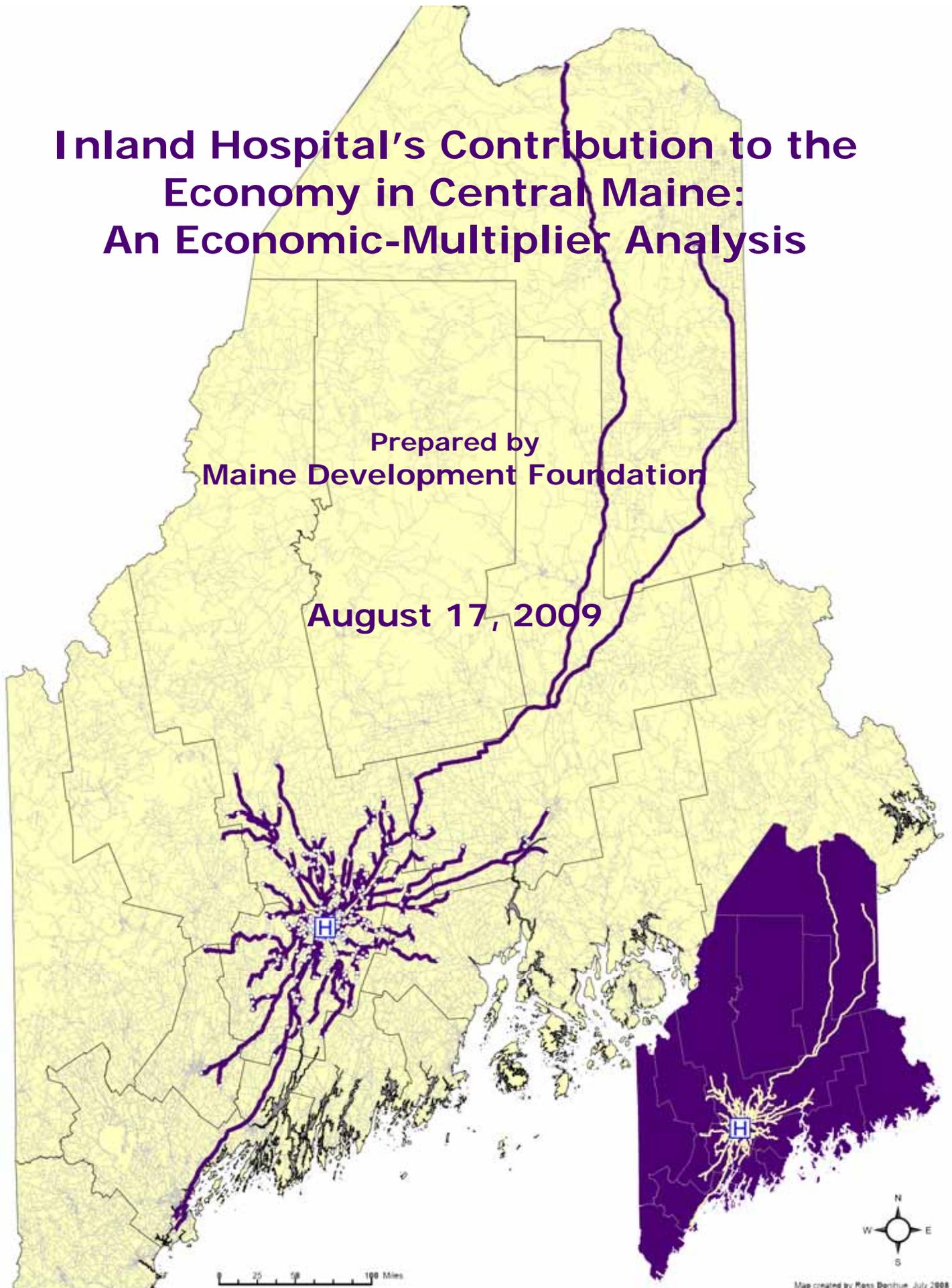


Inland Hospital's Contribution to the Economy in Central Maine: An Economic-Multiplier Analysis

Prepared by
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August 17, 2009



Acknowledgements

Maine Development Foundation gratefully acknowledges the contributions of the following people who provided research, analysis, insights and support for the study.

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Purpose of the Report

In March 2008, Inland Hospital and Eastern Maine Healthcare Systems contracted with study partners, Maine Development Foundation and Michael Donihue, Professor of Economics at Colby College, to conduct an assessment of the economic contribution of the two health-care delivery systems to the central Maine economy. The project included three parts:

1. A regional demographic and socioeconomic analysis,
2. An economic multiplier analysis including the contributions to the local economy, and
3. Analyses of employee-commute patterns.

The following narrative report provides a summary of findings from the study, including brief discussions of data sources and methods. The detailed analyses can be found in the technical appendices to the study.

Executive Summary

Currently, the central Maine region, covering the southern portions of Kennebec County and parts of Somerset County, is served by two medical centers: Inland Hospital and MaineGeneral Medical Center. Inland Hospital, a 48-bed hospital, is located on a single campus in Waterville. MaineGeneral Medical Center, a 287-bed medical center, is comprised of four primary campuses spread between Augusta and Waterville. These hospitals, like most in poorer, rural areas, not only provide important medical services, but serve as major employers in the area and are important contributors to the local economy. To understand the full contribution of the hospital to the local area, Inland Hospital asked the Maine Development Foundation to assess the organization's current contribution to the regional economy including its full economic-multiplier effects. The study's objectives were threefold:

1. Describe the local economy including the socioeconomic characteristics of the region,
2. Estimate the total economic contribution made by Inland and its employees to the local economy, and
3. Map the commuting patterns of Inland employees and calculate an annual cost for commuting.

This executive summary provides the highlights of the study findings; the complete discussion is detailed in the full report.

The People of the Kennebec Valley Region

The Kennebec Valley Region, the lower portion of Kennebec and parts of Somerset counties, is the primary-service area for Inland Hospital as well as home to the majority of its employees. The socioeconomic characteristics of the people in the region play a large role in shaping the local economy as well as the demand for health-care services. Since the people of the Kennebec Valley Region closely resemble the characteristics of the residents of Kennebec County overall, the county statistics were used in this analysis as the best available datasets for demographic information.

The Region's Income and Educational Attainment Levels are Lower than the State Averages

In 2006, the Kennebec County region had a slightly lower economic standing than the state average. The median income was lower, \$36,498 compared to \$37,240 for the state; the educational attainment levels were lower (47% with some education beyond high school compared to 48% for the state); and the poverty rates were slightly higher (11.1% compared to 10.9% for the state). Finally, the region's population, like the state, is aging, with current median age in the early 40s. These lower levels of income and education put the region at a disadvantage

for economic growth as well as put its population at risk for health problems.¹ The advancing age of the population adds to this disadvantage; Kennebec County has an aging workforce, with fewer new comers to the job market as well as an additional burden of the increase in prevalence of chronic disease which comes with age. These conditions not only strain the health-care workforce, but at the same time, increase the need for health-care services.

Employment and Economic Activity in Kennebec County

Inland Hospital is a part of the health and social-assistance sector. The health care and social-assistance sector is the largest private source of employment in Kennebec County and second behind state government workforce in the region. In 2007, 17% of all workers in Kennebec County were employed in the health and social-services sector. This was similar to the statewide employment share of 16%.²

The health and social-services sector also paid the largest annual private payroll in Kennebec County in 2007. The average annual payroll payment per worker in the health and social-assistance sector was 4% higher than the overall county average for all sectors. As one of the larger non-governmental medical facilities in the region, Inland plays an important role in providing good paying jobs in the local region.

Economic Contribution Analysis

To estimate the share of economic activity attributable to Inland, we developed an economic multiplier measurement approach based on health-system spending data and generally accepted statistical methods. The basic approach was to identify the direct spending by the hospital on purchases, wages, and contracts and then to build on that information by identifying the employees' expenditures. Once the hospital and employee spending patterns were defined, we applied region-specific economic multipliers developed by the U.S. Bureau of Economic Analysis (BEA) to the expenditures to estimate the full effect of the spending on output, employment, and earnings in the region.

Inland Hospital Direct Expenditures

The first step in the analysis was to identify Inland Hospital's annual spending. To accomplish this, Inland provided records of spending on payroll and by vendor location for 2007-2008. In 2007-2008, Inland paid more than \$18.5 million in wages and salaries and \$15.8 million in non-

¹ Maine State Health Plan 2008-09, Issued by The Governor's Office of Health Policy and Finance with the Advisory Council on Health Systems Development April 2008. found at <http://www.maine.gov/dhhs/boh/phdata/Additional%20Reports%20Pdf%20Doc/2008-2009%20State%20Health%20Plan.pdf>

² Excluding self-employed establishments.

wage purchases of goods and services. The total payment to employees for wages was greater than payments to vendors for non-wage purchases. Looking more closely at the in-region spending, Inland reported more than \$3.1 million (13%) of non-wage expenses were made in Kennebec County during that year. The majority of the in-region spending, 61%, occurred in Waterville. See Table EX-1.

Table EX-1. Direct Spending by Inland Hospital

Direct Spending Categories	Municipal Subtotal	Region Subtotal	Total
Wages and Salaries			\$18,563,720
Non-wage Purchases			
Augusta	\$ 676,947		
Waterville	\$ 1,900,661		
Other Kennebec County Locations	\$ 572,398		
Subtotal Kennebec County		\$ 3,150,006	
Out of Region Purchases		\$12,614,992	
<i>Total Non-wage Purchases All Locations</i>			\$15,764,997

Employee Expenditures

Employees can use their wages to purchase goods and services, to save or to invest. Thus, it is important to isolate the portion of employee spending that is attributable to the local region. To do this, we conducted a web-based survey of employee spending habits. The 25-question survey was administered in June to 372 Inland employees and yielded a 57% response rate. The respondents provided detailed information on their in-region spending as well as on a few key demographic variables that provided important descriptive information. The findings from the survey were weighted by the employee population for each salary range to reflect total in-region spending by employees. Total employee in-region spending is estimated to be \$9,214,220 for 2007-2008. Figure EX-1 shows the distribution of total in-region spending for employees.

