

Project Report



An Analysis of the Economic Impact on Maine of Allowing Lobster Landings by Maine based Groundfishing Vessels

For: The Portland Fish Exchange
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I. Summary

Federal & State Regulations have Hurt The Maine Fishing Industry

Redrawing the U.S./Canadian border across the Gulf of Maine and the methods of harvest limitation adopted by Amendment 13 increased Maine's competitive disadvantages compared to its neighbors to the south.

This disadvantage has been exacerbated by a host of differing state and federal regulations regarding the rules surrounding catching and landing fish, including a ban on landing lobsters caught incidentally while groundfishing.

- ✓ The number of vessels landed at the Portland Fish Exchange has declined by 50% over the past five years.¹
- ✓ The poundage of fish landed at the Portland Fish Exchange has declined by 60% over the past five years.
- ✓ the number of groundfish processors in Maine has dropped from 46 to 32; over the past twenty five years, over 40 Maine processors have closed.
- ✓ Maine fish processors and fish wholesalers lost 1,200 jobs between 2000 and 2004.
- ✓ the number of facilities supplying ice to Maine's fishing fleet has declined from three to one.
- ✓ The number of firms in Portland selling fishing gear to the fleet has dropped to zero. Maine fishermen must now go out-of-state to replace gear.²

Maine's Fishing Cluster Has a Bright Future

Recently enacted federal regulations designed to protect the groundfish resource of the Northeast will allow groundfish stocks to double within the next decade, creating potential annual sales of \$300 million to \$400 million compared to today's total of approximately \$70 million.

The Governor's Task Force on the Groundfish Industry made it state policy to "devise strategies that will preserve Maine's existing fleet and infrastructure...to position Maine's fleet for future prosperity."

¹ The Portland Fish Exchange is the nation's only publicly owned, non-profit seafood auction. It provides an open auction market for buyers and sellers of seafood, enabling all to see what they are buying and set a competitive price known to all in the market. Approximately 90% of Maine's groundfish catch is sold on the exchange. Its loss would move the market toward more vertical integration where fishermen agree to contracts with dealers and processors. This would eliminate a common price known to all and favor larger operations.

² Portland Fish Exchange MAINE'S GROUND FISH INDUSTRY -MAY 2006, p. 2; NOAA Fisheries: Office of Science & Technology Fisheries of the United States, 2005 p. 82. <http://www.st.nmfs.gov/st1/publications.html>; and State of Maine Governor's Task Force on the Maine Groundfish Industry, June 2004.

One step to achieve that goal is to remove the ban on landing lobster bycatch in Maine.

The Lobster Bycatch Ban is Accelerating the Destruction of Maine's Groundfishing Industry

- ✓ The number of Maine-based vessels landing outside Maine has nearly doubled over the past six years.
- ✓ The number of trips by Maine-based vessels landing outside Maine has nearly quadrupled over the past six years.
- ✓ A National Marine Fisheries Service survey indicates that Maine has lost nearly \$10 million in groundfish sales over the past six years as a result of Maine-based vessels landing in non-Maine ports, most in order to sell incidentally caught lobsters.
- ✓ The decline in landings in Massachusetts has been much less severe than in Maine, and Massachusetts employment in seafood processing has risen by 2% while in Maine it fell by 44%.
- ✓ The economic impact of the loss of fish to Maine-based wholesalers and fish processors just from trip diversions to land lobsters out-of-state amounts to:
 - Nearly \$30 million in lost sales for businesses across the state indirectly linked to fishing and seafood processing;
 - Approximately 355 jobs lost throughout the state;
 - Approximately \$13 million in income lost to Maine households; and
 - Over \$1 million in tax revenues lost to Maine state and local governments.

Removing The Lobster Bycatch Ban Would Have Little Impact on Maine's Lobster Industry

- ✓ The cumulative total of lobster landed by Maine-based vessels off-loading outside Maine over the past six years amounted to just over seven one hundredths of one percent of the total volume of lobsters landed from traps, approximately 274,000 pounds compared to total lobster landings of over 363 million pounds.
- ✓ Current federal regulations on lobster bycatch combined with financial and safety considerations make operating groundfishing vessels exclusively to catch lobster uneconomic.
 - Federal regulations limit the volume of lobster bycatch to 500 pounds per trip;
 - Proposed Maine regulations would limit lobster bycatch to areas 50 miles or more from Maine's coast;
 - NMFS survey data demonstrate that groundfishing vessels could not operate profitably landing only lobster.

II. The Threat to Maine's Oldest Economic Cluster

Good-bye, good luck, struck the sun and the moon,
To the fisherman lost on the land.
He stands alone in the door of his home,
With his long-legged heart in his hand.
Dylan Thomas

Fishing is Central to a Cluster of Related Businesses

The most popular buzzword in economic development studies over the past decade is “cluster.” Economies rarely rise or fall on the fate of a single business or industry but on the fate of a “cluster” of related businesses—some competitors, some suppliers, some peripheral support providers—that, taken together, create a mutually stimulating environment conducive to economic growth. Indeed, the report on Maine’s economy recently released by the Brookings Institution asserts that the State’s economic future depends largely on promoting the development of new economic clusters that can replace those falling to global competition.³

In this context, it is instructive to consider Maine’s oldest economic cluster—the one surrounding the groundfishing business. Since the first European fishermen landed on Maine shores to dry their catch and repair their simple vessels 500 years ago, this state has been home to fishermen and the myriad of related businesses that supply them and take their catch to its ultimate consumer. Over generations, vessel supply and repair shops, gear and net suppliers, fuel and ice dealers, truckers, wholesalers, food processors, restaurants and scores of insurance, finance, advertising and legal service providers as well as University-based research scientists have grown up around the ancient task of bringing the ocean’s harvest from sea to shore to table.

For every dollar of landed groundfish sold in Maine, roughly 62 cents flows through to downstream vendors—the fuel, ice, bait suppliers and the vessel supply and repair services noted above. Roughly 37 cents flows through as income to the fishermen (be they owners, employees or independent contract workers), and about 1 cent flows to government in the form of sales and other indirect taxes.⁴

All of these income streams, in turn, become sales and income to other businesses—the wholesalers who supply the vessel service companies, the grocery stores where fishermen buy food for their families, the banks where they pay their mortgages. According to the most recent IMPLAN model for the Maine economy, the multiplier for the fishing industry in Maine is 2.0.⁵ This means that as the initial dollar of sales of fish landed in Maine works its way through the state economy, it produces sales to

³ The Brookings Institution *Charting Maine’s Future*, October 2006; see particularly p. 38.

⁴ IMPLAN model of the Maine economy; IMPLAN is a computer-based model of the inter-industry relationships within a state’s economy; See Minnesota IMPLAN Group, Inc. for more information. <http://www.implan.com/index.html>.

⁵ *Ibid.*

other Maine businesses that, added together, amount to another dollar. In short, the total sales impact of fishing on the Maine economy is twice its landed value. Conversely, the total impact of sales lost through declining volumes of fish landed in Maine will be twice the value of that lost volume.

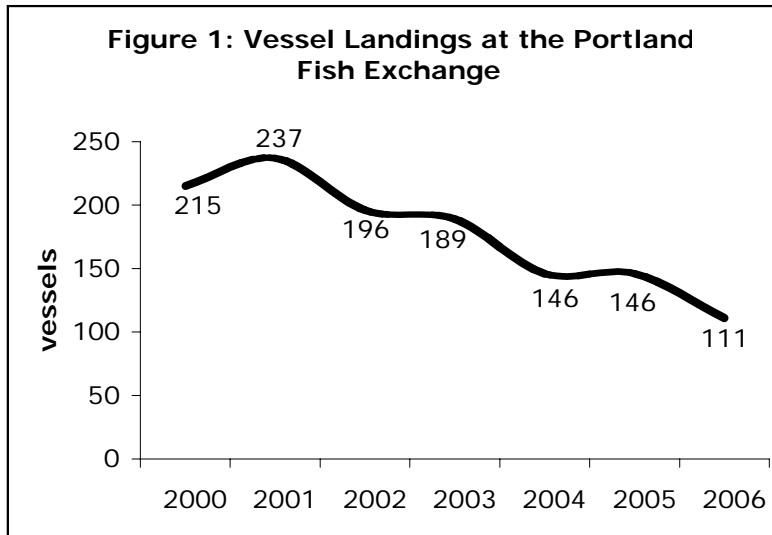
Just as important as the downstream supplier and consumer income impact of the fishing industry is its upstream impact on purchasers of seafood—the wholesalers, food service, grocery and restaurant buyers and food processing manufacturers who take the landed fish the rest of the way in its journey to the ultimate consumer. While a dollar of finfish not landed in Maine does not mean that some portion of that dollar is lost to the income stream of these businesses, it does mean that they have less supply to choose from and, ultimately, less reason to be in business in Maine. The output multiplier for the food processing sector in Maine is 1.9 and for the wholesale sector, 1.8. In short, loss of sales by these businesses will also have a total impact throughout the Maine economy that approaches twice the amount of the original sales lost.

Maine's Fishing Cluster has Declined in Recent Years

In short, as the core of an economic cluster declines, the financial justification for the businesses surrounding that core declines as well. Just as the cluster grew incrementally over the years as the volume of fish landed increased, so it will decline incrementally over the years as the volume of fish landed declines.

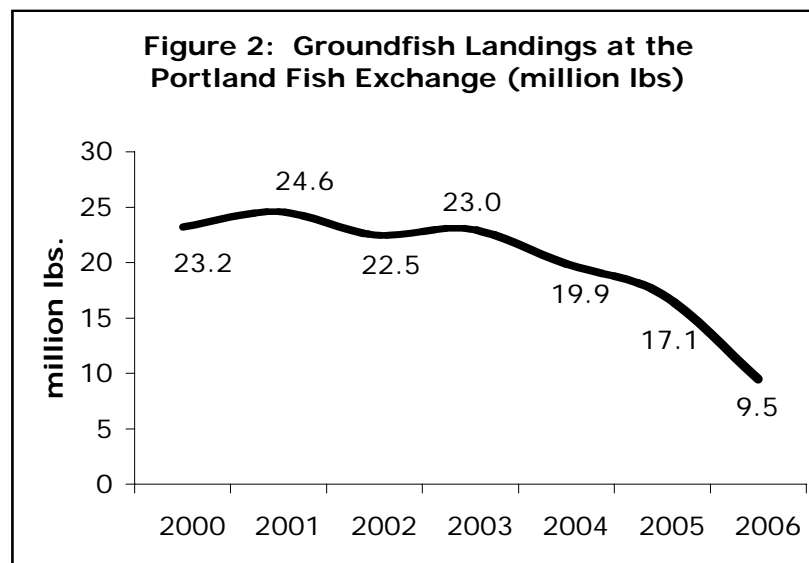
And the evidence of this decline in the groundfish cluster is strong. Both the number of vessels landing at the Portland Fish Exchange and the volume of fish landed has declined drastically over the recent past.

Figures 1 and 2 summarize the data.



source: Portland Fish Exchange.

From its recent peak of 237 in 2001, the number of vessels landing at the Portland Fish Exchange has fallen over 50% to 111 vessels landing in 2006.



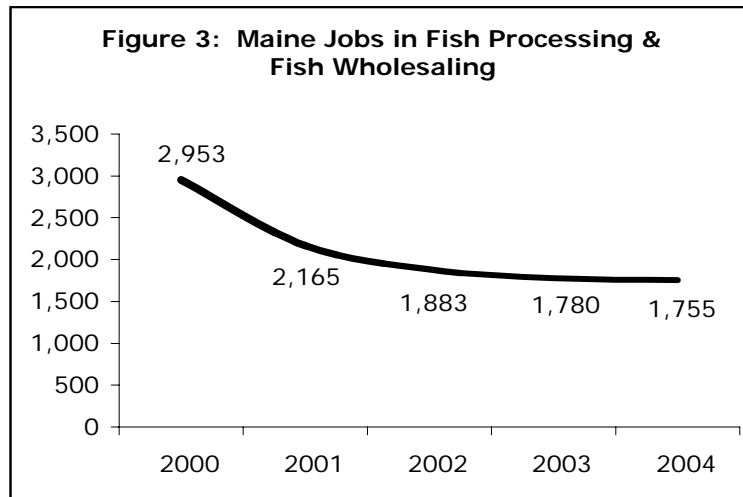
source: Portland Fish Exchange.

The decline in the volume of fish landed has been even more drastic, falling over 60% from the 2001 peak of 24.6 million pounds to 9.5 million pounds in 2006.

