

# The Economic Contributions of Plastics Manufacturing

to the U.S. Economy



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## Executive Summary

In 2024, the U.S. plastics manufacturing industry:

**11,610**

**OPERATED ESTABLISHMENTS**

with a presence in nearly every state

**~670,000**

**AMERICANS EMPLOYED**

**~\$49B**

**DIRECT PAYROLLS  
GENERATED**

**\$380B**

**PLASTIC RESINS &  
PRODUCTS PRODUCED**

**\$17.5B**

**INVESTED IN NEW  
PLANTS & EQUIPMENT**

The economic activity from the plastics manufacturing industry generates additional economic impact. Including supply chain and payroll-induced impacts, the U.S. plastics manufacturing industry generated a total of \$1.1 trillion in economic output.

In addition, there are significant downstream economic impacts from the industries that use plastics. The manufacturing industries that are the most reliant on plastics employed 4.8 million and paid \$391.2 billion in wages.

## Introduction

The plastics manufacturing industry plays a key role in the U.S. economy, serving as a critical link in the supply chains of countless sectors—from automotive and construction to healthcare and consumer goods. With over 11,000 establishments nationwide, the industry provides employment, drives innovation, and enables the production of essential goods in communities across the country.

This report presents a comprehensive analysis of the economic contributions of the U.S. plastics manufacturing industry in 2024. It examines the direct impact of the industry through employment, wages, output, and capital investment, as well as its broader influence through supply chain and payroll-induced effects. By quantifying these contributions, the report highlights the industry's significance not only as a producer of materials and products but also as a driver of economic growth.

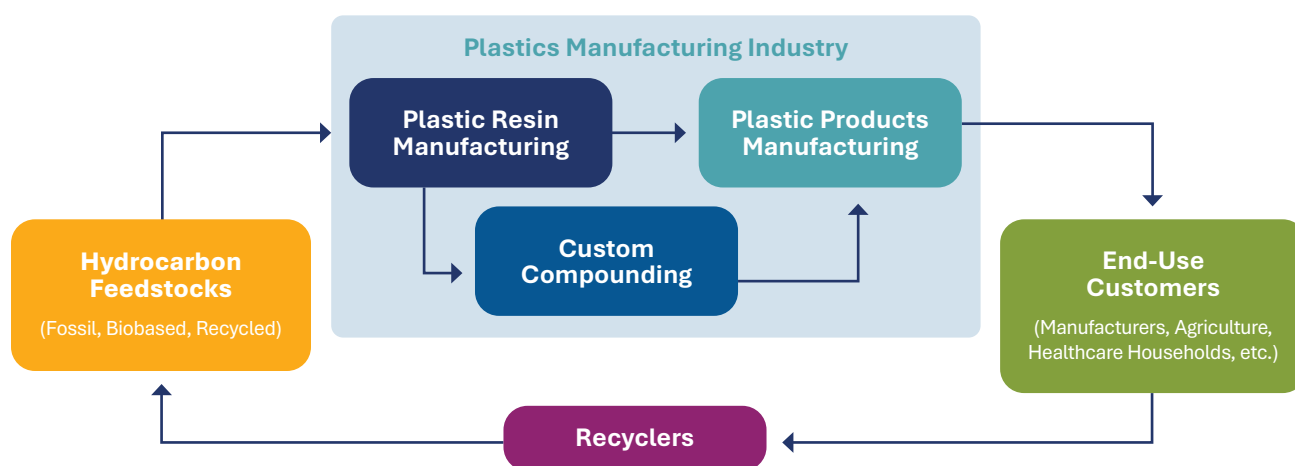
For the purposes of this analysis, the U.S. plastics manufacturing industry includes plastic resin manufacturing, custom compounding of purchased resins, and plastic product manufacturing. While plastics recycling is an integral part of the plastics manufacturing industry, much of the activity specific to plastics is combined with the recycling of other materials, thus the economic activity associated with recycling is not included in this analysis.

## What is the Plastics Manufacturing Industry?

The plastics manufacturing process begins with the polymerization (or linking together) of chemical monomers into resin pellets and other plastic materials. Some resins are further processed at custom compounders that mix and blend plastic resins made elsewhere and reformulate plastics resins from recycled plastics products. Fabricated plastic products use plastic resins to manufacture products and components that are used in manufacturing, construction, agriculture, healthcare, and many other service industries.