Total Contribution to the Local Economy

Based on the estimates of regional spending by Inland employees and the regional-direct costs reported by the hospital, we applied the economic multipliers to determine the total contribution to economic activity in the local region. The analysis includes the direct and indirect effects of the spending as well as the effect on employment. Table EX-2 contains the findings. In 2007-2008, Inland Hospital regional spending accounted for \$12.4 million in direct spending. When the induced effects that resulted from employee spending are added, the total economic contribution in the region reaches \$18.5 million. Of this total contribution, \$4.3 million can be

attributed to wages and salaries for non-hospital employees. Moreover, this level of economic activity supported 175 non-hospital jobs in the local economy. Simply put, each dollar of direct in-region spending by the hospital and its employees generates an additional \$0.66 in the local economy. For every two Inland employees, the hospital supports an additional job in the region.

Figure EX-1. Distribution of Household Spending by Inland Employees, 2007-08

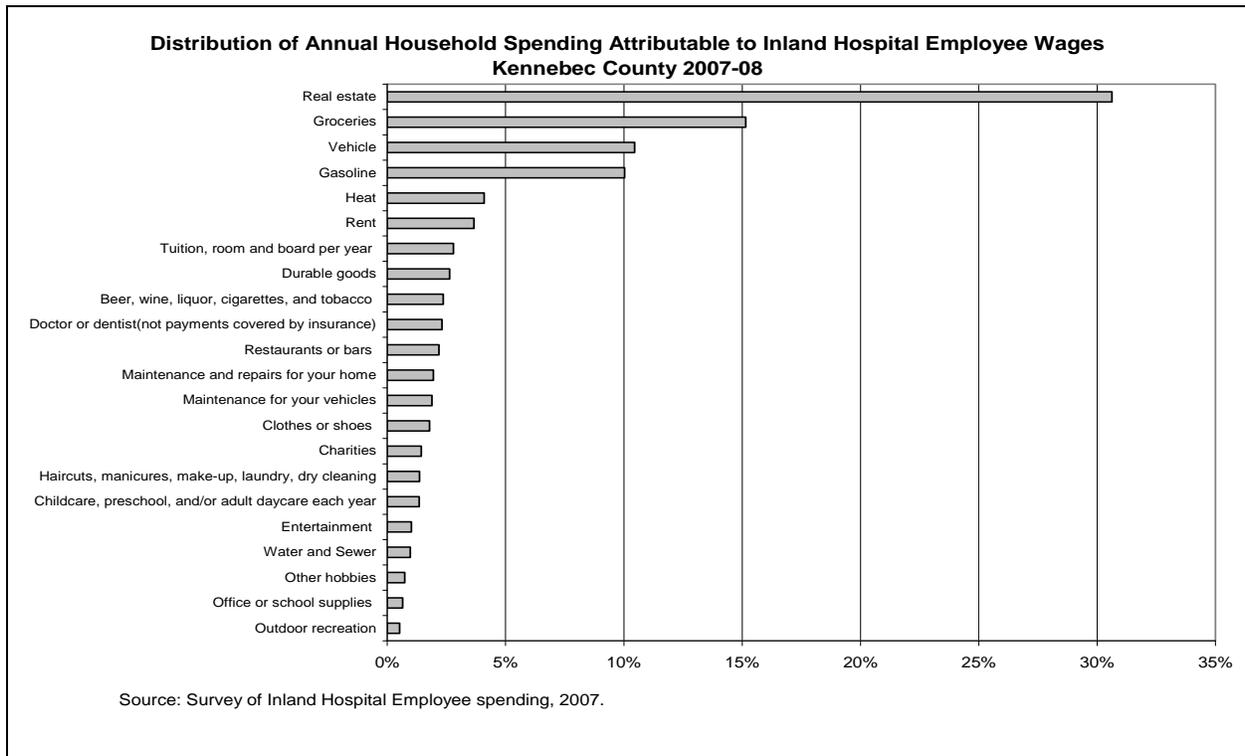


Table EX-2. Full Effects of Inland Annual Spending on the Kennebec County Economy

	Direct Payments	Total Effect on Output/Local Demand	Total Effect on Earnings	Total Effect on Employment
Employee Spending	\$9,214,220	\$13,621,491	\$2,989,268	134
Hospital Direct Spending	\$3,150,006	\$4,845,260	\$1,385,246	41
Total In-Region	\$12,364,226	\$18,466,751	\$4,374,514	175

Employee Commute Costs

The final piece of the analysis was to estimate the commute costs for Inland employees. To do this, we used hospital records of employee’s municipality of residence and estimated the average daily commuting distance. We then multiplied the distance by the current travel reimbursement rate approved by the Internal Revenue Service. At the time of this analysis, the travel reimbursement rate was \$0.58/mile. While most employees live in the greater Waterville region,

there are some who travel fairly long distances to work. Thus, the average one-way commute is 12 miles and the annual cost for a full-time employee is approximately \$3,031.

Table EX-3. Employee Commute Distances and Costs

Number of Employees	373
Average commute (one way)	12 miles
Average annual commuting cost per employee (\$0.58/mile)	\$ 3,031
Total commuting costs - all employees	\$ 1,130,627

Inland Hospital’s Role in the Kennebec County Region

The findings from this study show that Inland Hospital not only plays an important role as a health-care provider in the region, but is a significant contributor to the local economy. The hospital is part of the region’s largest economic sector for earnings and employment, the health care and social services sector, and is a significant contributor to the region’s retail sector, both through its direct purchases and indirectly through employee purchases. Moreover, Inland serves an area of the state where people have slightly lower income and education levels than the state averages which, according to Maine’s State Health Plan, raises the likelihood of having increased health-care needs.³ Specifically, the study highlights show that the hospital:

- Spends \$3.1 million in the county on non-wage purchases,
- Supports a payroll of more than \$18 million,
- Employs more than 370 people paying higher than average wages for the county,
- Employees spend more than \$9 million of their wages in the local area,
- Each dollar spent in the region by the hospital and the employees generates an additional \$0.66 for a total in-region contribution of more than \$18 million each year, and
- Of the total local contribution more than \$4 million supports non-hospital wage, and salaries and 175 jobs.

³ Maine State Health Plan 2008-09, Issued by The Governor’s Office of Health Policy and Finance with the Advisory Council On Health Systems Development April 2008 found at <http://www.maine.gov/dhhs/boh/phdata/Additional%20Reports%20Pdf%20Doc/2008-2009%20State%20Health%20Plan.pdf>.

Introduction

Currently, the central Maine region, covering the southern portions of Kennebec County and parts of Somerset County, is served by two medical centers: Inland Hospital and MaineGeneral Medical Center. These hospitals, like most in poorer-rural areas, not only provide important medical services, but serve as major employers in the area and are important contributors to the local economy.

The following report is an assessment of the overall economic contribution of Inland Hospital to the local region. The analysis includes a description of the local economy, an estimate of the full contribution of the hospital to employment and spending in the region, as well as an assessment of commuting costs for employees.

Central Maine's Hospital Systems

Inland Hospital, one of two medical centers in central Maine, is a 48-bed hospital located in Waterville. Inland's services include acute care, ambulatory surgery, a birthing center, radiology, rehabilitation, home care, 24-hour emergency care with on-site LifeFlight helicopter pad, sleep center, specialized clinics, and laboratory services. In 2006, Inland Hospital employed 400 people and earned approximately \$34 million in revenues.⁴

“In 2006, Inland Hospital employed 400 people and had revenues of more than \$34 million.”

MaineGeneral Medical Center, the region's largest medical center, provides emergency and critical care, inpatient and outpatient surgery, diagnostic services, substance abuse and mental health services, cancer care, maternity services, and newborn and child health programs to patients. The medical center is spread across four campuses: Seton and Thayer in Waterville and MaineGeneral Medical Center and Harold Alfond Center for Cancer Care in Augusta. In 2007, the MaineGeneral Medical Center employed 2,738 people and had revenues exceeding \$320 million.⁵ Including all affiliates, the MaineGeneral Health System employed 3,870 employees both full and part time and its collective revenues were more than \$420 million.

In addition to these two private, non-profit health systems, the region is also home to a Veterans Hospital, Togus, and a state-run psychiatric hospital, Riverview.

⁴ IRS Form 990 filing for Inland Hospital 2006.

⁵ IRS Form 990 filings for MaineGeneral Health and MaineGeneral Health and Affiliates for fiscal year 2007.

Kennebec County Region Demographics and Socioeconomic Characteristics

To put this analysis in context with the overall health and economic needs of the region, we conducted a descriptive analysis of the demographic and economic characteristics of the area. These factors not only describe the role of the health-care industry in the local economy, but also describe the implications for health-services delivery in the region. Currently, Inland Hospital serves a region that includes Kennebec and parts of Somerset counties. A closer look at the demographic and socioeconomic characteristics of the people in the region, provides insight not only into the patients' backgrounds and health-care needs in this region, but also describes the labor markets for the hospitals and general-trade area.

For purposes of this demographic analysis and economic-contribution study, we used the characteristics of Kennebec County residents to represent Inland's labor market and service area for two reasons. Firstly, there are no specific boundaries for the hospital-service region, patients and clients are able to select their health-care provider based on their own needs. With Inland located in Waterville and serving the outlying areas, the Kennebec County data provided the most reliable set of data describing the characteristics of the region. Secondly, while there are many Inland patients that reside in neighboring Somerset County, the patients mostly reside in the southern part of that county and have demographic characteristics similar to Kennebec County.

Kennebec County Region Demographics

Kennebec County, located in central Maine, covers 29 municipalities and is home to more than 117,000 people. The two major service centers for the county, Augusta and Waterville, house close to one-third of all the region's residents, with the remaining population spread across the other 27 towns in the large geographic area. The region is rural in landscape and has a low population density. It is also home to the state's capitol and offers many of the services that contribute to the political process and support the provision of public services. In addition to the two local hospital systems, the region also has a federal Veterans Affairs Medical Center, Togus Hospital, and a state-run psychiatric hospital, Riverview, in Augusta. Table 1 contains specific demographic information for Kennebec County as well as the State of Maine.

