

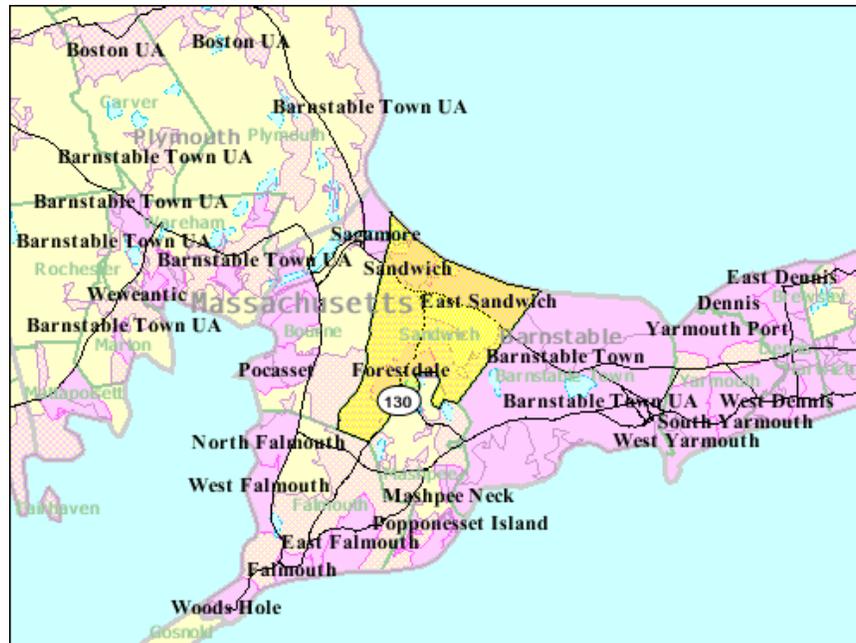
# SANDWICH, MA<sup>1</sup>

## Community Profile<sup>2</sup>

### PEOPLE AND PLACES

#### Regional orientation

The Town of Sandwich, Massachusetts (41.76° N, 70.49° W) is located on Cape Cod, in Barnstable County. Sandwich sits on Cape Cod Bay, and straddles the Cape Cod Canal, bordering Barnstable to the east and Bourne to the west. This town covers 43.95 square miles of area, the majority of which is on the Cape side of the canal (State of Massachusetts 2007).



Map 1. Location of Sandwich, MA (US Census Bureau 2000)

#### Historical/Background

Settled in 1637 and incorporated in 1639, Sandwich is the oldest town on Cape Cod. During the 17<sup>th</sup> and 18<sup>th</sup> centuries, Sandwich was a largely agricultural community, and in the 19<sup>th</sup> century, when many neighboring communities were involved in whaling, Sandwich turned to the glass industry, lacking a deep water port. Towards the end of the 19<sup>th</sup> century, when the railroad was constructed bringing passengers from Boston, Sandwich became a tourist destination and has remained one ever since (Capecod.com nd). The town “is located on both sides of the Cape Cod Canal with the majority of its population and land mass on the southerly side of the canal. Sandwich is a mostly residential community with a winter population considerably smaller than the population during the warm summer. Residents feel that its charm

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<sup>1</sup> These community profiles have been created to serve as port descriptions in Environmental Impact Statements (EISs) for fisheries management actions. They also provide baseline information from which to begin research for Social Impact Assessments (SIAs). Further, they provide information relevant to general community impacts for National Standard 8 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and information on minorities and low income populations for Executive Order (E.O.) 12898 on Environmental Justice.

<sup>2</sup> For purposes of citation please use the following template: “Community Profile of *Town, ST*. Prepared under the auspices of the National Marine Fisheries Service, Northeast Fisheries Science Center. For further information contact [Lisa.L.Colburn@noaa.gov](mailto:Lisa.L.Colburn@noaa.gov).”

and uniqueness combined with its ideal location make Sandwich a very attractive place both to live and visit. Sandwich's beaches along Cape Cod Bay stretch for miles and provide a wonderful view on a clear day of the many vessels that pass through on their way to or from the Boston area. Commercial fishermen and lobstermen can be seen daily from the docks at the Sandwich Marina, the only harbor along the canal (State of Massachusetts 2005).” The Massachusetts Military Reservation is partially located in Sandwich; the MMR was founded in 1935 as a National Guard training camp, and today is home to Otis Air National Guard Base, US Coast Guard Air Station Cape Cod, and Army National Guard Camp Edwards (Massachusetts Military Reservation 2005).