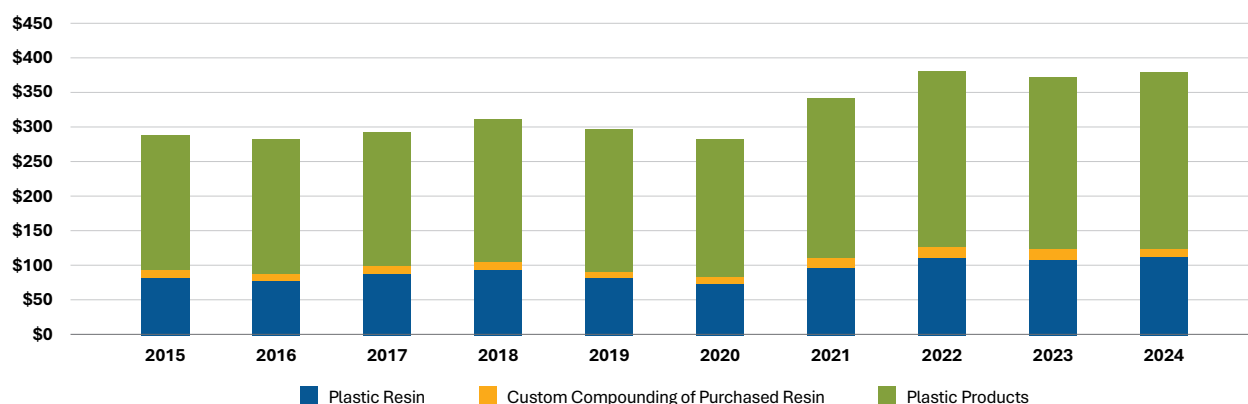
Figure 1 presents a simplified plastics supply chain.

**Figure 1**  
Simplified Plastics Supply Chain



Currently, the majority of U.S. plastic resin manufacturing relies on fossil-based feedstocks (or raw materials), like natural gas liquids (NGLs). Those NGLs are rich in hydrocarbons, the basic building blocks for plastic raw materials. Increasingly, however, feedstocks from biobased or recycled content account for a larger share of plastic resin manufacturing.

**Figure 2**  
U.S. Plastics Manufacturing Industry Shipments (\$ billions)



## Economic Contributions

The economic contributions of the U.S. plastics manufacturing industry are myriad. Not including the large economic impact of industries that use plastic products, as discussed in [Plastics in American Manufacturing](#), the economic activity generated from the plastics manufacturing business itself generates tremendous economic contributions for the U.S. economy. As seen in Figure 2, the plastics manufacturing industry generated nearly \$380 billion in industry shipments. In addition, the industry provides employment for its workers and pays them wages that support local communities. The industry purchases raw materials, supplies, equipment, and services that support economic activity beyond the plant gates. The industry is a significant exporter, sending nearly \$64 billion in goods to customers abroad. Finally, the industry makes investments in U.S. manufacturing, supporting not only its customer industries, but creating thousands of jobs. Table 1 presents data on the U.S. plastics manufacturing industry.

**Table 1**

**Total Plastics Manufacturing: Resin + Products + Compounding**

	<b>PLASTIC RESINS</b> (NAICS 325211)	<b>PLASTICS COMPOUNDING</b> (NAICS 325991)	<b>PLASTIC PRODUCTS</b> (NAICS 3261)	<b>COMBINED PLASTICS MANUFACTURING INDUSTRY</b>
<b>Shipments (\$M)</b>	\$113,971	\$13,620	\$251,925	<b>\$379,553</b>
<b>Employment</b>	61,055	17,002	588,015	<b>666,072</b>
<b>Wages (\$M)</b>	\$6,889	\$1,274	\$40,398	<b>\$48,560</b>
<b>Establishments</b>	1,340	470	9,800	<b>11,610</b>
<b>Capital Expenditures (\$M)</b>	\$8,394	\$400	\$8,706	<b>\$17,500</b>
<b>Exports (\$M)</b>	\$38,693	n/a	\$25,250	<b>\$63,943</b>
<b>Imports (\$M)</b>	\$16,857	n/a	\$48,082	<b>\$64,939</b>
<b>Trade Balance (\$M)</b>	\$21,836	n/a	-\$22,832	<b>-\$996</b>

As seen in Table 1, taken together, the combined plastics manufacturing industry in the U.S. produced nearly \$380 billion in output in 2024. The industry employed nearly 670,000 people and generated a payroll of \$48.6 billion. The economic contributions of the industry go well beyond those direct impacts, however. The economic activity supported by the plastics manufacturing industry extends up through the supply chain and to the businesses that are supported by the household spending of the employees of the plastics manufacturing industry and its supply chain, via the multiplier effect.



