

Leakage Analysis of the Martha's Vineyard Economy

Increasing Prosperity through Greater Self-Reliance



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Cover: The Farm Institute stand at the West Tisbury Farmers' Market (courtesy The Farm Institute)

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Introduction

Martha's Vineyard is a 100-square-mile island located three miles from the south shore of Cape Cod. Its annual gross domestic product is over \$800 million. Its property values have grown rapidly over the past decade to over \$19 billion. Much of its economy is dedicated to servicing the needs of seasonal populations and short-term visitors.

In early 2007 the Martha's Vineyard Commission, acting on behalf of the Island Plan Livelihood and Commerce Work Group, asked the Training & Development Corporation (TDC) of Bucksport, Maine, to perform a "leakage analysis" of the Vineyard's economy.¹ The rationale for the study is that a growing body of evidence suggests that the best way to strengthen a community economy is by expanding locally owned businesses serving local markets. By studying leaks of dollars – that is, goods and services being imported that could be produced locally – a community can identify the most promising markets for new or expanded local businesses, and the best private initiatives and public policies to support this kind of economic development.

TDC agreed to provide:

- a snapshot of the Vineyard economy, sector by sector;
- an assessment of current imports and import-substitution opportunities; and
- an analysis of the implications for economic development on the island.

The key conclusions of the study are as follows:

- The Martha's Vineyard economy seems strong. The total annual production, sales, and income per capita of the year-round population, as well as its wealth, all appear to be remarkably high. But this conclusion is superficial.
- The island has a seasonal, visitor-based economy, with a summer population peak five times higher than the number of residents who live on the island permanently. This means that many businesses operate intermittently and many jobs are temporary. Unemployment rates more than triple in the winter. The proprietors of seasonal business must cover year-round costs with a few months of revenue, and consequently must charge higher prices for their goods and services. This, along with the special transport costs of bringing goods to the island, translates into a higher cost of living for residents.

¹ TDC has been developing methodologies for measuring economic leakage over the past decade. Earlier analyses have been performed for St. Lawrence County (NY), the Katahdin Region (ME), Spokane (WA), Hudson Valley (NY), and Detroit (MI), and are available on request.

- Also, much of the capital investment on the island, from roads to houses, is not used very efficiently, although the permanent residents value the quality of life that accompanies this usage pattern. A major challenge for economic development on the island is to increase the fraction of the economy that is “permanent” and thereby reduce the disparity between the seasonal lows and highs, all while ensuring that the fundamental strengths of the Vineyard – its culture, environment, charm, and history – are not imperiled by economic growth.
- While capturing a greater percentage of the consumption of visitors – guests of residents, seasonal residents, tourists, day-trippers, and day-workers – is an important goal for the island’s economic growth, shortfalls in their expenditure do not constitute imports. Rather, they can be better conceptualized as unrealized exports. Future study is needed to understand better the consumption patterns of each of these groups, and how best to increase rates of capture by Vineyard businesses.
- What falls clearly in the category of imports are expenditures by residents and resident businesses off island. These are unambiguous leakages from the Martha’s Vineyard economy. The focal point of this study is how best to plug these leaks through plausible localization efforts.
- Sectors where the island is producing far more than the needs of its residents (based on an assessment of a “typical” community in the United States) include fishing, foodstuff manufacturing, construction, rentals, realty, water transport, tourist transport, waste management, artists, hotels, nonprofits, food retailers, gas stations, hardware stores, and a variety of other retailers. These sectors are either exporting or, more likely, serving the seasonal and other intermittent populations.
- Sectors where the island appears to be importing outside goods and services include electricity, fuels, almost every kind of manufactured item, motor vehicles, furniture, financial services (except banking), business services, health services, and educational services.
- Were Martha’s Vineyard as self-reliant as the typical community in the United States, the universe of potential new jobs is at least 1,215 and probably much greater.
- Further discussion of these data with the Martha’s Vineyard Commission defined which sectors from universe of possible import-replacement opportunities seemed most plausible given the assets and goals of the island. Thirteen initiatives were identified: growing local food, producing local electricity, manufacturing local biofuels, building affordable housing, increasing overall demand during off-season months, creating cottage-industry-scale manufacturing, expanding various local services (for business,

health, and finance), starting a telecommunications utility, creating new institutions for local pension fund reinvestment, stimulating more local procurement by government (and school entities), and creating local purchasing pools that can reduce costs of all kinds of inputs to production.

- A shift of consumption to local business by the permanent residents of just 10%, consistent with the thirteen actions above, could provide a significant stimulus for the local economy year round, including during the off-peak months. The IMPLAN input-output model suggests that this modest level of localization could generate \$9 million more in earnings, \$22 million more in annual output, \$1 million more in tax revenues from business, and 344 additional jobs. The last impact means that localization could increase employment during off-season by about six percent.
- In fact, these numbers substantially underestimate the potential for localization for the Vineyard. For some localization initiatives, such as creating a local telecommunications utility, a much greater shift than 10% would make sense. And the presence of more local goods services would naturally shift the consumption patterns of the huge seasonal population as well.
- The study concludes with an appendix of nearly 50 actions Martha's Vineyard can initiate – relating to consumers, investors, entrepreneurs, and policymakers – that could accelerate localization and realization of its myriad benefits.

Methodology

We begin by explaining the philosophy of economic development that underlies a leakage analysis—one that prioritizes the growth and expansion of locally owned, import-substituting (LOIS) businesses. Discerning opportunities for LOIS requires an analysis both of dollar leakages (that is, where residents are spending money outside the local economy) and of opportunities for plugging leaks. We then elaborate the methodology we use in this study, and explain some key caveats.

The Importance of LOIS

A growing body of evidence suggests that the businesses most beneficial to a community economy are those that are locally owned and import-substituting.² Local ownership means that working control of a company is held within a small geographic area. Import-substituting means that the company is focused first and foremost (though not exclusively) on local markets.

Local ownership turns out to matter for economic development in at least five ways:

- Locally owned businesses generally contribute more to the “economic multiplier”³ than nonlocal businesses – which translates into more income, wealth, jobs, and tax payments – because the former spend more money locally.
- While absentee-owned businesses increasingly move away to Mexico or China to secure a higher rates of return on investment, even if the consequent exit throws a U.S. community into an economic tailspin, locally owned businesses reliably stick around and produce wealth for many years, often many generations.
- Because local businesses tend to stay put, a community can raise labor and environmental standards with more confidence that these businesses will adapt rather than flee.

² See Michael H. Shuman, *The Small-Mart Revolution: How Local Businesses Are Beating the Global Competition* (San Francisco: Berrett-Koehler, 2006).

³ Every purchase triggers purchases by others within a community. For instance, a dollar spent on rent might be spent again by the property owners at the local grocer, who in turn pays an employee, who then buys a movie ticket. This phenomenon is what economists call “the multiplier.” The more times a dollar circulates within a defined geographic area and the faster it circulates without leaving that area, the more income, wealth, and jobs it creates. This basic concept in community economics highlights the importance of maximizing the numbers of dollars being spent locally and minimizing their “leakage.”

- A community made up of locally owned businesses is better equipped to promote smart growth, draw tourists, attract talented young people, and seed an entrepreneurial culture.
- Compared to economies rooted in a small number of absentee owned big enterprises, local-business economies appear to have greater social stability, lower levels of welfare, and more political participation.

Import substitution matters for economic prosperity as well. Every time a community imports a good or service that it could cost-effectively produce for itself, it “leaks” dollars and loses the critically important economic multipliers associated with them. Unnecessary imports – of foreign oil, for example – also subject a community to risks of major price hikes and disruptions outside local control. And they deny a community a diversified base of businesses and skills that are needed to take advantage of unknown (and unknowable) future opportunities in the global economy.

“Localization” turns out to be an important strategy for promoting the expansion of high-wage, “high road” jobs. More traditional strategies for attracting these jobs from nonlocal enterprises have had disappointing results, because many of the promised jobs do not materialize or turn out to be temporary. Moreover, because nonlocal businesses spent less money locally than local businesses, they have lower multipliers and fail to raise wages in other sectors of the local economy. A recent study in San Francisco found, for example, that a 10 percent shift of residential spending on retail from nonlocal business would add to the city’s economy nearly 1,300 more jobs, \$72 million more in wages, and \$192 million more in annual output.⁴ (A similar shift in spending the other way, from local to chain, would eliminate 1,300 jobs, shrink wages by \$72 million, and reduce output by \$192 million.)

Two clarifications about LOIS are important: First, import-substitution does not mean cutting off a community from the global economy. To the contrary, as the late Jane Jacobs argued, an economic strategy of promoting import-substituting businesses turns out to be an effective way to develop export-oriented businesses.⁵ But instead of putting all of the community’s eggs in one export-oriented basket, this strategy aims to develop myriad small businesses, all grounded (initially at least) in local markets with many then becoming exporters.

⁴ For this study and the several studies that preceded it, see Matt Cunningham & Dan Houston, *The Civic Economics of Retail* (Austin: Civic Economics, 2007).

⁵ The argument is essentially this: Suppose North Dakota wished to replace imports of electricity with local wind-electricity generators. Once it built windmills, it would be self-reliant on electricity but dependent on outside supplies of windmills. If it set up its own windmill industry, it would then become dependent on outside supplies of machine parts and metal. This process of substitution never ends, but it does leave North Dakota with several new strong industries – in electricity, windmills, machine parts, and metal fabrication – poised to meet not only local needs but also export opportunities.

Second, this perspective does not carry a moral judgment about non-LOIS businesses being bad or unproductive. To the contrary, many global, export-led companies are terrific at creating wealth and jobs. But dollar for dollar of sales, the typical LOIS business produces more benefits for a given region than the typical non-LOIS business, in part because local ownership anchors the business to the community and in part because of the multiplier effects.

LOIS businesses actually constitute the majority of the U.S. economy. According to the Small Business Administration, about half of the private sector's output and jobs comes from small business. Add nonprofits and governmental sectors, and the "place-based economy" accounts for 58% of gross domestic product (GDP). This number is significantly higher in rural communities. The businesses in the place-based sectors, moreover, produce far more jobs, patents, and innovation than equivalent sized nonlocal businesses.

The main doubt economists express about LOIS concerns competitiveness. Are we not in an era when bigger businesses can better achieve economies of scale? In fact, in all but seven of the thousand-plus sectors of the North American Industrial Classification System (NAICS), there are more examples of competitive small-scale enterprise in each sector than large-scale enterprise. Put another way, the U.S. economy is full of models of small-scale success that can inform entrepreneurship activities in even very small communities. What's missing is an economic-development strategy that these communities can use to identify, create, and nurture these enterprises. Enter leakage analysis.

The Role of Leakage Analysis

One way to discern LOIS business opportunities is to measure local leaks. By leakage, we mean the outflow of dollars on outside goods and services that could cost-effectively be produced locally. Plugging leaks, particularly if done through locally owned businesses, provides an excellent opportunity for bringing strong new catalysts for economic multipliers into the economy. Among the valuable results of leakage analysis are:

- Policymakers have a clearer vision of how to allocate scarce public resources for economic development.
- Existing small-business proprietors have a better sense of promising opportunities for expansion, and entrepreneurs see the most profitable markets for start ups.
- Local banks, lenders, and investors can better calibrate their allocations of commercial capital.
- Foundation, nonprofits, and grassroots groups have a clearer sense of who to mobilize for community action.