### Demographics<sup>3</sup>

According to Census 2000 data (US Census Bureau 2000), Sandwich town had a total population of 20,136, up 30.0% from the reported population of 15,489 in 1990 (US Census Bureau 1990). Of this total in 2000, 49.1% were male and 51.4% were female. The median age was 39.5 years and 69.0% of the population was 21 years or older while 16.0% were 62 or older.

Sandwich’s population structure (see Figure 1) is typical of a relatively young, family-oriented community. The largest age bracket is between the ages of 40-49, followed by 30-39, and there are also a lot of children and teenagers. The population takes a dip for the 20-29 age bracket, as is common in many smaller communities when young people leave to go to college or to seek jobs. There are also more women than men in every age bracket starting with 30-39.

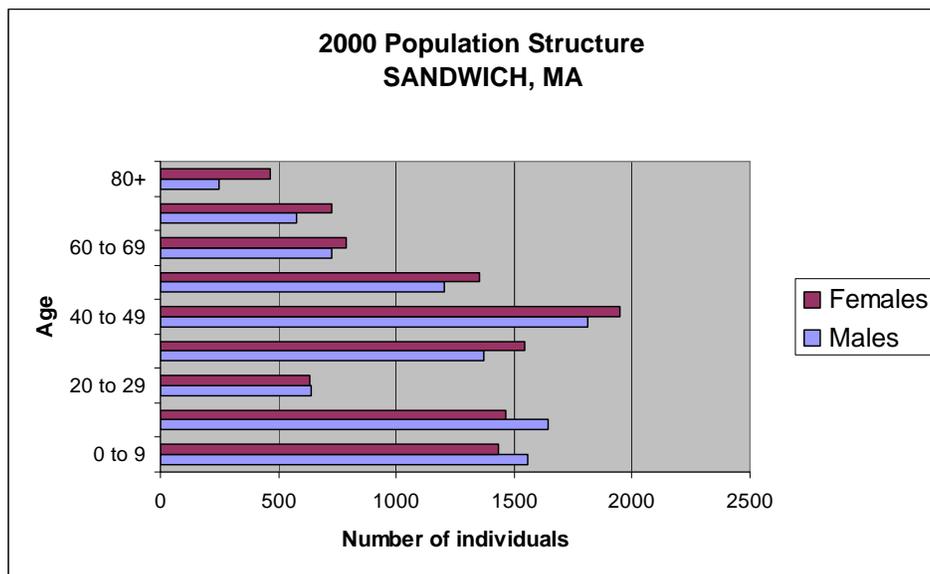


Figure 1. Sandwich’s population structure by sex in 2000 (US Census Bureau 2000)

The majority of the population is white (97.6%), with 0.6% of residents Black or African American, 0.7% Asian, 0.5% Native American, and 0.1% Pacific Islander or Hawaiian (see Figure 2). Only 0.8% of the total population is Hispanic/Latino. Residents link their heritage to a number of ancestries including the following: Irish (31.8%), English (20.0%), Italian (12.9%), and German (8.5%) (see Figure 3). With regard to region of birth, 71.9% were born in

<sup>3</sup> While mid-term estimates are available for some larger communities, data from the 2000 Census are the only data universally available for the communities being profiled in the Northeast. Thus for cross-comparability we have used 2000 data even though these data may have changed significantly since 2000 for at least some communities.

Massachusetts, 24.4% were born in a different state and 3.1% were born outside of the US (including 1.2% who are not US citizens).

