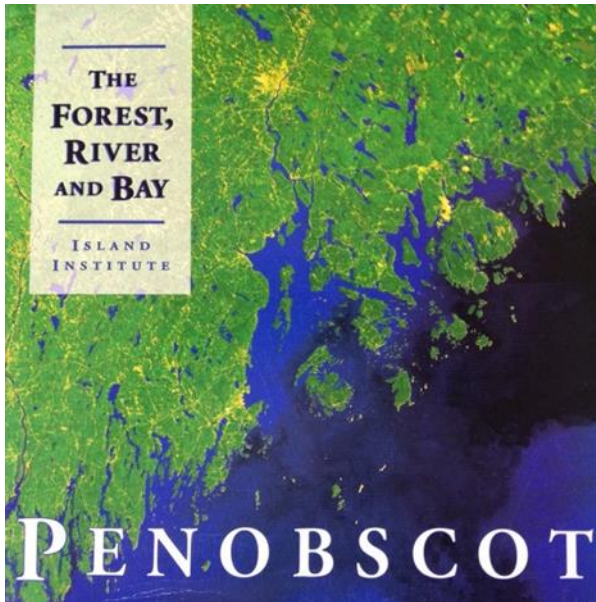


A Threatened Bay: Challenges to the Future of the Penobscot Bay Region and its Communities



A Threatened Bay: Challenges to the Future of the Penobscot Bay Region and its Communities



In 1996 the Island Institute published *Penobscot: the Forest, River and Bay*. The book describes a historically coherent ecosystem and economy: fishing and fish processing connected a once diverse ocean ecosystem to the surrounding community economies. This publication was as much a reflection on a coherent past as a call to action based on the environmental and social threats of the mid-1990s.

There is once again good reason to be concerned about the future of Penobscot Bay. The ongoing lack of a regional approach to industrial development, a narrowing economic base, aging demographic trends and the shifting seas of global markets now conspire to pull apart what was once a coherent system.

Presented on April 3, 2013 by Rob Snyder, President-elect, Island Institute
Research conducted by Planning Decisions, Inc.
Photographs by Peter Ralston



Overview

In the fall of 2012, the Island Institute commissioned Planning Decisions, Inc., a Maine-based planning and research firm, to conduct a study of the same 24 communities bounding Penobscot Bay – from Saint George on the west to Brooklin on the east and the islands between – that comprised the focus of the 1996 publication, *Penobscot: The Forest, River and Bay*, and to provide the most recent data that could inform an analysis of the recent trends and strategic issues that will impact the future of the communities in the Penobscot Bay region.

The purpose of this study was not to simply to create a collection of facts, an inventory, or a series of snapshots of a collection of towns. Instead, the research focused on explaining patterns of change and telling a story of problems and opportunities. The intent of the study was to give the Island Institute a context for making strategic decisions about institutional direction over the next several years.

Summary of Major Findings

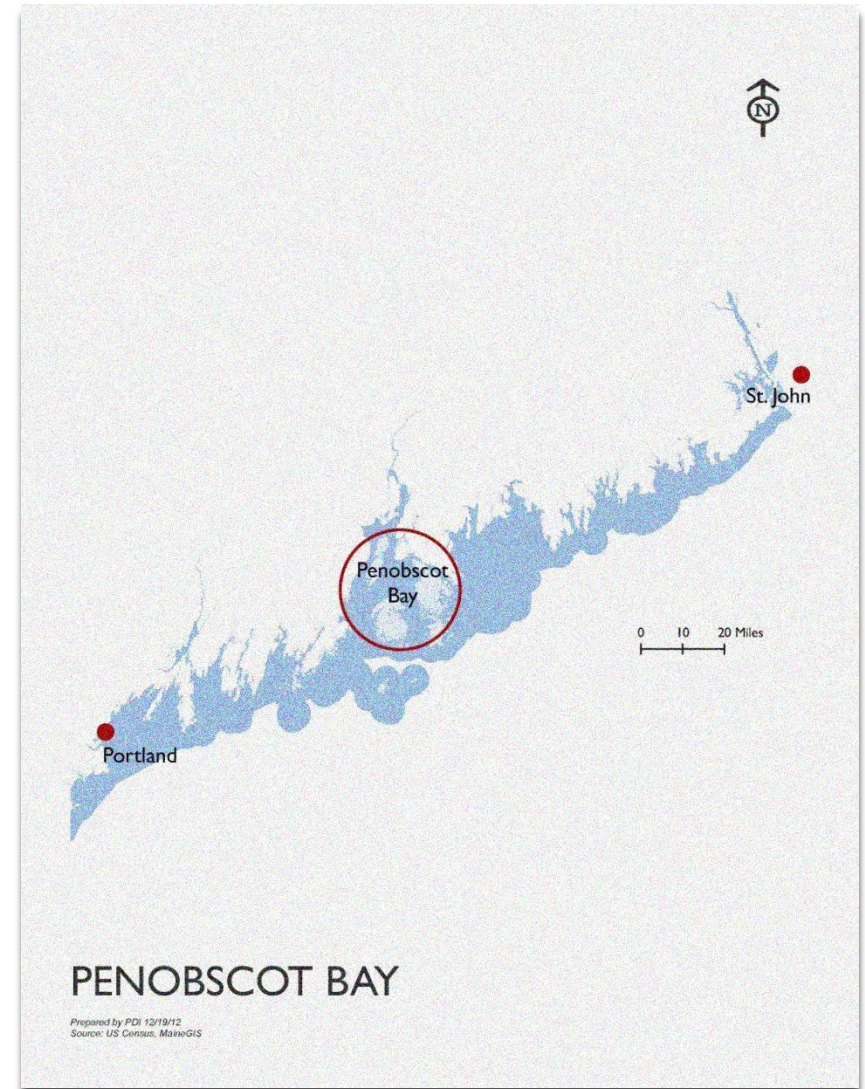
The study focused on three major topics. First, the unique ecological structure of Penobscot Bay has created an economy long dependent on fishing and visitors. Second, a narrowing fishing base, slower overall economic growth and inadequate connections to new job opportunities have created an economic and demographic imbalance in the region. Finally, complex and non-integrative infrastructure and governance structures impede adaptive policies. The interplay of these three areas has resulted in four critical challenges that threaten the region's vitality and sustainability as places where people can live, work and educate their children.

- A growing demographic imbalance means that Penobscot Bay has fewer working age residents and therefore relies more heavily on fixed income residents.
- The increased dependency on the lobster fishery and tourism poses a heightened threat to diversified economic growth.
- A highly decentralized governance structure makes it difficult to make decisions that will benefit the bay as a whole.

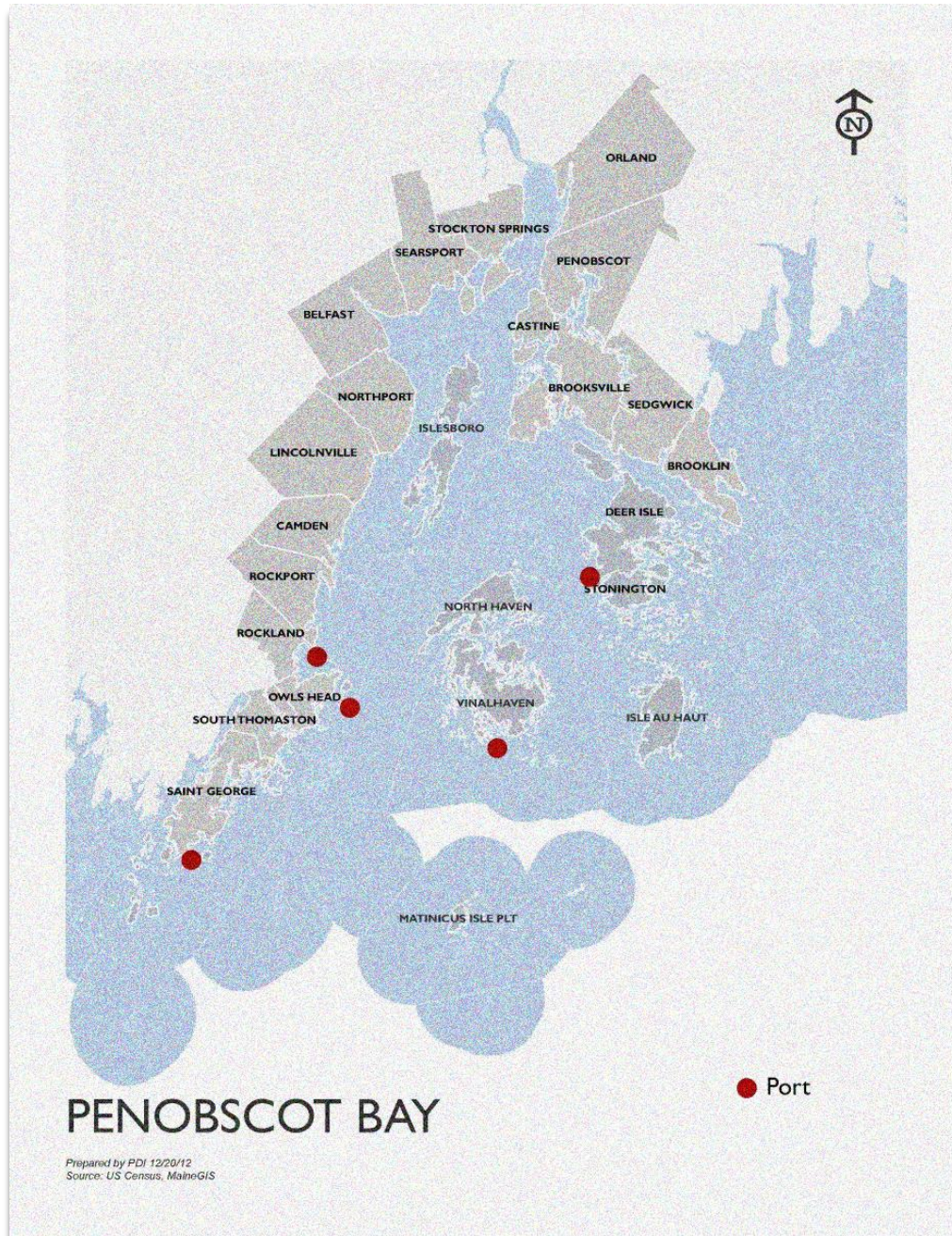
Part One: Ecology as an Economic Driver

Ecologically, Penobscot Bay is a coherent region. The natural interplay of its unique assets – watershed flowing into a large bay with hundreds of islands and thousands of miles of coastline—has long supported a marine-based economy of fishing, sailing and tourism.