- Consumers can better appreciate of the potential payoffs of buying more goods and services locally.

Measuring leakages, however, turns out to be very challenging for small communities. Generally speaking, economic data in the United States are more accurate, detailed, and complete at the higher levels of aggregation. Measuring national leakages, for example, is relatively easy, since the government publishes measures of imports of goods, services, and capital. State measures are more difficult, county measurements more difficult still, and community measurements the most difficult of all.

The methodology we employ – like almost every methodology used by the economic-development profession— is highly imperfect. Each of the federal, state, and private data sets we use was collected in a different way, contains sampling errors and uncertainties, and has been “adjusted” in special ways to compensate for these problems. Moreover, even various federal databases were not been designed to be used with one another. *Our findings therefore, even when exact numbers appear, should only be used as broad guidance for appropriate public and private initiatives.*

Peculiarities of Martha’s Vineyard

Measuring leakages in Martha’s Vineyard, a seasonal island community, turns out to be both easy and hard. One characteristic of the Vineyard that simplifies a leakage analysis is that, except for 100 people or so living on Gosnold, the population of the island coincides with that of Dukes County. But the sheer mobility of most of the players in the island economy makes the analysis challenging. Most communities have a large permanent population, and a modest number of visitors. The Vineyard, in contrast, has a relatively small permanent population and an enormous number of visitors during the peak summer season, as well as during the spring and fall shoulder seasons.

Estimates from the 2000 Census, updated in 2004, are that 15,582 people live in Dukes County. Between 1970 and 2000 the growth rate of the number of residents has been spectacular: three times greater than the growth rate for the United States, and seven times greater than the growth rate for Massachusetts. Additionally, data collected by the Martha’s Vineyard Commission suggest that the island population swells to 75,000 on a typical summer day—five times the permanent population. Of these, 6,400 are guests of the residents, 45,000 people either reside on the island part-time or stay for more than a week, 4,400 stay less time (in hotels, inns, or boats), 8,000 are “day trippers,” and another 1,000 just cruise-ship passengers. As many as 3,000 undocumented workers, mostly Brazilians, also live or work on the island.

Vineyard “imports” that could be replaced arguably represent three streams of expenditure:

- Purchases or investments by residents made off island.

- Purchases or investments by resident businesses made off island.
- Purchases or investments by visitors made off island that could be made on the island.

This study focuses on the first two categories. Expenditures in the third category really do not qualify as imports. Instead, visitor purchases or investments are really more like exports, since islanders are getting money from outsiders for locally produced or sold goods and services. Capturing more nonresident spending is an important challenge for a tourist-based economy, but it requires a very different kind of analysis than that performed here. The spending pattern of each group would need to be scrutinized for unexploited capture opportunities.⁶ For these reasons, as well as the paucity of data about the expenditure patterns of each non-resident group, we focus the analysis on spending by residents and resident businesses.

Three Types of Leakage Analysis

There are three kinds of leakage analysis we undertake:

- One is to compare actual business activity undertaken by the permanent residents with expected activity (for a self-reliant economy) and to measure the “gaps.” These gaps suggest the full universe of sectors where import substitution can occur.
- A second is to take a broader view, based on discussions with experts on the island, to discern “gaps” that otherwise might be obscured by the data and to narrow the universe of *possible* import substitution to the most *plausible*.
- The third step is to show the economic benefits of these plausible shifts of expenditure to local business.

Finally, in Appendix I, we summarize several dozen tools that the island can use to make the plausible shifts in expenditure – and to encourage greater local spending by all groups present on the island year-round.

⁶ Surveys might reveal different opportunities for expenditure capture for each group. Consider, for example, banking. How much more of the demand for, say, auto or home loans could be captured by local financial institutions? It seems plausible to capture more demand from seasonal residents who declare their official residency elsewhere (e.g., for loans for local mortgages), but not from day trippers or day workers.

Leakage Analysis #1: Martha's Vineyard versus an Average U.S. Community

One method for identifying dollar leaks in Martha's Vineyard is to compare the number of jobs in each economic sector with those in the United States as a whole.⁷ Because the U.S. economy is relatively self-reliant (about 16% of GDP goes to imports⁸) and because the buying patterns of American families are very similar from region to region across the country, a self-reliant regional economy should have a job composition that does not differ much from the national average. A truly self-reliant region would have equivalent representation of all the types of business found in the United States.

Where the region has a proportionally larger economic sector than the U.S. average, it probably is exporting. Where the region has a proportionally smaller economic sector, it probably is importing. This method provides a rough guide to the potential for import substitution to grow the regional economy.

These calculations, of course, have to be sensibly vetted. Not every industry can be undertaken locally. Some sectors, like mining or fishing, require location-specific resources. Others require clusters of support industries. Additionally, import replacement is not desirable in every situation where it is possible. The values and assets analyses are essential for screening the list of leakages to identify opportunities that are compatible with the region's vision for its future.

Charts 1a-1f show all businesses in the Vineyard that reported employees to the Bureau of the Census in the most recent edition (2004) of its *County Business Patterns*.⁹ The charts contain all firms with employee identification numbers (EIN), and are based on the number of employees reported in mid-March. Since March is regarded as part of the low season in Martha's Vineyard, it turns out to be a reasonable reference point for the year-round workforce serving the year-round population.¹⁰

⁷ Another approach suggested would be to compare the Vineyard economy with other communities in Massachusetts or New England. These areas, however, are much less self-reliant than the United States as a whole, and therefore cannot provide a reliable point of reference for a self-reliant economy.

⁸ This percentage would be considerably lower were the United States attentive to its trade deficit, and certainly will be lower if, as seems likely, the value of the dollar shrinks. Over the past two generations, this percentage has varied between 10% and 21%: 20% in 1960; 21% in 1970; 11% in 1980; 11% in 1990; and 15% in 2000. U.S. Census Bureau, *Statistical Abstract*, 2001, Table 640.

⁹ These data are assembled from the zip code level, and are available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>. No effort has been made to modify, correct, or update the data here.

¹⁰ The staff of the Martha's Vineyard Commission believe that some of these numbers – like for restaurant employees – are too high for just the permanent population. They speculate that some employers are including their seasonal hires in their reports to the Bureau of the Census. This problem ultimately has the effect of *understating* the potential for import replacement in the relevant sector.

Chart 1a – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total Employees | | | | | | | Est. Total |
|---|--|-----------------|-------|-------|---------|---------|---------|-----------|------------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | '100-249' | |
| Agriculture, Fishing, and Forestry | | | | | | | | | |
| 113310 | Logging | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 114111 | Finfish Fishing | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 115114 | Postharvest Crop Activities (except Cotton G | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 115210 | Support activities for animal production | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| | | | | | | | | | 17.5 |
| Utilities | | | | | | | | | |
| 221122 | Electric power distribution | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 221320 | Sewage treatment facilities | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| | | | | | | | | | 21.5 |
| Construction | | | | | | | | | |
| 236115 | New single-family general contractors | 61 | 42 | 13 | 4 | 2 | 0 | 0 | 313.0 |
| 236116 | New multifamily general contractors | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 236117 | New housing operative builders | 6 | 4 | 1 | 0 | 1 | 0 | 0 | 46.5 |
| 236118 | Residential remodelers | 9 | 5 | 4 | 0 | 0 | 0 | 0 | 40.5 |
| 237110 | Water and sewer system construction | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 7.5 |
| 237130 | Power and communication system construction | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 237310 | Highway, street, and bridge construction | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 237990 | Other heavy construction | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 7.5 |
| 238110 | Poured concrete structure contractors | 7 | 6 | 1 | 0 | 0 | 0 | 0 | 22.0 |
| 238130 | Framing contractors | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 7.5 |
| 238140 | Masonry contractors | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 10.0 |
| 238160 | Roofing contractors | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 238170 | Siding contractors | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 238210 | Electrical contractors | 21 | 19 | 2 | 0 | 0 | 0 | 0 | 61.5 |
| 238220 | Plumbing and HVAC contractors | 25 | 18 | 4 | 3 | 0 | 0 | 0 | 116.5 |
| 238310 | Drywall and insulation contractors | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 238320 | Painting and wall covering contractors | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 22.5 |
| 238330 | Flooring contractors | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 238340 | Tile and terrazzo contractors | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 238350 | Finish carpentry contractors | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 12.5 |
| 238910 | Site preparation contractors | 8 | 5 | 2 | 1 | 0 | 0 | 0 | 41.0 |
| 238990 | All other specialty trade contractors | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 19.5 |
| | | | | | | | | | 774.0 |
| Manufacturing | | | | | | | | | |
| 311330 | Confectionery mfg from purchased chocolate | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 29.5 |
| 311811 | Retail bakeries | 3 | 1 | 1 | 0 | 0 | 1 | 0 | 84.0 |
| 312112 | Bottled water mfg | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 323110 | Commercial lithographic printing | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 19.5 |
| 323114 | Quick printing | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 327320 | Ready-mix concrete mfg | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 335121 | Residential electric lighting fixture mfg | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 336612 | Boat building | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 337110 | Wood kitchen cabinet & counter top mfg | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 339911 | Jewelry (except costume) mfg | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 339992 | Musical instrument mfg | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| | | | | | | | | | 179.5 |

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>.