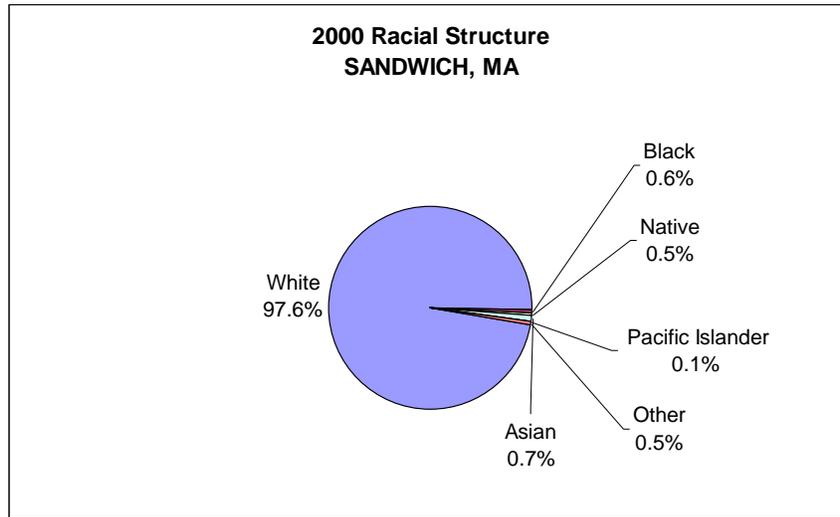


Figure 2. Racial Structure in 2000 (US Census Bureau 2000)

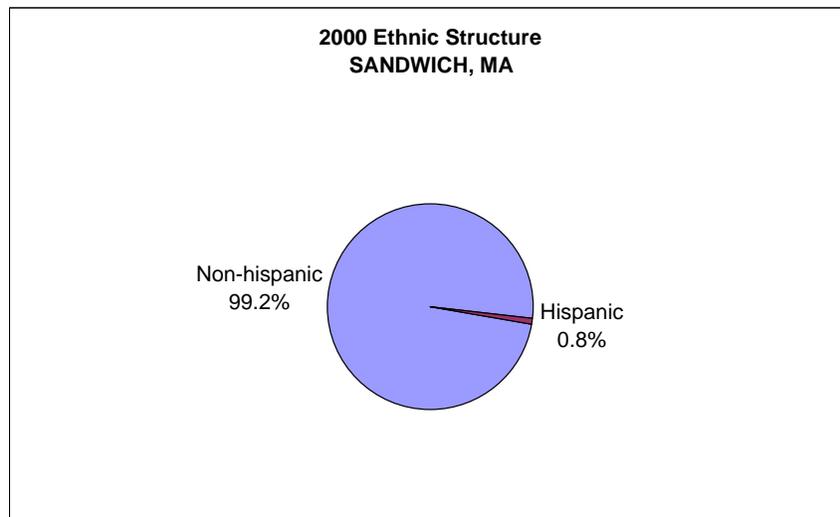


Figure 3. Ethnic Structure in 2000 (US Census Bureau 2000)

For 95.4% of the population, only English is spoken in the home, leaving 4.6% in homes where a language other than English is spoken, and including 1.1% of the population who speak English less than 'very well' according to the 2000 Census.

Of the population 25 years and over, 94.7% were high school graduates or higher and 38.3% had a Bachelor's degree or higher. Again of the population 25 years and over, 1.6% did not reach ninth grade, 3.7% attended some high school but did not graduate, 21.7% completed high school, 23.0% had some college with no degree, 11.7% received their Associate degree, 23.7% earned their Bachelor's degree, and 14.6% received either their graduate or professional degree.

Although religion percentages are not available through the U.S. Census, according to the Association of Religion Data Archives (ARDA) in 2000, the religion with the highest number of

congregations and adherents in Barnstable County (which includes not only the Town of Sandwich but all of Cape Cod) was Catholic with 29 congregations and 63,729 adherents. Other prominent congregations in the county were Episcopal (11 with 7,093 adherents), United Church of Christ (17 with 6,141 adherents) and Methodist (15 with 4,241 adherents). The total number of adherents to any religion was down 20.4% from 1990 (ARDA 2000).

### **Issues/Processes**

Massachusetts Military Reservation, located partially in Sandwich, was designated as an EPA Superfund site in 1989. The site sits on top of the recharge area for the groundwater aquifer of the surrounding towns, and many wells were found to be contaminated. Clean-up has been ongoing (Massachusetts Military Reservation 2005). This base was designated for closure in 2005, which could result in a significant economic impact on the area. Closure of the base would result in the loss of 505 mostly civilian jobs from the base and an estimated 322 indirect job losses, equal to about 0.6% of the area's employment (Viser 2005).