In large part, because of this decline in fishing activity in Maine, the activity of businesses related to fishing has also declined precipitously.

- ✓ the number of facilities supplying ice to Maine's fishing fleet has declined from three to one;
- ✓ the number of groundfish processors in Maine has dropped from 46 to 32; over the past twenty five years, over 40 Maine seafood processors have closed;

- ✓ The number of firms in Maine selling fishing gear to the fleet has dropped from four to none.
- ✓ Most significantly, between 2000 and 2004, Maine lost nearly 1,200 jobs in the fish processing and fish wholesaling industries.⁶



Source: NOAA Fisheries: Office of Science & Technology Fisheries of the United States, issues from 2000 to 2005, Industry Information Chapter <http://www.st.nmfs.gov/st1/publications.html>.

Maine's Fishing Cluster Has a Bright Future

However, unlike other formerly dominant Maine clusters like textiles and shoes that have succumbed to the competitive pressures of globalization never to return, the state's marine trades cluster faces a potentially bright future...*if it can survive long enough to see that future.* As a result of the recently enacted federal regulations designed to protect the groundfish resource of the Northeast (the so-called Amendment 13 regulations), groundfish populations are expected to double within the next decade, creating potential annual sales of \$300 million to \$400 million compared to today's total of approximately \$70 million.⁷

The decline of Maine's groundfishing industry over the past two decades has been the result not of an inability to bring a quality product to market at a competitive price but of the geographical inequities of the Amendment 13 regulations. The redrawing of the U.S. Canadian border across the Gulf of Maine and the methods of harvest limitation adopted by Amendment 13 has greatly increased the competitive disadvantages of a Maine location compared to its neighbors to the south. This disadvantage has been exacerbated by a host of differing state and federal regulations regarding labor compensation, the legal and fiscal treatment of fishing as a business and the rules surrounding catching and landing fish.

⁶ Portland Fish Exchange MAINE'S GROUND FISH INDUSTRY -MAY 2006, p. 2; NOAA: Office of Science & Technology Fisheries of the United States, 2005 p. 82. <http://www.st.nmfs.gov/st1/publications.html>

⁷ Governor's Task Force on the Maine Groundfish Industry, June 2004, p. 9; National Marine Fisheries Service Framework Adjustment 42, April 21, 2006, p. 194.

Recognizing this short-term challenge, Maine state government in 2003 established a Task Force on the Groundfish Industry with a mission to:

- ✓ devise strategies that will preserve Maine’s existing fleet and infrastructure; and
- ✓ develop recommendations for a long-term plan to position Maine’s fleet for future prosperity.⁸

In short, it is the current policy of Maine state government to find ways to help the state’s groundfish-based industry cluster survive a period of short-term crisis until rebounding fish populations enable it to begin a period of sustained, vigorous growth and regain its position as one of the pillars of Maine’s economy. Thus, the regulatory issues surrounding groundfishing—differential treatment of the labor force, differential application of the sales tax and differential treatment of catch and landing allowances—must be seen, not just as minor disputes within an industry, but as part of a larger goal that has already been formally adopted as official state policy, namely, survival of Maine’s groundfishing industry. The question before state policy makers is not, “Should we undertake action to assist the groundfishing industry?”, but rather, “How do we undertake such action?”

One example of an action that would help Maine’s groundfishing industry survive the current crisis is changing the state’s current policy with respect to lobster bycatch. The report examines this issue in the next section.

⁸ *Ibid.*

II. The Lobster Bycatch Issue

100 Lobsters per Day

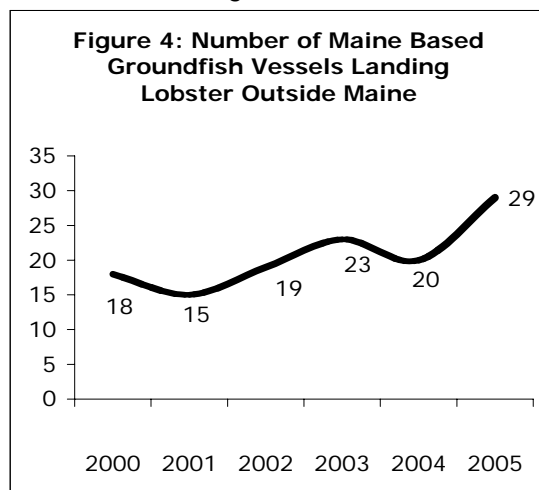
Federal regulations allow groundfishing vessels to land up to 100 lobsters per day (up to 500 per trip) as a permissible “bycatch” of their licensed groundfishing operations.⁹ Maine regulations allow no such “bycatch.” As a consequence, Maine based groundfishing vessels have an economic incentive to land their catch outside of Maine. This fact, combined with the other economic and regulatory considerations noted above, has contributed to a loss of fish landings in Portland and could accelerate the loss of both Maine-based groundfishing vessels and support businesses vital to the continued health of Maine’s fishing industry.

Maine Business Lost

To assess the significance of this disincentive, the National Marine Fisheries Service (NMFS) conducted an examination of the logbooks of Maine based vessels that held groundfish permits.

“Any vessel that reported either a Maine home port or primary port state on their Federal permit application was identified. Logbook records for these vessels were then obtained to 1) identify trips that were landed in Maine that did not land lobster, and 2) trips that did land lobster in some other state.”¹⁰

The evidence gathered from this investigation is summarized below.

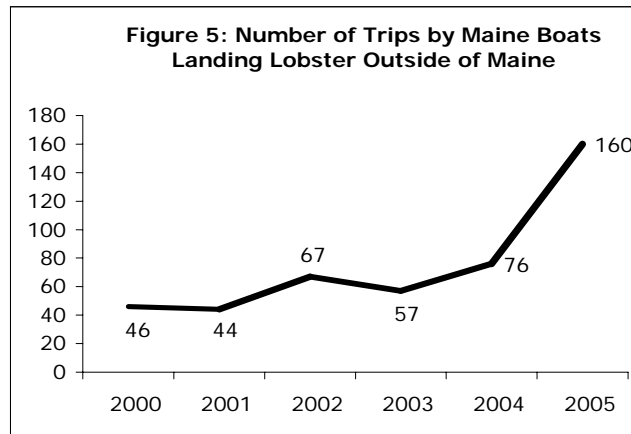


In 2000, 18 Maine based vessels landed some or all of their catch including lobster outside of Maine. By 2005, this number had increased to 29 vessels.

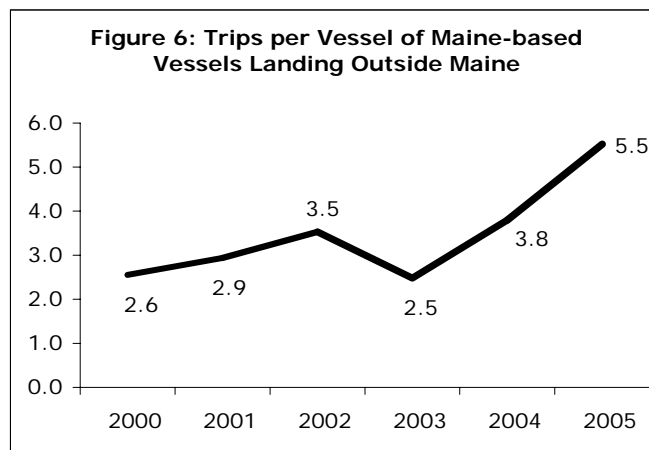
⁹ Bycatch: Fish other than the primary target species that are caught incidental to the harvest of the primary species. Bycatch may be retained or discarded. Discards may occur for regulatory or economic reasons. NOAA [Fisheries Glossary](#), revised edition, June 2006.

¹⁰ NMFS [Lobster Landings on Mobile Gear Trips in Calendar Years 2000 to 2005](#), p. 3.

Perhaps even more significantly, the number of trips by Maine based vessels that landed lobster (and, therefore, of necessity landed some or all of their catch outside of Maine) saw an even more dramatic increase, rising from 46 in 2000 to 160 in 2005.

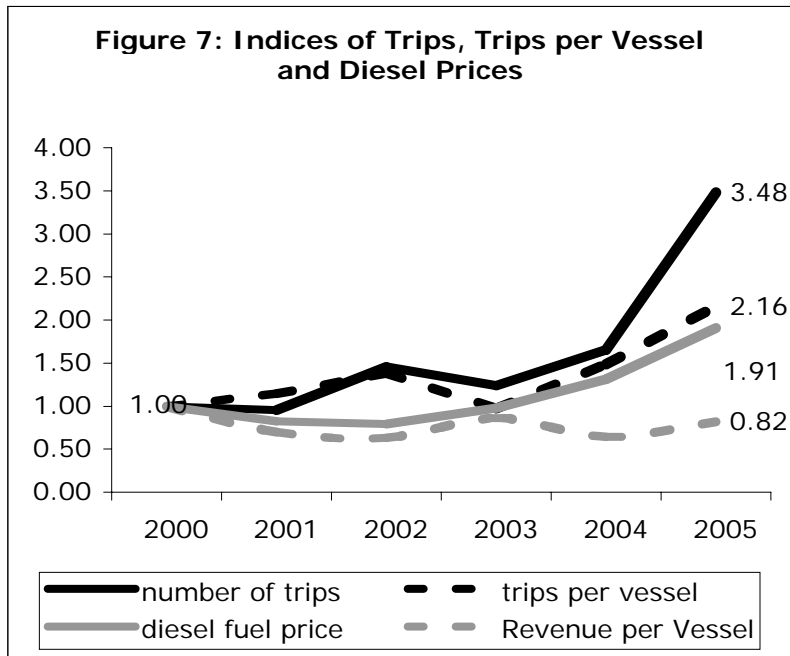


Finally, those Maine based vessels that were landing lobster outside Maine increased their fishing activity, more than doubling their trips per vessel over the six-year period from 2.6 in 2000 to 5.5 in 2005.



Why Maine Boats Land Out of State

The reason for this growing trip diversion is the increased importance of the revenue from lobster bycatch available in non-Maine ports. The two most significant costs for most fishermen are compensation of labor (owners, contracted labor and employees) and fuel. Together they account for over \$0.50 of every \$1.00 of revenue. As most Maine based vessels determine compensation on landed revenue, they have a significant incentive to add lobster bycatch revenue whenever possible. A similar incentive exists to help cover the cost of fuel, a cost that has risen dramatically over the past several years. Setting lobster-landing trips, trips per vessel and diesel prices to an index of year 2000 equals 100 and tracking their values over the six year period reveals a very similar pattern, particularly when compared to a similar index for revenue per vessel.

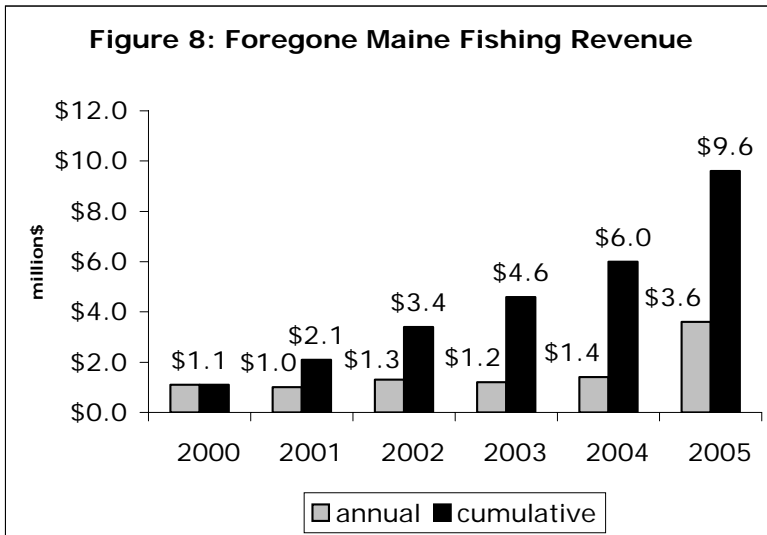


Over the period from 2000 to 2005, while the index of diesel fuel price increased from 100 to 191, the index of lobster-landing trips per vessel increased from 100 to 216, and the index of lobster-landing trips increased from 100 to 348. Over the same period, the index of revenue per vessel dropped from 1.00 to 0.82.¹¹ The actual revenue per vessel dropped from a high of \$161,500 in 2000 to a low of \$103,600 in 2004.

How Much Revenue is Lost from Trip Diversion?