Penobscot Bay is the largest, most ecologically diverse, island-filled bay in the Gulf of Maine. It is among the best places in the world for fishing, recreational sailing and vacationing.



The 24 communities bounding the bay, from Saint George on the west to Brooklin on the east and the islands between, account for hundreds of millions of dollars in annual fishing and retail sales.



2011

\$600 million in retail sales

\$134 million in meals & lodging

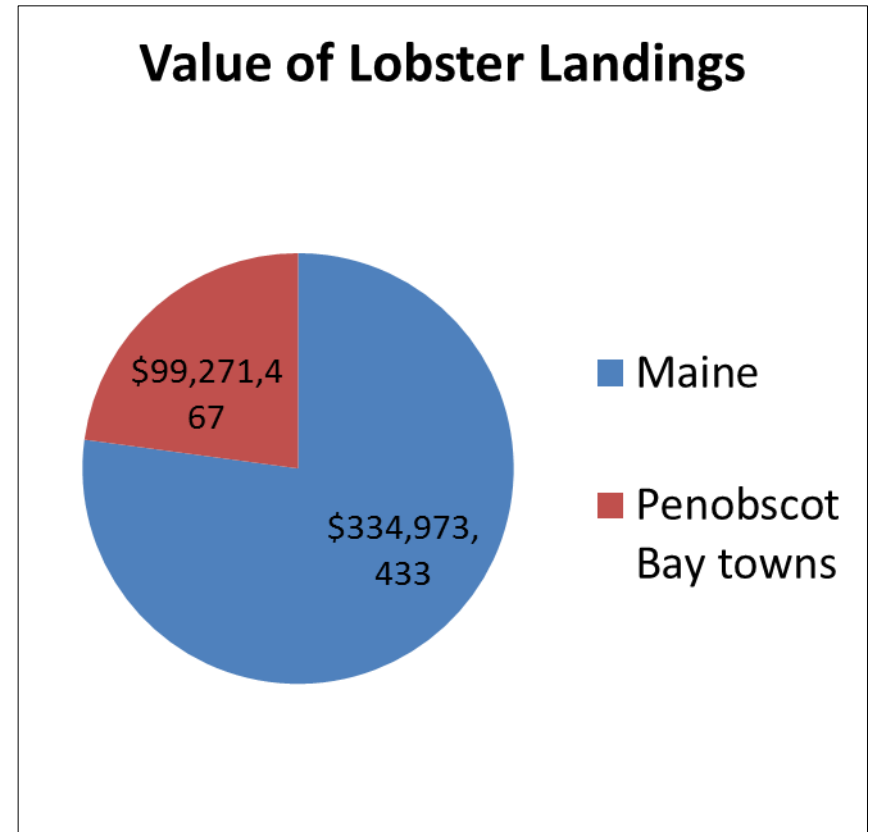
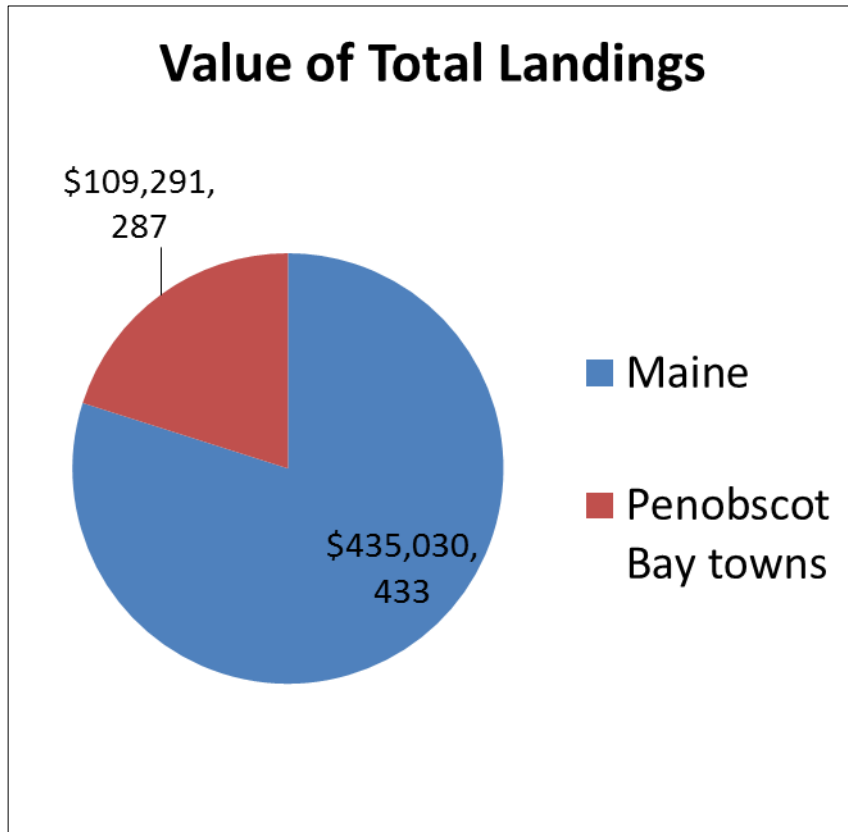
\$109 million in fish landings

Source: Maine Revenue, Maine Department of Marine Resources



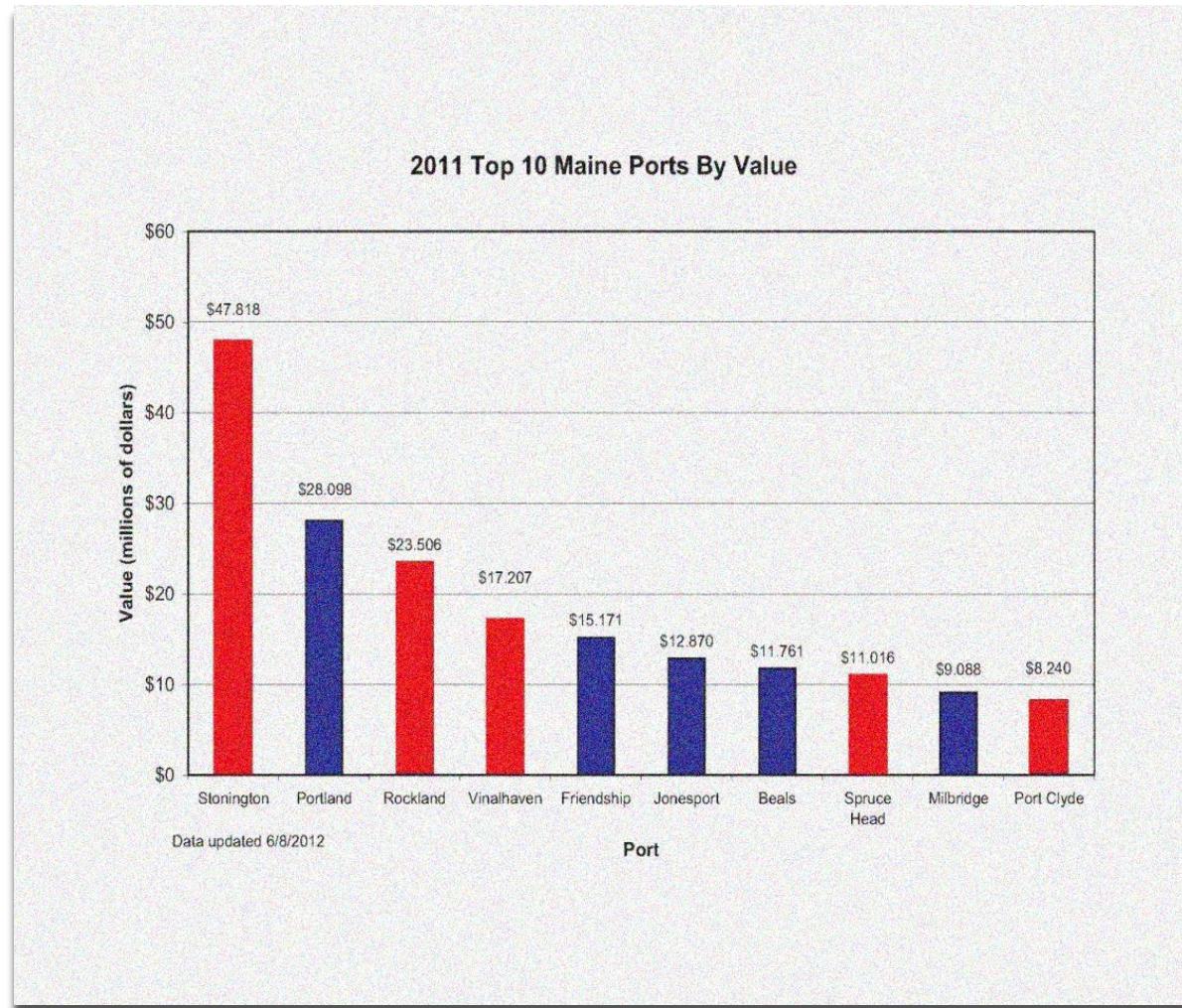
Fishing

In 2011, 25% of the total value of the state's fish landings and 30% of the total lobster value were landed in Penobscot Bay towns.