Cape Cod Bay, where many Sandwich fishermen work, is critical Northern right whale habitat, and parts of the bay are frequently closed to fixed fishing gear or require gear modifications at times when the whale are present, which impacts lobstermen from Sandwich (Old Colony Memorial Staff 2005).

### **Cultural attributes**

During Sandwich Maritime Days, held as part of the week-long Cape Cod Maritime Days festival, various museums and businesses in Sandwich celebrate the maritime heritage of the oldest town on Cape Cod (Cape Cod Chamber of Commerce 2005). Visitors to the Cape Cod Canal Visitors Center can take a guided tour of the East Boat Basin and learn about the importance of the commercial fishing fleet here (US Army Corps of Engineers 2005).

## **INFRASTRUCTURE**

### **Current Economy**

Within Barnstable County in 2002, 12.1% of full- and part-time jobs were in "food services and drinking places (Cape Cod Commission 2005)". Additionally, more than 25% of Sandwich workers are employed "off Cape" in places such as Boston (Cape Cod Commission 2005a).

According to the U.S. Census 2000<sup>4</sup>, 64.1% (10,068 individuals) of the total population 16 years of age and over were in the labor force (see Figure 4), of which 2.2% were unemployed, 0.5% were in the Armed Forces, and 64.1% were employed.

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<sup>4</sup> Again, Census data from 2000 are used because they are universally available and offer cross-comparability among communities. Some statistics, particularly median home price, are likely to have changed significantly since 2000.



Figure 4. Employment Structure in 2000 (US Census Bureau 2000)

According to Census 2000 data, jobs in the census grouping which includes agriculture, forestry, fishing and hunting, and mining accounted for 44 positions or 0.5% of all jobs. Self employed workers, a category where fishermen might be found, accounted for 1,028 positions or 10.6% of jobs. Education, health, and social services (24.6%), retail trade (14.2%), and professional, scientific, management, administrative, and waste management services (11.4%) were the primary industries.

Median household income in Sandwich was \$61,250 (up 40.8% from \$43,500 in 1990 [US Census Bureau 1990]) and per capita income was \$26,895. For full-time year round workers, males made approximately 46.8% more per year than females.

The average family in Sandwich consists of 3.18 persons. With respect to poverty, 2.2% of families (down from 3.5% in 1990 [US Census Bureau 1990]) and 3.1% of individuals earn below the official U.S. Census poverty threshold. This threshold is \$8,794 for individuals and ranges from \$11,239-35,060 for families, depending on number of persons (2-9) (US Census Bureau 2000b). In 2000, 15.2% of all families (of any size) earned less than \$35,000 per year.

In 2000, Sandwich had a total of 8,748 housing units of which 83.8% were occupied and 92.2% were detached one unit homes. Just over 5% (6.2%) of these homes were built before 1940. Mobile homes accounted for 0.3% of the total housing units; 90.2% of detached units have between 2 and 9 rooms. In 2000, the median cost for a home in this area was \$178,000. Of vacant housing units, 13.4% were used for seasonal, recreational, or occasional use. Of occupied units 12.0% were renter occupied.

## **Government**

Sandwich has a Town Meeting form of government, with a 5-member part-time Board of Selectmen elected to three-year terms and a Town Administrator elected by the Board of Selectmen (Town of Sandwich 2005).

### *Fishery involvement in government*

The Town of Sandwich has a Natural Resources Officer, who is responsible for shellfish management in the town and works with the Conservation Commission on other environmental issues in the town (Town of Sandwich 2005). The town does not issue shellfishing permits;

residents can purchase shellfishing permits through the Bourne Natural Resources Department in neighboring Bourne (Town of Sandwich 2005). The town also has a harbormaster.

## **Institutional**

### *Fishing associations*

The [Massachusetts Fisherman's Partnership](#) focuses on issues for fishermen in different ports in Massachusetts. The Partnership responded to the need of health care for fishermen and their families by developing the Fishing Partnership Health Insurance Plan with federal and state aid. This plan has been in place since 1997 and reduces the amount of money that fishermen's families have to pay to be covered by health insurance (Hall-Arber et al. 2001). The Massachusetts Commercial Fishermen's Association, a member of the Massachusetts Fishermen's Partnership, is located in Sandwich.

### *Fishing assistance centers*

Information on fishing assistance centers in Sandwich is unavailable through secondary data collection.