Given the incidence of trip diversion, the question arises, “How much non-lobster revenue is lost to Maine because of landings diverted to other states?” The NMFS estimated this loss by calculating the value of the non-lobster landings of Maine based vessels that landed outside Maine. Figure 8 presents the results of this investigation.

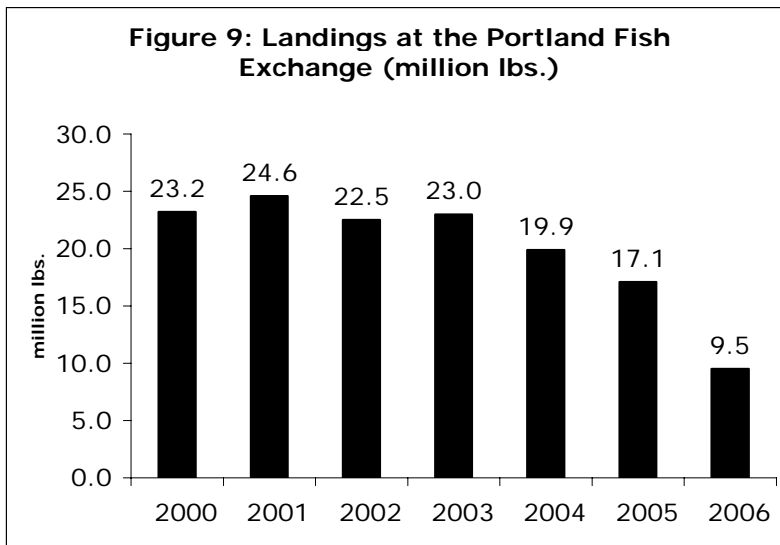
¹¹ Maine based vessel and trip data from NMFS; fuel price data from U.S. Energy Information Administration, <http://tonto.eia.doe.gov/dnav/pet/hist/rdlnyha.htm>.



On an annual basis, the revenue lost from trip diversion varied from a low of \$1.0 million in 2001 to a high of \$3.6 million in 2005. Cumulatively the loss to Maine’s fishing industry was nearly \$10 million.

Diversion is Evident in Declining Volume of Fish Landed

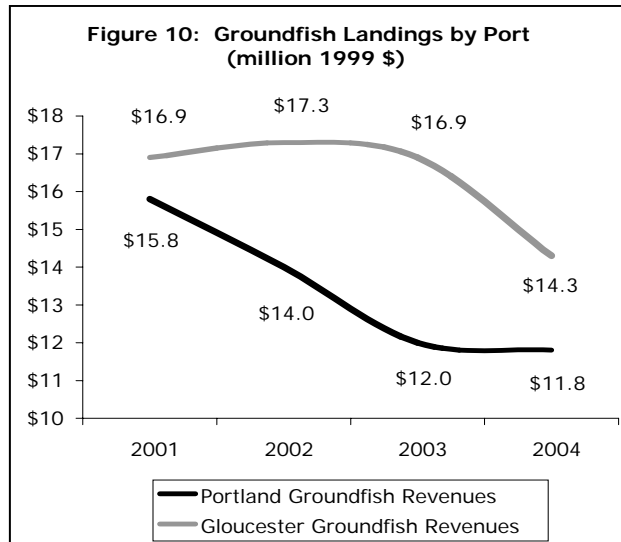
This diversion coincides with the decline in the volume of fish landed at the Portland Fish Exchange over the same period.



Between 2000 and 2006, total landings at the Portland Fish Exchange fell from slightly more than 23 million pounds to less than 10 million pounds.

Diversion is Evident in Growing Maine-Massachusetts Discrepancy

Further evidence of the effects of trip diversion can be seen by examining the relative changes in the value of groundfish landings in Portland and Gloucester, Massachusetts.



Source: NMFS Framework Adjustment 42 April 21, 2006. p. 202.

From 2001 to 2004, the value of groundfish landings in Portland (measured in constant 1999 dollars), fell more than 25%, from \$15.8 million to \$11.8 million.

Over the same period, the value landed in Gloucester, Massachusetts fell approximately 15%, from \$16.9 million to \$14.3 million. In short, while both ports experienced declines in the value of groundfish landed, the loss was greater in Maine.

Clearly, diversion of groundfishing vessels from Maine to Massachusetts, particularly those landing the additional value of bycatch lobsters, is accentuating the difference between Maine's fish ports and those of its neighbors to the south.

III. The Economic Impact of Trip Diversion

Lower Fish Landings Mean Lost Sales & Jobs

Returning to the broader context of the groundfish industry cluster and the state policy of helping it over the short-term hurdle of surviving the newly imposed stock replenishing regulations, the question arises, "What has been the economic impact of the \$10 million lost to Maine through trip diversion?"

To estimate an answer to this question, Planning Decisions, Inc. (PDI) made an IMPLAN model on the state of Maine is made up of three components:

1. the *direct* effects

The direct effects of trip diversion are the sales, employment and income losses of the fishing industry itself. In this case, it is the \$10 million loss of sales resulting from the diversion of landings from Maine. In order to capture the impact of this loss on Maine's food processors, PDI assumed that one half of this loss in fish landings would amount to purchases Maine's seafood processors could not make. Assuming a mark-up of approximately 54%, this lack of fish to buy would translate into \$10.7 million in lost sales for Maine's fish processors. Thus, the direct impact of trip diversion is estimated to be a loss in sales to Maine's fishermen and fish processors of approximately \$15.7 million.

2. the *indirect* effects

The indirect effects are the purchases made by industries down the supply chain that can be attributed to the direct sales of the fishing and fish processing industries. These effects are the ice and gear and bait and repairs purchased by fishermen and the electricity purchased by the ice producers and the twine purchased by the net manufacturer and the tools purchased by the diesel mechanic, etc. etc. out through the web of suppliers indirectly linked to fishing and fish processing.

3. the *induced* effects;

The induced effects are the household consumption expenditures that can be attributed to the direct *and* indirect effects. These are the effects of the household spending of the fishermen, the workers in the processing plant, and the ice manufacturer, the vessel supply company, the grocery store etc. etc. out through the web of businesses some of whose sales depend on workers in the fishing and fish processing industries.

Planning Decisions made an IMPLAN model run based on an assumed loss of \$5 million to the fishing industry and \$10.7 to the fish processing industry. The results are summarized below.

Table 1: The Economic Impact on Maine of Trip Diversion

Impact	Sales (\$ million)	Employment	Income (\$ million)
Direct Impact on Fishing & Food Processing	-\$15.7	-175	-\$6.1
Indirect Impact (Sales Lost to Maine Suppliers)	-\$7.5	-99	-\$3.1
Induced Impact (Sales Lost to Maine Businesses Selling to Consumers)	-\$6.7	-80	-\$3.8
Total Impact	-\$29.9	-355	-\$13.0
Multiplier	1.9	2.0	2.1
Lost State & Local Taxes	-\$1.1	n.a.	n.a.

\$30 million in Lost Sales

The six year cumulative lost sales by Maine fishermen and fish processing businesses of \$15.7 million translated into \$7.5 million in lost sales to their suppliers and \$6.7 million in sales lost to Maine consumer-oriented businesses linked to the direct and indirect sales losses. The total sales impact over the period amounted to nearly \$30 million.

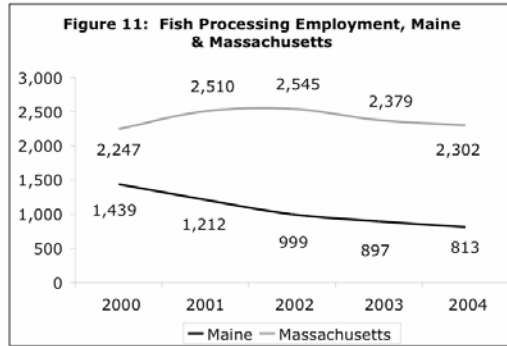
Over \$1 million in Taxes Lost to Maine State & Local Government

These sales and income losses resulted in revenue losses to Maine state and local governments. Lower business sales and consumer spending resulted in sales, property, income, fuel and other tax and fee losses to Maine state and local governments of approximately \$1.1 million.

355 Lost Jobs

In terms of employment, the trip diversion sales losses translate into the equivalent of 175 full-time equivalent job losses in the businesses directly affected and over 350 jobs lost throughout the entire economy. This job loss translates into lost personal income (wages for employees and net business income in the case of self-employed independent contractors and sole proprietors) of approximately \$13 million.

The fact that trip diversion results in job losses in the Maine economy is confirmed by an examination of the relative changes in the fish processing industry in Maine and Massachusetts. Over the period from 2000 to 2004, employment in the fish processing industry in Maine fell by over 40% from 1,439 jobs to 813 jobs. Over the same period, employment in the fish processing industry in Massachusetts remained basically stable, rising by 2% from 2,247 to 2,302. Figure 12 presents the data. This association between trip diversion and declining employment in fish processing does not prove causation. There are many reasons for the decline in Maine and the relative stability in Massachusetts. The point to be made here is simply that trip diversion because of lobster bycatch regulation is one of the reasons for the decline.



Source: NMFS Fisheries Statistics Division, Fisheries of the United States, volumes 2000 - 2005.

Effect on Maine's Lobster Industry

The sales, jobs and income lost to the Maine economy as a result of trip diversion is one side of the economic impact of the regulation prohibiting the landing in Maine of non trap-caught lobsters. The inverse of that impact is, "What would happen to the lobster market in Maine if trip diversion did not occur and the lobsters landed outside of Maine were landed in Maine?" Table 2 summarizes the results of that consideration.

Table 2: Lobster Landings in Maine and Non Trap Out-of-State Landings

year	total pounds of lobster landed		Bycatch %
	by groundfish vessels outside Maine	by lobster trappers in Maine	
2000	21,400	57,215,400	0.037%
2001	18,100	48,617,700	0.037%
2002	36,100	63,625,700	0.057%
2003	37,100	54,971,000	0.068%
2004	40,700	71,574,300	0.057%
2005	120,100	67,348,700	0.178%
Total	273,600	363,353,000	0.075%

Sources: NMFS [Lobster Landings on Mobile Gear Trips in Calendar Years 2000 to 2005](http://www.st.nmfs.gov/pls/webpls/MF_ANNUAL_LANDINGS_RESULTS); NMFS online catch database http://www.st.nmfs.gov/pls/webpls/MF_ANNUAL_LANDINGS_RESULTS and from Maine Department of Marine Resources <http://www.maine.gov/dmr/commercialfishing/recentlandings.htm>.

In 2000, Maine-based groundfishing vessels landed just over 21,000 pounds of lobster as bycatch outside Maine. In the same year, Maine lobster trappers landed slightly more than 57 million pounds of lobster in Maine. Had the Maine bycatch landed outside of Maine been landed in Maine, it would have amounted to slightly less than four one hundredths of one percent of the volume of trap landings.

By 2005—as a result of the increased number of vessels, trips and trips per vessel noted above—the lobster bycatch of Maine groundfishing vessels had risen to just over 120,000 pounds. This was the equivalent of slightly less than two tenths of one percent of the Maine trapped landing total of slightly more than 67 million pounds. Over the full six-year period, the total volume of bycatch lobsters landed was

approximately 274,000 pounds. This amounted to just over seven one hundredths of the total volume of lobsters landed from traps.

Minimal Impact on Lobster Industry

Even after the drastic increase over the six-year period, the amount of lobster bycatch did not amount to enough volume to have had an appreciable impact of the lobster market in Maine.

Redirecting Groundfishing Vessels to Lobstering Would not Pay

Finally, the question arises, “If lobster bycatch were allowed in Maine, would groundfishing vessels divert their activity from groundfishing to dragging for lobster?”

This question—as with all questions of resource allocation—depends on the nature of the economic return such a reuse would bring. Assuming that:

- ✓ the current federal limit of 100 pounds of lobster per day applied in Maine;
- ✓ that lobster could be taken by dragging only at distances of 50 miles or more from shore;
- ✓ that lobster prices were approximately \$4.60 per landed pound; and
- ✓ that the average lobster weighed 3.5 pounds,

the question becomes, “Can a groundfishing vessel operate for a revenue of approximately $4.60 \times 3.5 \times 100 = \$1,610$ per day?”