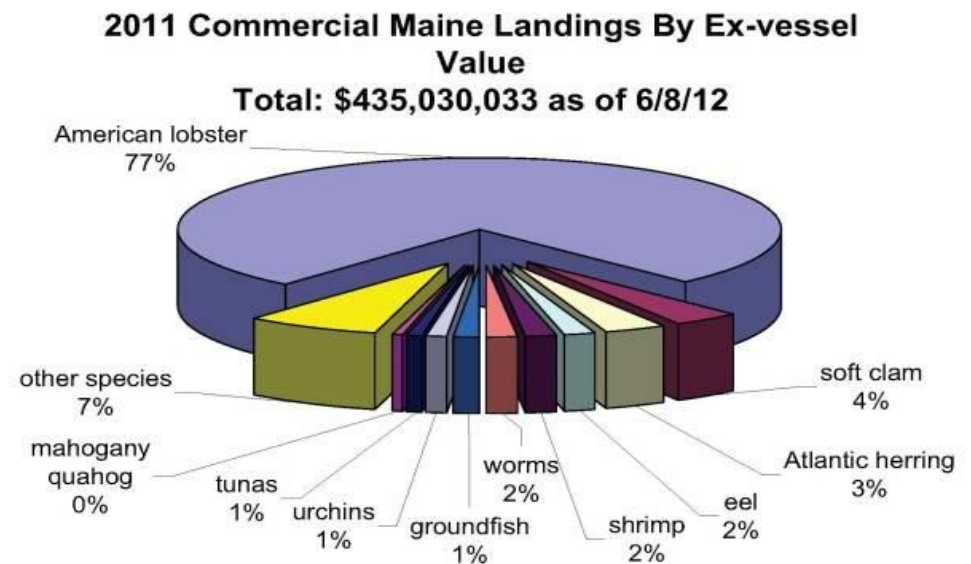
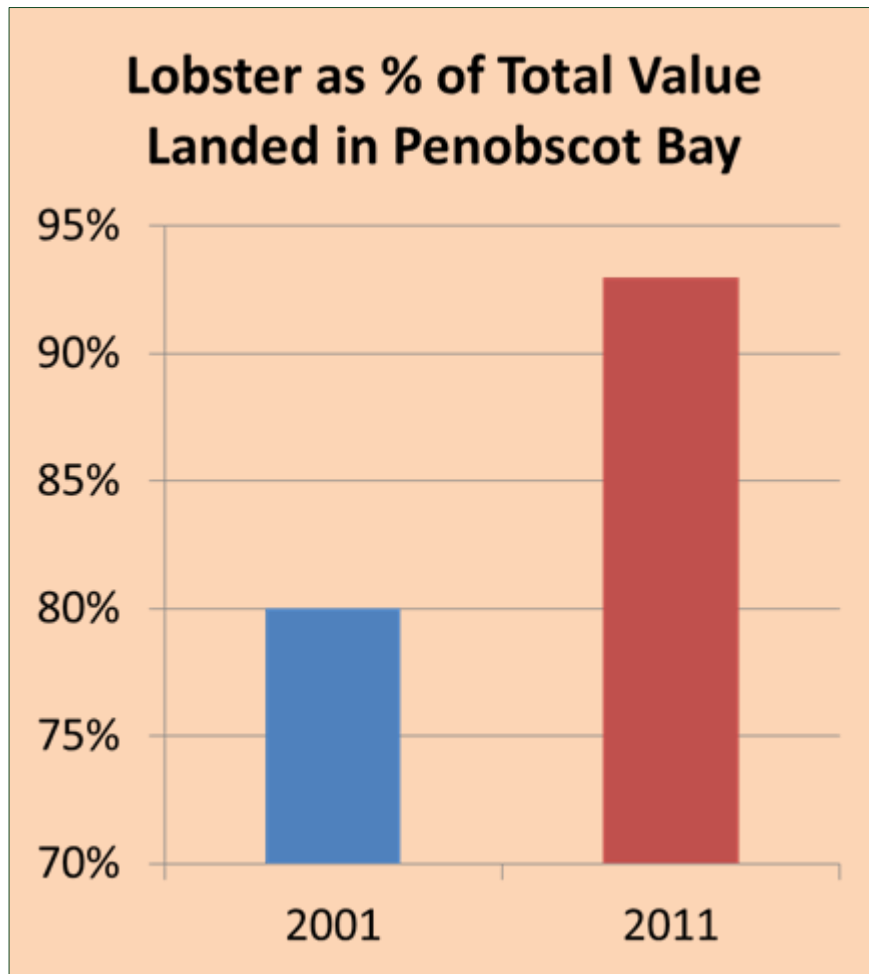
Source: Maine Department of Marine Resources

Five of the 10 top Maine ports by value of fish landings are in Penobscot Bay. In 2011, these five ports accounted for 25% of the state's total fisheries landings of \$435 million. The value of their landings has increased 109% over the last 10 years.



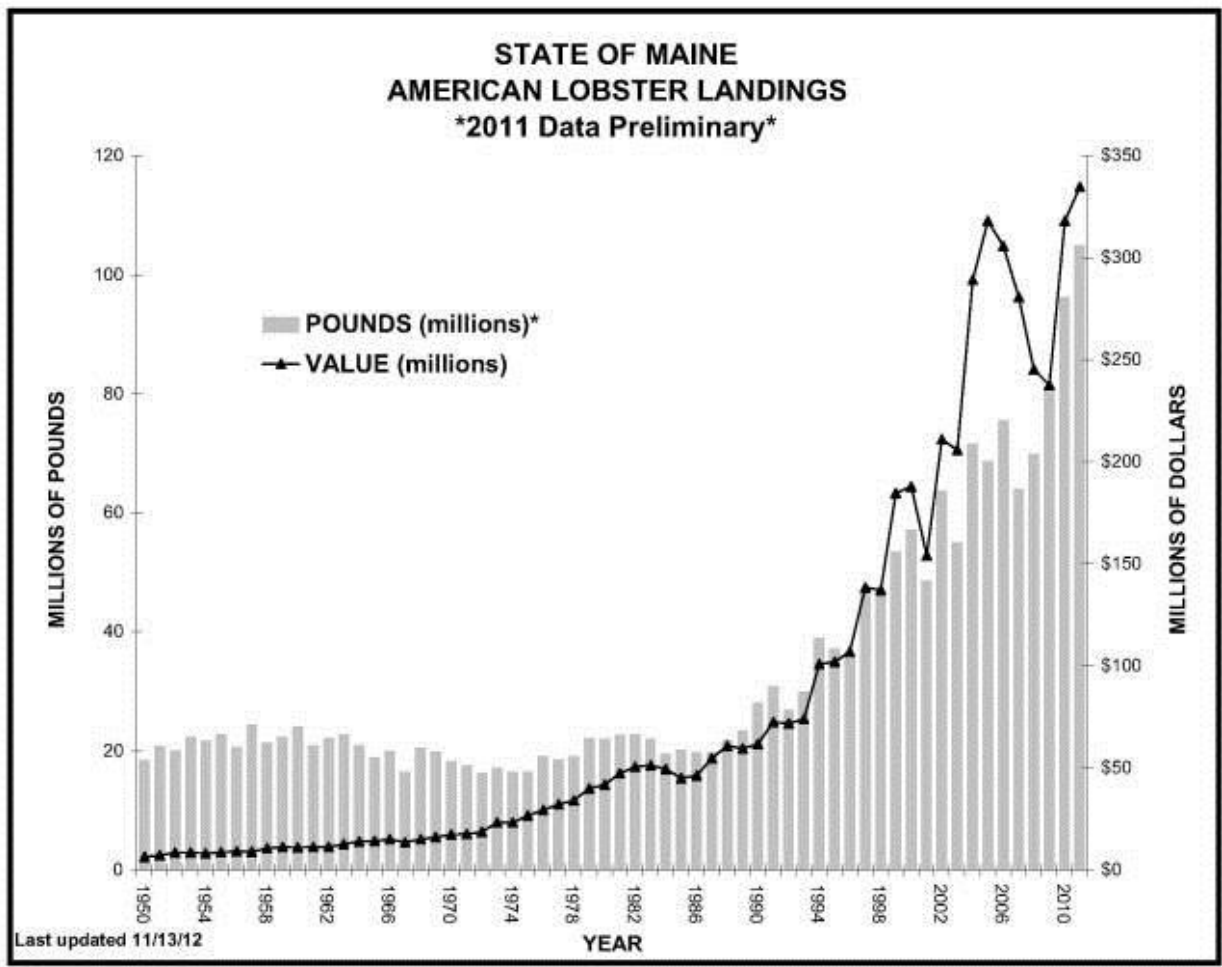
Source: Maine Department of Marine Resources

In 2011, lobsters accounted for 93% of the total value of landings in Penobscot Bay. For the state as a whole, lobster accounted for 77% of the total value.



Source: Maine Department of Marine Resources

Lobster landings have risen in value by 363% over the past 20 years. Single-species dependency, however, means increased vulnerability to disease, market fluctuation and the fate of largely Canadian processing facilities.



Source: Maine Department of Marine Resources

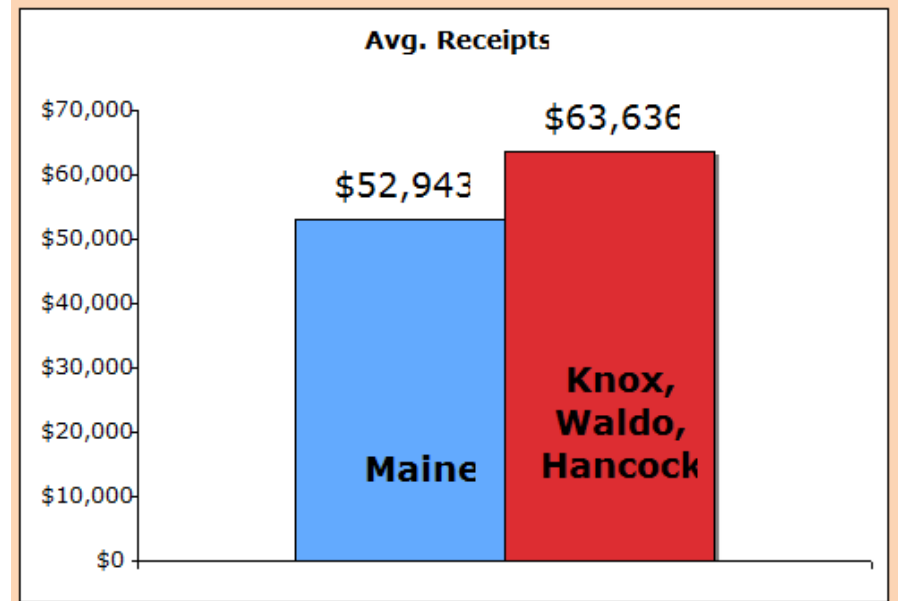
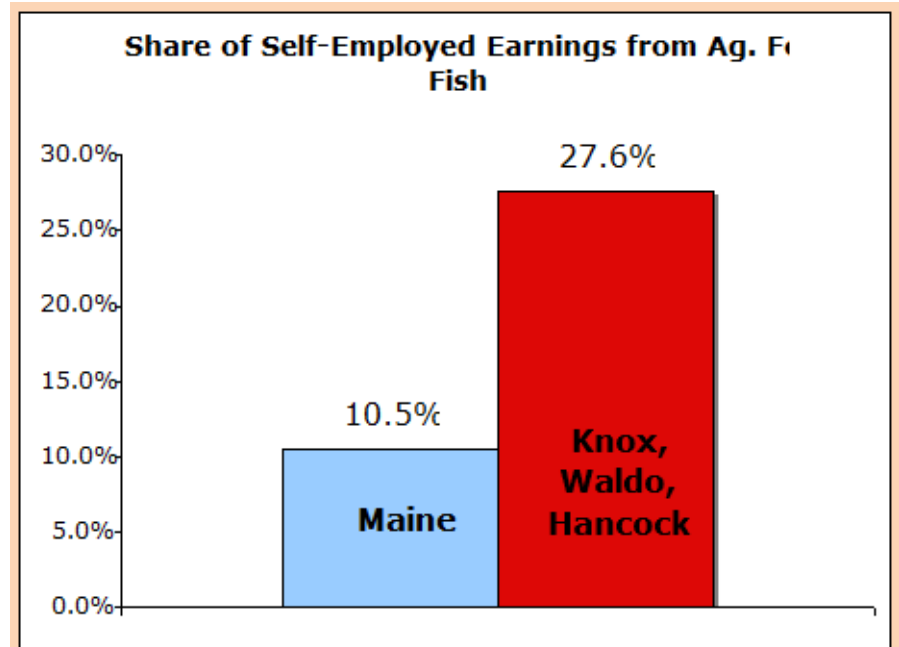
The disproportionately high number of lobster license-holders in the Penobscot Bay region relative to the rest of Maine underscores the vulnerability of its marine resource-based economy so heavily invested in a single species. Of the 19,599 fishing licenses (both commercial and recreational) issued in Maine in 2012, 2,629 (13%) of them were distributed in towns across the Penobscot Bay region. Of these 19,599 licenses, 13,443 were for commercial use, and of those, 2,007 (15%) went to Penobscot Bay residents.