Chart 1b – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total | Employees | | | | | Est. Total |
|---------------------|--|---------|-----------|-------|---------|---------|---------|------------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | |
| Retail Trade | | | | | | | | |
| 441221 | Motorcycle dealers | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 441310 | Automotive parts & accessories stores | 1 | 0 | 0 | 1 | 0 | 0 | 14.5 |
| 441320 | Tire dealers | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 442110 | Furniture stores | 4 | 2 | 2 | 0 | 0 | 0 | 19.0 |
| 442210 | Floor covering stores | 4 | 3 | 1 | 0 | 0 | 0 | 14.5 |
| 442291 | Window treatment stores | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 442299 | All other home furnishings stores | 7 | 4 | 2 | 1 | 0 | 0 | 38.5 |
| 443111 | Household appliance stores | 2 | 1 | 0 | 1 | 0 | 0 | 17.0 |
| 443112 | Radio, television, & other electronics store | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 443120 | Computer & software stores | 3 | 2 | 0 | 1 | 0 | 0 | 19.5 |
| 444110 | Home centers | 1 | 0 | 0 | 1 | 0 | 0 | 14.5 |
| 444120 | Paint & wallpaper stores | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 444130 | Hardware stores | 3 | 1 | 2 | 0 | 0 | 0 | 16.5 |
| 444190 | Other building material dealers | 9 | 6 | 1 | 0 | 2 | 0 | 81.0 |
| 444220 | Nursery, garden center, & farm supply stores | 3 | 1 | 1 | 1 | 0 | 0 | 24.0 |
| 445110 | Supermarkets & other grocery (except conveni | 13 | 4 | 1 | 1 | 5 | 2 | 328.0 |
| 445120 | Convenience stores | 5 | 4 | 0 | 1 | 0 | 0 | 24.5 |
| 445210 | Meat markets | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 445220 | Fish & seafood markets | 5 | 4 | 1 | 0 | 0 | 0 | 17.0 |
| 445230 | Fruit & vegetable markets | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 445291 | Baked goods stores | 1 | 0 | 0 | 1 | 0 | 0 | 14.5 |
| 445292 | Confectionery & nut stores | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 445299 | All other specialty food stores | 4 | 4 | 0 | 0 | 0 | 0 | 10.0 |
| 445310 | Beer, wine, & liquor stores | 7 | 3 | 1 | 1 | 2 | 0 | 88.0 |
| 446110 | Pharmacies & drug stores | 4 | 0 | 2 | 2 | 0 | 0 | 43.0 |
| 446130 | Optical goods stores | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 446191 | Food (health) supplement stores | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 447110 | Gasoline stations with convenience stores | 4 | 1 | 3 | 0 | 0 | 0 | 23.5 |
| 447190 | Other gasoline stations | 8 | 3 | 3 | 1 | 1 | 0 | 72.5 |
| 448110 | Men's clothing stores | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 448120 | Women's clothing stores | 12 | 11 | 1 | 0 | 0 | 0 | 34.5 |
| 448140 | Family clothing stores | 10 | 6 | 4 | 0 | 0 | 0 | 43.0 |
| 448150 | Clothing accessories stores | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 448190 | Other clothing stores | 4 | 4 | 0 | 0 | 0 | 0 | 10.0 |
| 448310 | Jewelry stores | 6 | 4 | 1 | 1 | 0 | 0 | 31.5 |
| 451110 | Sporting goods stores | 10 | 9 | 1 | 0 | 0 | 0 | 29.5 |
| 451120 | Hobby, toy, & game stores | 2 | 1 | 1 | 0 | 0 | 0 | 9.5 |
| 451130 | Sewing, needlework, & piece goods stores | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 451211 | Book stores | 2 | 1 | 0 | 1 | 0 | 0 | 17.0 |
| 451212 | News dealers & newsstands | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 451220 | Prerecorded tape, compact disc, & record sto | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 452990 | All other general merchandise stores | 6 | 2 | 3 | 1 | 0 | 0 | 40.5 |
| 453110 | Florists | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 453220 | Gift, novelty, & souvenir stores | 17 | 15 | 1 | 1 | 0 | 0 | 59.0 |
| 453310 | Used merchandise stores | 6 | 5 | 1 | 0 | 0 | 0 | 19.5 |
| 453910 | Pet & pet supplies stores | 2 | 1 | 1 | 0 | 0 | 0 | 9.5 |
| 453920 | Art dealers | 11 | 10 | 1 | 0 | 0 | 0 | 32.0 |
| 453991 | Tobacco stores | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 453998 | All other miscellaneous store retailers (exc | 4 | 4 | 0 | 0 | 0 | 0 | 10.0 |
| 454111 | Electronic shopping | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 454312 | Liquefied petroleum gas (bottled gas) dealer | 3 | 0 | 1 | 2 | 0 | 0 | 36.0 |
| 454390 | Other direct selling establishments | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |

1,363.0

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnac/cbpnac.shtml>.

Chart 1c – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total Employees | | | | | | Est. Total | |
|---------------------------------------|--|-----------------|-------|-------|---------|---------|---------|------------|-----------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | | '100-249' |
| Wholesale Trade | | | | | | | | | |
| 423220 | Home furnishing merchant wholesalers | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 423390 | Other construction material merchant wholesa | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 423810 | Const & mining machinery & equip merchant wh | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 423940 | Jewelry, watch, prec stone, & prec metal mer | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 17.0 |
| 424310 | Piece goods, notions, oth dry gd merchant wh | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 424330 | Women's & child clthng & access merchant who | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 424410 | General line grocery merchant wholesalers | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 424450 | Confectionery merchant wholesalers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 424460 | Fish & seafood merchant wholesalers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 424490 | Other grocery & related products merchant wh | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 16.5 |
| 424990 | Other misc nondurable goods merchant wholesa | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 29.5 |
| 425120 | Wholesale trade agents & brokers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| | | | | | | | | 97.0 | |
| Transportation and Warehousing | | | | | | | | | |
| 481111 | Scheduled passenger air transportation | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 17.0 |
| 481112 | Scheduled freight air transportation | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 481211 | Nonscheduled chartered passenger air transpo | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 483113 | Coastal & Great Lakes freight transportation | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 483212 | Inland water passenger transportation | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 9.5 |
| 484110 | General freight trucking, local | 4 | 2 | 0 | 2 | 0 | 0 | 0 | 34.0 |
| 484121 | General freight trucking, long-distance, tru | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 485113 | Bus & motor vehicle transit systems | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 44.0 |
| 485310 | Taxi service | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 7.5 |
| 485320 | Limousine service | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 485410 | School & employee bus transportation | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 487110 | Scenic & sightseeing transportation, land | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 9.5 |
| 487210 | Scenic & sightseeing transportation, water | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 488510 | Freight transportation arrangement | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 488991 | Packing & crating | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 492110 | Couriers | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 21.5 |
| 493110 | General warehousing & storage | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| | | | | | | | | 196.0 | |
| Information | | | | | | | | | |
| 511110 | Newspaper publishers | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 59.0 |
| 511120 | Periodical publishers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 512110 | Motion picture & video production | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 12.0 |
| 512131 | Motion picture theaters (except drive-ins) | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 14.0 |
| 517110 | Wired telecommunications carriers | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 32.0 |
| 517510 | Cable & other program distribution | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 518210 | Data processing, hosting, & related services | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| | | | | | | | | 141.0 | |
| Finance and Insurance | | | | | | | | | |
| 522110 | Commercial banking | 5 | 1 | 3 | 1 | 0 | 0 | 0 | 38.0 |
| 522120 | Savings institutions | 14 | 5 | 6 | 2 | 1 | 0 | 0 | 113.0 |
| 522292 | Real estate credit | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 522310 | Mortgage & nonmortgage loan brokers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 523920 | Portfolio management | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 524210 | Insurance agencies & brokerages | 7 | 2 | 4 | 0 | 1 | 0 | 0 | 62.5 |
| | | | | | | | | 221.0 | |

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>.

Chart 1d – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total Employees | | | | | | | Est. Total |
|---|--|-----------------|-------|-------|---------|---------|---------|-----------|------------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | '100-249' | |
| Real Estate, Rental, and Leasing | | | | | | | | | |
| 531110 | Lessors of residential buildings & dwellings | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 17.0 |
| 531120 | Lessors of nonresidential buildings (except | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 531210 | Offices of real estate agents & brokers | 14 | 13 | 1 | 0 | 0 | 0 | 0 | 39.5 |
| 531311 | Residential property managers | 8 | 7 | 0 | 0 | 0 | 1 | 0 | 92.0 |
| 531312 | Nonresidential property managers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 531390 | Other activities related to real estate | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 12.0 |
| 532111 | Passenger car rental | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 532112 | Passenger car leasing | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 532230 | Video tape & disc rental | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 29.0 |
| 532291 | Home health equipment rental | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 532292 | Recreational goods rental | 11 | 10 | 0 | 1 | 0 | 0 | 0 | 39.5 |
| 532299 | All other consumer goods rental | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 7.5 |
| 532310 | General rental centers | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| | | | | | | | | | 258.5 |
| Professional, Scientific, and Technical Services | | | | | | | | | |
| 541110 | Offices of lawyers | 19 | 15 | 3 | 1 | 0 | 0 | 0 | 73.0 |
| 541199 | All other legal services | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 541211 | Offices of certified public accountants | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 17.0 |
| 541213 | Tax preparation services | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 9.5 |
| 541214 | Payroll services | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 541219 | Other accounting services | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 19.5 |
| 541310 | Architectural services | 6 | 4 | 1 | 0 | 1 | 0 | 0 | 46.5 |
| 541320 | Landscape architectural services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541330 | Engineering services | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 16.5 |
| 541350 | Building inspection services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541370 | Surveying & mapping (except geophysical) ser | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 14.0 |
| 541410 | Interior design services | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 9.5 |
| 541430 | Graphic design services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541490 | Other specialized design services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541511 | Custom computer programming services | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 541611 | Admin management & general management consul | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 12.5 |
| 541612 | Human resources & executive search consultin | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541613 | Marketing consulting services | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 541820 | Public relations agencies | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541840 | Media representatives | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541860 | Direct mail advertising | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 541921 | Photography studios, portrait | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 541940 | Veterinary services | 4 | 1 | 1 | 2 | 0 | 0 | 0 | 38.5 |
| | | | | | | | | | 305.5 |
| 551114 | Corporate, Subsidiary, & Regional Management | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>.

Chart 1e – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total Employees | | | | | | Est. Total |
|--|--|-----------------|-------|-------|---------|---------|---------|------------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | |
| Administrative, Support, and Waste Management | | | | | | | | |
| 561110 | Office administrative services | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 561210 | Facilities support services | 1 | 0 | 0 | 1 | 0 | 0 | 14.5 |
| 561510 | Travel agencies | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 561520 | Tour operators | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 561720 | Janitorial services | 4 | 3 | 1 | 0 | 0 | 0 | 14.5 |
| 561730 | Landscaping services | 27 | 20 | 4 | 1 | 2 | 0 | 151.5 |
| 561740 | Carpet & upholstery cleaning services | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 561790 | Other services to buildings & dwellings | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 562111 | Solid waste collection | 4 | 2 | 1 | 1 | 0 | 0 | 26.5 |
| 562212 | Solid waste landfill | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 562991 | Septic tank & related services | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| | | | | | | | | 234.5 |
| Educational Services | | | | | | | | |
| 611110 | Elementary & secondary schools | 3 | 1 | 2 | 0 | 0 | 0 | 16.5 |
| 611420 | Computer training | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 611610 | Fine arts schools | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 611620 | Sports & recreation instruction | 5 | 5 | 0 | 0 | 0 | 0 | 12.5 |
| 611692 | Automobile driving schools | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 611699 | All other miscellaneous schools & instructio | 2 | 1 | 1 | 0 | 0 | 0 | 9.5 |
| 611710 | Educational support services | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| | | | | | | | | 53.0 |
| Health Services and Social Assistance | | | | | | | | |
| 621111 | Offices of physicians (except mental health | 13 | 7 | 4 | 2 | 0 | 0 | 74.5 |
| 621210 | Offices of dentists | 8 | 4 | 3 | 0 | 1 | 0 | 60.5 |
| 621310 | Offices of chiropractors | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 621320 | Offices of optometrists | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 621340 | Offices of physical, occupational, & speech | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 621399 | Offices of all other miscellaneous health pr | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 621410 | Family planning centers | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 621420 | Outpatient mental health & substance abuse c | 1 | 0 | 0 | 0 | 1 | 0 | 29.5 |
| 621610 | Home health care services | 3 | 0 | 1 | 0 | 2 | 0 | 66.0 |
| 622110 | General medical & surgical hospitals | 1 | 0 | 0 | 0 | 0 | 0 | 124.5 |
| 623110 | Nursing care facilities | 1 | 0 | 0 | 0 | 0 | 1 | 74.5 |
| 623210 | Residential mental retardation facilities | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 623220 | Residential mental health & substance abuse | 3 | 1 | 1 | 1 | 0 | 0 | 24.0 |
| 623312 | Homes for the elderly | 1 | 0 | 0 | 1 | 0 | 0 | 14.5 |
| 624120 | Services for the elderly & persons with disa | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 624190 | Other individual & family services | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 624210 | Community food services | 5 | 4 | 1 | 0 | 0 | 0 | 17.0 |
| 624221 | Temporary shelters | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 624229 | Other community housing services | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 624230 | Emergency & other relief services | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 624410 | Child day care services | 5 | 3 | 1 | 0 | 1 | 0 | 44.0 |
| | | | | | | | | 576.5 |
| Arts, Entertainment, and Recreation | | | | | | | | |
| 711110 | Theater companies & dinner theaters | 2 | 2 | 0 | 0 | 0 | 0 | 5.0 |
| 711120 | Dance companies | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 711130 | Musical groups & artists | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 711510 | Independent artists, writers, & performers | 3 | 3 | 0 | 0 | 0 | 0 | 7.5 |
| 712110 | Museums | 2 | 0 | 1 | 0 | 1 | 0 | 36.5 |
| 712130 | Zoos & botanical gardens | 1 | 0 | 1 | 0 | 0 | 0 | 7.0 |
| 712190 | Nature parks & other similar institutions | 1 | 1 | 0 | 0 | 0 | 0 | 2.5 |
| 713910 | Golf courses & country clubs | 4 | 1 | 1 | 1 | 1 | 0 | 53.5 |
| 713930 | Marinas | 6 | 4 | 1 | 0 | 1 | 0 | 46.5 |
| 713940 | Fitness & recreational sports centers | 10 | 6 | 3 | 1 | 0 | 0 | 50.5 |
| 713990 | All other amusement & recreation industries | 4 | 3 | 1 | 0 | 0 | 0 | 14.5 |
| | | | | | | | | 233.5 |