This question can be answered by examining the mean groundfish revenue data compiled by the NMFS for vessels of various sizes.¹²

Table 3: Average Groundfishing Revenue per Day by Vessel Size

Vessel Category	Mean Groundfish Revenue	Mean Lobster Revenue	Net Gain/Loss from Lobster
Trawl vessels < 50 feet	\$1,407	\$1,610	\$203
Trawl vessels 50 to 70 feet	\$2,195	\$1,610	(\$585)
Trawl vessels >= 70 feet	\$3,497	\$1,610	(\$1,887)
Gillnet vessels < 40 feet	\$1,981	\$1,610	(\$371)
Gillnet vessels >= 40 feet	\$2,285	\$1,610	(\$675)

For four of the five vessel categories reported in the NMFS survey, operation on revenue of \$1,610 from landing 100 lobsters would result in net revenue losses of between from \$371 per day to nearly \$1,900 each day. Trawlers of less than 50 feet in length could, theoretically increase their revenue by switching to lobster. However, few vessels in this class are capable of fishing in Lobster Management Area 3, and doing so would increase their costs of operation above current levels. Consequently, fears that, if the current ban on landing lobster in Maine was removed, groundfishing vessels would divert their attention to lobstering appears to be economically unfounded.

¹² NMFS Northeast Multispecies Amendment 13 SEIS, December 1, 2003. p. I-691-I-694.

IV. Conclusions

Federal & State Regulations have Hurt The Maine Fishing Industry

- ✓ New international boundaries, fewer allowed fishing days, prohibitions on landing lobster bycatch in Maine have put Maine's groundfishing fleet at an increasing competitive disadvantage.
- ✓ Vessels landing have decreased by 50% over past six years.
- ✓ Volume of fish landed has decreased by over 60%.
- ✓ Employment in fish processing has dropped by over 40%, a loss of 1,200 jobs.
- ✓ Many on-shore fishing supply businesses have closed; others are threatened.
- ✓ The Portland Fish Exchange may be forced to close.

Maine's Fishing Cluster Has a Bright Future

- ✓ Groundfish populations are expected to double within the next decade, creating potential annual sales of \$300 million to \$400 million compared to today's total of approximately \$70 million.
- ✓ Maine's stated policy today is to "devise strategies that will preserve Maine's existing fleet and infrastructure...to position Maine's fleet for future prosperity."

The Lobster Bycatch Ban is Accelerating the Destruction of Maine's Groundfishing Industry

- ✓ The number of Maine-based vessels landing outside Maine has nearly doubled over the past six years.
- ✓ The number of trips by Maine-based vessels landing outside Maine has nearly quadrupled over the past six years.
- ✓ A National Marine Fisheries Service survey indicates that Maine has lost nearly \$10 million in groundfish sales over the past six years as a result of Maine-based vessels landing in non-Maine ports in order to sell incidentally caught lobsters.
- ✓ The decline in landings and prices in Massachusetts has been much less severe than in Maine, and Massachusetts employment in fish processing has risen by 2% while in Maine it fell by 44%.
- ✓ The economic impact of this loss of fish to Maine-based wholesalers and fish processors amounts to:
 - Nearly \$30 million in lost sales for businesses across the state indirectly linked to fishing and fish processing;
 - Approximately 355 jobs lost throughout the state;
 - Approximately \$13 million in income lost to Maine households; and
 - Over \$1 million in tax revenues lost to Maine state and local governments.

Removing The Lobster Bycatch Ban Would Have Little Impact on Maine's Lobster Industry

- ✓ The cumulative total of lobster landed by Maine-based vessels off-loading outside Maine over the past six years amounted to just over seven one hundredths of one percent of the total volume of lobsters landed from traps, approximately 274,000 pounds compared to total lobster landings of over 363 million pounds.
- ✓ Current federal regulations on lobster bycatch combined with economic and safety considerations of operating a groundfishing vessels means that these vessels will not fish only for lobster.
 - Federal regulations limit the volume of lobster bycatch to 500 pounds per trip;
 - Proposed Maine regulations would limit lobster bycatch to areas 50 miles or more from Maine's coast;
 - NMFS survey data demonstrate that groundfishing vessels could not operate profitably landing only lobster.

V. Appendices

Appendix 1: IMPLAN Balance Sheet for Maine Fishing Industry

Total Sales (\$ million)	\$283.32		
<u>Value Added</u>			
Employee Compensation	\$30.58		
Proprietary Income	\$104.34		
Other Property Income	-\$29.35		
<u>Indirect Business Taxes</u>	\$2.92		
Total Value Added	\$108.50		
Purchases	\$174.82		
	Total	%	Maine
Composition of Purchases by Sector	Purchases	Purchased	Purchases
Maintenance and repair of nonresidential buildings	\$33.33	100%	\$33.33
Petroleum refineries	\$27.61	0%	\$0.00
Wholesale trade	\$22.80	57%	\$13.05
Soft drink and ice manufacturing	\$22.26	5%	\$1.09
Scenic and sightseeing transportation and support	\$19.16	44%	\$8.41
Petroleum lubricating oil and grease manufacturing	\$11.26	1%	\$0.08
Machinery and equipment rental and leasing	\$4.53	40%	\$1.83
Water transportation	\$4.35	66%	\$2.89
Insurance carriers	\$3.96	61%	\$2.43
Truck transportation	\$3.06	91%	\$2.79
Rail transportation	\$2.96	58%	\$1.71
Monetary authorities and depository credit intermediaries	\$2.63	41%	\$1.08
Other amusement- gambling- and recreation industries	\$2.34	74%	\$1.73
Other miscellaneous textile product mills	\$2.30	1%	\$0.01
Fishing	\$1.17	34%	\$0.40
Securities- commodity contracts- investments	\$1.05	41%	\$0.43
Soap and other detergent manufacturing	\$0.93	10%	\$0.09
Polish and other sanitation good manufacturing	\$0.84	12%	\$0.10
Investigation and security services	\$0.82	40%	\$0.33
Environmental and other technical consulting services	\$0.68	40%	\$0.27
Paper and paperboard mills	\$0.58	1%	\$0.01
Plastics packaging materials- film and sheet	\$0.55	75%	\$0.42
All other miscellaneous professional and technical	\$0.53	40%	\$0.21
Architectural and engineering services	\$0.36	67%	\$0.24
Motor vehicle parts manufacturing	\$0.32	10%	\$0.03
Air transportation	\$0.30	18%	\$0.05
Electric power and specialty transformer manufacturing	\$0.26	6%	\$0.01
Primary battery manufacturing	\$0.26	0%	\$0.00
Postal service	\$0.26	66%	\$0.17
Advertising and related services	\$0.25	40%	\$0.10
Nonstore retailers	\$0.24	94%	\$0.22

Noncomparable imports	\$0.19	0%	\$0.00
Coated and uncoated paper bag manufacturing	\$0.19	0%	\$0.00
Other support services	\$0.18	40%	\$0.07
General merchandise stores	\$0.17	91%	\$0.16
Pipeline transportation	\$0.17	100%	\$0.17
Real estate	\$0.17	62%	\$0.10
Motor vehicle and parts dealers	\$0.16	95%	\$0.15
Legal services	\$0.15	67%	\$0.10
Food and beverage stores	\$0.14	94%	\$0.13
AC- refrigeration- and forced air heating	\$0.14	0%	\$0.00
Automotive equipment rental and leasing	\$0.14	90%	\$0.12
Meat processed from carcasses	\$0.12	97%	\$0.12
Building material and garden supply stores	\$0.11	94%	\$0.11
Clothing and clothing accessories stores	\$0.11	74%	\$0.08
Nondepository credit intermediation and related	\$0.11	41%	\$0.04
Health and personal care stores	\$0.09	86%	\$0.08
Electric lamp bulb and part manufacturing	\$0.08	0%	\$0.00
Gasoline stations	\$0.08	95%	\$0.07
Tire manufacturing	\$0.07	0%	\$0.00
Furniture and home furnishings stores	\$0.06	81%	\$0.05
Electronics and appliance stores	\$0.04	71%	\$0.03
Miscellaneous store retailers	\$0.04	94%	\$0.04
Stationery and related product manufacturing	\$0.03	0%	\$0.00
Office supplies- except paper- manufacturing	\$0.02	0%	\$0.00
General and consumer goods rental except video	\$0.02	40%	\$0.01
Plastics plumbing fixtures and all other plastics	\$0.02	62%	\$0.01
Sporting goods- hobby- book and music stores	\$0.02	94%	\$0.02
Envelope manufacturing	\$0.01	0%	\$0.00
Manifold business forms printing	\$0.01	24%	\$0.00
Hotels and motels- including casino hotels	\$0.01	72%	\$0.01
Die-cut paper office supplies manufacturing	\$0.01	0%	\$0.00
Coated and laminated paper and packaging	\$0.01	0%	\$0.00
Paperboard container manufacturing	\$0.01	0%	\$0.00
Photographic film and chemical manufacturing	\$0.01	12%	\$0.00
Blank book and loose-leaf binder manufacturing	\$0.00	1%	\$0.00
Total Commodity Demand	\$174.83		\$75.23

Appendix 2: Sales Impact on Maine Fishing Industry

<u>Industry Sector</u>	<u>Direct*</u>	<u>Indirect*</u>	<u>Induced*</u>	<u>Total*</u>
Fishing	-\$5,000,000	-\$7,108	-\$1,171	-\$5,008,279
Maintenance and repair of nonresidential buildings		-\$592,093	-\$10,914	-\$603,007
Owner-occupied dwellings		\$0	-\$375,836	-\$375,836
Wholesale trade		-\$250,944	-\$103,846	-\$354,790
Hospitals		\$0	-\$191,732	-\$191,732
Food services and drinking places		-\$5,225	-\$167,609	-\$172,834
Offices of physicians- dentists- and other health		\$0	-\$163,625	-\$163,625
Real estate		-\$20,934	-\$131,908	-\$152,841
State & Local Education		\$0	-\$139,613	-\$139,613
Insurance carriers		-\$52,768	-\$81,559	-\$134,327
State & Local Non-Education		\$0	-\$123,447	-\$123,447
Other State and local government enterprises		-\$63,198	-\$49,103	-\$112,302
Scenic and sightseeing transportation and support		-\$102,006	-\$4,712	-\$106,718
Truck transportation		-\$64,282	-\$33,859	-\$98,141
Motor vehicle and parts dealers		-\$12,043	-\$67,751	-\$79,794
Monetary authorities and depository credit intermediary		-\$25,247	-\$51,357	-\$76,603
Food and beverage stores		-\$10,512	-\$52,775	-\$63,288
Other amusement- gambling- and recreation industry		-\$30,263	-\$27,197	-\$57,460
General merchandise stores		-\$12,474	-\$44,868	-\$57,342
Power generation and supply		-\$6,461	-\$50,525	-\$56,986
Telecommunications		-\$10,376	-\$45,815	-\$56,192
Water transportation		-\$50,850	-\$4,528	-\$55,377
Pharmaceutical and medicine manufacturing		-\$42	-\$53,565	-\$53,607
Automotive repair and maintenance- except car wash		-\$3,333	-\$50,160	-\$53,493
Other ambulatory health care services		-\$49	-\$51,323	-\$51,372
Nonstore retailers		-\$17,654	-\$31,571	-\$49,224
Nursing and residential care facilities		\$0	-\$46,358	-\$46,358
Legal services		-\$6,545	-\$37,782	-\$44,327
Building material and garden supply stores		-\$8,413	-\$33,241	-\$41,655
Machinery and equipment rental and leasing		-\$34,410	-\$2,343	-\$36,753
Federal Military		\$0	-\$35,203	-\$35,203
Architectural and engineering services		-\$24,648	-\$9,640	-\$34,287
Colleges- universities- and junior colleges		-\$1,107	-\$33,005	-\$34,111
Rail transportation		-\$30,677	-\$3,214	-\$33,891
Securities- commodity contracts- investments		-\$10,782	-\$22,545	-\$33,327
Insurance agencies- brokerages- and related		-\$12,328	-\$19,129	-\$31,457
Clothing and clothing accessories stores		-\$6,417	-\$23,835	-\$30,252
Nondepository credit intermediation and related agencies		-\$8,217	-\$21,551	-\$29,769