The issue of dependency on a single fishery become evident when *only* commercial lobster licenses are considered: 1,298 of the 5,904 licenses issued to Maine commercial lobstermen (22%) were held by Penobscot Bay fishermen in 2012.

The clearest picture of mono-species fishing emerges with the realization that, for Maine in general, the percentage of commercial fishing licenses allocated to lobster fishing is 44% of the total, but in the Penobscot Bay region, 66% of all commercial fishing licenses issued are for lobster fishing. (Source: Maine Department of Marine Resources)



The final indicator of the fragility of the Penobscot Bay region is a higher percentage of self-employment gross sales in the Knox-Waldo region that is coming from farming, fishing and forestry than in the state as a whole, and average gross sales per self-employed enterprise in the region exceed the state average. (Source: U.S. Census)



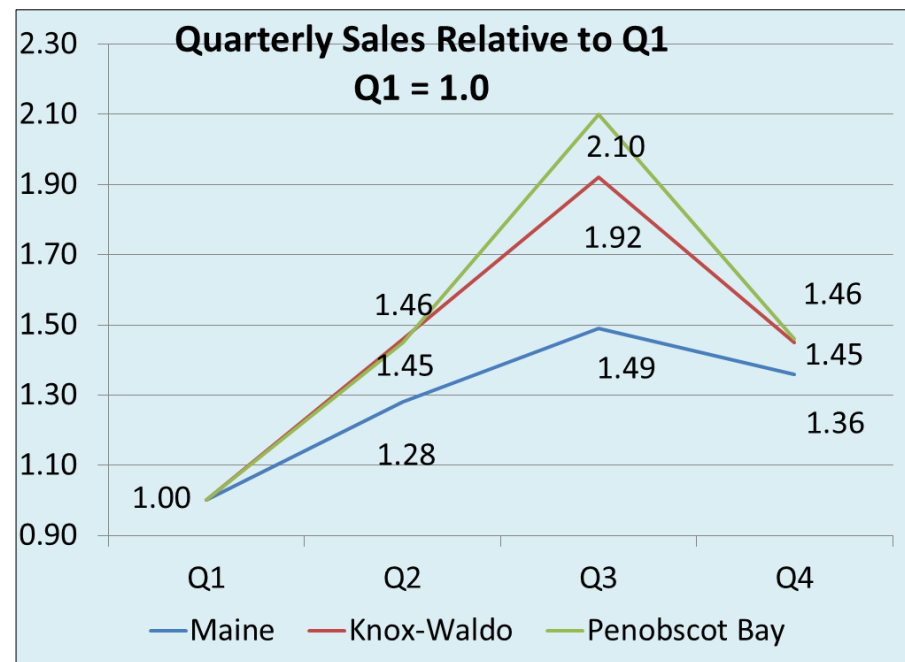
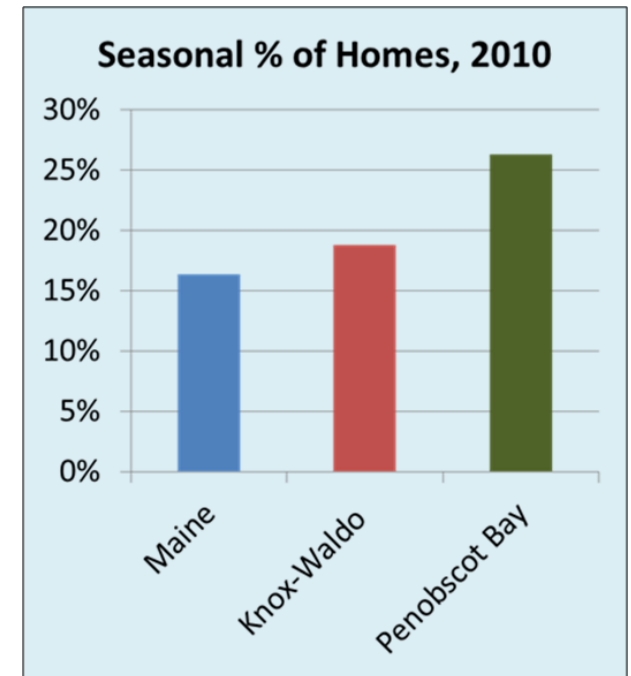
Seasonality

Compared to Maine as a whole, the 24 Penobscot Bay towns as a group have a much higher percentage of seasonal homes and their third-quarter sales are much higher than at any other time during the rest of the year.



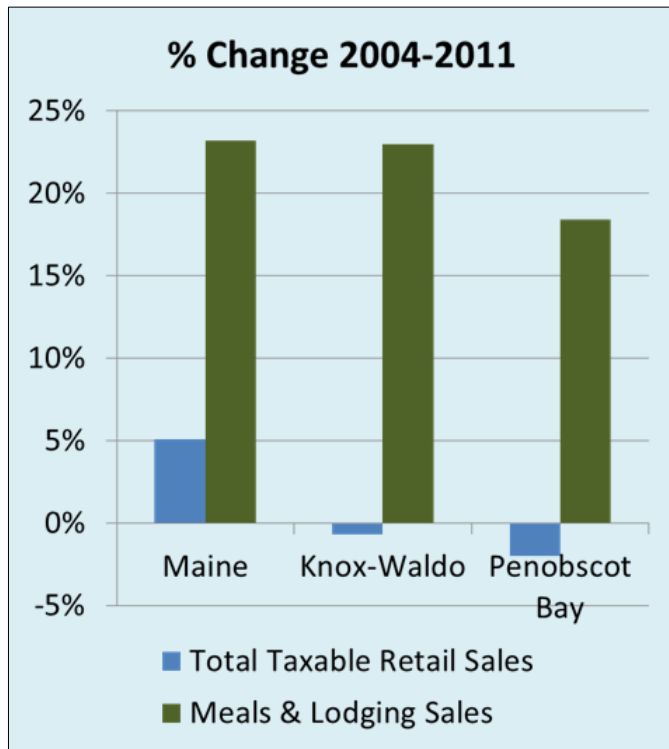
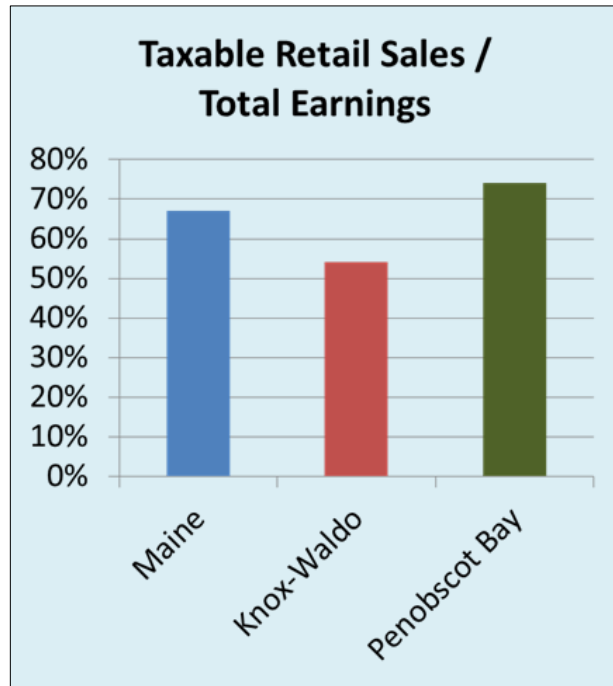
Source: Maine Revenue

Source: U.S. Census



Tourism

The spike in third-quarter sales in the Penobscot Bay region is, unsurprisingly, based as much on tourism as it is on seasonal home ownership. This dependence on tourism is reflected in the higher ratio of retail sales relative to total household earnings compared to Knox-Waldo and the state as whole. Yet another indication of tourism dependence is reflected in the growing percentage of retail sales in the region that come from meals and lodging compared to the shrinking revenues from other types of retail sales.