Lower Incomes in Kennebec County

U.S. Census data show that Kennebec County residents had a lower economic status compared to the state averages in 2006 (the most recent year for comparable data). The regional median household income was 2% lower than the state average and the proportion of the population living in poverty (11.1%) was greater than the state average (10.9%). Taking a closer look at specific municipalities shows great variation within the region. The service centers of Augusta

and Waterville had lower median household incomes and higher rates of poverty than their neighboring communities. Median household income was \$26,000 in Waterville and \$39,000 in neighboring Winslow, a \$13,000 difference. Similarly, Augusta had median household income levels at \$29,000 while Hallowell/Gardiner was \$35,000. The poverty rates followed the same patterns. The proportion of the population living in poverty in Waterville was 19% or one out of every 5 persons, while Winslow was 7%, or less than one out of every 10 persons. Augusta had 15% of its population living in poverty compared to their Hallowell/Gardiner neighbors with 12% in these circumstances.

Educational Attainment is Lower than State Averages

Another indicator of economic status as well as a determinant of health status is the educational attainment level of the population.⁶ On average, residents of Kennebec County had lower levels of educational attainment than the state’s residents overall. Among the select neighboring communities, Augusta and Fairfield showed the lowest overall attainments in the area with only 45% of the Augusta population with education experience beyond high school and 19% with a college degree or higher. Fairfield was the lowest in 2000, with only 38% of its population seeking education beyond high school and a low 14% degree attainment rate among adults over 25 years of age. Overall the region’s rates are lower than the state’s level of 48% with education beyond high school and 23% degree attainment rates. The low levels of education put the region at a disadvantage for economic growth as well as put its population at risk for health problems. See Table 1.

Table 1. Demographic Data for Kennebec County and Maine, 2006

2006	Kennebec County	Maine
Total Population	117,114	1,274,923
Housing Units	56,364	691,132
Median age (years)	41.1	41.1
Median Household Income (\$)	\$36,498	\$37,240
Population Below Poverty Level (%)	11.1%	10.9%
High School (%)	37.7%	36.3%
Some College (%)	26.9%	26.3%
College Graduate or Higher (%)	20.7%	22.8%

Source: US Census: American Community Survey 2006.

⁶ Maine State Health Plan 2008-09, Issued by The Governor’s Office of Health Policy and Finance with the Advisory Council on Health Systems Development April 2008. found at <http://www.maine.gov/dhhs/boh/phdata/Additional%20Reports%20Pdf%20Doc/2008-2009%20State%20Health%20Plan.pdf>.

Economic Characteristics of the Kennebec County Region

Changing Economic Mix

Up until 25 years ago, the greater Kennebec County region's economy was largely manufacturing based with paper mills, shoe factories, and textile and clothing manufacturers serving as the major employers. As low-cost labor in other markets and technological advances reduced the need for Maine workers, those mills closed and the region began searching for new sources of income and stability for families and workers. Slowly the region has begun to replace those jobs with more service-oriented businesses including call centers, data processing, and retail operations. There has also been strong growth in the health-care services sectors including a growing need for direct care and home-based care workers.⁷

Lower Skilled Workers, Higher Unemployment

Kennebec County's workforce comprises about 9% of the state's total workforce. In 2007, the region's unemployment rate (4.6%) was slightly lower than the state average (4.7%). Within the region, the unemployment rates were higher in the service-center communities of Augusta (5.1%) and Waterville (5.5%) as well as in the municipalities with lower educational-attainment levels. See Table 2.

Employment and Economic Activity in Kennebec County

The health-care and social-assistance sector is the largest private source of employment in Kennebec County and second behind the state government workforce in the region. In 2007, 17% of all workers were employed in the health and social-assistance sector, similar to the statewide employment share.⁸ Retail establishments employed 15% of the workforce, also similar to the statewide share, 16%. See Figure 1.

Table 2. Labor Market for Kennebec County Including Select Municipalities, 2007

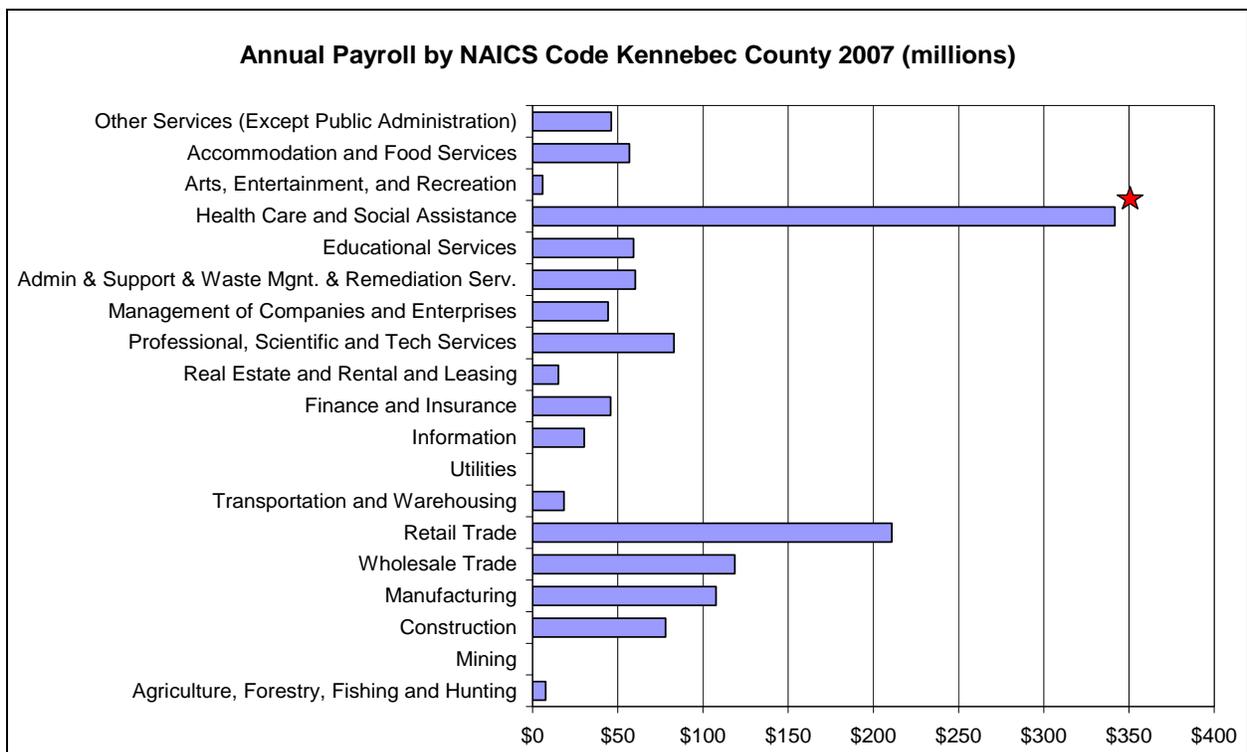
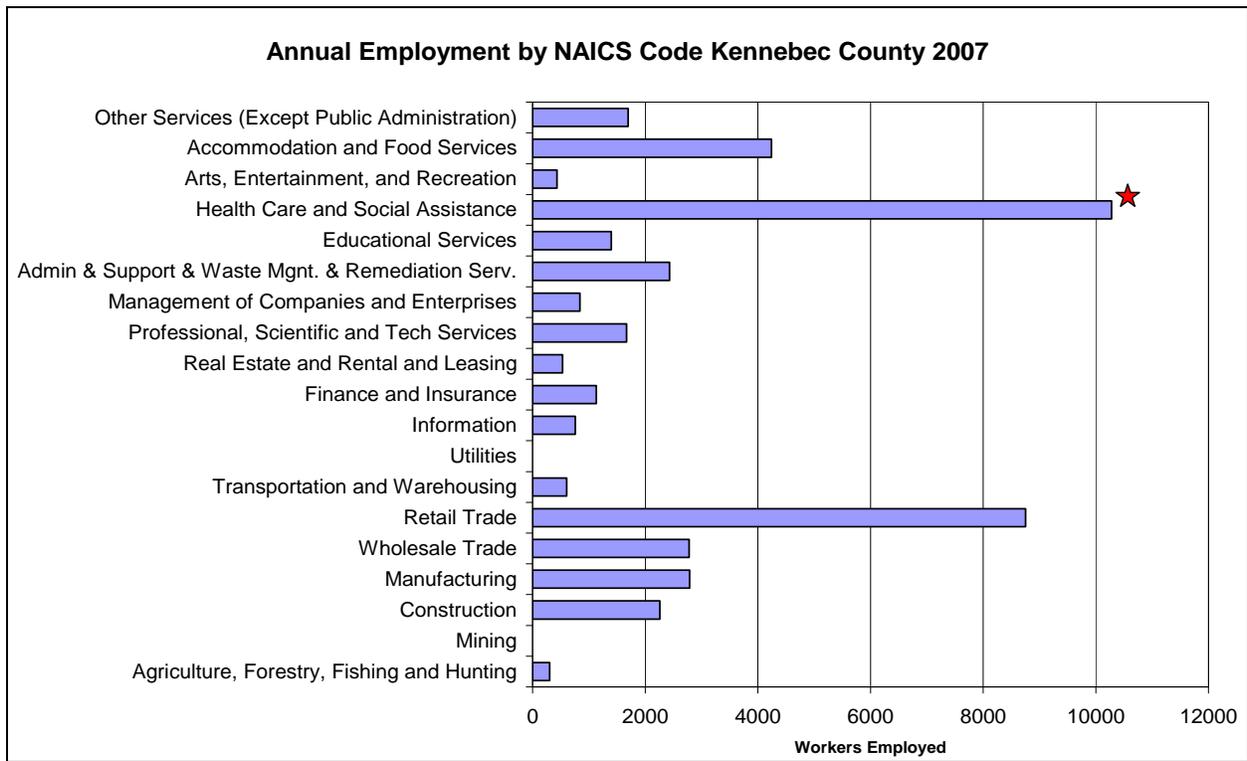
Year 2007	Waterville	Fairfield	Oakland	Winslow	Kennebec County	Maine
Resident Labor Force 2007	7,469	3,566	3,123	4,135	63,145	704,693
Unemployment Rate	5.5	5.1	4.4	4.3	4.6	4.7
Employment All Industries	12,325	2,183	2,219	2,144	59,435	602,262
Employment Health & Social Assistance	4161	363	150	152	10,277	101,376
<i>Health & Social Assistance (% of total)</i>	<i>34%</i>	<i>17%</i>	<i>7%</i>	<i>7%</i>	<i>17%</i>	<i>17%</i>

Source: US Bureau of the Census: 2007 Census Summary File 3, Table P37

⁷Department of Labor, Quarterly Census of Employment and Wages (QCEW), 2007.

