastal Enterprises, Inc.
- Workforce Investment Board
- Small Business Development Center
- Portland Downtown District
- Catholic Charities
- Immigrant representation
- Business/trade associations

Next Steps

- Convene partners
- Identify businesses to visit
- Create key questions
- Begin to meet with businesses
- Identify funding source to support sustainability

IMPLEMENTATION AND NEXT STEPS

Short-term

- Implement pilot business visitation program
- Examine business permitting process

Mid-term

- Develop full business visitation program
- Examine business registration process
- Centralize information

Long-term

- Facilitate industry meet-ups and networking events

Summary and Next Steps

Shared Vision, Goals, and Challenges

SUMMARY

Portland in Focus builds off of Portland's assets and addresses several challenges through economic development strategies it details.

Business Retention

Business Visitation Program to streamline communication and address business need

Food Sector

Food Collaborative to build off existing assets and develop unified vision

Life Sciences

Life Sciences Collaborative to develop cluster and support development of new and existing assets

DISCUSSION

Portland In Focus
Building on Assets for Collaboration and Growth

Overview

Portland in Focus: Building on assets for collaboration and growth is the work of MIT urban planning graduate students, under the supervision of Professor Karl Seidman. It provides guidance to the City of Portland and business leadership on strategies to enhance the city's economy and quality of life. The report draws on three months of socio-economic data analysis, input from over 100 Portland stakeholders, and research regarding best practices in other locations. The final report was submitted to the Office of Economic Division May 18, 2010, and can be viewed upon request.

Three Strategy Areas for Economic Development Planning in Portland

Portland in Focus presents an economic development strategy aimed at supporting existing City businesses, fostering collaboration in the food and life science sector, and building off of assets in the City and surrounding region. Primary findings, goals and recommendations for the three focus areas are presented below.

Business Retention: From 2001 to 2008, the City of Portland lost jobs in many industries, and most notably over 2,000 jobs in finance, insurance and real estate while the metropolitan region gained over 1,600 of these jobs. In addition, Portland has a reputation as an unfriendly place to do business. Cumbersome administrative processes are among the barriers to the attraction and expansion businesses. The business retention strategy aims to systematically engage businesses, create business-friendly processes and increase interaction between businesses. The core of this strategy is a commitment to regularly visit targeted businesses to better address their short term needs and to shape long-term trends and policies to retain and grow businesses in Portland.

Key Partners:

Chamber of Commerce, Coastal Enterprises,Inc., Workforce Investment Board, Small Business Development Center

Business Retention Actions

Short-term	Mid-term	Long-term
Implement pilot business visitation program	Develop full business visitation program	Continue business visitation program
Examine business permitting process	Examine business registration process	Facilitate industry meet-ups and networking events
	Centralize information	Streamlining business permitting process

Food sector: The food sector (fishing, food and beverage-manufacturing, wholesale, retail and services) provides 11% of jobs in Portland and accounts for over 50% of all manufacturing jobs in the City. The food sector is integral to Portland's character, and there has been an explosion of groups working on food-related issues in the Portland area. Recommendations aim to support businesses and high-quality jobs in the food sector, strengthen local food systems, and complement related economic drivers in the City. The primary recommendation is to convene a collaborative food sector organization in order to facilitate the identification and implementation of priority initiatives.

Key partners:
Food businesses, non-profits, industry associations, technical assistance providers, state-level organizations

Food Sector Actions

Short-term	Mid-term	Long-term
Convene Food Sector Collaborative Identify funding for a wholesale distribution feasibility study Explore retail opportunities for fish and value-added foods	Identify and initiate priority projects Build relationships with tourism, the creative economy and business support programs	Implement priority projects Implement wholesale distribution system (as appropriate)

Life Sciences: Over 30% of jobs in Portland are concentrated in education and health care services. The Portland region has strong educational programming around health care and life sciences, and boasts a growing network of research institutions. The City is also currently working to grow the biotechnology industry. Recommendations aim to expand on existing assets in Life Sciences, promote an entrepreneurial environment for businesses, and increase workforce capacity for core and emerging occupations. A central part of this strategy is creating a Life Science Collaborative to provide focused leadership and coordination in building the region's life sciences cluster.

Key partners:
Educational, research and medical institutions, businesses, investors, state-level government and organizations

Life Sciences Actions

Short-term	Mid-term	Long-term
Convene Life Sciences Collaborative Identify new funding sources Strengthen relationships between education and the private sector	Develop marketing campaign Create business incubator Coordinate workforce training	Providing business support services Expand on existing assets for research Explore business attraction

Next Steps
Portland in Focus balances long-term goals and recommendations with short-term action steps. Early action initiatives include initiating a business visitation program, a crosscutting food sector organization and a regional life science cluster organization. The elements of these recommendations are sequenced to maximize the benefits that can be achieved with minimal initial resource inputs. These actions reflect a new approach to economic development planning in the City of Portland according to the following themes:

- Promoting collaboration between inter-related businesses and organizations
- Identifying shared visions and available resources to pursue common priorities
- Demonstrating the City's support for businesses and its awareness of their unique needs
- Building off of existing assets in the City and in the region to promote growth and economic development