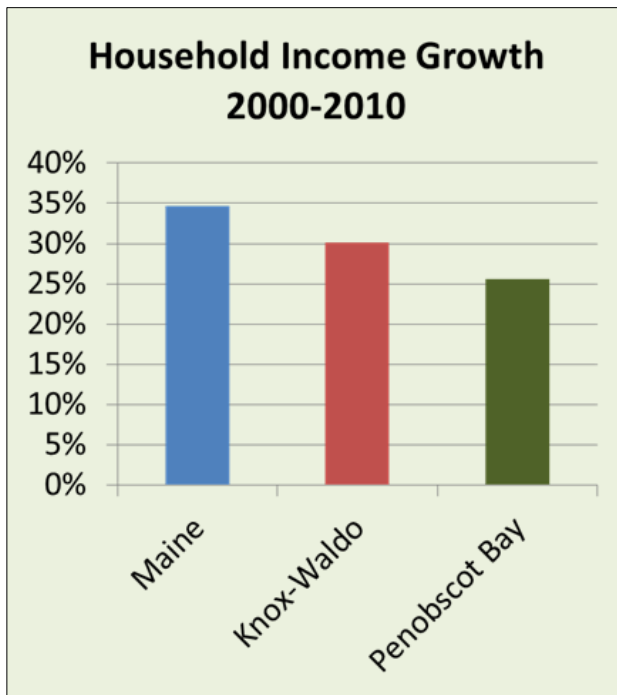


Sources: Maine Revenue, U.S. Census

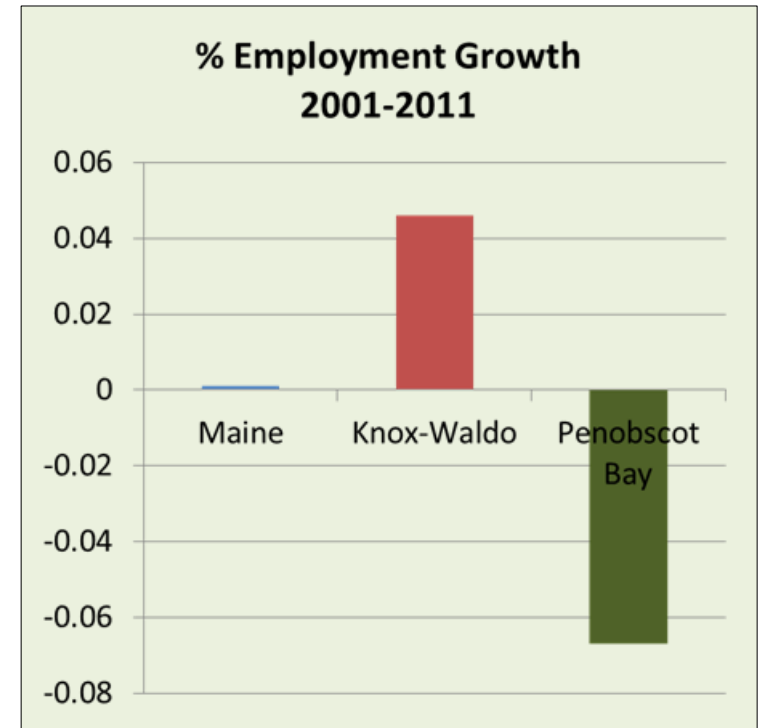
Part Two: Shifting Economic Opportunities

Employment & Income Trends

The past decade has seen a narrowing fishing base, slower overall economic growth and inadequate connections to new job opportunities – all of these factors have reduced the ability of the region's traditional economy to sustain its entire population. The two charts on this page show the lack of employment growth is reflected in the sluggish growth in household income.



Sources: Quarterly Census of Employment and Wages, U.S. Census

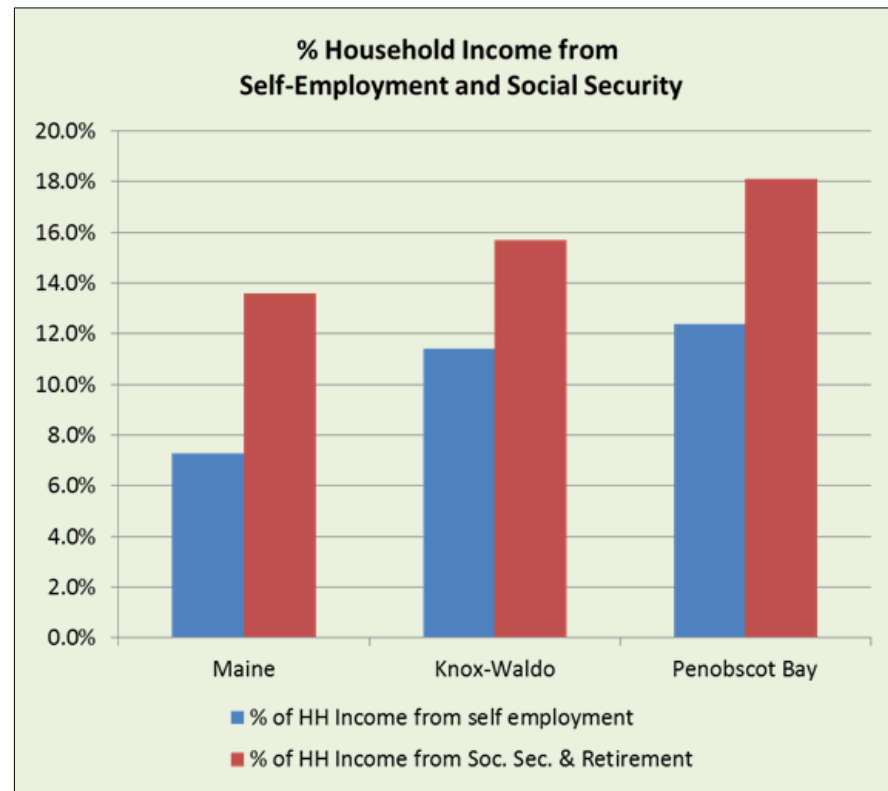
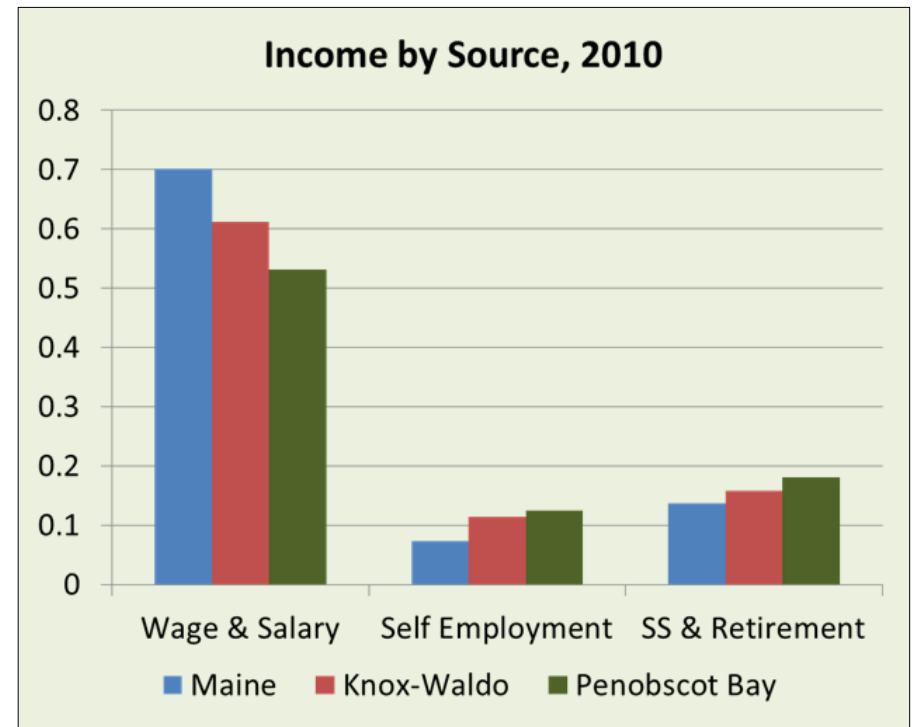


It is important to note that employment figures are based on reported jobs by employers in the state; these figures exclude those who are self-employed as well as retirees. Of the approximately 39,000 jobs in Knox and Waldo counties, two-thirds of them are along Penobscot Bay, not in the interior. Stagnation and/or downward trends in employment are therefore that much more of a threat to the counties' sustained economic vitality.

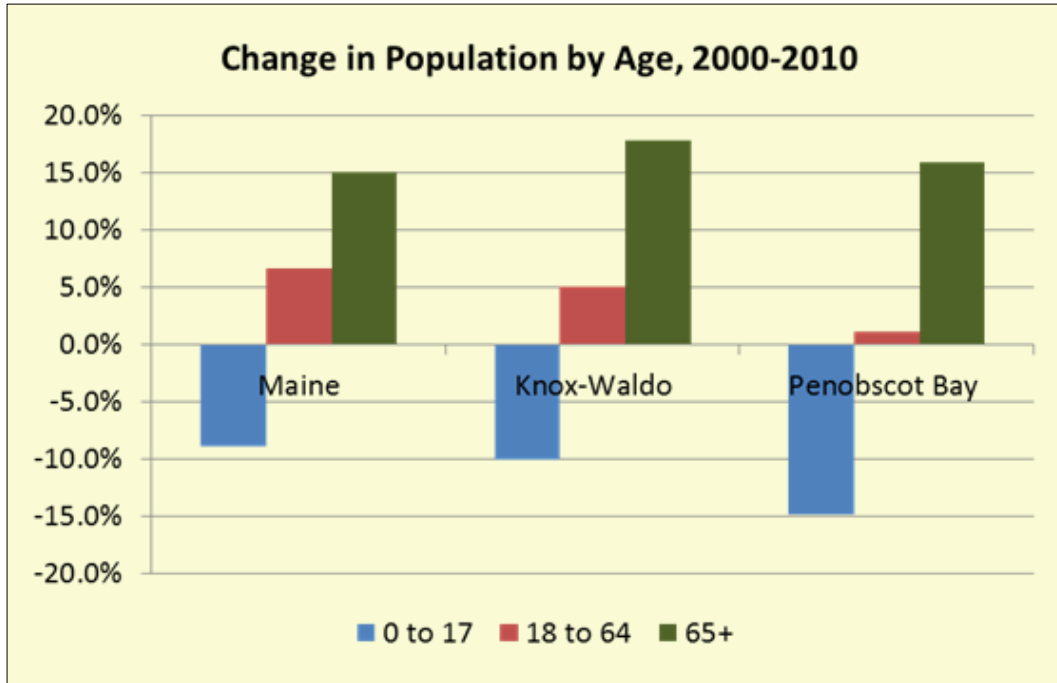
The two graphs presented here reflect additional trends that are suppressing economic growth in the Penobscot Bay region. Income from wages and salaries is a far lower percentage than in Knox-Waldo and the state as a whole, and there is greater dependence on self-employment and retirement income in Penobscot Bay.