### *Other fishing-related institutions*

The Cape Cod Cooperative Extension in neighboring Barnstable provides education programs in marine resource development and assistance in marine resource management, through such programs as training town officials in shellfish management, conducting research on shellfish stocks and disease in the area, and developing aquaculture training programs (Cape Cod Cooperative Extension nd).

## **Physical**

Sandwich is 15 miles west of Hyannis and 57 miles south of Boston (State of Massachusetts 2005). Of the town's 43.95 square miles of area, 14.95 square miles are taken up by the Massachusetts Military Reservation, on the west side of town (Town of Sandwich 2005). The Mid-Cape Highway (Route 6) goes through Sandwich, as do State Routes 6A and 130. [The Plymouth and Brockton Street Railway Co.](#) runs buses from Boston to Provincetown, stopping in Barnstable and Sagamore, on either side of Sandwich, and [Bonanza Bus Lines](#) also run to Barnstable from Boston. The Barnstable Municipal Airport in Hyannis is 12.5 miles away, and Logan International Airport in Boston is roughly 50 miles from Sandwich (MapQuest nd).

The fishing infrastructure in Sandwich is located in Sandwich Harbor, a man-made basin constructed by the Army Corps of Engineers in 1914. The Town of Sandwich operates the Sandwich Marina, located at the eastern entrance to the canal. [The Sandwich Marina](#) has 42 commercial slips, 140 seasonal slips, and a boat ramp. These 42 commercial slips are set aside for the exclusive use of commercial fishing vessels, as part of an agreement with the Army Corps of Engineers for leasing this area (Michaud 2004). The proximity of Sandwich to the Cape Cod Canal allows fish caught off the Cape to be easily delivered to New Bedford and other large ports (Hall-Arber et al. 2001). The Sandwich Ship Supply is located near the harbor and can supply fishermen with their basic needs; the store focuses on the recreational fishing industry, however (Michaud 2004).

## INVOLVEMENT IN NORTHEAST FISHERIES<sup>5</sup>

### Commercial

The fishing fleet in Sandwich is made up of draggers, scallopers, tuna fishermen, and lobstermen (Hall-Arber et al. 2001). Sandwich had a wholesale/processing/distribution facility, Canal Marine Fisheries, which closed a few years ago, and is now in a state of disrepair. This facility provided ice and bait to the fleet as well as offloading the catch. There is one retail store in this area that buys from one offshore lobster vessel; the rest of what it sells is trucked in from elsewhere. Fishermen truck their catch to wholesalers in New Bedford and other ports (Michaud 2004).

The most valuable species landed in Sandwich in 2006 was lobster, worth just under \$3 million. The 2006 landings were slightly higher than the average landings for 1997-2006 (see Table 1). Landings in the “other” species grouping followed lobster in value ranking; the landings in this category were much lower in 2006 than the ten-year average landed values. Overall, landings in Sandwich were at their peak in 2002, with over \$7 million in landings, and declined to \$4.4 million in 2006 (see Table 2). The level of fishing for home ported boats did not exactly follow the same trend, and was lower in every year than landings in Sandwich, peaking at \$3 million in 2005. The number of home ported boats in Sandwich grew from 24 in 1997 to 42 by 2004, and then fell to 29 in 2006. Overall, the number of vessels with owners living in Sandwich was much lower, with a maximum of 12, indicating that most vessels home ported in Sandwich are owned by people residing in other communities.

In addition to recreational shellfish licenses, residents can apply for commercial shellfishing permits through the Town of Bourne (Town of Sandwich 2005).

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<sup>5</sup> In reviewing the commercial landings data several factors need to be kept in mind. 1) While both federal and state landings are included, some states provide more detailed data to NMFS than others. For example, shellfish may not be included or data may be reported only by county and not by port. 2) Some communities did not have individual port codes until more recently. Before individual port codes were assigned, landings from those ports were coded at the county level or as an aggregate of two geographically close small ports. Where landings were coded at the county level they cannot be sorted to individual ports for those earlier years, e.g., prior to 2000. 3) Where aggregated codes were used, those aggregate codes may still exist and be in use alongside the new individual codes. Here the landings which are still assigned to the aggregate port code cannot be sorted into the individual ports, so port level data are only those which used the individual port code. 4) Even when individual port codes exist, especially for small ports, landings may be coded at the county level. Here again it is impossible to disaggregate these to a port level, making the port level landings incomplete. 5) In all these cases, the per port data in this profile may under report the total level of landings to the port, though all landings are accounted for in the overall NMFS database.