Social assistance- except child day care services	-\$1	-\$27,785	-\$27,787
Gasoline stations	-\$5,748	-\$21,975	-\$27,723
Management of companies and enterprises	-\$7,822	-\$17,604	-\$25,426
Health and personal care stores	-\$6,075	-\$18,980	-\$25,055
Meat processed from carcasses	-\$2,618	-\$21,610	-\$24,228
Federal Non-Military	\$0	-\$21,724	-\$21,724
Hotels and motels- including casino hotels	-\$1,989	-\$19,450	-\$21,439
Miscellaneous store retailers	-\$2,804	-\$18,387	-\$21,191
Home health care services	\$0	-\$20,198	-\$20,198
Soft drink and ice manufacturing	-\$18,610	-\$1,021	-\$19,631
Automotive equipment rental and leasing	-\$4,457	-\$14,735	-\$19,192
Accounting and bookkeeping services	-\$6,807	-\$12,093	-\$18,900
Furniture and home furnishings stores	-\$3,637	-\$14,791	-\$18,429
Child day care services	\$0	-\$17,692	-\$17,692
Other personal services	-\$483	-\$15,972	-\$16,455
Postal service	-\$5,608	-\$9,858	-\$15,466
Cable networks and program distribution	-\$472	-\$14,509	-\$14,981
Personal care services	\$0	-\$14,322	-\$14,322
Civic- social- professional and similar organizations	-\$766	-\$12,655	-\$13,421
Religious organizations	\$0	-\$13,301	-\$13,301
Sporting goods- hobby- book and music stores	-\$1,190	-\$11,954	-\$13,144
Funds- trusts- and other financial vehicles	-\$998	-\$11,705	-\$12,703
Bread and bakery product- except frozen-manufacturing	-\$172	-\$11,528	-\$11,700
Other educational services	-\$92	-\$11,416	-\$11,509
Elementary and secondary schools	\$0	-\$11,502	-\$11,502
Plastics plumbing fixtures and all other plastics	-\$4,921	-\$6,542	-\$11,463
Management consulting services	-\$4,056	-\$7,322	-\$11,378
Services to buildings and dwellings	-\$2,252	-\$9,085	-\$11,337
Employment services	-\$3,322	-\$7,636	-\$10,958
Plastics packaging materials- film and sheet	-\$8,027	-\$2,828	-\$10,855
Fluid milk manufacturing	-\$537	-\$9,961	-\$10,498
Electronics and appliance stores	-\$2,242	-\$7,721	-\$9,963
Sawmills	-\$7,949	-\$1,895	-\$9,843
All other miscellaneous professional and technical	-\$5,609	-\$4,157	-\$9,765
Investigation and security services	-\$6,674	-\$2,328	-\$9,002
Footwear manufacturing	\$0	-\$8,715	-\$8,715
Household goods repair and maintenance	-\$1,709	-\$6,917	-\$8,625
Other Federal Government enterprises	-\$1,438	-\$7,173	-\$8,612
Motion picture and video industries	-\$799	-\$7,360	-\$8,160
Advertising and related services	-\$3,126	-\$5,000	-\$8,126
Warehousing and storage	-\$2,839	-\$5,231	-\$8,070
Radio and television broadcasting	-\$2,339	-\$5,468	-\$7,807

Toilet preparation manufacturing	-\$1,456	-\$6,350	-\$7,806
Environmental and other technical consulting service	-\$5,779	-\$1,884	-\$7,663
Newspaper publishers	-\$2,322	-\$5,040	-\$7,362
Electronic equipment repair and maintenance	-\$2,446	-\$4,754	-\$7,199
Maintenance and repair of farm and nonfarm residences	-\$880	-\$6,273	-\$7,152
Other accommodations	-\$162	-\$6,807	-\$6,969
Business support services	-\$1,732	-\$5,234	-\$6,966
Office administrative services	-\$2,145	-\$4,784	-\$6,930
Nonupholstered wood household furniture Manufacturing	-\$514	-\$6,228	-\$6,742
Couriers and messengers	-\$2,797	-\$3,860	-\$6,657
Air transportation	-\$1,402	-\$5,237	-\$6,639
Other support services	-\$3,082	-\$3,510	-\$6,592
Other maintenance and repair construction	-\$3,023	-\$3,459	-\$6,483
Pipeline transportation	-\$3,899	-\$2,458	-\$6,357
Grant making and giving organizations	\$0	-\$6,340	-\$6,340
Veterinary services	-\$83	-\$6,001	-\$6,084
Private households	\$0	-\$6,030	-\$6,030
Dry cleaning and laundry services	-\$198	-\$5,765	-\$5,963
Wood windows and door manufacturing	-\$4,318	-\$1,207	-\$5,525
Waste management and remediation services	-\$775	-\$4,707	-\$5,482
Cattle ranching and farming	-\$365	-\$4,781	-\$5,147
Logging	-\$4,095	-\$1,047	-\$5,143
General and consumer goods rental except video tap	-\$2,445	-\$2,608	-\$5,053
Scientific research and development services	-\$486	-\$4,566	-\$5,052
Surgical appliance and supplies manufacturing	-\$58	-\$4,970	-\$5,027
Fitness and recreational sports centers	-\$264	-\$4,318	-\$4,582
Death care services	\$0	-\$4,561	-\$4,561
Other new construction	\$0	-\$4,507	-\$4,507
Transit and ground passenger transportation	-\$235	-\$4,152	-\$4,386
Other millwork- including flooring	-\$3,621	-\$744	-\$4,365
Travel arrangement and reservation services	-\$1,478	-\$2,851	-\$4,329
Cut and sew apparel manufacturing	-\$21	-\$4,271	-\$4,292
Commercial machinery repair and maintenance	-\$1,913	-\$2,293	-\$4,206
Vegetable and melon farming	-\$27	-\$3,938	-\$3,965
Commercial and institutional buildings	\$0	-\$3,900	-\$3,900
Video tape and disc rental	-\$4	-\$3,867	-\$3,872
Spectator sports	-\$361	-\$3,378	-\$3,739
Polish and other sanitation good manufacturing	-\$2,946	-\$763	-\$3,709
Commercial printing	-\$1,066	-\$2,438	-\$3,504
Motor vehicle parts manufacturing	-\$1,299	-\$2,137	-\$3,436
Semiconductors and related device manufacturing	-\$1,482	-\$1,923	-\$3,405

Performing arts companies	-\$183	-\$3,106	-\$3,289
Engineered wood member and truss manufacturing	-\$2,708	-\$566	-\$3,274
Seafood product preparation and packaging	-\$82	-\$3,164	-\$3,246
Promoters of performing arts and sports and agents	-\$322	-\$2,876	-\$3,198
Car washes	-\$291	-\$2,875	-\$3,166
Foam product manufacturing	-\$925	-\$2,175	-\$3,100
Other computer related services-including facility	-\$1,308	-\$1,750	-\$3,058
Wood kitchen cabinet and countertop manufacturing	-\$2,054	-\$858	-\$2,912
Independent artists- writers- and performers	-\$737	-\$2,075	-\$2,812
Computer systems design services	-\$801	-\$1,944	-\$2,745
Animal production- except cattle and poultry	-\$171	-\$2,503	-\$2,674
Periodical publishers	-\$535	-\$2,030	-\$2,565
Data processing services	-\$815	-\$1,729	-\$2,544
Fruit farming	-\$139	-\$2,404	-\$2,543
Lessors of nonfinancial intangible assets	-\$587	-\$1,921	-\$2,508
Highway- street- bridge- and tunnel construction	\$0	-\$2,490	-\$2,490
Asphalt paving mixture and block manufacturing	-\$1,765	-\$691	-\$2,457
Ship building and repairing	-\$157	-\$2,281	-\$2,439
Accessories and other apparel manufacturing	-\$8	-\$2,347	-\$2,355
Veneer and plywood manufacturing	-\$1,897	-\$437	-\$2,335
All other food manufacturing	-\$11	-\$2,276	-\$2,287
Natural gas distribution	-\$149	-\$1,916	-\$2,064
State and local government electric utilities	-\$239	-\$1,813	-\$2,052
Jewelry and silverware manufacturing	-\$15	-\$1,881	-\$1,896
Museums- historical sites- zoos- and parks	\$0	-\$1,888	-\$1,888
Reconstituted wood product manufacturing	-\$1,127	-\$680	-\$1,807
Poultry and egg production	-\$30	-\$1,742	-\$1,771
Specialized design services	-\$458	-\$1,280	-\$1,738
Greenhouse and nursery production	-\$64	-\$1,649	-\$1,712
Maintenance and repair of highways-streets- bridge	\$0	-\$1,685	-\$1,685
Photographic services	-\$25	-\$1,636	-\$1,661
Automatic environmental control manufacturing	-\$1,300	-\$268	-\$1,568
Information services	-\$403	-\$1,120	-\$1,523
Other leather product manufacturing	-\$44	-\$1,474	-\$1,518
State and local government passenger transit	-\$81	-\$1,433	-\$1,514
Custom computer programming services	-\$144	-\$1,308	-\$1,453
Book publishers	-\$29	-\$1,404	-\$1,432
Database- directory- and other publishers	-\$263	-\$1,067	-\$1,330
Sanitary paper product manufacturing	-\$200	-\$1,105	-\$1,305

Wood container and pallet manufacturing	-\$661	-\$609	-\$1,270
Small arms manufacturing	-\$8	-\$1,242	-\$1,250
Electromedical apparatus manufacturing	-\$3	-\$1,205	-\$1,209
Other miscellaneous chemical product manufacturing	-\$785	-\$403	-\$1,188
Machine shops	-\$654	-\$519	-\$1,173
Ice cream and frozen dessert manufacturing	-\$50	-\$1,111	-\$1,161
Broadcast and wireless communications equipment	-\$42	-\$1,080	-\$1,122
Mayonnaise- dressing- and sauce manufacturing	-\$6	-\$1,113	-\$1,119
Switchgear and switchboard apparatus manufacturing	-\$856	-\$214	-\$1,070
Fruit and vegetable canning and drying	-\$312	-\$739	-\$1,051
All other electronic component manufacturing	-\$257	-\$794	-\$1,050
Industrial gas manufacturing	-\$93	-\$951	-\$1,044
Dental laboratories	\$0	-\$1,001	-\$1,001
Water- sewage and other systems	-\$96	-\$900	-\$996
Water- sewer- and pipeline construction	\$0	-\$976	-\$976
Glass and glass products- except glass containers	-\$206	-\$754	-\$960
Bowling centers	\$0	-\$956	-\$956
Magnetic and optical recording media manufacturing	-\$217	-\$702	-\$919
Animal- except poultry- slaughtering	-\$47	-\$861	-\$908
Plastics bottle manufacturing	-\$463	-\$421	-\$885
Laminated plastics plate- sheet- and shapes	-\$382	-\$455	-\$837
Miscellaneous wood product manufacturing	-\$368	-\$463	-\$831
Frozen food manufacturing	-\$7	-\$818	-\$824
All other crop farming	-\$277	-\$526	-\$802
Software publishers	-\$2	-\$797	-\$799
Travel trailer and camper manufacturing	\$0	-\$723	-\$724
Plastics pipe- fittings- and profile shapes	-\$418	-\$299	-\$717
Wet corn milling	-\$150	-\$561	-\$711
Wood preservation	-\$515	-\$172	-\$687
Sound recording industries	-\$16	-\$648	-\$664
Frozen cakes and other pastries manufacturing	-\$1	-\$639	-\$640
Breweries	-\$2	-\$617	-\$619
Vitreous china and earthenware articles Manufacturing	-\$3	-\$610	-\$614
Aircraft engine and engine parts manufacturing	-\$25	-\$558	-\$584
Agriculture and forestry support activities	-\$143	-\$399	-\$542
Doll- toy- and game manufacturing	-\$2	-\$535	-\$536
Mixes and dough made from purchased flour	-\$1	-\$520	-\$521
New residential additions and alterations- all	\$0	-\$483	-\$483