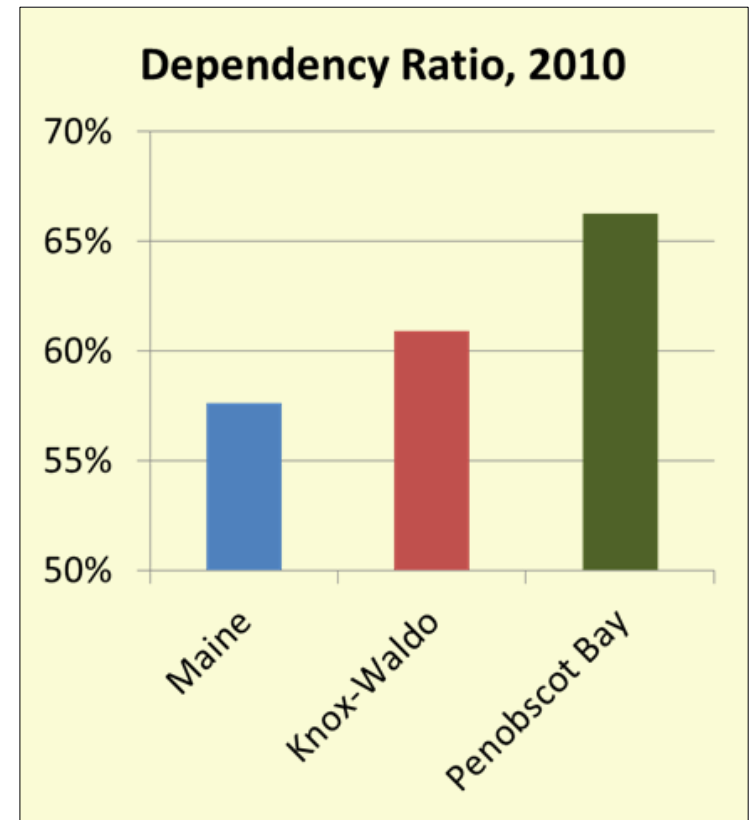
Source: U.S. Census



Demographic Trends



Maine is the oldest state in the nation, according to the 2010 U.S. Census, and the Penobscot Bay region is "like Maine, only more so", with a much higher influx of retirees, a shrinking number of young people, and a stagnant working-age population. This trend is reflected in the higher "dependency ratio" – the ratio of the youngest residents (0 to 17 years) and oldest residents (over 65) to those in the working-age bracket (18 to 64).

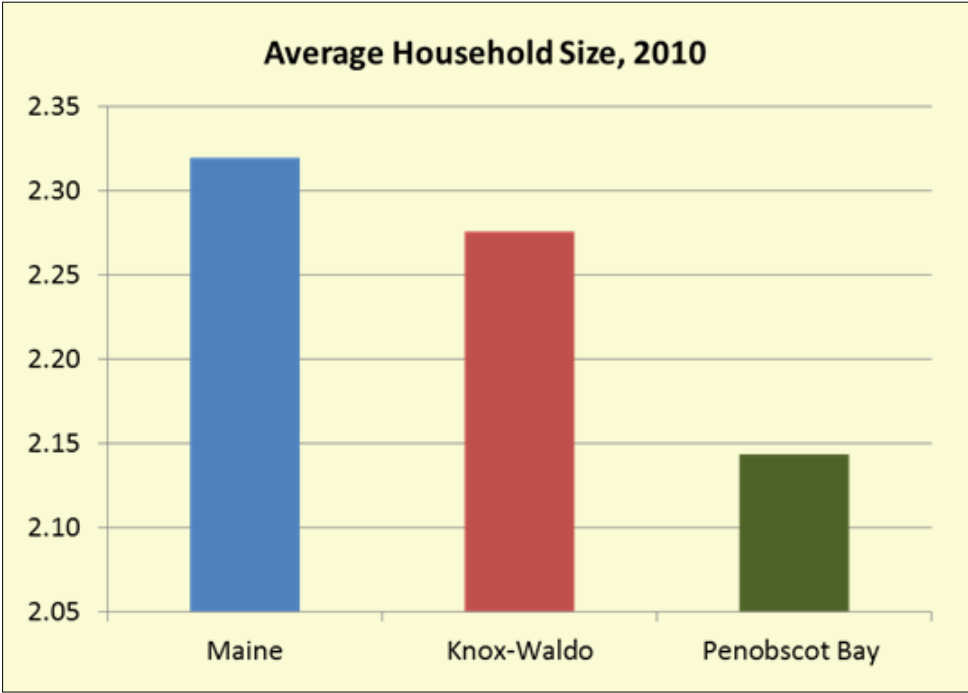


Source: U.S. Census

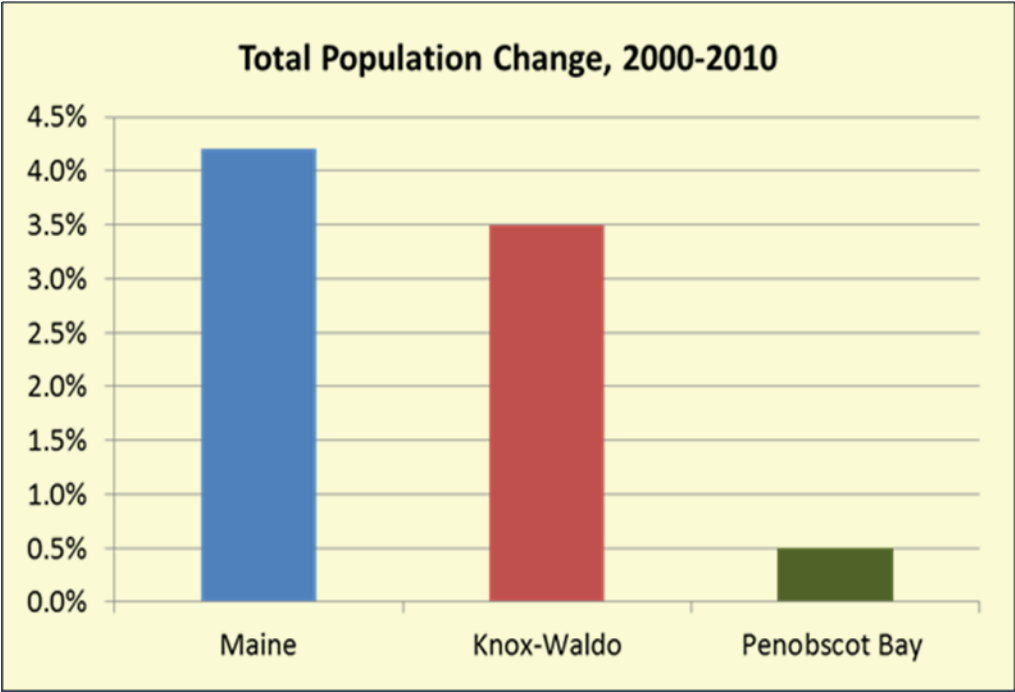


Penobscot Bay’s population is also growing at a much slower rate than in Knox and Waldo counties and in the state as a whole.

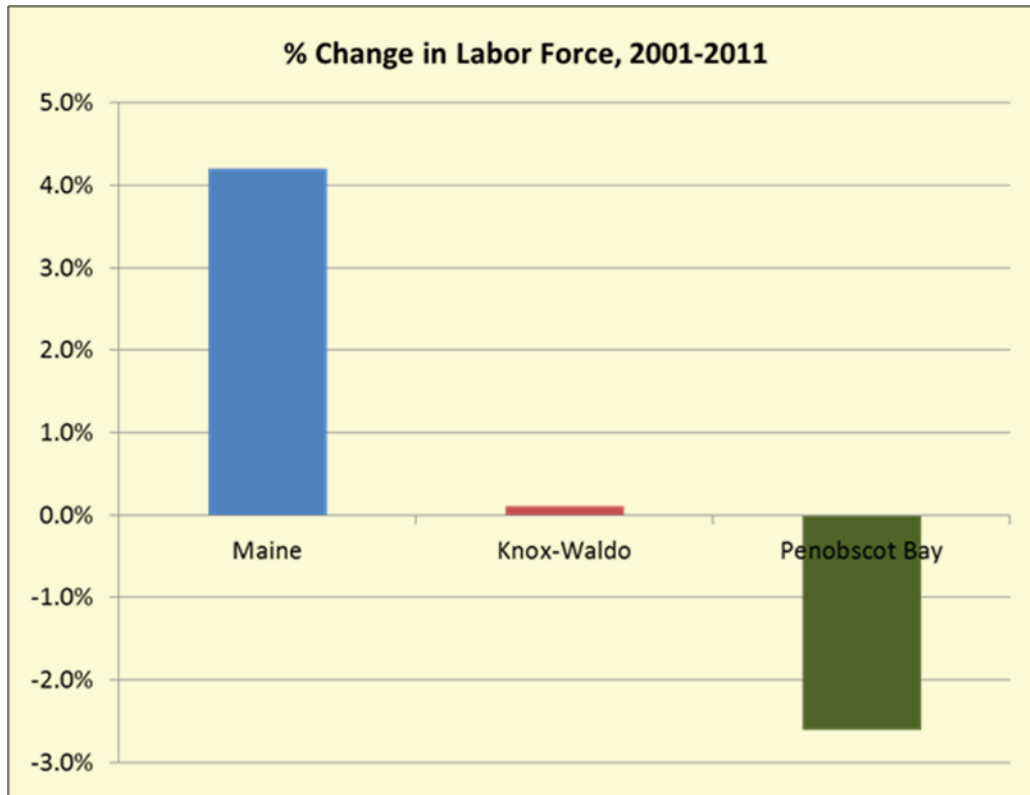
Not surprisingly, household size is also smaller in Penobscot Bay towns than in the region or the state as a whole.



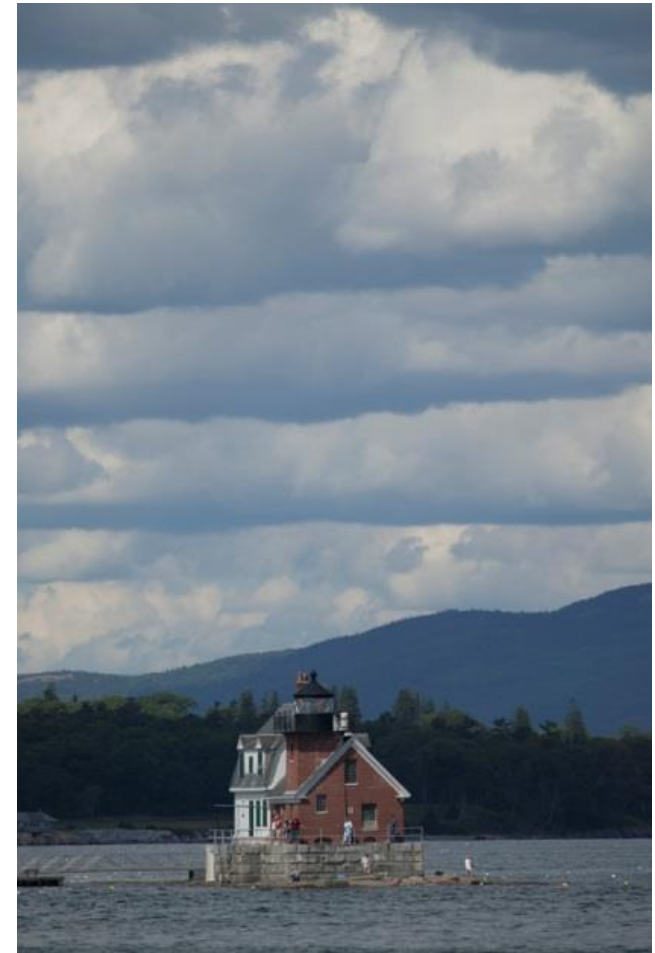
Source: U.S. Census



All of the above trends – sluggish population growth, an aging population, a high dependency ratio and small household size – have combined to slow down the "pipeline" of younger people who are ready to join the workforce.