⁸ Excluding self-employed establishments.

Figure 1. Kennebec County Employment and Payroll by NAICS Code



Source: Maine Department of Labor, Quarterly Census of Employment and Wages (QCEW), 2007.

Health-Care Sector Pays Higher Wages

Along with the greatest share of private sector employment, the health and social-assistance sector paid the largest annual payroll in the Kennebec County in 2007, with the retail sector following in second. The average annual payroll payment per worker for the private health and social-assistance sector was higher (4%) than the overall county average payroll payment. In comparison, the average for the retail sector was lower than overall county average (-30%).

Majority of Retail Activity in Kennebec County happens in Augusta and Waterville

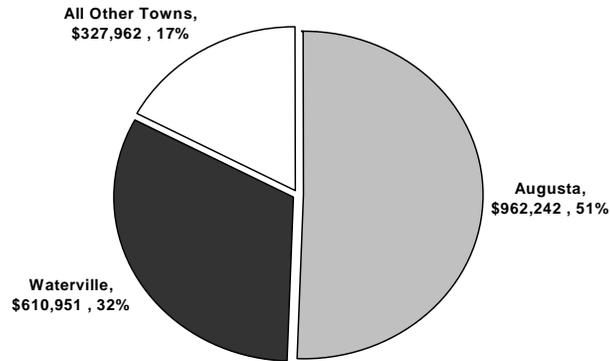
Inland Hospital, as a sizable organization, contributes to the local economy as an active purchaser of goods and services. Not only do its employees purchase goods and services, but the hospital, itself, purchases supplies and services from local enterprises. The contribution to the retail sector by Inland and its employees is a function of how much they spend in-region as well as what goods and services are available for purchase in the area.

Taking a closer look at overall retail sales, Kennebec County's third largest employment sector, shows some distinctions across communities in retail-sales activity. Figure 2 shows the majority of retail activity occurs in Augusta and Waterville, the municipalities with the greatest population and the largest number of day-time laborers. Augusta, the state capital, accounted for 51% of all retail sales with Waterville recording 32% of the sales in 2007.

Further analysis shows that each community supports a slightly different composition of retail-product sales. See Figure 3. Augusta has a larger share of automobile sales in its retail mix and Waterville a larger share of building-material sales. In each of these categories, the communities have a larger share of sales than the county or state averages. Since both automobile and building supply sales are highly sensitive to economic conditions, both communities are exposed to the fluctuations of economic cycles and pressures. As seen in Table 3, Augusta retail sales have stayed flat during the last five years, similar to Kennebec County as a whole. Waterville has experienced growth during this period, which may be a result of new-store openings which may have lured some market share from the Augusta area, particularly in the building-supply sector.

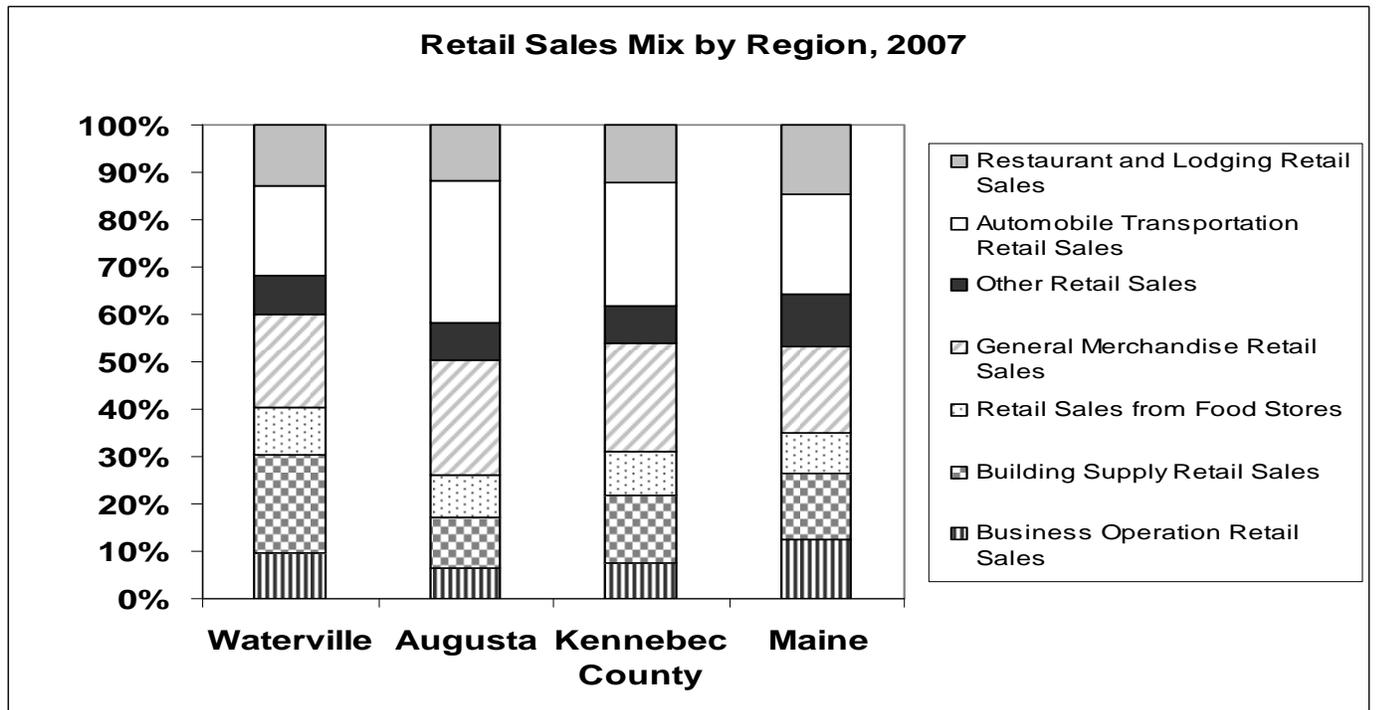
Figure 2. Kennebec County Retail Sales

2007 Kennebec County Retail Sales by Municipality



Source: Maine State Planning Office Retail Sales data, 2007.

Figure 3. Retail Sales Mix by Region, 2007



Source: Maine State Planning Office Retail Sales data, 2007.

Table 3. Retail Sales 5-Year Inflation Adjusted Average Growth

	Augusta	Waterville	Kennebec County	Maine
Business Operating	2.0%	3.4%	2.0%	4.0%
Building Supply	-1.0%	3.2%	1.0%	3.0%
Food Store	-2.0%	0.6%	-1.0%	1.0%
General Merchandise	3.0%	0.1%	2.0%	1.0%
Other Retail	1.0%	-0.6%	0.0%	0.0%
Auto Transportation	-2.0%	-2.5%	-2.0%	-2.0%
Restaurant and Lodging	3.0%	1.8%	3.0%	1.0%
Total	0%	1.8%	0%	1.0%

Source: Maine State Planning Office Retail Sales data, 2002-2007.

Estimating the Contribution of Inland Hospital to the Regional Economy

To estimate the share of economic activity attributable to Inland, we developed an economic-multiplier-measurement approach based on hospital-spending data and generally-accepted statistical methods. The basic approach was to identify the direct spending by the hospital on purchases, wages, and contracts and then to build on that information by identifying the employees' expenditures. Once the hospital and employee-spending patterns were defined, we applied region-specific economic multipliers to the expenditures to estimate the full effect of the spending on employment and earnings in the region.

Economic Impact Multipliers

Economic impact multipliers are developed by the U.S. Bureau of Economic Analysis (BEA) to quantify the full impact of expenditures on the economy. Based on analyses of actual expenditures and resultant economic activity, these multipliers are used by economists to determine the relationship among expenditures and the associated impact when changes are made in a region. When a single dollar is spent, it spurs economic activity beyond the initial expenditure made called a **direct effect**. That dollar expenditure creates an **indirect effect** when the receiving business in-turn uses that dollar to purchase goods and services or to pay workers. The indirect effect, then leads to what is called an **induced effect** when the workers spend the dollar that contributed to their wages.

A regional economic multiplier takes into account all three effects: direct, indirect and induced. The **output multiplier** calculates the **output effect**, representing the total value of new sales that will be stimulated in the economy for each dollar increase in direct spending. The **income multiplier** calculates the **earnings effect**, the portion of the output that is attributed to new income or wages that will be generated for workers in the industry directly affected by the increased spending. The earnings effect is a fraction of the output effect, the two effects are not additive.

The **employment multiplier** estimates the number of total jobs in the economy that will be supported directly by a given increase in spending.

Estimation of Inland Contribution to Regional Economy

The primary objective of this analysis was to estimate Inland's contribution to the regional economy. To conduct the analysis, we assembled several key inputs: direct spending by Inland for non-wage purchases and an estimate of induced spending by employees in the region. Inland provided proprietary records of purchases, wages, and contracts paid out in 2007/08 fiscal year as the calculation of their direct spending. To determine the induced effects, we conducted an

employee survey to identify employee spending patterns within the region. Finally, we took both the hospital and employee-spending data and applied the regional economic-impact multipliers estimated by the BEA for Kennebec County to calculate final effect on outputs, earnings and employment in the region. By applying the economic multipliers to the spending data, we determined the region's share of both direct and indirect spending attributable to the health system. For this analysis, the BEA's Kennebec County region multiplier dataset was the closest geographic match to the region of interest for the health system.

Limitations

As with any statistical analysis, this analysis has limitations due to the data collection methods and estimation techniques employed. While the analysis and interpretation of findings shed light on the contribution of Inland to the local economy, it is important to keep in mind the specific limitations when considering the results and drawing conclusions.