Broadwoven fabric mills	-\$18	-\$461	-\$479
Ophthalmic goods manufacturing	-\$28	-\$441	-\$469
Facilities support services	-\$69	-\$381	-\$450
New multifamily housing structures- all	\$0	-\$435	-\$435
Dry pasta manufacturing	-\$1	-\$380	-\$381
Showcases- partitions- shelving- and lockers	-\$116	-\$263	-\$379
Turbine and turbine generator set units Manufacturing	-\$44	-\$328	-\$372
Fertilizer- mixing only- manufacturing	-\$227	-\$143	-\$370
Ceramic wall and floor tile manufacturing	-\$273	-\$88	-\$361
Manufacturing and industrial buildings	\$0	-\$357	-\$357
Coffee and tea manufacturing	-\$12	-\$345	-\$356
Other basic inorganic chemical manufacturing	-\$57	-\$291	-\$349
Photographic film and chemical manufacturing	-\$48	-\$288	-\$336
Nonferrous metal- except copper and aluminum- shap	-\$274	-\$62	-\$336
Distilleries	-\$5	-\$312	-\$317
Manifold business forms printing	-\$113	-\$198	-\$311
Creamery butter manufacturing	-\$2	-\$279	-\$281
Boat building	-\$81	-\$191	-\$272
Tortilla manufacturing	-\$4	-\$264	-\$268
Watch- clock- and other measuring and controlling	-\$31	-\$235	-\$265
Sign manufacturing	-\$97	-\$156	-\$253
Other miscellaneous textile product mills	-\$221	-\$31	-\$252
Cut stock- resawing lumber	-\$182	-\$62	-\$244
Hand and edge tool manufacturing	-\$33	-\$206	-\$239
Sheet metal work manufacturing	-\$185	-\$53	-\$237
Paper and paperboard mills	-\$132	-\$105	-\$236
Spring and wire product manufacturing	-\$132	-\$92	-\$224
Motor and generator manufacturing	-\$107	-\$116	-\$224
Cut stone and stone product manufacturing	-\$81	-\$141	-\$223
Soap and other detergent manufacturing	-\$159	-\$55	-\$215
Laboratory apparatus and furniture manufacturing	-\$5	-\$204	-\$209
Nonwoven fabric mills	-\$32	-\$174	-\$206
Metal valve manufacturing	-\$138	-\$64	-\$201
Industrial process variable instruments	-\$41	-\$158	-\$200
Institutional furniture manufacturing	-\$10	-\$183	-\$192
Other commercial and service industry machinery manufacturing	-\$23	-\$170	-\$192
Leather and hide tanning and finishing	-\$3	-\$189	-\$192
Cutting tool and machine tool accessory manufacturing	-\$89	-\$97	-\$186
Lawn and garden equipment manufacturing	-\$9	-\$170	-\$179
Coated and uncoated paper bag manufacturing	-\$129	-\$48	-\$177
Cheese manufacturing	-\$3	-\$164	-\$166

Scales- balances- and miscellaneous general purpose	-\$75	-\$90	-\$164
Electroplating- anodizing- and coloring metal	-\$100	-\$62	-\$162
Metal coating and non precious engraving	-\$95	-\$66	-\$161
Prefabricated wood building manufacturing	-\$127	-\$27	-\$154
Other communications equipment manufacturing	-\$109	-\$39	-\$148
Musical instrument manufacturing	-\$4	-\$143	-\$147
Audio and video media reproduction	-\$46	-\$99	-\$145
Farm machinery and equipment manufacturing	-\$49	-\$96	-\$145
Other engine equipment manufacturing	-\$35	-\$109	-\$144
Fabricated pipe and pipe fitting manufacturing	-\$117	-\$22	-\$139
Surgical and medical instrument manufacturing	\$0	-\$130	-\$130
Turned product and screw- nut- and bolt Manufacturing	-\$64	-\$61	-\$125
Textile bag and canvas mills	-\$12	-\$113	-\$125
Fabricated structural metal manufacturing	-\$102	-\$17	-\$118
Construction machinery manufacturing	-\$35	-\$82	-\$117
Confectionery manufacturing from purchased chocolate	\$0	-\$116	-\$116
Motor vehicle body manufacturing	-\$3	-\$107	-\$109
Carpet and rug mills	-\$32	-\$77	-\$109
Analytical laboratory instrument manufacturing	-\$26	-\$74	-\$100
Paperboard container manufacturing	-\$33	-\$60	-\$93
Prepress services	-\$29	-\$59	-\$87
Fiber- yarn- and thread mills	-\$7	-\$77	-\$85
Other animal food manufacturing	-\$4	-\$80	-\$84
Audio and video equipment manufacturing	-\$1	-\$81	-\$82
Buttons- pins- and all other miscellaneous manufacturing	-\$15	-\$66	-\$81
Plastics material and resin manufacturing	-\$18	-\$58	-\$76
Welding and soldering equipment manufacturing	-\$45	-\$29	-\$74
Curtain and linen mills	\$0	-\$73	-\$73
All other industrial machinery manufacturing	-\$2	-\$69	-\$71
Fluid power pump and motor manufacturing	-\$42	-\$25	-\$67
Printing ink manufacturing	-\$28	-\$36	-\$64
Metal window and door manufacturing	-\$41	-\$21	-\$62
Synthetic rubber manufacturing	-\$12	-\$46	-\$58
Textile and fabric finishing mills	-\$6	-\$51	-\$58
Relay and industrial control manufacturing	-\$23	-\$33	-\$56
Special tool- die- jig- and fixture manufacturing	-\$27	-\$28	-\$55

Grain farming	-\$8	-\$46	-\$54
Sawmill and woodworking machinery	-\$5	-\$48	-\$53
Office furniture- except wood- manufacturing	-\$1	-\$51	-\$51
Fats and oils refining and blending	-\$1	-\$46	-\$46
Custom architectural woodwork and millwork	-\$14	-\$32	-\$46
Wood office furniture manufacturing	\$0	-\$43	-\$44
Paper industry machinery manufacturing	-\$16	-\$27	-\$43
Nonchocolate confectionery manufacturing	\$0	-\$42	-\$42
Motorcycle- bicycle- and parts manufacturing	-\$2	-\$39	-\$41
All other converted paper product manufacturing	-\$13	-\$27	-\$41
Pesticide and other agricultural chemical manufacturing	-\$5	-\$33	-\$38
Dental equipment and supplies manufacturing	\$0	-\$35	-\$35
Wineries	-\$5	-\$26	-\$31
Narrow fabric mills and schiffli embroidery	-\$16	-\$15	-\$30
Ornamental and architectural metal work Manufacturing	-\$25	-\$5	-\$30
Conveyor and conveying equipment manufacturing	-\$9	-\$20	-\$29
Rolling mill and other metalworking machinery	-\$14	-\$15	-\$29
Other concrete product manufacturing	-\$12	-\$14	-\$26
Sporting and athletic goods manufacturing	\$0	-\$26	-\$26
Carbon and graphite product manufacturing	-\$7	-\$18	-\$25
Poultry processing	\$0	-\$23	-\$24
Hardware manufacturing	-\$14	-\$9	-\$23
Flour milling	\$0	-\$22	-\$22
Prefabricated metal buildings and components	-\$15	-\$7	-\$22
Wiring device manufacturing	-\$12	-\$9	-\$22
Sugar manufacturing	\$0	-\$18	-\$18
New residential 1-unit structures- all	\$0	-\$17	-\$17
Packaging machinery manufacturing	-\$3	-\$14	-\$17
Miscellaneous fabricated metal product manufacturing	-\$13	-\$3	-\$16
Electricity and signal testing instruments	-\$2	-\$12	-\$15
Gasket- packing- and sealing device manufacturing	-\$5	-\$9	-\$14
Plate work manufacturing	-\$8	-\$5	-\$13
Pulp mills	-\$6	-\$7	-\$12
Ready-mix concrete manufacturing	-\$10	-\$3	-\$12
Steel wire drawing	-\$6	-\$5	-\$11
All other forging and stamping	-\$3	-\$8	-\$11
Forest nurseries- forest products- and timber track	-\$8	-\$2	-\$11
Other rubber product manufacturing	-\$6	-\$4	-\$10

Tradebinding and related work	-\$1	-\$9	-\$9
Sand- gravel- clay- and refractory mining	-\$5	-\$4	-\$9
Office supplies- except paper- manufacturing	-\$2	-\$7	-\$8
Concrete block and brick manufacturing	-\$6	-\$2	-\$8
Aircraft manufacturing	\$0	-\$7	-\$7
Brick and structural clay tile manufacturing	-\$5	-\$1	-\$7
Overhead cranes- hoists- and monorail systems	-\$2	-\$4	-\$6
Railroad rolling stock manufacturing	-\$5	-\$2	-\$6
Stationery and related product manufacturing	-\$1	-\$5	-\$6
Metal tank- heavy gauge- manufacturing	-\$4	-\$1	-\$5
Industrial mold manufacturing	-\$2	-\$2	-\$4
Saw blade and handsaw manufacturing	\$0	-\$3	-\$4
Miscellaneous electrical equipment manufacturing	\$0	-\$3	-\$3
Truck trailer manufacturing	\$0	-\$3	-\$3
Total	-\$5,000,000-\$1,700,784	-\$3,160,121	-\$9,860,905

Appendix 3: Sales Impact on Maine Fish Processing Industry

<u>Industry Sector</u>	<u>Direct*</u>	<u>Indirect*</u>	<u>Induced*</u>	<u>Total*</u>
Fishing	\$0	\$1,332,833	-\$1,251	-\$1,334,084
Wholesale trade	\$0	-\$999,897	-\$111,329	-\$1,111,226
Animal production- except cattle and poultry	\$0	-\$559,215	-\$2,687	-\$561,902
Seafood product preparation and packaging	-\$10,700,000	-\$555,125	-\$3,393	\$11,258,518
Management of companies and enterprises	\$0	-\$309,813	-\$18,850	-\$328,663
Maintenance and repair of nonresidential buildings	\$0	-\$223,306	-\$11,952	-\$235,258
Real estate	\$0	-\$116,511	-\$141,309	-\$257,820
Power generation and supply	\$0	-\$104,252	-\$54,435	-\$158,687
Warehousing and storage	\$0	-\$84,389	-\$5,628	-\$90,017
Truck transportation	\$0	-\$79,853	-\$36,330	-\$116,184
All other miscellaneous professional and technical	\$0	-\$65,602	-\$4,511	-\$70,113
Automotive repair and maintenance- except car wash	\$0	-\$57,237	-\$53,609	-\$110,846
Monetary authorities and depository credit intermediary	\$0	-\$54,245	-\$54,982	-\$109,227
Telecommunications	\$0	-\$53,049	-\$49,234	-\$102,283
Nondepository credit intermediation and related agencies	\$0	-\$51,095	-\$23,094	-\$74,189
Electronic equipment repair and maintenance	\$0	-\$48,597	-\$5,283	-\$53,880
Commercial machinery repair and maintenance	\$0	-\$47,456	-\$2,499	-\$49,955
Other State and local government enterprises	\$0	-\$40,201	-\$52,868	-\$93,070
Plastics packaging materials- film and sheet	\$0	-\$39,267	-\$3,042	-\$42,308
Insurance carriers	\$0	-\$34,615	-\$87,032	-\$121,647
Legal services	\$0	-\$34,131	-\$40,586	-\$74,717
Scenic and sightseeing transportation and support	\$0	-\$33,437	-\$5,475	-\$38,912
Accounting and bookkeeping services	\$0	-\$32,701	-\$13,069	-\$45,770
Automotive equipment rental and leasing	\$0	-\$31,538	-\$15,807	-\$47,346
Rail transportation	\$0	-\$31,386	-\$3,461	-\$34,846
Nonstore retailers	\$0	-\$30,369	-\$33,727	-\$64,096
Plastics plumbing fixtures and all other plastics	\$0	-\$30,242	-\$7,065	-\$37,307
All other crop farming	\$0	-\$28,186	-\$565	-\$28,752
Architectural and engineering services	\$0	-\$27,114	-\$10,795	-\$37,909
Food services and drinking places	\$0	-\$26,437	-\$178,991	-\$205,428
Machinery and equipment rental and leasing	\$0	-\$23,159	-\$2,570	-\$25,729
Scientific research and development services	\$0	-\$22,313	-\$5,110	-\$27,423
Household goods repair and maintenance	\$0	-\$22,308	-\$7,441	-\$29,749
General merchandise stores	\$0	-\$21,459	-\$47,880	-\$69,339
Management consulting services	\$0	-\$21,358	-\$7,965	-\$29,323
Motor vehicle and parts dealers	\$0	-\$20,718	-\$72,276	-\$92,994