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>.

Chart 1f – Martha’s Vineyard Employers and Employment

| NAICS | Industry Code Description | Total Employees | | | | | | | Est. Total |
|--|--|-----------------|-------|-------|---------|---------|---------|-----------|------------|
| | | Estab's | '1-4' | '5-9' | '10-19' | '20-49' | '50-99' | '100-249' | |
| Accommodation and Food Services | | | | | | | | | |
| 721110 | Hotels (except casino hotels) & motels | 15 | 9 | 3 | 2 | 0 | 1 | 0 | 147.0 |
| 721191 | Bed & breakfast inns | 15 | 12 | 1 | 2 | 0 | 0 | 0 | 66.0 |
| 721199 | All other traveler accommodation | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 721211 | RV (recreational vehicle) parks & campground | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 721214 | Recreational & vacation camps (except campgr | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 19.5 |
| 721310 | Rooming & boarding houses | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 722110 | Full-service restaurants | 51 | 29 | 9 | 8 | 5 | 0 | 0 | 399.0 |
| 722211 | Limited-service restaurants | 27 | 22 | 3 | 2 | 0 | 0 | 0 | 105.0 |
| 722213 | Snack & nonalcoholic beverage bars | 8 | 7 | 1 | 0 | 0 | 0 | 0 | 24.5 |
| 722310 | Food service contractors | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 722320 | Caterers | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 12.5 |
| 722410 | Drinking places (alcoholic beverages) | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 16.5 |
| | | | | | | | | | 802.5 |
| Other Services | | | | | | | | | |
| 811111 | General automotive repair | 10 | 8 | 2 | 0 | 0 | 0 | 0 | 34.0 |
| 811121 | Automotive body, paint, & interior repair & | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811198 | All other automotive repair & maintenance | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811211 | Consumer electronics repair & maintenance | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811219 | Other electronic & precision equipment repai | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811310 | Com & industrial mach & equip (exc auto/elec | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811430 | Footwear & leather goods repair | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 811490 | Other personal & household goods repair & ma | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 9.5 |
| 812112 | Beauty salons | 6 | 5 | 0 | 1 | 0 | 0 | 0 | 27.0 |
| 812199 | All other personal care services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812210 | Funeral homes & funeral services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812310 | Coin-operated laundries & drycleaners | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 812320 | Drycleaning & laundry services (except coin- | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812910 | Pet care (except veterinary) services | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812921 | Photofinishing laboratories (except one-hour | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812922 | One-hour photofinishing | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 812990 | All other personal services | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5.0 |
| 813110 | Religious Organizations | 15 | 9 | 3 | 2 | 1 | 0 | 0 | 102.0 |
| 813211 | Grantmaking foundations | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 12.0 |
| 813312 | Environment, conservation, & wildlife organi | 6 | 5 | 1 | 0 | 0 | 0 | 0 | 19.5 |
| 813410 | Civic & social organizations | 5 | 3 | 1 | 1 | 0 | 0 | 0 | 29.0 |
| 813910 | Business associations | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14.5 |
| 813930 | Labor Unions and Similar Labor Organizations | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2.5 |
| 813940 | Political Organizations | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 7.0 |
| 813990 | Other similar org (exc business, professiona | 7 | 5 | 2 | 0 | 0 | 0 | 0 | 26.5 |
| | | | | | | | | | 323.5 |
| 99---- | Unclassified | 11 | 11 | 0 | 0 | 0 | 0 | 0 | 27.5 |

Source: Bureau of the Census, County Business Patterns (2004), available at <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>.

One of the strengths of these Census data is their level of detail, reflecting all six digits of the North American Industrial Classification System (NAICS). NAICS contains about eleven hundred categories of business that capture the activities of all private employers. Among the categories excluded in NAICS are public employees (including public school teachers), farmers, and self-employed individuals. The data do not indicate whether employees live on-island or off-island, nor can they adjust for whether one person is working more than one job.

Charts 2a-2b look at the major categories, and compare them to national average (the employment in a typical U.S. area with a population the size of the year-round population of Martha's Vineyard). Percentages that deviate significantly from the national average begin to tell key parts of the story of the Vineyard's economy.

Percentages significantly above 100% show areas of export or – and this is especially important in the Vineyard – sales to seasonal residents and tourists. Here are some of the places where local production exceeds national averages:

- “Forestry, Fishing, and Farm Support” (182%) is indicative of a modest fishing industry on the island. Similarly, manufacturing of “Foodstuffs” (144%) reflects value-added industry linked with fishing.
- “Construction” (219%) underscores the red-hot real estate market, driven by the growing popularity of the island for retirees, second-home purchasers, and tourists. Similar numbers can be seen in “Realty” (224%) and “Rentals and Leasing” (255%).
- Most of the retail categories are well above 100%. The high numbers in some of these sectors, like “Food & Beverage” (315%), “Gas Stations” (194%), “Sporting Goods, Hobby, Books, and Music” (214%), and “Misc. Retail (Novelty, Art, Pets, Gifts)” (330%), probably underscore the purchasing behavior of visitors to the island. Others, like “Electronics and Appliances” (179%) and “Building Materials and Garden Supply” (217%), are linked with the strong construction industry.
- The nature of the island geography ensures that “Water Transport” (425%) is high. And the tourist base accounts for the high use of “Buses, Trains, Taxi, and Other” (287%) and “Sightseeing” (1,238%).
- “Waste Management” (173%) is high, since it's expensive to export trash off-island.

Chart 2a – Likely Leakages Suggested by Employer Data

| | Expected FT Jobs | Actual FT Jobs | Comparison | Possible New Jobs |
|--|------------------|----------------|------------|-------------------|
| Forestry, Fishing, Farm Support | 10 | 18 | 182% | |
| Mining | 25 | 0 | 0% | 25 |
| Utilities | 34 | 22 | 64% | 12 |
| Construction | 353 | 774 | 219% | |
| Manufacturing | | | | |
| Foodstuffs | 79 | 114 | 144% | |
| Beverages & Tobacco | 8 | 3 | 30% | 6 |
| Textile Mills | 12 | 0 | 0% | 12 |
| Textile Products | 9 | 0 | 0% | 9 |
| Apparel | 15 | 0 | 0% | 15 |
| Leather & Allied Goods | 2 | 0 | 0% | 2 |
| Wood Products | 28 | 0 | 0% | 28 |
| Paper Products | 25 | 0 | 0% | 25 |
| Printing | 36 | 34 | 95% | 2 |
| Petroleum & Coal Products | 6 | 0 | 0% | 6 |
| Chemical Products | 44 | 0 | 0% | 44 |
| Plastic & Rubber Products | 48 | 0 | 0% | 48 |
| Stone & Nonmetallic Mineral Products | 25 | 15 | 58% | 11 |
| Primary Metal Products | 24 | 0 | 0% | 24 |
| Fabricated Metal Products | 80 | 0 | 0% | 80 |
| Machinery | 58 | 0 | 0% | 58 |
| Computers & Electronics | 59 | 0 | 0% | 59 |
| Electrical Equipment & Appliances | 23 | 3 | 11% | 21 |
| Motor Vehicles & Other Transp. Equipment | 86 | 3 | 3% | 84 |
| Furniture & Related Products | 29 | 3 | 8% | 27 |
| Misc. Products | 37 | 8 | 20% | 30 |
| Wholesalers | 313 | 97 | 31% | 216 |
| Retailers | | | | |
| Motor Vehicles & Parts | 104 | 24 | 23% | 80 |
| Furniture & Furnishings | 135 | 99 | 73% | 36 |
| Electronics & Appliances | 24 | 44 | 179% | |
| Building Mats. & Garden Supply | 65 | 141 | 217% | |
| Food & Beverage | 157 | 495 | 315% | |
| Health & Personal Care | 56 | 58 | 103% | |
| Gas Stations | 50 | 96 | 194% | |
| Apparel & Accessories | 83 | 127 | 153% | |
| Sporting Goods, Hobby, Books, Music | 33 | 71 | 214% | |
| General Merchandise | 141 | 41 | 29% | 100 |
| Misc. Retail (Novelty, Art, Pets, Gifts) | 44 | 144 | 330% | |
| Nonstore Retail | 29 | 51 | 173% | |