Analysis Estimates Contribution to Regional Economic Activity

The objective of this analysis was to estimate the share of regional-economic activity attributable to the hospital and its operations in central Maine. This study carefully estimates the economic-multiplier effects of spending by Inland and its employees; this study differs from typical *economic impact analyses* in several ways. Economic impact results from spending that originates from outside a region and thus creates new activity or an impact on the region. Dollars that originate from within a region and are spent in a region are considered transfer payments and are important contributors to a local economy, but do not cause a net impact. A traditional economic-impact study would only include the portion of Inland's expenditures supported by revenue sources that originated from outside of the local area. For this analysis, all expenditures made in Kennebec County were included to understand the full contribution in the region.

Economic Activity Analysis Limitations

The BEA and the U.S. Census Bureau have estimated the set of economic multipliers to translate the complex relationships among thousands of industries. These multipliers serve as the best estimate of state and regional relationships for a given point in time, but they do have limitations in their application. Markets are not static and changes in the price or availability of fundamental resources or services can widely influence spending patterns and reset the underlying economic relationships. The best example of this is the recent increase in the price of oil and the subsequent increase in the costs of goods and services that use oil products for inputs and/or for transportation. This price increase led to fundamental changes in spending patterns as consumers' disposable income was diminished. Moreover, the regional multipliers may not reflect more recent migrations of key businesses in and out of a region. For example, highly

specialized medical-equipment-service providers are few in numbers in Maine and thus a relocation of a single vendor to another region could change the regional demand effect by 100%.

Overall the economic-multiplier analysis will yield a solid description of the regional-economic activity attributed to Inland. However, it is important to keep in mind that the multipliers are best estimates of the spending relationships that exist within the county. Thus, their application should be interpreted as estimates and the findings directional rather than exact predictions of economic activity within a region.

Survey Data Limitations

To understand Inland Hospital employees' expenditures in Kennebec County, we conducted a web-based survey to learn more about their spending patterns. The respondents provided a best guess of their typical purchases and the share conducted in the county as well as in Augusta and Waterville. Employees were not asked to reference their personal financial records and we did not verify their responses. Moreover, the survey was designed to be brief to boost response rates and could not cover every conceivable spending category. For example, several survey respondents pointed out that pet-care costs were not included in the survey. Therefore, the expenditure data is subject to self-report bias and should be considered as a best estimate rather than exact expenditures. Bias may exist in the estimates of the amount of the expenditures as well as in reports of in-region spending.

Finally, the economic analysts used their best judgment to assign the employee and vendor expenditures to specific industry multiplier categories. Since the expenditure data were based on self-report survey responses, there was no way to tie the expenditure to the specific industries providing the good or service. Thus, the assignments may not reflect actual industry allocations.

Inland Employee Spending in the Kennebec County Region

An important input to the economic-multiplier analysis is the estimation of employee expenditures made in the region with their wages received from Inland. In 2007, the hospital paid wages to more than 380 people with a total payroll exceeding \$19 million. While Inland supports a large payroll, the monies paid to employees are not spent entirely in the local area and must be adjusted for several factors. The first is the amount an employee may save and not spend until some time in the future. The second is the portion spent in the local area and the types of goods and services purchased. The amount spent in the local area is a function of the location of the employee residence, work location, as well as the availability of goods and services in a particular area.

Survey Description

To understand the spending patterns of Inland employees, the analysts designed and administered a web-based survey on the types, amounts, and location of household expenditures in the local region.⁹ The survey was reviewed by survey experts and pre-tested by independent respondents for clarity. On average, the survey took respondents 15-minutes to complete. The survey asked employees about their spending habits as well as the share of their Inland income that supported those expenditures. Finally, respondents were asked to estimate what share of their spending occurred in Augusta or in Waterville. The 30-question survey was administered to 372 Inland Health employees in June, 2008 and yielded a 57% response rate. To verify the representativeness of the response, the respondents' salary levels were compared to the population of employees as a whole and were found to be similar. See Figure 4.

Survey Findings

Employee Characteristics

The survey results included information on employee-household characteristics that are likely to influence spending patterns. For example, lower-income households, with less disposable income, were more likely to have lower-spending levels compared to higher-income households. The survey findings revealed that 84% of the respondents were women, 63% were between the ages of 35 and 54 and 65% reported having at least one child under the age of 18 in the household. Thirty-seven percent of all respondents reported having a child in a K-12 school in Kennebec County. Forty-eight percent of the survey respondents indicated that their Inland income accounted for more than 50% of the household income, with 23% reporting the income as the sole source for the household. Eighty percent own their own home, with the balance

⁹ Paper copies were provided to employees who were unable to complete a web-based survey.

Figure 4. Inland Wages, Self-reported compared to Hospital Records

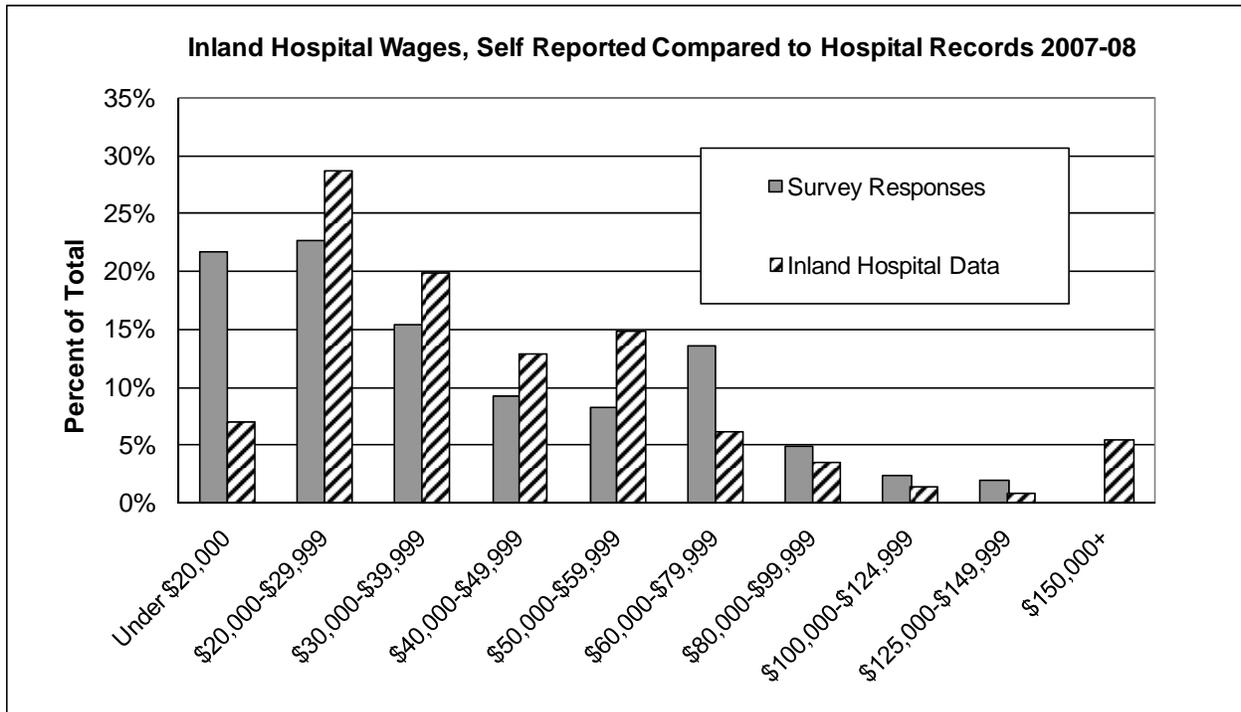
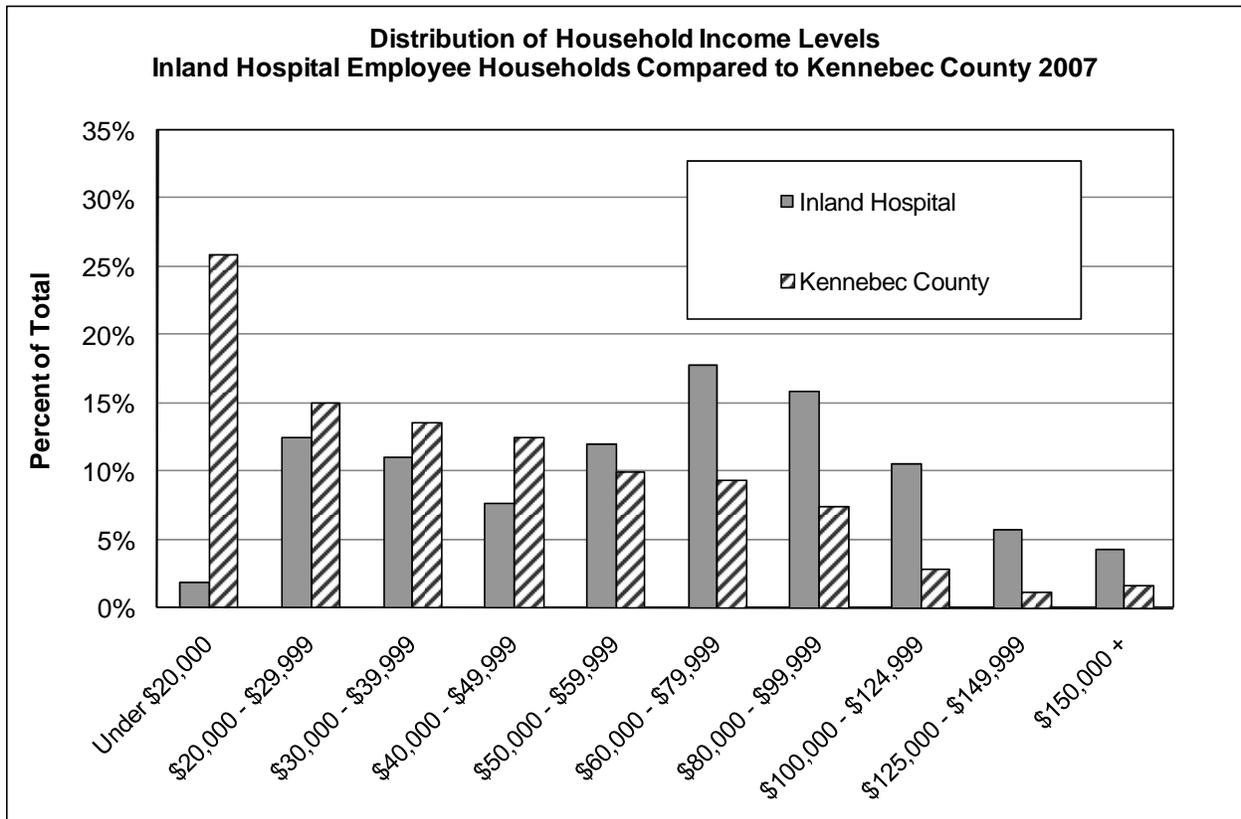


Figure 5. Distribution of Median Household Incomes



reporting that they rent their home at an average cost of \$570 per month. (Responses for each survey question are included in Appendix A.)