## Landings by Species

Table 1. Dollar value of Federally Managed Groups of landing in Sandwich, MA

	Average from 1997-2006	2006 only
<b>Lobster</b>	2,790,921	2,864,271
<b>Other<sup>6</sup></b>	1,821,055	1,080,511
<b>Scallop</b>	224,279	345,350
<b>Largemouth Groundfish<sup>7</sup></b>	116,434	112,245
<b>Surf Clams, Ocean Quahog</b>	27,085	0
<b>Bluefish</b>	7,253	13,458
<b>Summer Flounder, Scup, Black Sea Bass</b>	5,770	20,424
<b>Monkfish</b>	4,117	2,199
<b>Dogfish</b>	3,028	4,438
<b>Squid, Mackerel, Butterfish</b>	1,658	3,246
<b>Skate</b>	1,218	0
<b>Smallmesh Groundfish<sup>8</sup></b>	1	0

## Vessels by Year<sup>9</sup>

Table 2. All columns represent vessel permits or landings value combined between 1997-2006

Year	# Vessels (home ported)	# Vessels (owner's city)	Level of fishing home port (\$)	Level of fishing landed port (\$)
<b>1997</b>	24	8	2,016,631	3,722,060
<b>1998</b>	25	12	1,980,134	2,541,882
<b>1999</b>	28	11	2,882,891	3,738,483
<b>2000</b>	31	10	1,896,309	5,119,676
<b>2001</b>	36	10	2,007,609	5,863,665
<b>2002</b>	38	10	2,216,414	7,141,661
<b>2003</b>	36	10	2,364,539	6,137,502
<b>2004</b>	42	12	1,750,891	5,592,997
<b>2005</b>	33	8	3,009,016	5,724,109
<b>2006</b>	29	6	2,400,632	4,446,142

(Note: # Vessels home ported = No. of permitted vessels with location as homeport

# Vessels (owner's city) = No. of permitted vessels with location as owner residence<sup>10</sup>

Level of fishing home port (\$) = Landed value of fisheries associated with home ported vessels

Level of fishing landed port (\$) = Landed value of fisheries landed in location)

<sup>6</sup> "Other" species includes any species not accounted for in a federally managed group

<sup>7</sup> Largemouth Groundfish: cod, winter flounder, yellowtail flounder, American plaice, sand-dab flounder, haddock, white hake, redfish, and pollock

<sup>8</sup> Smallmesh Multi-species : red hake, ocean pout, mixed hake, black whiting, silver hake (whiting)

<sup>9</sup> Numbers of vessels by owner's city and homeport are as reported by the permit holder on permit application forms. These may not correspond to the port where a vessel lands or even spends the majority of its time when docked.

<sup>10</sup> The Owner-City from the permit files is technically the address at which the owner receives mail concerning their permitted vessels, which could reflect the actual location of residence, the mailing address as distinct from residence, owner business location, or the address at which a subsidiary receives mail about the permits.

## Recreational

There are three charter fishing vessels based out of [Sandwich Marina](#), targeting bluefish, striped bass, bluefin tuna, sharks, and other species. A few other [charter boats](#) can be found around Sandwich. Fishermen often wade in Sandwich's salt marshes or fish from the beaches (Hubbard 2005). Shellfishing for quahogs, clams, and scallops is also a popular recreational activity in Sandwich.

## Subsistence

Information on subsistence fishing in Sandwich is either unavailable through secondary data collection or the practice does not exist.

## FUTURE

The fishing operations in Sandwich are well separated from the town's large tourist center, and thus gentrification of this area does not yet present much of a threat to the docks and other fishing infrastructure. However, rapidly increasing prices of real estate in the town may present a problem for the fishing industry here in the future (Hall-Arber et al. 2001). The Army Corps of Engineers and the Town of Sandwich are planning a major expansion of the harbor, adding a large number of recreational slips and some commercial slips as well (Michaud 2004). There is a waiting list of fishing vessels for commercial slips in Sandwich Harbor, which indicates a constant demand for space and a relatively steady industry (Michaud 2004).

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