Chart 2b – Likely Leakages Suggested by Employer Data

| | Expected FT Jobs | Actual FT Jobs | Comparison | Possible New Jobs |
|--|------------------|----------------|------------|-------------------|
| Transportation & Warehousing | | | | |
| Air Transport | 26 | 22 | 85% | 4 |
| Water Transport | 4 | 17 | 465% | |
| Trucking | 76 | 41 | 54% | 35 |
| Buses, Trains, Taxi, & Other | 21 | 61 | 287% | |
| Pipelines | 2 | 0 | 0% | 2 |
| Sightseeing | 1 | 15 | 1238% | |
| Transportation Support | 28 | 5 | 18% | 23 |
| Couriers & Messengers | 29 | 22 | 74% | 8 |
| Warehousing & Storage | 31 | 15 | 48% | 16 |
| Information | | | | |
| Publishing & Software (Except Internet) | 55 | 62 | 112% | |
| Motion Picture & Sound Recording | 16 | 26 | 159% | |
| Broadcasting | 15 | 0 | 0% | 15 |
| Internet Publishing and Broadcasting | 2 | 0 | 0% | 2 |
| Telecomm. | 70 | 47 | 66% | 24 |
| ISP, Search Portals, & Data Processing | 23 | 7 | 31% | 16 |
| Other Information Services | 3 | 0 | 0% | 3 |
| Finance & Insurance | | | | |
| Monetary Authorities - Central Bank | 1 | | 0% | 1 |
| Savings & Borrowing | 169 | 156 | 92% | 13 |
| Securities, Commodities, & Investments | 46 | 3 | 5% | 43 |
| Insurance | 126 | 63 | 50% | 64 |
| Funds, Trusts, & Other Financial Vehicles | 2 | 0 | 0% | 2 |
| Realty, Rentals, & Leasing | | | | |
| Realty | 76 | 170 | 224% | |
| Rentals & Leasing | 35 | 89 | 255% | |
| Business Services | | | | |
| Professional & Technical Services | 402 | 306 | 76% | 96 |
| Management of Companies | 150 | 15 | 10% | 135 |
| Administrative Services | 444 | 203 | 46% | 241 |
| Waste Management | 18 | 32 | 173% | |
| Educational Services | 154 | 53 | 35% | 101 |
| Health Services | | | | |
| Ambulatory Health Care | 285 | 256 | 90% | 29 |
| Hospitals | 281 | 125 | 44% | 157 |
| Nursing Homes & Residential Care | 155 | 116 | 75% | 39 |
| Social Assistance | 118 | 81 | 68% | 37 |
| Arts & Entertainment Services | | | | |
| Performing Arts | 7 | 15 | 225% | |
| Sports | 6 | 0 | 0% | 6 |
| Events Promoters | 5 | 0 | 0% | 5 |
| Agents and Managers | 1 | | 0% | 1 |
| Independent Artists, Writers, and Performers | 2 | 8 | 317% | |
| Museums, Zoos, Parks, Historic Sites | 6 | 46 | 729% | |
| Amusement, Gambling & Recreation | 73 | 165 | 227% | |
| Accommodations & Food Services | | | | |
| Accommodations | 98 | 240 | 245% | |
| Food Services | 472 | 563 | 119% | |
| Other Services | | | | |
| Repair & Maintenance | 70 | 59 | 84% | 12 |
| Personal & Laundry Services | 71 | 52 | 74% | 19 |
| Religious & Civic Organizations | 147 | 213 | 145% | |
| Unclassified | 3 | 28 | 943% | |

- Both a cause and consequence of the tourist economy are the large presences of “Performing Arts” (225%), “Independent Artists, Writers, and Performers” (317%), “Museums, Zoos, Parks, and Historic Sites” (729%), “Amusement, Gambling, and Recreation” (227%), “Accommodations” (245%), and “Food Services” (119%).
- There is an exceptional degree of civic engagement, suggested by the large presence of “Religious and Civic Organizations” (145%).
- And there are many jobs in Martha’s Vineyard that are quirky enough to defy classification. “Unclassified” is nearly ten times the national average.

One way to think about all the items above is that they represent areas of economic strength. While conventional economic development theory suggests that strong “clusters,” such as tourism or the arts, ought to be the focal point for nurturing new and expanded businesses, import-replacement theory suggests that these areas may not be the best generators for new, home-grown employment. Moreover, the constraints that the island faces – of land, residential units for local employees, fresh water supplies, shipping costs – imply that continuing old patterns of growth may be neither possible nor desirable.

Focusing on replacement of imports is much more compatible with the Vineyard’s self-proclaimed doubts about unconstrained growth. Growing the economy without increasing (and perhaps even reducing) outside shipments allows existing infrastructure to be better used. Rounding out the full-time economy reduces the inherent problems and vulnerability that the Vineyard current has with huge fluctuations between summer and winter.

Where, then, are the major areas of importation?

- There is virtually no “Mining” activity on the Vineyard.
- “Utilities” are low, reflecting imports of electricity and fuels.
- Almost every category of “Manufacturing,” except “Foodstuffs” and “Printing,” is a huge hole in the economy. Almost all building materials and processed food is brought to the land. The absence of manufacturing also contributes, along with the island’s isolated geography, to the limited level of activities in “Wholesale,” “Couriers and Messengers”, and “Warehousing and Storage.”
- While “Retail” categories are generally strong, there are interesting exceptions: The small sales of “Motor Vehicles and Parts” and “Furniture and Furnishings” suggest that residents prefer to buy their bulky items off island (rather than pay the larger-than-average shipping costs). “General

Merchandise” is small, underscoring that for many small, everyday purchases, people are going off island to the shopping malls or to the Targets and Wal-Marts.

- Almost all kinds of “Financial and Insurance” transactions, outside conventional banking, are leaking off island.
- “Business Services,” except waste disposal, are way below the national average, as are “Educational Services” (private schools and colleges) and “Health Services.” Many residents are apparently going off island to get these.
- And while “Arts and Entertainment” is strong, there are interesting gaps in “Sports”, “Events Promoters” and “Agents and Managers.”

These leaks begin to identify plausible areas of import replacement. To be sure, a category like “Mining”, which depends on natural resource endowments, is not going to change. But categories that the Vineyard might be tempted to dismiss on economy-of-scale grounds, like manufacturing, actually hold significant job-creation potential. In almost every NAICS manufacturing sector, there are more examples of small-scale and competitive enterprises than large-scale ones.

The last column in Charts 2a-2b indicates the number of possible new jobs, were the relevant sector to be as self-reliant as the average community in the United States. The total universe of potential new jobs from import substitution is 3,336, a nearly 60% expansion of the current year-round workforce of 5,800. This number is probably a significant underestimate.¹¹ But as noted at the outset, only some of the potential import-replacement opportunities turn out to be plausible, given the availability of labor, land, and capital on the island and the various limitations on economic growth.

What about the categories excluded from the NAICS accounts, such as public employees, farmers, and the self-employed? There’s no evidence that Martha’s Vineyard has a below-average government sector. The Vineyard has a small number of farmers, and growing more local food, not only on farmland but on unused lots and in greenhouses,¹² holds some import-replacement potential.

The self-employed population on the Vineyard, however, is enormous. While a population the size of Martha’s Vineyard would expect about 1,000 self-employed

¹¹ There are two technical reasons this is an underestimate. First, the methodology assumes that a NAICS sector at 100% the national average is self-reliant. In fact, 100% could represent counterbalancing levels of imports and exports, which means that there are many untallied opportunities in these sectors for import replacement. Second, most of the sectors listed represent 1-digit or 2-digit NAICS codes – that is, they *average* dozens of 6-digit sectors. Large export sectors, when averaged with large import sectors, can mask significant job opportunities from import-replacement in the latter.

¹² Rooftop gardens are also possible, though most structures in the Vineyard have sloped roofs that would require modification for growing.

people, the actual number is 3,413. It’s possible that some of the areas of leakage suggested by the employer data are actually being plugged by home-based employees.

Chart 3 compares actual number of self-employed individuals with the number expected, had Martha’s Vineyard comported like a typical community in the United States. Because every sector has far more self-employed individuals than the U.S. average, there are no obvious new jobs opportunities from import-replacement. But what’s also clear is that most of the extra self-employed people are in areas of strength like construction, real estate, accommodation, food services, and the arts. That is, few self-employed individuals are plugging the leaking sectors found in the analysis of employee businesses.

Chart 3 – Vineyard vs. U.S. for Nonemployers

| | MV Expected | MV Actual | Comparison | Possible New Jobs |
|--|------------------------|----------------------|-------------------|------------------------------|
| Ag, Fishing, & Forestry | 12 | 114 | 932% | 0 |
| Mining | 5 | n/a | n/a | n/a |
| Utilities | 1 | n/a | n/a | n/a |
| Construction | 127 | 959 | 756% | 0 |
| Manufacturing | 16 | 44 | 274% | 0 |
| Wholesale trade | 20 | 31 | 152% | 0 |
| Retail trade | 100 | 168 | 167% | 0 |
| Transportation and Warehousing | 49 | 72 | 148% | 0 |
| Information | 15 | 27 | 180% | 0 |
| Finance and Insurance | 38 | 50 | 131% | 0 |
| Real Estate, Rental, & Leasing | 118 | 328 | 279% | 0 |
| Professional, Scientific, & Technical Services | 145 | 386 | 267% | 0 |
| Administrative, Support, & Waste Management | 71 | 350 | 493% | 0 |
| Educational Services | 22 | 92 | 423% | 0 |
| Health Care & Social Assistance | 85 | 185 | 217% | 0 |
| Arts, Entertainment, & Recreation | 49 | 268 | 547% | 0 |
| Accommodation & Food Services | 15 | 84 | 575% | 0 |
| Other Services (except public administration) | 149 | 251 | 169% | 0 |
| | 1036 | 3413 | | |

Chart 4 fleshes out this point in greater detail. It adds together all workers in Martha’s Vineyard, employed and self-employed, and compares the totals with the total one might expect in a typical U.S. community with Martha’s Vineyard’s population. Because the self-employee data are only available at a higher level of aggregation, the six-digit NAICS sectors discussed earlier cannot be compared. But nevertheless, most of the leakages identified above are not substantially changed by the self-employed population. The exceptions are “Finance and Insurance,” “Professional, Scientific, and Technical Services,” and “Administrative, Support, and Waste Management.” Apparently, there are significant levels of financial services, business services, and management activity being conducted through informal, home-based, and possibly unregistered businesses.

The universe of possible jobs from important replacement, 1,215, shrinks significantly from universe suggested when just employers were considered. But much of the difference reflects the higher level of aggregation in Chart 4 than in Charts 2a-b (see note 10). And, again, for reasons elaborated above, this number is a significant underestimate of the full universe of import-replacing jobs.

The last column in Chart 4 shows the weekly wage of each sector in Dukes County. To the extent that decision-makers on Martha's Vineyard wish to prioritize import replacement in the sectors with the highest wages, these data provide some useful guidance. But the wage data also can be misleading, since they represent an average of existing businesses rather than the smartest entrepreneurship choices within each sector. They also cannot reveal the multiplier linkages of these jobs to other high-wage jobs throughout the island economy. This is why we use an economic model in the third type of leakage analysis to tally fully the effects of import-replacement.