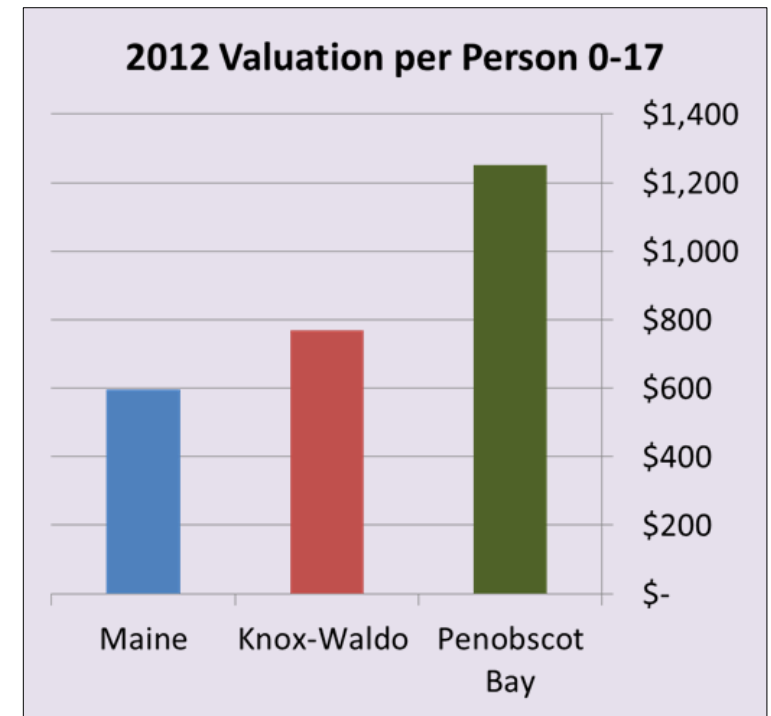
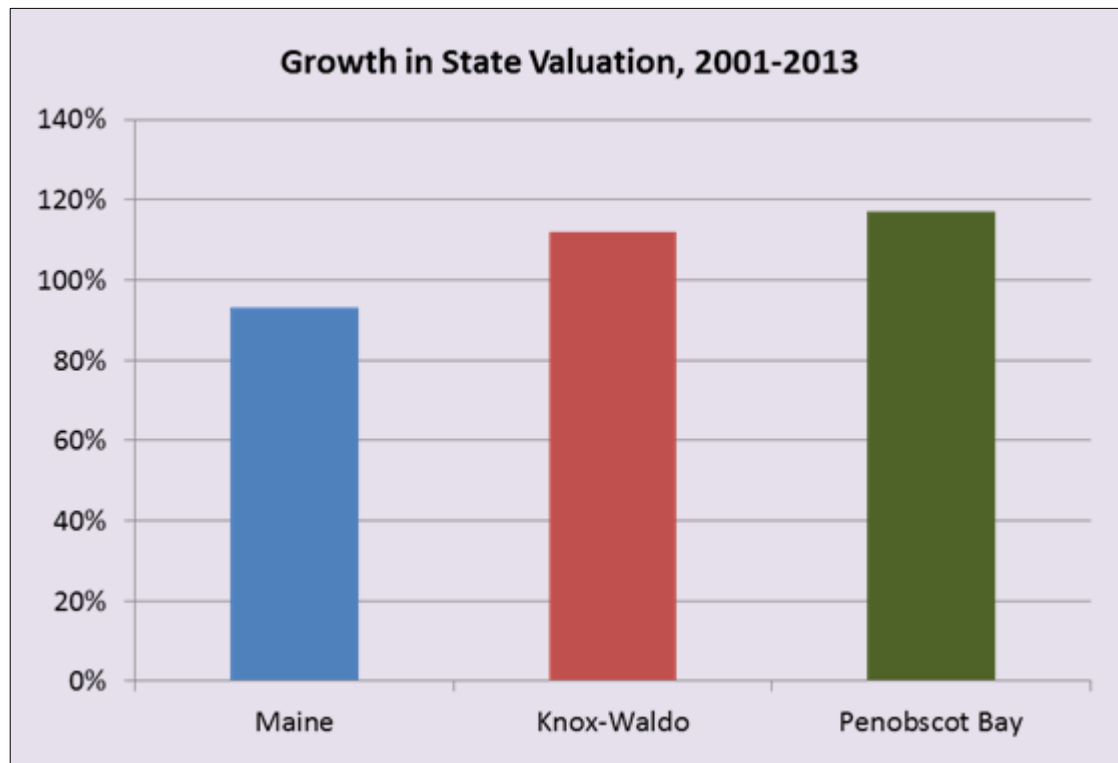


Source: Quarterly Census of Employment and Wages



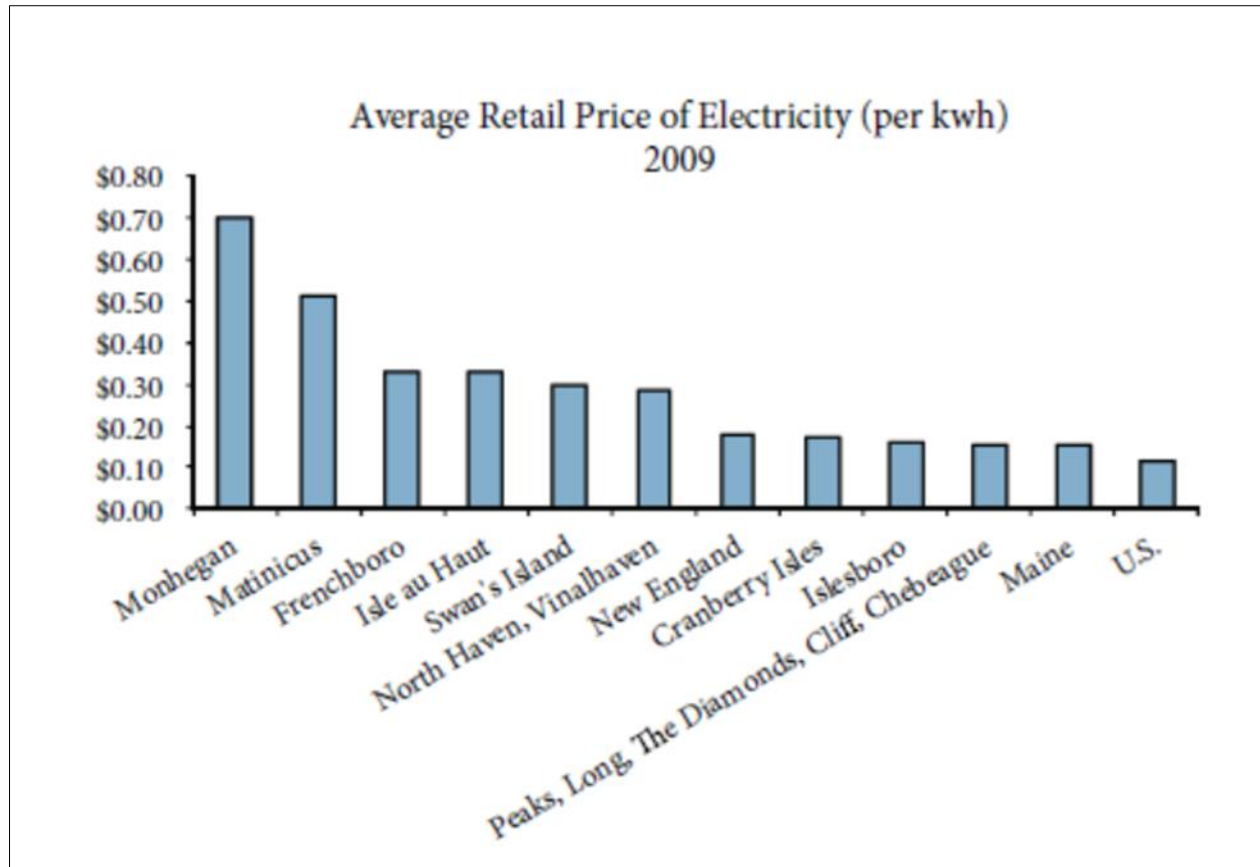
Affordability

Increased demand for seasonal homes has correspondingly increased property values in the Penobscot Bay region. This trend, however, has also had the downside of increased property taxes for those who have no desire to sell homes that have been in their families for generations. The combination of higher property values and fewer children also means less state aid for school funding and a greater fiscal burden on a population with declining income.