Air transportation	\$0	-\$20,090	-\$5,601	-\$25,691
Food and beverage stores	\$0	-\$18,084	-\$56,304	-\$74,389
Hotels and motels- including casino hotels	\$0	-\$17,427	-\$20,914	-\$38,341
Securities- commodity contracts- investments	\$0	-\$15,336	-\$24,233	-\$39,568
Water transportation	\$0	-\$15,096	-\$4,844	-\$19,940
Building material and garden supply stores	\$0	-\$14,474	-\$35,470	-\$49,944
Couriers and messengers	\$0	-\$14,309	-\$4,160	-\$18,469
Employment services	\$0	-\$13,296	-\$8,277	-\$21,573
Advertising and related services	\$0	-\$12,664	-\$5,367	-\$18,031
Clothing and clothing accessories stores	\$0	-\$11,039	-\$25,435	-\$36,474
Health and personal care stores	\$0	-\$10,450	-\$20,258	-\$30,708
Gasoline stations	\$0	-\$9,889	-\$23,449	-\$33,338
Services to buildings and dwellings	\$0	-\$9,795	-\$9,862	-\$19,657
Data processing services	\$0	-\$9,617	-\$1,886	-\$11,503
Radio and television broadcasting	\$0	-\$9,444	-\$5,857	-\$15,301
Newspaper publishers	\$0	-\$9,413	-\$5,403	-\$14,816
Waste management and remediation services	\$0	-\$9,396	-\$5,291	-\$14,687
Meat processed from carcasses	\$0	-\$8,813	-\$23,078	-\$31,891
Business support services	\$0	-\$8,700	-\$5,624	-\$14,325
Other amusement- gambling- and recreation industries	\$0	-\$8,378	-\$29,007	-\$37,385
Insurance agencies- brokerages- and related	\$0	-\$8,087	-\$20,413	-\$28,500
Sawmills	\$0	-\$8,026	-\$2,053	-\$10,079
Postal service	\$0	-\$7,938	-\$10,669	-\$18,606
Natural gas distribution	\$0	-\$7,734	-\$2,062	-\$9,796
Civic- social- professional and similar organization	\$0	-\$7,535	-\$13,511	-\$21,046
Office administrative services	\$0	-\$7,352	-\$5,187	-\$12,539
Other support services	\$0	-\$6,368	-\$3,775	-\$10,143
Semiconductors and related device manufacturing	\$0	-\$6,347	-\$2,092	-\$8,439
Furniture and home furnishings stores	\$0	-\$6,257	-\$15,784	-\$22,041
Investigation and security services	\$0	-\$5,381	-\$2,536	-\$7,917
Frozen food manufacturing	\$0	-\$5,313	-\$873	-\$6,186
Agriculture and forestry support activities	\$0	-\$5,059	-\$427	-\$5,485
Soft drink and ice manufacturing	\$0	-\$5,014	-\$1,090	-\$6,104
Pipeline transportation	\$0	-\$4,932	-\$2,648	-\$7,580
General and consumer goods rental except video tape	\$0	-\$4,850	-\$2,808	-\$7,658
Miscellaneous store retailers	\$0	-\$4,824	-\$19,615	-\$24,439
Wood windows and door manufacturing	\$0	-\$4,567	-\$1,306	-\$5,873
Commercial printing	\$0	-\$4,491	-\$2,626	-\$7,117
Sheet metal work manufacturing	\$0	-\$4,352	-\$58	-\$4,410
Veterinary services	\$0	-\$4,272	-\$6,405	-\$10,677
Other computer related services- including facility	\$0	-\$4,231	-\$1,935	-\$6,166
Logging	\$0	-\$4,049	-\$1,135	-\$5,185

Colleges- universities- and junior colleges	\$0	-\$4,035	-\$35,287	-\$39,323
Other animal food manufacturing	\$0	-\$3,973	-\$85	-\$4,058
Electronics and appliance stores	\$0	-\$3,857	-\$8,245	-\$12,102
Independent artists- writers- and performers	\$0	-\$3,663	-\$2,223	-\$5,886
Other maintenance and repair construction	\$0	-\$3,636	-\$3,762	-\$7,398
State and local government electric utilities	\$0	-\$3,500	-\$1,953	-\$5,453
Polish and other sanitation good manufacturing	\$0	-\$3,365	-\$817	-\$4,182
Environmental and other technical consulting service	\$0	-\$3,170	-\$2,169	-\$5,340
Farm machinery and equipment manufacturing	\$0	-\$2,980	-\$107	-\$3,087
Other Federal Government enterprises	\$0	-\$2,962	-\$7,662	-\$10,624
Travel arrangement and reservation services	\$0	-\$2,955	-\$3,051	-\$6,005
Motion picture and video industries	\$0	-\$2,920	-\$7,863	-\$10,783
Fitness and recreational sports centers	\$0	-\$2,809	-\$4,608	-\$7,416
Computer systems design services	\$0	-\$2,792	-\$2,257	-\$5,049
Other millwork- including flooring	\$0	-\$2,784	-\$808	-\$3,592
Motor vehicle parts manufacturing	\$0	-\$2,633	-\$2,349	-\$4,982
Foam product manufacturing	\$0	-\$2,546	-\$2,330	-\$4,876
Engineered wood member and truss manufacturing	\$0	-\$2,384	-\$613	-\$2,998
Promoters of performing arts and sports and agents	\$0	-\$2,377	-\$3,070	-\$5,447
Wood container and pallet manufacturing	\$0	-\$2,359	-\$653	-\$3,012
Pharmaceutical and medicine manufacturing	\$0	-\$2,280	-\$57,512	-\$59,792
Spectator sports	\$0	-\$2,207	-\$3,607	-\$5,814
Periodical publishers	\$0	-\$2,121	-\$2,175	-\$4,296
Sporting goods- hobby- book and music stores	\$0	-\$2,048	-\$12,749	-\$14,797
Wood kitchen cabinet and countertop manufacturing	\$0	-\$2,041	-\$922	-\$2,963
Information services	\$0	-\$2,038	-\$1,201	-\$3,239
Laminated plastics plate- sheet- and shapes	\$0	-\$2,012	-\$491	-\$2,503
Cable networks and program distribution	\$0	-\$1,897	-\$15,479	-\$17,376
Specialized design services	\$0	-\$1,779	-\$1,374	-\$3,153
Automatic environmental control manufacturing	\$0	-\$1,644	-\$294	-\$1,938
Veneer and plywood manufacturing	\$0	-\$1,580	-\$474	-\$2,054
Toilet preparation manufacturing	\$0	-\$1,556	-\$6,774	-\$8,331
Machine shops	\$0	-\$1,535	-\$562	-\$2,097
Asphalt paving mixture and block manufacturing	\$0	-\$1,518	-\$785	-\$2,303
Lessors of nonfinancial intangible assets	\$0	-\$1,472	-\$2,063	-\$3,535
Cattle ranching and farming	\$0	-\$1,455	-\$5,125	-\$6,579
Transit and ground passenger transportation	\$0	-\$1,355	-\$4,482	-\$5,837
All other electronic component manufacturing	\$0	-\$1,338	-\$873	-\$2,212
Other personal services	\$0	-\$1,331	-\$17,060	-\$18,390
Miscellaneous wood product manufacturing	\$0	-\$1,155	-\$498	-\$1,653

Database- directory- and other publishers	\$0	-\$1,105	-\$1,143	-\$2,248
Grain farming	\$0	-\$1,088	-\$49	-\$1,137
Switchgear and switchboard apparatus manufacturing	\$0	-\$1,054	-\$236	-\$1,290
Maintenance and repair of farm and nonfarm residence	\$0	-\$920	-\$6,703	-\$7,623
Turned product and screw- nut- and bolt Manufacturing	\$0	-\$819	-\$69	-\$888
Reconstituted wood product manufacturing	\$0	-\$811	-\$738	-\$1,549
Plastics pipe- fittings- and profile shapes	\$0	-\$802	-\$323	-\$1,125
Dry-cleaning and laundry services	\$0	-\$798	-\$6,191	-\$6,990
Car washes	\$0	-\$795	-\$3,069	-\$3,864
Other leather product manufacturing	\$0	-\$747	-\$1,575	-\$2,322
Funds- trusts- and other financial vehicles	\$0	-\$677	-\$12,480	-\$13,157
Bread and bakery product- except frozen- Manufacturing	\$0	-\$675	-\$12,339	-\$13,013
Other accommodations	\$0	-\$668	-\$7,262	-\$7,930
Performing arts companies	\$0	-\$624	-\$3,314	-\$3,938
Magnetic and optical recording media manufacturing	\$0	-\$603	-\$753	-\$1,357
Coated and uncoated paper bag manufacturing	\$0	-\$602	-\$52	-\$653
Glass and glass products- except glass containers	\$0	-\$594	-\$816	-\$1,411
Wet corn milling	\$0	-\$594	-\$612	-\$1,206
Nonupholstered wood household furniture Manufacturing	\$0	-\$556	-\$6,673	-\$7,229
Construction machinery manufacturing	\$0	-\$550	-\$99	-\$649
Greenhouse and nursery production	\$0	-\$545	-\$1,773	-\$2,318
Wood preservation	\$0	-\$540	-\$188	-\$727
Fluid milk manufacturing	\$0	-\$516	-\$10,690	-\$11,206
Other miscellaneous chemical product manufacturing	\$0	-\$512	-\$436	-\$947
State and local government passenger transit	\$0	-\$468	-\$1,547	-\$2,015
Custom computer programming services	\$0	-\$460	-\$1,644	-\$2,104
Other educational services	\$0	-\$454	-\$12,201	-\$12,655
Fats and oils refining and blending	\$0	-\$450	-\$49	-\$499
Animal- except poultry- slaughtering	\$0	-\$449	-\$923	-\$1,371
Fruit farming	\$0	-\$422	-\$2,566	-\$2,988
Vegetable and melon farming	\$0	-\$416	-\$4,209	-\$4,625
Sign manufacturing	\$0	-\$391	-\$168	-\$559
Ceramic wall and floor tile manufacturing	\$0	-\$390	-\$95	-\$485
Plastics bottle manufacturing	\$0	-\$340	-\$451	-\$791
Paperboard container manufacturing	\$0	-\$322	-\$65	-\$387
Broadcast and wireless communications equipment	\$0	-\$307	-\$1,278	-\$1,585
Turbine and turbine generator set units Manufacturing	\$0	-\$298	-\$389	-\$686
Facilities support services	\$0	-\$293	-\$462	-\$755
Cutting tool and machine tool accessory	\$0	-\$289	-\$107	-\$397

Manufacturing

Industrial gas manufacturing	\$0	-\$268	-\$1,027	-\$1,295
Audio and video media reproduction	\$0	-\$247	-\$106	-\$353
Water- sewage and other systems	\$0	-\$240	-\$967	-\$1,207
Fertilizer- mixing only- manufacturing	\$0	-\$233	-\$156	-\$389
Scales- balances- and miscellaneous general purpose	\$0	-\$225	-\$101	-\$327
Spring and wire product manufacturing	\$0	-\$223	-\$100	-\$323
Other commercial and service industry machinery manufacturing	\$0	-\$221	-\$212	-\$433
Motor and generator manufacturing	\$0	-\$212	-\$132	-\$343
Nonferrous metal- except copper and aluminum- shaping	\$0	-\$209	-\$69	-\$278
Hand and edge tool manufacturing	\$0	-\$192	-\$225	-\$417
Cut stock- resawing lumber- and planing	\$0	-\$187	-\$67	-\$254
Manifold business forms printing	\$0	-\$184	-\$228	-\$412
Paper and paperboard mills	\$0	-\$180	-\$113	-\$293
Industrial process variable instruments	\$0	-\$170	-\$176	-\$346
Other basic inorganic chemical manufacturing	\$0	-\$166	-\$325	-\$491
Welding and soldering equipment manufacturing	\$0	-\$162	-\$33	-\$195
Soap and other detergent manufacturing	\$0	-\$157	-\$59	-\$216
Pesticide and other agricultural chemical manufacture	\$0	-\$153	-\$36	-\$189
Sanitary paper product manufacturing	\$0	-\$147	-\$1,179	-\$1,326
Poultry and egg production	\$0	-\$146	-\$1,865	-\$2,010
Electroplating- anodizing- and coloring metal	\$0	-\$135	-\$68	-\$203
Other engine equipment manufacturing	\$0	-\$132	-\$124	-\$256
Surgical appliance and supplies manufacturing	\$0	-\$132	-\$5,375	-\$5,506
Other communications equipment manufacturing	\$0	-\$124	-\$45	-\$169
Sawmill and woodworking machinery	\$0	-\$120	-\$52	-\$171
Metal valve manufacturing	\$0	-\$118	-\$73	-\$191
Printing ink manufacturing	\$0	-\$116	-\$39	-\$155
Book publishers	\$0	-\$116	-\$1,513	-\$1,629
Photographic film and chemical manufacturing	\$0	-\$115	-\$322	-\$437
Prefabricated wood building manufacturing	\$0	-\$112	-\$29	-\$141
Ice cream and frozen dessert manufacturing	\$0	-\$111	-\$1,192	-\$1,303
Metal coating and nonprecious engraving	\$0	-\$110	-\$73	-\$183
Lawn and garden equipment manufacturing	\$0	-\$107	-\$182	-\$289
Aircraft engine and engine parts manufacturing	\$0	-\$106	-\$705	-\$811
Fabricated pipe and pipe fitting manufacturing	\$0	-\$105	-\$24	-\$129
Other ambulatory health care services	\$0	-\$104	-\$56,770	-\$56,874
Ophthalmic goods manufacturing	\$0	-\$102	-\$471	-\$573
Fruit and vegetable canning and drying	\$0	-\$102	-\$790	-\$892
Special tool- die- jig- and fixture	\$0	-\$95	-\$32	-\$127