Chart 4
Relative Presence of All Workers (Employees and Self-Employed)

| | MV Expected | MV Actual | Self-Reliance | Possible Jobs | Average Weekly Wage |
|--|-------------|-----------|---------------|---------------|---------------------|
| Ag, Fishing, & Forestry | 22 | 132 | 601% | | \$697 |
| Mining | 30 | n/a | n/a | n/a | n/a |
| Utilities | 35 | 22 | 62% | 13 | \$1,147 |
| Construction | 480 | 1,733 | 361% | | \$985 |
| Manufacturing | 749 | 224 | 30% | 526 | \$442 |
| Wholesale trade | 334 | 128 | 38% | 206 | \$805 |
| Retail trade | 916 | 1,531 | 167% | | \$577 |
| Transportation and Warehousing | 266 | 268 | 101% | | \$707 |
| Information | 199 | 168 | 84% | 31 | \$830 |
| Finance and Insurance | 382 | 271 | 71% | 111 | \$883 |
| Real Estate, Rental, & Leasing | 228 | 587 | 257% | | \$685 |
| Professional, Scientific, & Technical Services | 546 | 692 | 127% | | \$971 |
| Managing Offices & Holding Companies | 150 | 15 | 10% | 135 | n/a |
| Administrative, Support, & Waste Management | 533 | 585 | 110% | | \$900 |
| Educational Services | 175 | 145 | 83% | 30 | \$900 |
| Health Care & Social Assistance | 924 | 762 | 82% | 163 | \$777 |
| Arts, Entertainment, & Recreation | 149 | 502 | 336% | | \$636 |
| Accommodation & Food Services | 585 | 887 | 152% | | \$438 |
| Other Services (except public administration) | 436 | 575 | 132% | | \$600 |
| Unclassified | 3 | 28 | 943% | | n/a |
| | 7,142 | 9,249 | 130% | 1,215 | |

Source: The first four columns are calculated from previous tables. The last column on wages comes from the Employment and Wages Report (ES-202) from Dukes County, Second Quarter, 2006, available from the Massachusetts Division of Career Centers and Division of Unemployment Assistance.

Leakage Analysis #2: A Plausible List of Leak-Plugging Opportunities

The full universe of import-replacement opportunities has to be narrowed based on an assessment of existing and foreseeable assets on the island, as well as the preferences and goals of the residents. While we did not have the resources in this study to examine these questions systematically, we were able to share our preliminary data with the Island Plan Livelihood and Commerce Work Group and the Martha's Vineyard Commission staff. They vetted the potential areas identified by the data, and provided useful feedback. What follows, therefore, is a list of 13 items judged as most plausible for import replacement:

- (1) *Local Food* – Food consumed on the Vineyard, by both residents and tourists, could be locally sourced. More local consumption of locally caught fish is obvious, but also possible are more local growing of fruits and vegetables (potentially year-round through greenhouses and hydroponics), more raising and slaughtering of local meat (through environmentally friendly small-scale operations), and more preparation of local processed foods.
- (2) *Local Electricity* – Currently, the Vineyard imports nearly all electricity. The municipality of Oak Bluffs, for example, spends more than \$300,000 per year on electricity imports. More local production of electricity is possible through wind machines (some of which already exist on the island), photovoltaics, and the burning of biomass (including farm wastes, garbage, and seaweed). These local sources could be harness through the formation of a local utility.
- (3) *Local Fuels* – Current imports of oil, gasoline, and other fuels could be replaced through biofuels. State-of-the-art technology, for example, can transform restaurant grease and oil wastes into biodiesel. As the technology for cellulosic conversion improves, it will be possible for Vineyard enterprises to convert all kinds of plant matter – wood waste, cut grass, and seaweed – into ethanol.
- (4) *Local Affordable Housing* – Many day workers who cannot afford to live on the island reside elsewhere and consequently make most of their expenditures elsewhere. This underscores the importance of affordable housing for plugging local leaks and for expanding jobs and the tax base on the island.
- (5) *Local Winter Economy* – During the off-season months, economic activity on the island declines dramatically. Relationships, for example, might be set up with universities to have students come for a Winter Semester at the Vineyard, and hotels and seasonal homes could be used for student and faculty residences. There could be off-season ElderHostel programs. Or a Winter Arts Program might be set up for adults seeking a several-month sabbatical.

- (6) *Local Manufacturing* – The absence of nearly any manufacturing on the Vineyard suggests opportunities for import substitution. Limits, of course, are imposed by the Vineyard’s high environmental standards, by the expense of bringing production inputs by boat to the island, and by the limited land available for factories. But one can envision cottage industries, perhaps linked with the existing artist and artisan community, where the inputs are modest, the value added is high, and the factories small. The Vineyard already has some manufacturers that cater to tourists with specialty foods, furniture, clothing, jewelry, pottery, and so forth, and these could be expanded. Small manufacturers that offshore their facilities also might well find the Vineyard environment an excellent home for a small corporate headquarters. And conversion of waste products – metals, glass, and paper – into usable products could help reduce the costs of waste management on the island.
- (7) *Local Business Services* – More manufacturers might look to set up business on the Vineyard as the range and quality of business services improves. A concerted effort, through surveys for example, to identify the precise business services sought off island could identify promising markets for new business-service providers, such as attorneys or accountants.
- (8) *Local Health Care* – The current expansion of local hospital, local clinics, local doctors, and related social service providers to reduce the probability of residents going to see health-care providers off island should be continued.
- (9) *Local Financial Services* – Two of the three commercial banks operating on Martha’s Vineyard are local—Martha’s Vineyard Savings Bank (merging the Martha’s Vineyard Co-operative Bank and Dukes County Savings Bank) and the Edgartown National Bank. But the leakage data suggest that many loans on the island, including those for housing and automobiles, are coming from financial institutions off island.
- (10) *Local Telecommunications* – It might be worthwhile to investigate the costs and benefits of creating an island-wide public telecom utility. Burlington, Vermont, is employing a creative financing mechanism to create a local fiber network and the island may well have sufficient demand to support something similar.¹³ A telecommunications utility in the Vineyard might offer high-speed internet and telephone over fiber, with a high level of local service. Coupled with a local electrical services, this utility could bring significant savings to the customer through shared wires, customers services, billing, and technical support.

¹³ See <http://www.burlingtontelecom.com/> and contact Tim Nulty for information about how Burlington created and financed its municipal telecom utility (802-540-0007 or toll free at 866-304-8434).

- (11) *Local Pension Reinvestment* – Currently, pension funds holding investments from the Vineyard’s municipal and school employees have no investment on the island. This could be changed. A recent survey of the literature on economically targeted investments by public pension funds found that many are providing capital for affordable housing.¹⁴ The island communities could work with the state housing finance agency to issue special bonds to build affordable housing that then could be purchased by local retirement funds and others.
- (12) *Local Public Procurement* – The vendors lists for Oak Bluffs and West Tisbury show that spending by both towns is dominated by school expenses and debt service payments. Most of the rest represents specialized goods and services that are probably not available on the island. Nevertheless, there are some alternative options for import substitution. For example, food served for lunches in the schools could be sourced, not from large agribusiness (as is currently the case), but from local and regional farmers.
- (13) *Private-Public Procurement* – More broadly, government procurement entities in the Vineyard might team up with other private entities to pool their purchasing power and procure certain goods (like foodstuffs) in bulk and, where possible, from local suppliers. This could improve the ability of participating entities to enter long-term contracts and lower unit prices, and also opens the way for common support industries. A study to identify commonly purchased goods and services would be valuable.

¹⁴

See <http://www.vermonttreasurer.gov/documents/misc/econTargetInvestReport20040216.pdf>.

Leakage Analysis #3: The Economic Impacts from Plausible Localization

To suggest potential economic benefit of localization, we used the IMPLAN input-output model to show the impacts of a ten percent shift of expenditure by the permanent residents from nonlocal to local businesses in the most plausible categories discussed previously.

Chart 5, on the next two pages, summarizes the annual expenditures by all the documented permanent residents on the island. To derive these numbers, we undertook the following steps:

- We found the number of households in Dukes County in different before-tax income categories in the *2000 American Community Survey* (factfinder.census.gov).
- We increased the numbers in each category to reflect the Census estimate that the number of households has grown to 7,211 in 2005.
- We reorganized the income distribution to correspond with the before-tax income categories of the *Consumer Expenditure Survey* (see ftp.bls.gov/pub/special.requests/ce/standard/2005/income.txt). We assume that a “consumer unit” in the *Consumer Expenditure Survey* is equivalent to a Census household.
- We added up the expenditures by the different income levels for each sector.

Chart 6 summarizes residents’ expenditure, which total about \$343 million per year.¹⁵ Next, we calculated what a 10% shift in expenditure to local business would look like in the most plausible categories. (In some instances, as noted earlier, economies of scale ought to justify much more significant degrees of localization.) Specifically, we deemed the following shifts plausible:

- A 10% shift of purchase of fresh foodstuffs –meats, dairy, fruits, vegetables – to local farmers.
- A 10% shift of the purchase of processed foods from off-island, including baked goods, to on-island sources.

¹⁵ The Bureau of Economic Analysis estimates that the total income of residents in Dukes County in 2005 was about \$729 million, with discretion spending at \$525 million. (See www.bea.gov/bea/regional/reis/action.cfm.) The Consumer Expenditure Survey and the BEA numbers are each developed in different ways by different agencies for different purposes. Among the differences are the ways in which they account for taxes, investment, and savings. As a conservatism, we use the database with the lower baseline expenditure levels.

Chart 5a
Estimated Annual Consumer Expenditures by Permanent Residents

| | Total Expenditure |
|---|------------------------------|
| All Food | 43,196,679 |
| Food at Home | 23,925,773 |
| Cereal & Bakery Products | 3,224,653 |
| Cereals & Cereal Products | 1,034,867 |
| Bakery Products | 2,189,423 |
| Meats, Poultry, Fish, Eggs | 5,547,523 |
| Beef | 1,656,271 |
| Pork | 1,114,584 |
| Other Meats | 748,380 |
| Poultry | 972,327 |
| Fish & Seafoods | 818,918 |
| Eggs | 234,461 |
| Dairy Products | 2,746,722 |
| Fresh Milk & Cream | 1,058,023 |
| Other Dairy Products | 1,687,118 |
| Fruits & Vegetables | 3,991,385 |
| Fresh Fruits | 1,311,781 |
| Fresh Vegetables | 1,261,382 |
| Processed Fruits | 765,977 |
| Processed Vegetables | 647,620 |
| Other Food at Home | 8,414,883 |
| Sugar & Other Sweets | 860,969 |
| Fats & Oils | 613,477 |
| Misc. Foods | 4,426,469 |
| Nonalcoholic Beverages | 2,206,362 |
| Food Prepared on Trips | 309,328 |
| Food Away from Home | 19,270,152 |
| Alcoholic Beverages | 3,113,121 |
| All Housing | 111,891,600 |
| Shelter | 65,025,793 |
| Owned dwellings | 44,500,743 |
| Mortgage Interest and Charges | 24,936,827 |
| Property taxes | 11,422,680 |
| Maintenance, Reps., Ins., & Other Exps. | 8,140,271 |
| Rented Dwellings | 16,828,233 |
| Other Lodging | 3,694,350 |
| Utilities, Fuels, and Public Services | 23,472,275 |
| Natural Gas | 3,483,936 |
| Electricity | 8,489,755 |
| Fuel Oil and Other Fuels | 1,041,275 |
| Telephone Services | 7,755,570 |
| Water & Other Public Services | 2,703,525 |
| Household Operations | 5,931,727 |
| Personal Services | 2,443,870 |
| Other Household Expenses | 3,542,629 |
| Housekeeping Supplies | 4,436,292 |
| Laundry & Cleaning Supplies | 976,667 |
| Other Household Products | 2,316,427 |
| Postage and Stationery | 1,141,996 |
| Household Furnishings and Equipment | 13,024,999 |
| Household Textiles | 975,744 |
| Furniture | 3,452,882 |
| Floor Coverings | 414,480 |
| Major Appliances | 1,653,950 |
| Small appliances, Misc. Housewares .. | 763,369 |
| Miscellaneous Household Equipment | 5,763,682 |