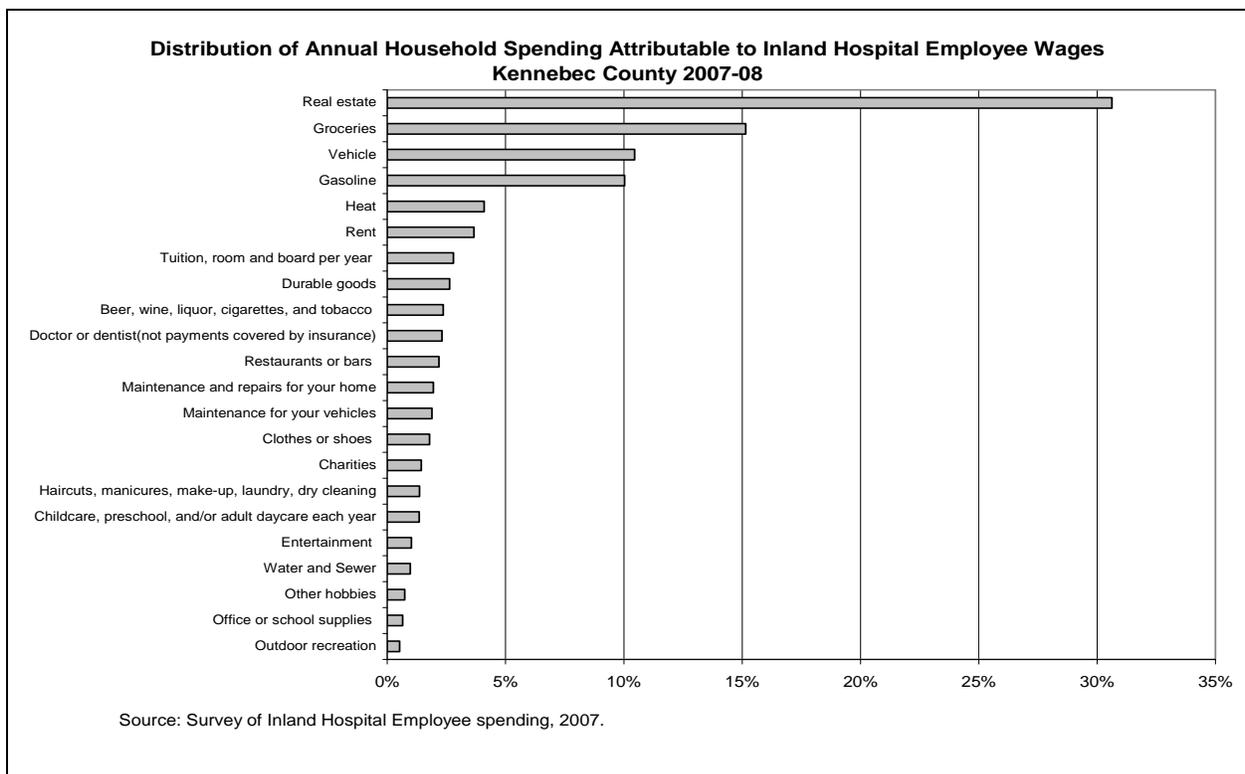
Comparing the household incomes of Inland employees to households in the Kennebec County region, show that the health-care employee households have higher earnings than other households in the region. Specifically, 81% of the respondents reported household incomes greater than the median household income for Kennebec County for 2007, \$44,758.

Employee Spending in Local Region

The survey findings show that four categories account for 66% of all household spending attributed to Inland wages: real estate, groceries, gasoline, and the purchase of vehicles. The sum of all other spending categories accounted for the remaining 35%.

Health-care costs (other than for health insurance), real estate and vehicle purchases are categories where a few households reported spending a large sum of money, but where most households do not spend much at all. For all other categories, spending was consistent within a category and tended to be higher for households with higher incomes. Households with children incurred higher costs associated for groceries, daycare, tuition, and supplies.

Figure 6. Distribution of Household Spending Attributable to Inland Wages



While the survey covered the major categories of household spending, real estate loan payments, vehicle loans, insurance, and taxes were not explicitly included. These large items are usually financed through borrowing and are not direct out-of-pocket expenses like groceries or gasoline, thus requiring a different analytic technique. Furthermore, expenditures on these categories typically left the region directly and had no impact on the local economy. For this analysis, the analysts used the past-year reports of the full purchase price of real estate and vehicles as a measure of employee spending in the local area, assuming the full value transferred to the owner at the time of sale. Taxes were not included as an explicit category, as these items are often considered as part of the purchase price of any given item. Health insurance for the hospital employees is provided as a benefit and is included in the vendor spending data from the hospital. The employee share of insurance was assumed to go to an organization outside of Kennebec County and therefore was not included.¹⁰

Estimating Total Employee Spending Attributable to Inland Wages

The employee reports of spending in the local region served as the basis for estimating the total spending that could be attributed to wages from Inland. The estimation of total regional spending was calculated first by converting all estimates reported in the survey to annual figures. Then the annual figures were adjusted for the portion of household spending supported by the Inland wages. Figure 6 shows the distribution of the annual household spending attributed to the health-system wages by category. Finally, for each employee income range, the analysts identified a typical consumer and used their spending to represent all other employees in the salary cohort. The estimates of typical annual spending were then multiplied by the number of Inland employees in each income range to calculate a weighted estimate of total spending by all employees.

Translating Regional Employee Spending to Industry Categories in the Multiplier Model

The final step in preparing the employee-spending data for use in the economic multiplier analysis required a conversion of the spending categories to the industries that support each item. The economic multipliers are expressed as ratios for each industry by their North American Industry Classification System Code (NAICS). For use in the model, the total-regional spending figures were apportioned to the appropriate NAICS code. See Appendix A for a detailed listing of employee in-region spending by income cohort for each industry category.

¹⁰ This will underestimate the region's spending made by the health insurance carrier on behalf of employees.

Inland Direct Spending in the Kennebec County Region

The second input to the economic multiplier analysis was the estimation of direct spending by Inland for non-wage purchases. These data were taken from health-system records of spending by location of vendor for the previous year.

Direct Vendor Costs

Spending on vendors and purchases includes all non-wages spending for operating the hospital. For this analysis, we divided the vendor payments into two pools: in region and out of region. Table 4 details the spending in and out of Kennebec County as well as in Augusta and Waterville. Of the \$3.1 million in local spending, close to \$2 million or 60% was spent in Waterville and 21% of the spending occurred with vendors in Augusta. More than half of the expenditures in Waterville, \$1.2 million, occurred in two categories: insurance and legal fees. Appendix B lists the total in-region spending by category.

Table 4. Direct Spending By Inland Hospital, 2007 - 2008

Direct Spending Categories	Municipal Subtotal Total	Region Subtotal Total	Total
Wages and Salaries			\$18,563,720
Non-wage Purchases			
Augusta	\$ 676,947		
Waterville	\$ 1,900,661		
Other Kennebec County Locations	\$ 572,398		
Subtotal Kennebec County		\$ 3,150,006	
Out of Region Purchases		\$12,614,992	
<i>Total Non-wage Purchases All Locations</i>			\$15,764,997

Estimates of Direct Spending Effects in Kennebec County

Like the employee spending data, the Inland in-region vendor-cost data were assigned to the various NAICS codes in the economic-multiplier model. Analysts reviewed each cost item and allocated the total costs to each industry category in the model. See Appendix B for a detailed listing of direct spending and multiplier effects of non-wage purchases in Kennebec County by NAICS category.

Full Contribution of Inland Spending to Local Economy

Based on the estimates of regional spending by Inland employees and the regional direct costs reported by the hospital, we applied the economic multipliers to determine the total contribution to the local region. The analysis includes the direct and indirect effects of the spending, earnings effects as well as the effect on employment. Table 5 contains the findings. In 2007, Inland Hospital and its employees spent \$12.3 million in the region. When the induced effects are added to this spending, the total in-region economic activity grows to \$18.5 million, of which \$4.3 million can be attributed to earnings. This level of economic activity supported 175 non-hospital jobs in the local area. Simply put, each dollar of in-region spending by the hospital and its employees generated an additional \$0.66 in the local economy. For every two Inland employees, the hospital supports an additional job in the region.

Table 5. Full Effects of Inland Annual Spending on the Kennebec County Economy

	Direct Payments	Total Effect on Output/Local Demand	Total Effect on Earnings	Total Effect on Employment
Employee Spending	\$9,214,219.82	\$13,621,490.67	\$2,989,267.67	134
Direct Hospital Spending	\$3,150,005.70	\$4,845,260.39	\$1,385,245.90	41
Total In-Region	\$12,364,225.52	\$18,466,751.06	\$4,374,513.57	175

Impact on Employee Commute

Commuting costs can account for a significant share of an employee's spending. As part of the economic contribution study, Inland was interested in understanding the commuting costs and travel-distances covered by their employees.

Estimating the Cost of Commuting

To calculate this cost, we used a set of data with the town of residence for each employee at Inland Hospital. Using standard Geographic Information Systems (GIS) tools, we multiplied the commute by the current reimbursement rate approved by the Internal Revenue Service (IRS) to cover full-travel costs. These costs were adjusted by employee-full-time equivalent (FTE) status to account for days worked and the number of vehicle trips per year.