Sources: Maine Revenue, U.S. Census

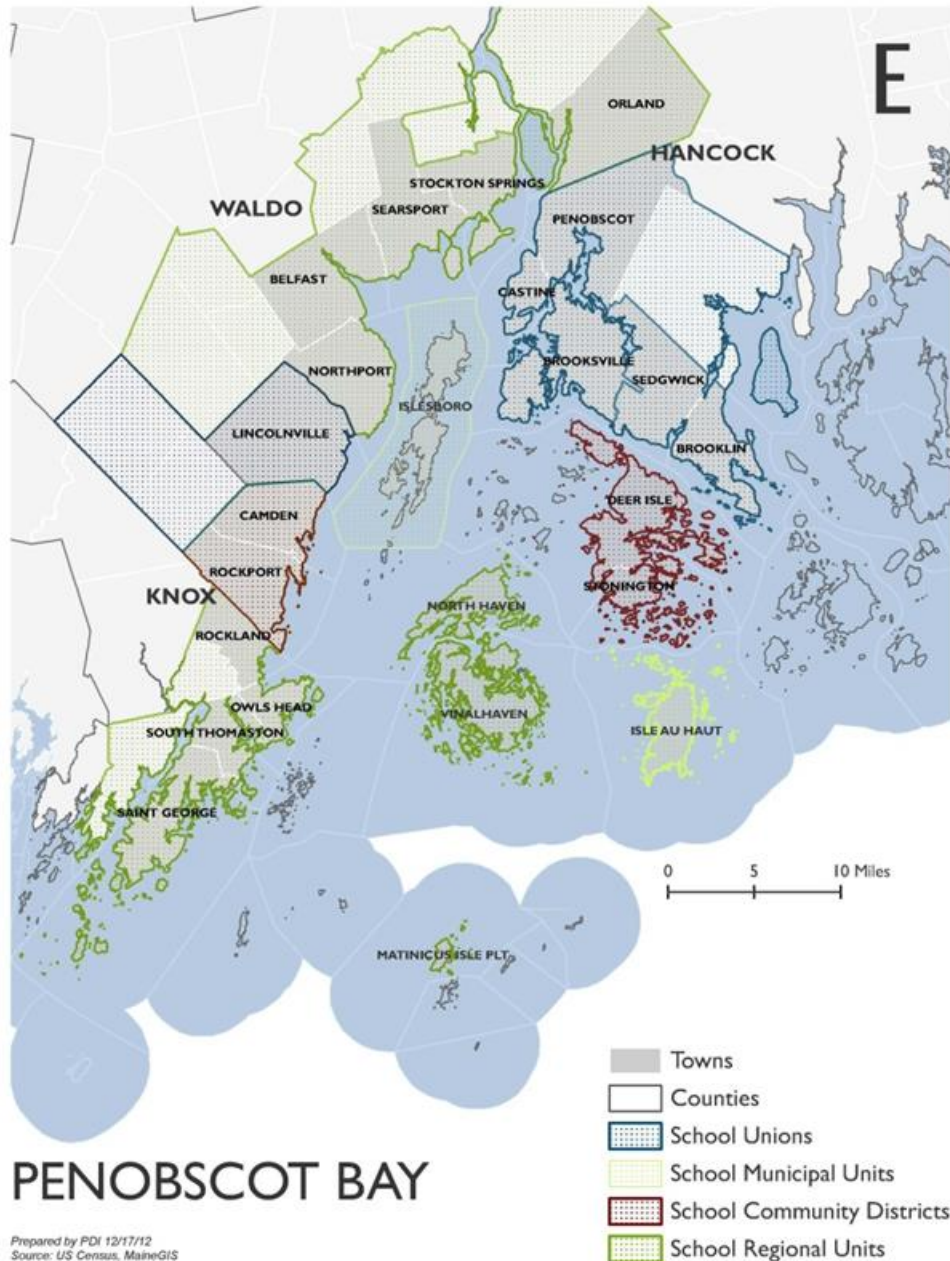
The cost of providing electricity to homes in the Penobscot Bay region varies widely, with East and West Bay towns paying the state average for electricity, and some islands paying substantially more, according to a 2009 study.



Source: Island Indicators, 2010

The 2010 U.S. Census also provides information on the use of different sources of home heating, which can have a substantial impact on a region's affordability rating. It's widely known that Maine is far less dependent on natural gas (4.3% of homes compared to 49.7% of all U.S. homes), and the Penobscot Bay region is even lower at 1.1% of homes. More propane is used in our region (9.6% compared to 6.7% in Maine and 5.2% in the U.S.) and slightly less heating oil (69.9%) than in Maine as a whole (72.4% of all homes, compared to 6.8% in the U.S. overall).

Part Three: Diverse Governance



One of the real challenges facing the Penobscot Bay region is that basic governance is not region-centric. There are 24 separate towns, three counties, two economic development districts, and four labor market areas, none with the same boundaries.

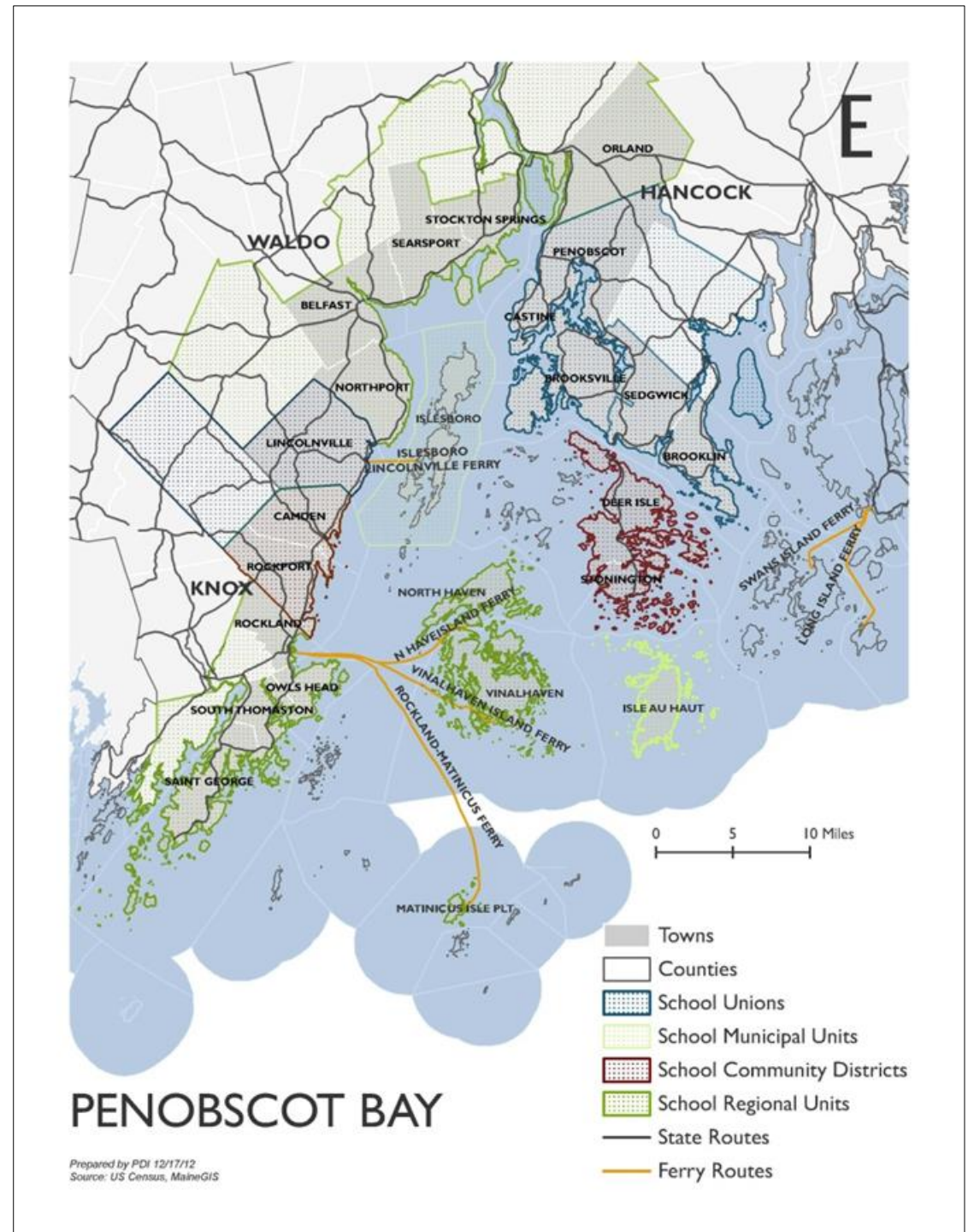
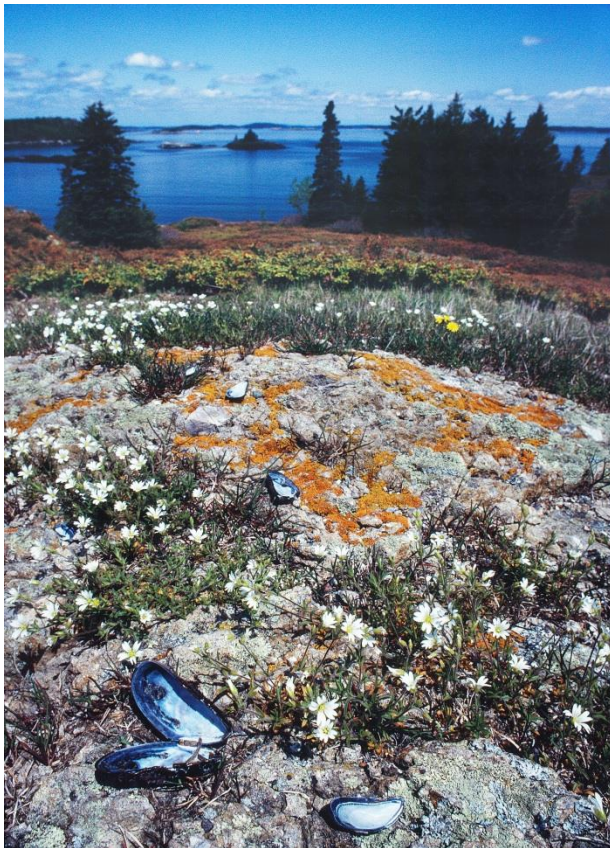
Education is not region-centric either; there are 15 different school units.



North Haven Community School Graduation, 2012

In terms of regional infrastructure, there is a lack of region-centricity in the areas of transportation and communication. The region is served by pass-by arterials and individual and separate nodular offshoots.

Socio-economically, the Penobscot Bay region is by no means a coherent, interconnected, internally functioning region.



Policy Implications for the Island Institute

STRATEGIC PLAN GOALS

During the fall and winter of 2012-2013, Island Institute staff received input from more than 500 year-round island residents, representatives of partner organizations, and other Maine-coast community stakeholders to inform the development of the following overarching goals that will guide our work over the next several years. Our efforts will focus on the Penobscot Bay region as well as on the year-round island and remote coastal communities Down East and in Casco Bay.

Goal 1: Support economic resiliency and growth

Goal 2: Help retain and attract families and young people as year-round residents

Goal 3: Encourage networking among island communities and increase the exchange of information with islanders and about islands

Goal 4: Facilitate the development of island leadership to support individual and community aspirations

Goal 5: Strengthen and support a culture of workplace excellence that is responsive to our constituents