Chart 5b
Estimated Annual Consumer Expenditures by Permanent Residents

| | Total Expenditure |
|--|------------------------------|
| Apparel and Services | 13,774,035 |
| Men and Boys | 3,221,004 |
| Men, 16 and over | 2,543,038 |
| Boys, 2 to 15 | 677,625 |
| Women and girls | 5,480,186 |
| Women, 16 and over | 4,595,590 |
| Girls, 2 to 15 | 885,124 |
| Children under 2 | 605,773 |
| Footwear | 2,336,435 |
| Other apparel products and services | 2,129,432 |
| Transportation | 62,581,720 |
| Vehicle purchases (net outlay) | 26,751,767 |
| Cars and Trucks, New | 16,452,975 |
| Cars and Trucks, Used | 11,541,804 |
| Other vehicles | 627,861 |
| Gasoline and Motor Oil | 15,046,468 |
| Other Vehicle Expenses | 17,472,836 |
| Vehicle Finance Charges | 2,245,514 |
| Maintenance and Repairs | 4,979,221 |
| Vehicle insurance | 6,837,839 |
| Vehicle Rental, Leases, Licenses, & Charges | 3,410,204 |
| Public Transportation | 3,307,813 |
| Healthcare | 19,644,130 |
| Health Insurance | 10,052,094 |
| Medical Services | 5,015,215 |
| Drugs | 3,800,582 |
| Medical Supplies | 776,169 |
| Entertainment | 17,663,740 |
| Fees and Admissions | 4,354,222 |
| AV Equipment and Services | 6,567,383 |
| Pets, Toys, Hobbies, and Playground Equipment | 3,099,835 |
| Other Entertainment Supplies, Equip., and Services | 3,644,859 |
| Personal Care Products and Services | 3,964,998 |
| Reading | 935,041 |
| Education | 6,821,727 |
| Tobacco products and smoking supplies | 2,345,376 |
| Miscellaneous | 6,023,027 |
| Cash Contributions | 12,304,583 |
| Personal Insurance and Pensions | 39,099,871 |
| Life and Other Personal Insurance | 2,818,874 |
| Pensions and Social Security | 36,280,617 |

Chart 6
Estimated Annual Consumer Expenditures by Permanent Residents

| | Total Expenditure |
|---------------------------------------|------------------------------|
| Food - Eating at Home | 23,925,773 |
| Food - Eating Out | 19,270,152 |
| Alcoholic Beverages | 3,113,121 |
| Housing - Shelter | 65,025,793 |
| Housing - Utilities | 23,472,275 |
| Housing - Household Operations | 5,931,727 |
| Housing - Household Supplies | 4,436,292 |
| Housing - Furnishings & Equipment | 13,024,999 |
| Apparel and Services | 13,774,035 |
| Transportation | 62,581,720 |
| Healthcare | 19,644,130 |
| Entertainment | 17,663,740 |
| Personal Care Products and Services | 3,964,998 |
| Reading | 935,041 |
| Education | 6,821,727 |
| Tobacco products and smoking supplies | 2,345,376 |
| Miscellaneous | 6,023,027 |
| Cash Contributions | 12,304,583 |
| Personal Insurance and Pensions | 39,099,871 |
| | \$343,358,379 |

- A 10% shift of mortgage and automobile loans from offshore and online suppliers to local banks.
- A 10% shift of insurance policies (life, auto, home, and health) to local insurance sellers.
- A 10% shift from fossil fuels (liquid propane, oil) to local biofuels (cellulosic ethanol and biodiesel).
- A 10% shift from outside electricity purchases to local electricity production.
- A 10% shift of gasoline to local ethanol and biodiesel.
- A 10% shift of furniture purchased to locally made furniture made from driftwood and local forests.
- A 10% shift to local personal services.
- A 10% shift to a local telecommunications company.
- A 10% shift of clothing expenditures to local stores.
- A 10% shift of cash contributions to local nonprofits.
- A 10% shift of pension contributions to local managers.

Chart 7 shows that the total level of shifted expenditure implied by these changes – from expenditures made outside the island economy, where virtually no multiplier is generated, to those made inside – is about \$15 million or about 4% of total expenditure. One reason why these categories were chosen is that they could be linked with available categories in the IMPLAN model.¹⁶

Even this modest shift in expenditure, however, results in the following:

- \$9 million in additional earnings
- \$22 million in additional output
- 344 additional jobs

¹⁶ The IMPLAN model only allows “events” in industries already present. For a small area like Martha’s Vineyard with most sectors having no industries at all, this limitation means that many plausible localization events, such as small-scale manufacturing, cannot be modeled at all. It also means that some events have to be linked with a related but imperfect sector (biofuels, for example, was modeled within “agricultural and forestry support”). These limitations ultimately result in substantially less localization being modeled than actually ought to be.

**Chart 7
Overview of Plausible Localization Steps**

| CES Category | CES Subcategory | Total Expenditure | Plausible 10% Localization | Localization Activity |
|---------------------------|-------------------------------------|--------------------------|-----------------------------------|------------------------------|
| Food | Bakery Products | 2,189,423 | 218,942 | Purchase from Bakery |
| | Beef | 1,656,271 | 165,627 | Direct from Farmer |
| | Pork | 1,114,584 | 111,458 | Direct from Farmer |
| | Other Meats | 748,380 | 74,838 | Direct from Farmer |
| | Poultry | 972,327 | 97,233 | Direct from Farmer |
| | Fish & Seafoods | 818,918 | 81,892 | Direct from Farmer |
| | Eggs | 234,461 | 23,446 | Direct from Farmer |
| | Fresh Milk & Cream | 1,058,023 | 105,802 | Direct from Farmer |
| | Other Dairy Products | 1,687,118 | 168,712 | Direct from Farmer |
| | Fresh Fruits | 1,311,781 | 131,178 | Direct from Farmer |
| | Fresh Vegetables | 1,261,382 | 126,138 | Direct from Farmer |
| | Processed Fruits | 765,977 | 76,598 | Direct from Farmer |
| | Processed Vegetables | 647,620 | 64,762 | Direct from Farmer |
| | Sugar & Other Sweets | 860,969 | 86,097 | Local Production |
| | Fats & Oils | 613,477 | 61,348 | Local Retail |
| | Misc. Foods | 4,426,469 | 442,647 | Local Retail |
| Nonalcoholic Beverages | 2,206,362 | 220,636 | Local Retail | |
| Food Prepared on Trips | 309,328 | 30,933 | Local Retail | |
| Beverages | Alcoholic Beverages | 3,113,121 | 311,312 | Local Winery |
| Housing | Mortgage Interest and Charges | 24,936,827 | 2,493,683 | Local Bank |
| | Maintenance, Reps., Ins., & Other | 8,140,271 | 814,027 | Local Insurance |
| Utilities | Natural Gas | 3,483,936 | 348,394 | Biofuel via Ag Waste |
| | Electricity | 8,489,755 | 848,975 | Local Utility |
| | Fuel Oil and Other Fuels | 1,041,275 | 104,127 | Biofuel via Ag Waste |
| | Telephone Services | 7,755,570 | 775,557 | Local Utility |
| Household | Furniture | 3,452,882 | 345,288 | Local Production |
| Apparel | Apparel and Services | 13,774,035 | 1,377,404 | Retail |
| Transportation | Gasoline and Motor Oil | 15,046,468 | 1,504,647 | Biofuel via Ag Waste |
| | Vehicle Finance Charges | 2,245,514 | 224,551 | Local Bank |
| | Vehicle Insurance | 6,837,839 | 683,784 | Local Insurance |
| Healthcare | Health Insurance | 10,052,094 | 1,005,209 | Local Insurance |
| | Medical Services | 5,015,215 | 501,521 | Local Hospital |
| Personal Care | Personal Care Products and Services | 3,964,998 | 396,500 | Local Services |
| Contributions | Cash Contributions | 12,304,583 | 1,230,458 | Local Nonprofits |
| Personal Insurance | Life and Other Personal Insurance | 2,818,874 | 281,887 | Local Insurance |
| | Pensions and Social Security | 36,280,617 | 181,403 | Local Broker |

\$15,717,016

- \$1 million in additional tax revenues from local business

These numbers seem small until one considers three further points. First, the overall economy is very small. Employment, for example, varies between a peak of about 10,500 to a valley of 5,800. *Localization would increase employment during off-season by about six percent.*

Second, the ten-percent localization proposed substantially understates what actually is plausible. Some localization acts – such as local food purchases – could easily go much farther. Others, like biofuels or a municipal electric utility, might only make sense in increments of much more than 10%. A local telecommunications company might easily facilitate shift of 40-60% of local expenditures in its category.

Finally, these calculations contain much conservatism. For example:

- The IMPLAN model does not easily allow for the creation of multiple acts of localization, such as making local furniture *and* selling that furniture locally, without risking double counting. Expanding our modeled events into multiple localization events would pump up the multipliers.
- The absence of many Dukes County industries also make it impossible to model many plausible types of localization, such as small-scale manufacturing. (See note 5.)
- This does not take into account potential stimulus from government purchasing agents or local businesses shifting their purchasing patterns.
- This does not account for the potential stimulus of new investment dollars coming into local businesses (plus interest) as a result of the shift in pension investing. (Only fees are accounted for now.)
- This does not account for potential stimulus from increased local spending from all other people in the Vineyard, which during the summer is five times greater than that of the permanent residents. In categories like local food production, and sales, this stimulus could be huge.
- Multipliers tend to be synergistic. Were all these conservatisms corrected, the overall resulting multipliers could be significantly larger.

Conclusion

The bottom line is that Martha's Vineyard has myriad opportunities for localization and the resulting economic benefits. The universe of possible additional jobs from making the Vineyard simply as self-reliant as the average community in the United States is at least 1,215 and probably much greater.

Deeper discussion of these data with the Martha's Vineyard Commission suggested thirteen sectors where import-replacement seems especially plausible given the assets and goals of the island: growing local food, producing local electricity, manufacturing local biofuels, building affordable housing, increasing overall demand during off-season months, creating cottage-industry-scale manufacturing, expanding various local services (for business, health, and finance), starting a telecommunications utility, creating new institutions for local pension fund reinvestment, stimulating more local procurement by government (and school entities), and creating local purchasing pools that can reduce costs of all kinds of inputs to production.

Even a 10% shift in the expenditure pattern by the permanent residents in these sectors could increase off-peak employment by six percent, and probably much more if other seasonal residents, visitors, and workers on the island began to shift their consumption patterns as well. Plus, a shift greater than 10% is certainly plausible.