## Upstream Economic Impact

In addition to the direct effects of the plastics manufacturing industry, the indirect and payroll-induced effects on other sectors of the economy can also be quantified. **The economic impact of an industry is generally manifested through four channels:**

DIRECT	INDIRECT	INDUCED	SPILLOVER or CATALYTIC
such as the employment, output and fiscal contributions generated by the sector itself	employment and output supported by the sector via purchases from its supply chain	employment and output supported by the spending of those employed directly or indirectly by the sector	the extent to which the activities of the relevant sector contribute to improved productivity and performance in other sectors of the economy

This report presents the economic contributions related to the first three channels.

The economic activity generated by the plastics manufacturing industry is an important contributor to the U.S. economy. In 2024, the plastics manufacturing industry operated 11,680 locations throughout the U.S., employing 666,100 people, paying \$48.6 billion in wages to its employees, and generating \$379.6 billion in output (or revenues).

Through supply chain and payroll-induced impacts, the plastics manufacturing industry supported an additional 2.3 million jobs upstream through its purchases of raw materials, equipment, services, etc. Upstream, more than three jobs are supported elsewhere in the U.S. economy for each job in the plastics manufacturing industry, totaling more than four jobs in the economy for each job in plastics. In total, the plastics manufacturing industry supports \$239.2 billion in wages paid to employees in the U.S., generating \$1.1 trillion in output. Table 2 details the upstream (or indirect) economic activity generated by the plastics manufacturing industry.

**Table 2**

**Upstream Economic Contributions of the U.S. Plastics Manufacturing Industry (2024)**

	EMPLOYMENT	WAGES (\$M)	OUTPUT (\$M)
Direct	666,100	48,600	379,600
Indirect (Supply Chain)	1,288,000	119,400	526,500
Payroll-Induced	1,033,800	71,200	216,400
<b>Total</b>	<b>2,987,900</b>	<b>239,200</b>	<b>1,122,500</b>

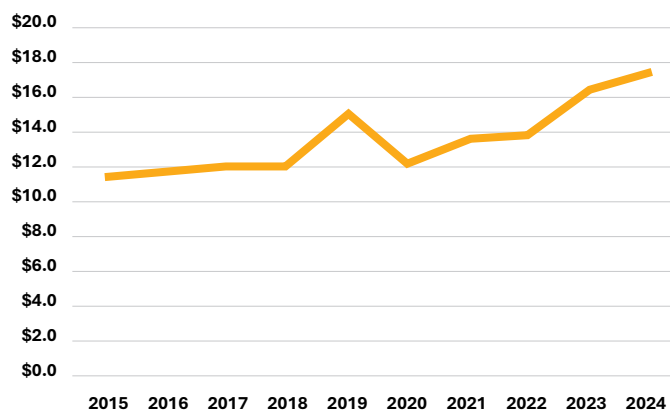
## Investment

Plastic manufacturers invest in capital projects to remain competitive and innovative. In 2024, the plastics manufacturing industry invested an estimated \$17.5 billion in new plants and equipment. Over the past decade, investment in plastics manufacturing capacity has risen by more than 50% as unconventional oil and gas development unlocked huge supplies of natural gas liquids (NGLs). This domestic resource abundance unleashed a wave of investment in chemicals and plastics manufacturing capacity that depend on low cost hydrocarbons.

Further downstream, investments in new and upgraded plastics products capacity support American manufacturing by expanding the supply of domestically made plastic products, used in just about every manufactured good, from car parts to data center equipment and appliances, just to name a few.

**Figure 3**

Plastics Manufacturing Industry Capital Expenditures (\$ billions)

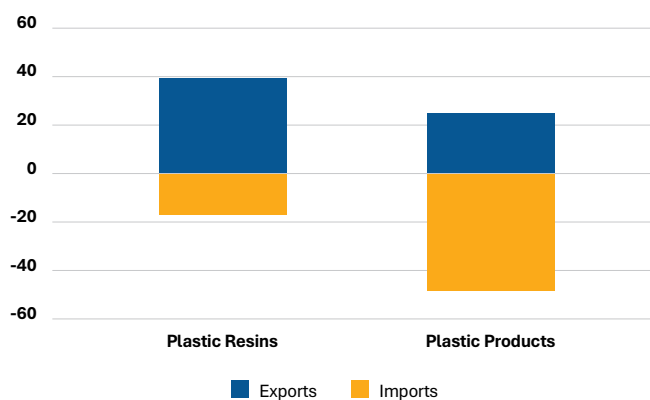


## Trade

There is significant international trade in plastics. In 2024, nearly \$64 billion of U.S. made plastics were exported to customers around the world. Because the U.S. is among the lowest cost producers globally of several kinds of plastic resins, the U.S. enjoys a \$21.8 billion trade surplus in plastic resins. However, the U.S. is a net importer of plastic products, with a \$22.8 trade deficit. There is negligible trade in compounding of purchased plastic resins.