manufacturing				
Prepress services	\$0	-\$91	-\$65	-\$156
Metal window and door manufacturing	\$0	-\$89	-\$23	-\$112
Showcases- partitions- shelving- and lockers	\$0	-\$81	-\$314	-\$395
Plastics material and resin manufacturing	\$0	-\$75	-\$64	-\$139
Fabricated structural metal manufacturing	\$0	-\$74	-\$19	-\$93
Narrow fabric mills and schiffli embroidery	\$0	-\$73	-\$16	-\$88
Conveyor and conveying equipment manufacturing	\$0	-\$72	-\$22	-\$94
Hardware manufacturing	\$0	-\$70	-\$10	-\$80
All other converted paper product manufacturing	\$0	-\$69	-\$30	-\$99
Other miscellaneous textile product mills	\$0	-\$69	-\$33	-\$102
Paper industry machinery manufacturing	\$0	-\$69	-\$30	-\$99
Photographic services	\$0	-\$68	-\$1,745	-\$1,813
Relay and industrial control manufacturing	\$0	-\$65	-\$36	-\$102
Broadwoven fabric mills	\$0	-\$63	-\$503	-\$566
Sound recording industries	\$0	-\$60	-\$691	-\$752
Watch- clock- and other measuring and controlling	\$0	-\$55	-\$252	-\$308
Jewelry and silverware manufacturing	\$0	-\$55	-\$2,006	-\$2,061
Cut and sew apparel manufacturing	\$0	-\$53	-\$4,571	-\$4,624
Musical instrument manufacturing	\$0	-\$51	-\$153	-\$204
Rolling mill and other metalworking machinery	\$0	-\$48	-\$17	-\$65
Ornamental and architectural metal work Manufacturing	\$0	-\$47	-\$6	-\$53
Ship building and repairing	\$0	-\$47	-\$2,911	-\$2,958
Carbon and graphite product manufacturing	\$0	-\$43	-\$20	-\$63
Synthetic rubber manufacturing	\$0	-\$43	-\$51	-\$93
Leather and hide tanning and finishing	\$0	-\$41	-\$203	-\$243
Nonwoven fabric mills	\$0	-\$40	-\$188	-\$228
Buttons- pins- and all other miscellaneous manufacturing	\$0	-\$40	-\$71	-\$112
Institutional furniture manufacturing	\$0	-\$39	-\$227	-\$266
Mayonnaise- dressing- and sauce manufacturing	\$0	-\$37	-\$1,190	-\$1,227
Fluid power pump and motor manufacturing	\$0	-\$37	-\$28	-\$65
Video tape and disc rental	\$0	-\$35	-\$4,123	-\$4,159
Accessories and other apparel manufacturing	\$0	-\$34	-\$2,528	-\$2,561
All other food manufacturing	\$0	-\$34	-\$2,428	-\$2,462
Cut stone and stone product manufacturing	\$0	-\$33	-\$155	-\$188
Other rubber product manufacturing	\$0	-\$27	-\$4	-\$31
Analytical laboratory instrument manufacturing	\$0	-\$26	-\$81	-\$108
Distilleries	\$0	-\$26	-\$333	-\$359
Boat building	\$0	-\$25	-\$206	-\$231
Wiring device manufacturing	\$0	-\$25	-\$10	-\$35

Small arms manufacturing	\$0	-\$25	-\$1,502	-\$1,526
Carpet and rug mills	\$0	-\$22	-\$82	-\$104
Textile and fabric finishing mills	\$0	-\$21	-\$56	-\$76
Motor vehicle body manufacturing	\$0	-\$21	-\$128	-\$149
Gasket- packing- and sealing device manufacturing	\$0	-\$20	-\$10	-\$30
Flour milling	\$0	-\$17	-\$24	-\$41
All other industrial machinery manufacturing	\$0	-\$17	-\$77	-\$94
Prefabricated metal buildings and components	\$0	-\$17	-\$9	-\$25
Other concrete product manufacturing	\$0	-\$17	-\$16	-\$32
Cheese manufacturing	\$0	-\$16	-\$175	-\$190
Miscellaneous fabricated metal product manufacturing	\$0	-\$14	-\$4	-\$18
Packaging machinery manufacturing	\$0	-\$14	-\$16	-\$30
Custom architectural woodwork and millwork	\$0	-\$13	-\$35	-\$48
Fiber- yarn- and thread mills	\$0	-\$13	-\$83	-\$96
Sugar manufacturing	\$0	-\$13	-\$19	-\$31
Tortilla manufacturing	\$0	-\$12	-\$282	-\$294
Textile bag and canvas mills	\$0	-\$11	-\$120	-\$132
Breweries	\$0	-\$11	-\$658	-\$668
All other forging and stamping	\$0	-\$10	-\$8	-\$19
Plate work manufacturing	\$0	-\$10	-\$6	-\$16
Creamery butter manufacturing	\$0	-\$10	-\$301	-\$311
Vitreous china and earthenware articles Manufacturing	\$0	-\$10	-\$652	-\$663
Electricity and signal testing instruments	\$0	-\$10	-\$15	-\$25
Electromedical apparatus manufacturing	\$0	-\$10	-\$1,303	-\$1,312
Pulp mills	\$0	-\$10	-\$7	-\$17
Industrial mold manufacturing	\$0	-\$10	-\$2	-\$12
Motorcycle- bicycle- and parts manufacturing	\$0	-\$9	-\$42	-\$51
Laboratory apparatus and furniture manufacturing	\$0	-\$9	-\$236	-\$244
Software publishers	\$0	-\$8	-\$875	-\$884
Forest nurseries- forest products- and timber track	\$0	-\$8	-\$3	-\$11
Steel wire drawing	\$0	-\$8	-\$5	-\$14
Overhead cranes- hoists- and monorail systems	\$0	-\$8	-\$5	-\$13
Tradebinding and related work	\$0	-\$7	-\$10	-\$18
Ready-mix concrete manufacturing	\$0	-\$7	-\$3	-\$10
Coffee and tea manufacturing	\$0	-\$6	-\$369	-\$376
Railroad rolling stock manufacturing	\$0	-\$6	-\$2	-\$7
Social assistance- except child day care services	\$0	-\$5	-\$29,695	-\$29,701
Brick and structural clay tile manufacturing	\$0	-\$5	-\$1	-\$7
Frozen cakes and other pastries manufacturing	\$0	-\$5	-\$682	-\$686
Concrete block and brick manufacturing	\$0	-\$5	-\$2	-\$6

Sand- gravel- clay- and refractory mining	\$0	-\$4	-\$4	-\$8
Dry pasta manufacturing	\$0	-\$4	-\$405	-\$409
Audio and video equipment manufacturing	\$0	-\$4	-\$86	-\$90
Mixes and dough made from purchased flour	\$0	-\$3	-\$555	-\$558
Poultry processing	\$0	-\$3	-\$25	-\$27
Wineries	\$0	-\$2	-\$28	-\$31
Doll- toy- and game manufacturing	\$0	-\$2	-\$571	-\$573
Ball and roller bearing manufacturing	\$0	-\$2	-\$1	-\$3
Metal tank- heavy gauge- manufacturing	\$0	-\$2	-\$1	-\$3
Confectionery manufacturing from purchased chocolate	\$0	-\$2	-\$124	-\$126
Office supplies- except paper- manufacturing	\$0	-\$2	-\$7	-\$9
Noncellulosic organic fiber manufacturing	\$0	-\$2	-\$1	-\$3
Saw blade and handsaw manufacturing	\$0	-\$2	-\$3	-\$5
Tire manufacturing	\$0	-\$2	-\$2	-\$3
Copper rolling- drawing- and extruding	\$0	-\$1	\$0	-\$2
Cement manufacturing	\$0	-\$1	\$0	-\$2
Office furniture- except wood- manufacturing	\$0	-\$1	-\$65	-\$67
Miscellaneous electrical equipment manufacturing	\$0	-\$1	-\$3	-\$4
Surgical and medical instrument manufacturing	\$0	-\$1	-\$142	-\$143
Nonchocolate confectionery manufacturing	\$0	-\$1	-\$45	-\$46
Sporting and athletic goods manufacturing	\$0	-\$1	-\$28	-\$29
Curtain and linen mills	\$0	-\$1	-\$78	-\$79
Oilseed farming	\$0	-\$1	\$0	-\$1
Nonferrous foundries- except aluminum	\$0	-\$1	-\$1	-\$2
Other nonmetallic mineral mining	\$0	-\$1	-\$1	-\$2
Stationery and related product manufacturing	\$0	-\$1	-\$5	-\$6
Aircraft manufacturing	\$0	-\$1	-\$8	-\$9
Electric lamp bulb and part manufacturing	\$0	-\$1	\$0	-\$1
Stone mining and quarrying	\$0	-\$1	-\$1	-\$1
Wood office furniture manufacturing	\$0	-\$1	-\$54	-\$55
Ferrous metal foundries	\$0	\$0	\$0	-\$1
Lighting fixture manufacturing	\$0	\$0	\$0	-\$1
Travel trailer and camper manufacturing	\$0	\$0	-\$772	-\$772
Industrial pattern manufacturing	\$0	\$0	\$0	-\$1
Mineral wool manufacturing	\$0	\$0	\$0	-\$1
Textile machinery manufacturing	\$0	\$0	-\$1	-\$1
Dental laboratories	\$0	\$0	-\$1,068	-\$1,068
Pump and pumping equipment manufacturing	\$0	\$0	\$0	\$0
Truck trailer manufacturing	\$0	\$0	-\$3	-\$4
Knit fabric mills	\$0	\$0	-\$1	-\$1
Miscellaneous nonmetallic mineral products	\$0	\$0	-\$1	-\$1
Other aircraft parts and equipment	\$0	\$0	-\$1	-\$1
Ground or treated minerals and earths	\$0	\$0	\$0	\$0

manufacturing				
Dental equipment and supplies manufacturing	\$0	\$0	-\$37	-\$37
Propulsion units and parts for space vehicles	\$0	\$0	-\$1	-\$1
Support activities for other mining	\$0	\$0	\$0	\$0
Ammunition manufacturing	\$0	\$0	\$0	\$0
AC- refrigeration- and forced air heating	\$0	\$0	\$0	\$0
Heating equipment- except warm air furnaces	\$0	\$0	\$0	\$0
Footwear manufacturing	\$0	\$0	-\$9,344	-\$9,344
Nonclay refractory manufacturing	\$0	\$0	\$0	\$0
Other ordnance and accessories manufacturing	\$0	\$0	\$0	\$0
Tree nut farming	\$0	\$0	\$0	\$0
Tobacco farming	\$0	\$0	\$0	\$0
Cotton farming	\$0	\$0	\$0	\$0
Sugarcane and sugar beet farming	\$0	\$0	\$0	\$0
Hunting and trapping	\$0	\$0	\$0	\$0
Oil and gas extraction	\$0	\$0	\$0	\$0
Coal mining	\$0	\$0	\$0	\$0
Iron ore mining	\$0	\$0	\$0	\$0
Copper- nickel- lead- and zinc mining	\$0	\$0	\$0	\$0
Gold- silver- and other metal ore mining	\$0	\$0	\$0	\$0
Drilling oil and gas wells	\$0	\$0	\$0	\$0
Support activities for oil and gas operations	\$0	\$0	\$0	\$0
New residential 1-unit structures- all	\$0	\$0	-\$23	-\$23
New multifamily housing structures- all	\$0	\$0	-\$574	-\$574
New residential additions and alterations- all	\$0	\$0	-\$641	-\$641
New farm housing units	\$0	\$0	\$0	\$0
Manufacturing and industrial buildings	\$0	\$0	-\$468	-\$468
Commercial and institutional buildings	\$0	\$0	-\$5,342	-\$5,342
Highway- street- bridge- and tunnel construction	\$0	\$0	-\$3,433	-\$3,433
Water- sewer- and pipeline construction	\$0	\$0	-\$1,347	-\$1,347
Other new construction	\$0	\$0	-\$5,938	-\$5,938
Maintenance and repair of highways- streets- bridge	\$0	\$0	-\$2,330	-\$2,330
Total			-	-
	-\$10,700,000	\$5,793,740	\$2,115,086	\$18,608,826