The average one-way commute for the typical Inland employee is 12 miles, which led to an annual cost of \$3,031 for a full-time employee when the reimbursement rate was \$0.58/mile (in August 2008). Not surprisingly, the full-time employees have higher total commuting costs than those that work fewer days per week. About 55% of all employees live in the cities and towns of Waterville, Winslow, Fairfield, Oakland, Belgrade, and Sidney. The large concentration of local employees is balanced with a minority who travel greater distances. Table 6 shows the current average commuting costs for employees. Appendix D contains a map illustrating the commutes for current employees to the hospital site.

Table 6. Employee Commute Distances and Costs

Number of employees	373
Average commute (one way)	12 miles
Average annual commuting cost per employee (\$0.58/mile)	\$ 3,031
Total commuting costs - all employees	\$ 1,130,627

Inland Hospital's Role in the Kennebec County Region

Kennebec County is largely dependent on the health and human services, education, and retail sectors for its economic base. Its people have slightly lower income and education levels than the state averages which, according to Maine's State Health Plan, raises their likelihood of having increased health-care needs.¹¹ The findings from this study show that Inland Hospital not only plays an important role as a health-care provider in the region, but is a significant contributor to the local economy. Highlights show that the hospital:

- Spends \$3.1 million in the county on non-wage purchases,
- Supports a payroll of more than \$18 million,
- Employs more than 370 people and pays higher than average wages for the county,
- Employees spend more than \$9 million of their wages in the local area,
- Each dollar spent in the region by the hospital and the employees generates an additional \$0.66 for a total in-region contribution of more than \$18 million each year, and
- Of the total local contribution more than \$4 million supports non-hospital wages and salaries and 175 jobs.

¹¹ Maine State Health Plan 2008-09, Issued by The Governor's Office of Health Policy and Finance with the Advisory Council on Health Systems Development April 2008. found at <http://www.maine.gov/dhhs/boh/phdata/Additional%20Reports%20Pdf%20Doc/2008-2009%20State%20Health%20Plan.pdf>.

Appendix A. Inland Employee Spending in Kennebec County

Estimated Total Spending in Kennebec County by All Inland Hospital Employees		
Survey Question	Total Spending	% of Total Spending
Did you buy real estate and, if so, what was the price?	\$2,821,708	31%
How much does your household typically spend on groceries each year?	\$1,396,026	15%
What was the total price of the vehicle(s)? (purchased last year)	\$962,970	10%
How much does your household typically spend on gasoline each year?	\$924,066	10%
How much did your household spend on heating your home(s) in the past YEAR? ¹²	\$377,852	4%
How much do you pay for rent, if any, each year?	\$337,935	4%
How much did you spend on tuition, room and board per year in Kennebec County?	\$258,011	3%
How much did you spend on durable goods in the past year?	\$242,280	3%
How much does your household typically spend on beer, wine, liquor, cigarettes, and tobacco products each year (not including spending at bars and restaurants)?	\$217,658	2%
How much did your household spend on visits to the doctor or dentist and/or other healthcare related expenses in the past YEAR (do not include payments covered by insurance)?	\$212,954	2%
How much does your household typically spend at restaurants or bars each year (dining in or take-out)?	\$201,336	2%
How much did your household spend on maintenance and repairs for your home in the past YEAR (lawn care, snow removal, plumbing, gardening supplies, paint, etc.)?	\$180,240	2%
How much did your household spend on regular maintenance for your vehicles in the past YEAR (including boat storage)?	\$173,868	2%
How much does your household typically spend on clothes or shoes each year?	\$164,351	2%

¹² “YEAR”- indicates that the respondent was asked to report on a monthly basis. Analysts then converted the responses to reflect a year and convert all data to the same timeframe.

Estimated Total Spending in Kennebec County by All Inland Hospital Employees

Survey Question	Total Spending	% of Total Spending
How much did your household donate to charities in the past YEAR (money donations only)?	\$132,210	1%
How much does your household typically spend on personal care each year (haircuts, manicures, make-up, laundry, dry cleaning, etc.)?	\$125,555	1%
How much does your household spend on childcare, preschool, and/or adult daycare each year?	\$124,490	1%
How much does your household typically spend on entertainment each year (movies, bowling, etc.)?	\$93,924	1%
How much does your household spend on water and sewer each Year ?	\$90,268	1%
How much did your household spend on other hobbies in the past YEAR?	\$67,867	1%
How much does your household typically spend on office or school supplies each year (paper, pencils, ink cartridges, etc.)?	\$60,260	1%
How much did your household spend on outdoor recreation in the past YEAR (camping, kayaking/canoeing, sailing, hunting, fishing, skiing, snowmobiling, etc.)?	\$48,389	1%
Total	\$9,214,220	

Inland Hospital Annual Employee Spending in Kennebec County by Employee Income Level

Income Range	Over 100k		75k - 100k		50k - 75k		35k - 50k	
	Average	Total	Average	Total	Average	Total	Average	Total
Tuition, Room And Board	\$208	\$5,833	\$0	\$0	\$611	\$44,611	\$168	\$14,658
Childcare, Preschool, And/Or Adult	\$500	\$14,000	\$45	\$804	\$317	\$23,117	\$461	\$40,103
Rent	\$7,613	\$23,683	\$8,310	\$16,620	\$6,600	\$39,065	\$6,706	\$76,101
Water And Sewer	\$225	\$6,300	\$143	\$2,567	\$260	\$19,015	\$286	\$24,909
Real Estate	\$284,750	\$885,889	\$171,250	\$342,500	\$143,750	\$567,230	\$48,317	\$274,145
Groceries	\$6,112	\$171,141	\$5,039	\$90,703	\$4,444	\$324,443	\$2,681	\$233,244
Beer, Wine, Liquor, Cigarettes, And Tobacco Products	\$692	\$19,393	\$1,243	\$22,381	\$858	\$62,660	\$431	\$37,495
Gasoline	\$2,560	\$71,688	\$3,725	\$67,041	\$3,018	\$220,335	\$1,963	\$170,818
Restaurants Or Bars	\$1,026	\$28,722	\$706	\$12,706	\$670	\$48,920	\$502	\$43,708
Office Or School Supplies	\$226	\$6,328	\$252	\$4,542	\$240	\$17,538	\$120	\$10,448
Entertainment	\$596	\$16,697	\$368	\$6,616	\$266	\$19,420	\$237	\$20,657
Clothes Or Shoes	\$588	\$16,469	\$855	\$15,393	\$537	\$39,225	\$335	\$29,171
Personal Care	\$600	\$16,809	\$544	\$9,791	\$381	\$27,777	\$284	\$24,670
Vehicle(S)	\$17,135	\$106,618	\$22,495	\$112,475	\$10,817	\$298,784	\$8,798	\$199,666
Regular Maintenance For Vehicles	\$790	\$22,120	\$482	\$8,681	\$603	\$43,992	\$465	\$40,448
Outdoor Recreation	\$508	\$14,229	\$242	\$4,350	\$125	\$9,125	\$41	\$3,548
Other Hobbies	\$310	\$8,688	\$170	\$3,064	\$300	\$21,910	\$163	\$14,198
Durable Goods	\$1,190	\$33,312	\$1,340	\$24,123	\$759	\$55,386	\$614	\$53,449
Maintenance And Repairs For Your Home	\$854	\$23,917	\$839	\$15,099	\$845	\$61,687	\$394	\$34,283
Visits To The Doctor Or Dentist And/Or Other Health care Related Expenses	\$966	\$27,036	\$1,399	\$25,185	\$855	\$62,388	\$436	\$37,934
Heating	\$1,542	\$43,174	\$1,553	\$27,958	\$1,504	\$109,821	\$835	\$72,602
Charitable Donations	\$484	\$13,549	\$1,253	\$22,557	\$558	\$40,720	\$155	\$13,495

Inland Hospital Annual Employee Spending in Kennebec County by Employee Income Level

Income Range	25k - 35k		10k - 25k		Under 10k	
	Average	Total	Average	Total	Average	Total
Tuition, Room And Board	\$562	\$52,258	\$651	\$50,138	\$924	\$90,514
Childcare, Preschool, And/Or Adult	\$177	\$16,445	\$183	\$14,096	\$163	\$15,925
Rent	\$5,836	\$127,704	\$2,300	\$23,608	\$1,510	\$31,154
Water And Sewer	\$200	\$18,577	\$150	\$11,550	\$126	\$12,373
Real Estate	\$59,000	\$161,382	\$42,988	\$147,113		\$443,450
Groceries	\$3,481	\$323,728	\$2,030	\$156,334	\$984	\$96,435
Beer, Wine, Liquor, Cigarettes, And Tobacco Products	\$384	\$35,683	\$405	\$31,198	\$90	\$8,847
Gasoline	\$2,178	\$202,561	\$1,374	\$105,806	\$876	\$85,818
Restaurants Or Bars	\$389	\$36,191	\$215	\$16,545	\$148	\$14,545
Office Or School Supplies	\$148	\$13,778	\$53	\$4,058	\$36	\$3,569
Entertainment	\$187	\$17,376	\$113	\$8,691	\$46	\$4,467
Clothes Or Shoes	\$414	\$38,535	\$194	\$14,942	\$108	\$10,617
Personal Care	\$289	\$26,833	\$155	\$11,915	\$79	\$7,758
Vehicle(S)	\$9,865	\$161,902	\$2,267	\$38,790	\$2,168	\$44,734
Regular Maintenance For Vehicles	\$333	\$30,923	\$165	\$12,732	\$153	\$14,972
Outdoor Recreation	\$105	\$9,799	\$80	\$6,147	\$12	\$1,191
Other Hobbies	\$151	\$14,029	\$42	\$3,257	\$28	\$2,722
Durable Goods	\$477	\$44,322	\$297	\$22,840	\$90	\$8,847
Maintenance And Repairs For Your Home	\$243	\$22,570	\$175	\$13,497	\$94	\$9,188
Visits To The Doctor Or Dentist And/Or Other Health care Related Expenses	\$321	\$29,852	\$196	\$15,075	\$158	\$15,483
Heating	\$802	\$74,544	\$257	\$19,810	\$306	\$29,944
Charitable Donations	\$127	\$11,789	\$287	\$22,104	\$82	\$7,997

Appendix B. Inland Direct Spending and Contribution to the Kennebec County Economy