One of the core economic challenges for Martha's Vineyard is how to grow the economy without increasing burdens on the local resource base and destroying the essential features of the island that make it so attractive in the first place. While there is no path to growth that is risk free, localization – which would promote more even utilization of buildings, roads, and businesses year round – offers the possibility of growing the economy off-peak without necessarily growing the peak.

There are many ways to lead the island down the path of localization, and the nearly fifty tools outlined in Appendix I offer possible starting places the Vineyard might consider.

Appendix I – An Action List for Localization

There is a long list of actions that Martha’s Vineyard might take to plug import leaks and localize. The following agenda – broken down into actions for consumers, investors, entrepreneurs, businesses, and policymakers – is adapted from *The Small-Mart Revolution* (see note 2).

Tools for Consumers

- (1) *Directories of Local Business* – Create lists of local businesses for Vineyard residents and businesses in print, on line, in newspaper ads, and on coffee cups.
- (2) *Directories of Local Products* – Highlight, in print or on line, the many locally made goods or locally provided services that are available.
- (3) *Local Labels* – Develop a local insignia of local ownership, so that consumers know if a store is locally owned or if a product is locally made.
- (4) *Buy Local Days* – Designate official days, weeks, months, or seasons, all of which can provide the basis for a buy-local campaign.
- (5) *Local Currency* – Mobilize the island to print its own “money,” like Ithaca Hours or BerkShares, that can only be used by local businesses and consumers.
- (6) *LETS* – Create computerized trading systems, especially popular in Europe, that encourage locals to trade with one another without toughing mainstream money.
- (7) *Time Dollars* – Set up a computerized system for tracking volunteer hours as a way of legitimizing and expanding such contributions for the community.

Tools for Investors

- (1) *Reduce the Use of Credit Cards* – Remind island residents that nearly all credit card processing is nonlocal, and wasting precious local money on nonlocal high-interest payments.
- (2) *Expand Small Business Loan Funds* – Mobilize local banks, philanthropists, foundations, and government agencies to expand the assets of revolving loan funds for small business.
- (3) *Create Micro Funds* – Consider setting up additional small-business funds in partnership with the local banks. Several dozen depositors can pony up money, create a lending pool, and then team up with the bank to administer the loans to whomever you think is creditworthy.

- (4) *Invest Local* – Encourage island investors, including part-time residents, to invest more of savings in local business as a cooperative member, as a program-related investor in a nonprofit, as a limited partner, or as a shareholder.
- (5) *Local Venture and Hedge Funds* – Recruit local securities industry professionals (perhaps retirees) to help create local investment funds that specialize in high-performing local businesses.
- (6) *Technical Assistance for Small Stock Companies* – Create a company that helps small-businesses to issue local stock (i.e., tradable only intrastate), and then to handle the ongoing reporting and due-diligence requirements.
- (7) *Local Underwriters* – Set up a local investment company that helps successful local firms create local stock issues, and that then sells the securities intrastate for a fee.
- (8) *Local Stock Markets* – Put together an electronic trading platform to help local business investors find and trade with one another.
- (9) *Local Investment Advisers* – Set up a firm that specializes in helping investors evaluate the performance of local business.
- (10) *Pension Fund Advocacy* – Pressure pension funds in the region, whether private or public, to invest in local real estate, local business, local venture and hedge funds, and local mutual funds.

Tools for Entrepreneurs

- (1) *BALLE Chapter* – Create a local business network (best linked with the Business Alliance for Local Living Economies) so that you’re not alone. Use the alliance to promote local purchasing, fight chains, solve problems, secure credit, and learn skills.
- (2) *Producers Cooperatives* – Join existing producers’ cooperatives or other kinds of industry-specific affinity groups that collectively purchase, advertise, and lobby for local members. Or start a new one.
- (3) *Bazaars* – Help set up and participate in local business mini-malls, whether they are weekend farmers’ markets or dedicated shopping destinations.
- (4) *Direct Delivery* – Create or join a direct delivery service affiliated exclusively or primarily with local businesses.
- (5) *Flexible Manufacturing* – Form a network of local businesses that is ready and willing to seize manufacturing opportunities as they arise.

- (6) *Buyers' Cards* – Team up with other local businesses to create instruments that promote local purchasing, such as local credit cards, debit cards, loyalty cards, and gift cards.
- (7) *B2B Marketplace* – Set up a business that links local businesses to one another, and takes a commission on each local “input” substitution.
- (8) *B2G Midwife* – Create a business that aggregates small businesses into compelling bids for government contracts and handles the paperwork in exchange for a fee.
- (9) *Super-Incubators* – Take existing small-business incubators (or start new ones) and rededicate them exclusively to local business. Restructure them to operate on a self-financing, venture-capital model.

Tools for Policymakers

- (1) *Indicators* – Prepare quantifiable measures of the community’s quality of life (economic, environmental, social, and political) and update them annually to hold economic development policies accountable. Conduct public hearings in which residents decide which indicators are most relevant, and then, put together an annual report on the best ones, distribute it widely, and place it on a web site.
- (2) *Assets Analysis* – Gather data on assets in the region, especially un- or underused economic inputs like unemployed labor, deserted land, abandoned buildings, and idle machinery, all to clarify what’s available for new or expanded small business.
- (3) *Subsidy Inventory* – Perform a full evaluation of all subsidies given in the last ten years to business (grants, loans, guarantees, tax abatements, capital improvements, TIFs, or bond issues), and catalogue which, if any, went to local businesses.
- (4) *State of the Region Report* – Prepare an annual booklet with the latest assessments of indicators, assets, and imports, as well as other inventories noted below, all to strategically identify business opportunities with the greatest benefit for the community.
- (5) *Community Reinvestment Report* – Study which local depository institutions – and, if any exist, which investment institutions – are reinvesting more than 90% of their savings/investments locally, especially in affordable local housing.
- (6) *Pension Fund Analysis* – Identify which pension funds, whether public or private, specialized or mutual, might be capable of reinvesting locally.
- (7) *Good Communitykeeping Seals* – Evaluate the performance of all businesses in the region, and award a special seal to any firm that is not only locally owned but

- also a good performer with workers, consumers, and the environment. This can now be done through the B-Corporation process (www.bcorporation.net).
- (8) *Entrepreneurship Programs* – Revitalize entrepreneurship programs in public schools, community colleges, and local universities to emphasize local and small business. Allocate municipal funds to help other institutions like churches, civic groups, and small business associations set up entrepreneurship study groups.
 - (9) *Mentorship Programs* – Link established businesspeople (especially retirees with extra time) with young and aspiring entrepreneurs.
 - (10) *Place-based Scholarships* – To retain the best and brightest, create a scholarship fund that extends no interest loans to college-bound kids. (If they return to and settle in the community after graduation, they enjoy no- or low-interest provisions; otherwise, interest rates kick up to market levels.)
 - (11) *The Home-Grown Directory* – Prepare a directory of local businesses organized by product or business type that could help residents buy local. This could then be distributed in hard copies and over the Internet to consumers.
 - (12) *Regional Directory* – Combine your home-grown directory with neighboring towns around a regional theme.
 - (13) *Selective Public Contracting* – Give a 5-10% bidding advantage to local businesses. Better still, demand that all bidders estimate anticipated multiplier benefits.
 - (14) *Small Business Bidding Assistance* – Set up an office that helps local business compete more effectively for public contracts.
 - (15) *Broker B2B Deals* – Consider replicating the model of the Oregon Marketplace, which in the 1980s and early 1990s helped local businesses buy cost-effective inputs from local suppliers.
 - (16) *Local Currency* – Support or create a local scrip, since only businesses and service providers committed to re-spending locally will be interested in accepting the currency. Pay bonuses or raises to public employees in the scrip, and accept scrip for partial payment of taxes, both of which Philadelphia did during the Great Depression.
 - (17) *Invest Local* – Begin moving municipal investment, including surplus revenues and pension funds, into local business either directly or indirectly through local-business venture, hedge, or mutual funds.

- (18) *Smart Growth* – Revamp zoning to permit more kinds of businesses in more kinds of places, especially home-based businesses. More fully use developed land and buildings before grinding up green space or farms.
- (19) *Smart Schools* – Refurbish older, smaller school buildings instead of building newer, bigger ones. Make it easy and safe for children to walk or bicycle to school.
- (20) *Smart Taxes* – Phase out taxes on business, income, sales, and property, and phase in revenue-neutral taxes on energy, nonrenewable resources, pollution, and nuisances. If more revenue is ever needed, use Henry George property taxes (on land, not on improvements) to spur business.
- (21) *Smart Wages* – Create a “living wage” to eliminate most working poverty in the community. Use savings in welfare programs to ease the transition for burdened small business. Don’t lament, but celebrate, how these scare away chain stores.

Appendix II

About the Authors

Doug Hoffer is an economist, lawyer, and economic-development specialist based in Burlington, Vermont. He has a B.A. from Williams College and a J.D. from SUNY Buffalo Law School. He came to Vermont in 1988 to work for the City of Burlington in the Community & Economic Development Office. He left City Hall in 1993 to be an independent policy analyst. He is known for his work on *The Job Gap Study*, a series of reports on the livable wage, the labor market, economic development, and import substitution. In addition, he has authored reports on "economically targeted investments" by public pension funds (Vermont State Treasurer), the economic impacts of the child care industry (Windham Child Care Association) and wind energy (Renewable Energy Vermont), numerous performance reviews for the Vermont State Auditor, housing & wages (Vermont Housing Council), and performance measurement (Burlington Electric). He has also conducted research on the economy and economic development for the Vermont Legislature, Vermont State Employees Association, the Vermont Sustainable Jobs Fund, Public Assets Institute, Vermont AFL-CIO, Vermont NEA, and various private sector clients.

Michael Shuman is vice president for Enterprise Development for the Training and Development Corporation (TDC) of Bucksport, Maine. A widely cited economist, attorney, author, and entrepreneur, Shuman is widely recognized for his research into the economic advantages of small-scale businesses in an era of globalization as well as the often over-looked benefits of building local economies in an era of big-box chains. He has authored, coauthored, and edited seven books, including *The Small Mart Revolution: How Local Businesses are Beating the Global Competition* (Berrett-Koehler, 2006) and *Going Local: Creating Self-Reliant Communities in the Global Age* (Free Press, 1998). The Small-Mart Revolution was just awarded a bronze medal for best business book by the Independent Publishers' Association. In recent years Shuman has community-based economic-development efforts in St. Lawrence County (NY), Hudson Valley (NY), Katahdin Region (ME), Martha's Vineyard (MA), and Carbondale (CO). He is currently preparing studies on state business subsidies for the Kellogg Foundation and on global models of local food businesses for the Gates Foundation. He served as a senior editor for the recently published *Encyclopedia of Community*. And he is a cofounder and active board member of the Business Alliance for Local Living Economies (BALLE) and a founder of Bay Friendly Chicken, a community-owned company located in Salisbury, Maryland. Shuman received an A.B. with distinction in economics and international relations from Stanford University and a J.D. from Stanford Law School. A prolific speaker, Shuman has averaged more one invited talk a week – to universities, cities, legislators, economic development groups, and grassroots groups in nearly a dozen countries – over the past 25 years.

ISLAND PLAN

CHARTING THE FUTURE OF THE VINEYARD



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