Inland Hospital Vendor Spending Multiplier Effects

Multiplier Category	Total Spending	Effect on Output	Effect on Earnings	Effect on Employment
111400 Greenhouse and nursery production	\$517	\$706	\$157	0.0
2211A0 Power generation and supply	\$114,281	\$150,062	\$24,959	0.5
221300 Water, sewage and other systems	\$27,023	\$27,023	\$0	-
230000 Construction	\$266,540	\$431,608	\$115,412	3.8
323116 Manifold business forms printing	\$18	\$18	\$0	-
32311A Commercial printing	\$2,981	\$4,537	\$969	0.0
334510 Electromedical apparatus manufacturing	\$27,406	\$27,406	\$0	-
339113 Surgical appliance and supplies manufacturing	\$5,172	\$7,462	\$1,402	0.0
339950 Sign manufacturing	\$17,584	\$26,082	\$6,139	0.2
420000 Wholesale trade	\$215,902	\$333,461	\$86,555	2.3
484000 Truck transportation	\$2,173	\$3,297	\$716	0.0
485A00 Transit and ground passenger transportation	\$1,065	\$1,788	\$604	0.0
491000 Postal service	\$376	\$569	\$222	0.0
493000 Warehousing and storage	\$1,625	\$2,413	\$677	0.0
4A0000 Retail trade	\$118,111	\$189,745	\$51,402	2.2
511110 Newspaper publishers	\$85,627	\$131,934	\$37,813	1.3
513100 Radio and television broadcasting	\$2,705	\$2,705	\$0	-
513300 Telecommunications	\$11,103	\$15,837	\$2,912	0.1
524200 Insurance agencies, brokerages, and related	\$326,893	\$462,391	\$105,390	2.7
525000 Funds, trusts, and other financial vehicles	\$1,275	\$1,853	\$288	0.0
531000 Real estate	\$140,344	\$186,517	\$23,606	1.2

Inland Hospital Vendor Spending Multiplier Effects

Multiplier Category	Total Spending	Effect on Output	Effect on Earnings	Effect on Employment
541100 Legal services	\$477,904	\$779,795	\$290,565	6.2
541300 Architectural and engineering services	\$42,646	\$67,278	\$22,189	0.7
541512 Computer systems design services	\$4,065	\$6,244	\$1,938	0.0
5419A0 All other miscellaneous professional and technical services	\$60,599	\$77,882	\$12,350	0.3
561100 Office administrative services	\$78,013	\$122,309	\$40,255	1.2
561400 Business support services	\$14,630	\$21,837	\$5,937	0.3
561500 Travel arrangement and reservation services	\$6,590	\$11,329	\$3,275	0.1
561600 Investigation and security services	\$1,712	\$2,655	\$986	0.1
561700 Services to buildings and dwellings	\$78,967	\$129,822	\$36,380	2.1
561900 Other support services	\$589	\$866	\$210	0.0
562000 Waste management and remediation services	\$150	\$235	\$56	0.0
611A00 Colleges, universities, and junior colleges	\$16,323	\$26,913	\$8,664	0.3
611B00 Other educational services	\$1,720	\$2,625	\$634	0.0
621A00 Offices of physicians, dentists, and other health practitioners	\$561,973	\$884,208	\$309,029	7.2
621B00 Other ambulatory health care services	\$218,483	\$360,868	\$106,773	3.3
622000 Hospitals	\$4,533	\$7,328	\$2,235	0.1
624A00 Social assistance, except child day care services	\$20,355	\$33,187	\$9,551	0.5
711500 Independent artists, writers, and performers	\$3,160	\$5,136	\$1,083	0.0
711A00 Promoters of performing arts and sports and agents for public figures	\$5,000	\$7,133	\$1,489	0.1
713940 Fitness and recreational sports centers	\$6,795	\$11,270	\$3,421	0.3

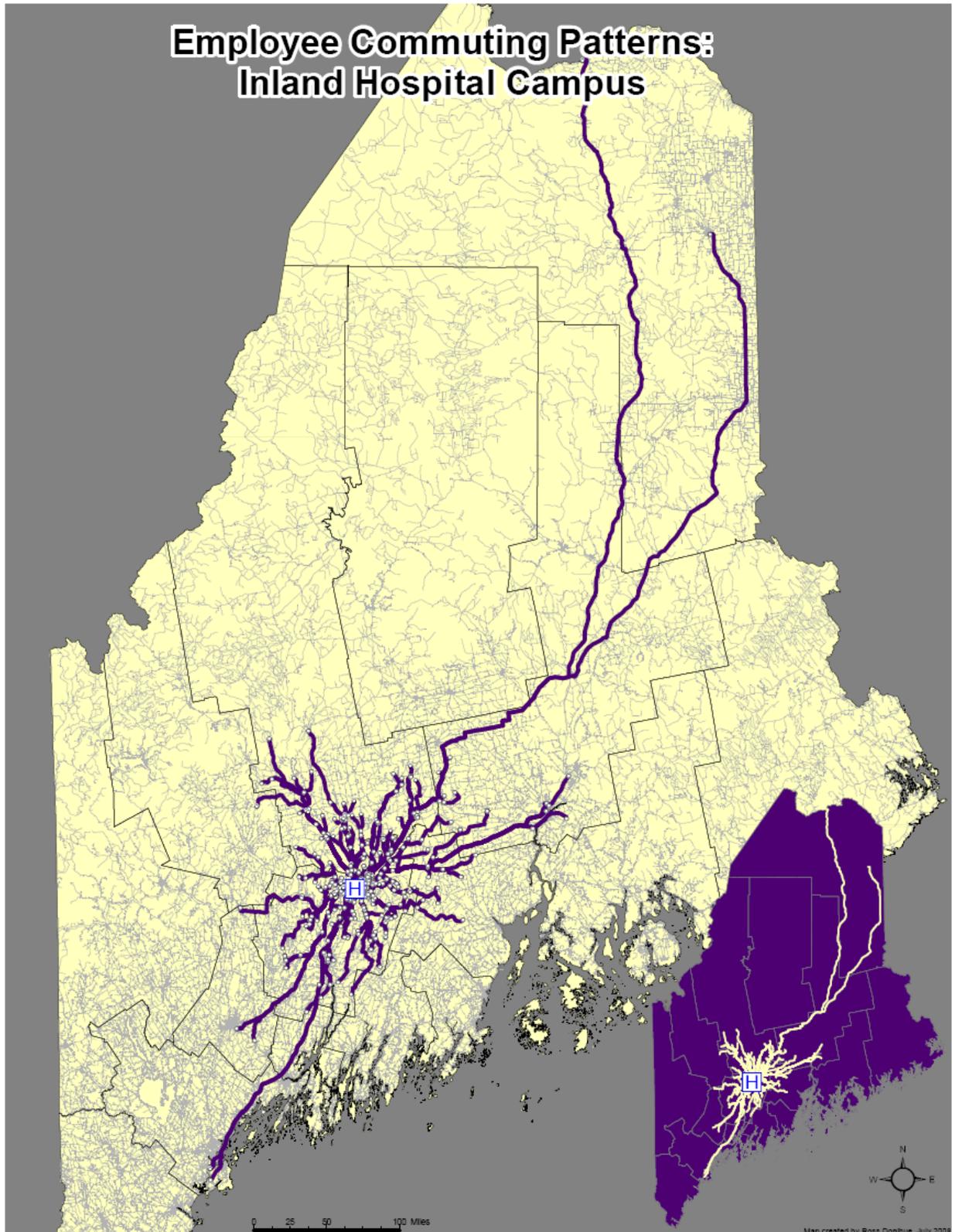
Inland Hospital Vendor Spending Multiplier Effects

Multiplier Category	Total Spending	Effect on Output	Effect on Earnings	Effect on Employment
7211A0 Hotels and motels, including casino hotels	\$693	\$1,023	\$275	0.0
722000 Food services and drinking places	\$1,534	\$2,422	\$730	0.0
811200 Electronic equipment repair and maintenance	\$353	\$541	\$172	0.0
811400 Household goods repair and maintenance	\$57,180	\$80,384	\$18,938	0.8
812100 Personal care services	\$270	\$424	\$130	0.0
812900 Other personal services	\$700	\$993	\$163	0.0
813A00 Grant making and giving and social advocacy organizations	\$4,815	\$8,346	\$2,100	0.1
813B00 Civic, social, professional and similar organizations	\$69,576	\$121,208	\$31,539	1.6
H00000 Households	\$3,307	\$2,966	\$729	0.0
S00A00 Other government enterprises	\$38,649	\$59,771	\$11,776	0.3
Total	\$3,150,006	\$4,844,414	\$1,382,796	40.2

Appendix C. Total Contributions of Inland Spending on the Kennebec County Economy

Inland Hospital Effects of Direct and Induced Spending			
Categories	Employee Spending Effects	Vendor Spending Effects	Total
1. Agriculture, forestry, fishing, and hunting	\$33,252	\$16,714	\$49,966
2. Mining	\$54	\$80	\$134
3. Utilities*	\$652,400	\$181,654	\$834,054
4. Construction	\$278,024	\$287,061	\$565,085
5. Manufacturing	\$207,416	\$145,762	\$353,178
6. Wholesale trade	\$255,724	\$332,449	\$588,173
7. Retail trade	\$4,464,695	\$309,018	\$4,773,714
8. Transportation and warehousing*	\$176,855	\$79,793	\$256,648
9. Information	\$219,528	\$181,476	\$401,004
10. Finance and insurance	\$203,556	\$432,152	\$635,708
11. Real estate and rental and leasing	\$3,846,510	\$384,449	\$4,230,960
12. Professional, scientific, and technical services	\$319,666	\$716,118	\$1,035,784
13. Management of companies and enterprises	\$356,514	\$59,563	\$416,077
14. Administrative and waste management services	\$299,595	\$274,661	\$574,256
15. Educational services	\$329,470	\$49,954	\$379,425
16. Health care and social assistance	\$772,404	\$1,020,941	\$1,793,344
17. Arts, entertainment, and recreation	\$172,046	\$28,833	\$200,879
18. Accommodation and food services	\$400,536	\$92,933	\$493,469
19. Other services*	\$633,086	\$251,484	\$884,570

Appendix D. Map of Current Employee Commute for Inland Hospital



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