**Figure 4**

Trade in Plastics (\$ billions)



## The Conclusion

The analysis presented in this study by ACC describes the significant and extensive contributions of plastics to the U.S. economy.

***The economic impact of the plastics manufacturing industry is significant and goes well beyond the direct jobs in the industry itself, through the economic activity of the industry's supply chain and through the household spending of workers.***

## Data and Methodology

### **Plastics Manufacturing Industry**

Data on the value of shipments, establishments and capital expenditures were derived from the Annual Survey of Manufacturers and the Economic Census. Data for 2023 and 2024 were estimated using additional data from the Federal Reserve Board and the Bureau of Labor Statistics. Data are based on the North American Industry Classification System (NAICS) for plastic resin manufacturing (NAICS 325211), custom compounding of purchased resins (NAICS 325991) and plastic product manufacturing (NAICS 3261).

Data on employment and payroll were from the Bureau of Labor Statistics Covered Employment and Wages program.

Data on trade flows are from the U.S. International Trade Commission.

### **Upstream Impacts**

The indirect and payroll-induced impacts of the plastics manufacturing industry were estimated using the IMPLAN model. An input-output model such as IMPLAN is a quantitative economic technique that quantifies the interdependencies between different industries (or sectors) of a national economy. Although complex, the input-output model is fundamentally linear in nature and as a result, facilitates rapid computation as well as flexibility in computing the effects of changes in demand. In addition to studying the structure of national economies, input-output analysis has been used to study regional economies within a nation, and as a tool for national and regional economic planning. A primary use of input-output analysis is for measuring the economic impacts of events, public investments or programs such as base closures, infrastructure development, or the economic footprint of a university or government program. The IMPLAN model is used by the Army Corp of Engineers, Department of Defense, Environmental Protection Agency, and over 20 other agencies, numerous government agencies in over 40 states, over 250 colleges and universities, local government, non-profits, consulting companies, and other private sector companies.



# Appendix

## Total Plastics Manufacturing: Resin + Products + Compounding (2024)

State	Employment	Total Annual Wages (\$mil)	Average Annual Salary	Shipments (\$mil)	Establishments
Alabama	17,160	1,110	64,680	6,720	150
Alaska	<50	n/a	n/a	15	10
Arizona	6,230	400	64,840	3,160	190
Arkansas	7,110	420	58,600	3,790	90
California	39,850	3,340	83,890	19,550	1,120
Colorado	4,520	350	77,860	1,400	140
Connecticut	5,010	380	76,150	2,040	150
Delaware	1,010	80	76,190	600	30
District of Columbia	n/a	n/a	n/a	n/a	n/a
Florida	12,760	890	69,450	8,270	500
Georgia	21,420	1,470	68,510	12,850	390
Hawaii	<150	n/a	n/a	30	10
Idaho	2,050	120	59,550	720	60
Illinois	38,420	3,180	82,660	18,150	650
Indiana	36,500	2,280	62,340	16,600	480
Iowa	9,370	620	65,980	4,260	160
Kansas	9,740	670	68,280	3,520	110
Kentucky	17,060	1,390	81,220	12,220	180
Louisiana	6,460	700	108,310	19,200	90
Maine	2,010	140	68,520	900	40
Maryland	6,190	520	84,720	2,820	100
Massachusetts	13,660	1,150	84,270	5,370	240
Michigan	41,020	3,030	73,780	16,270	600
Minnesota	16,670	1,220	73,270	5,110	260
Mississippi	6,050	360	59,990	4,420	110
Missouri	14,510	940	65,060	4,290	230
Montana	n/a	30	n/a	150	30
Nebraska	4,350	270	62,850	1,320	60
Nevada	3,750	240	63,290	3,130	90
New Hampshire	4,450	340	75,490	1,020	70
New Jersey	14,420	1,190	82,240	6,410	300
New Mexico	<50	n/a	n/a	380	30
New York	18,520	1,360	73,680	9,800	400
North Carolina	30,220	2,050	67,740	18,150	390
North Dakota	<50	n/a	n/a	710	30
Ohio	49,080	3,260	66,320	26,210	810
Oklahoma	5,560	350	62,860	2,600	100
Oregon	4,090	270	64,880	2,720	140
Pennsylvania	38,060	2,660	69,810	16,800	580
Rhode Island	<50	n/a	78,550	1,450	50
South Carolina	16,080	1,330	83,020	15,790	240
South Dakota	1,880	120	64,230	600	30
Tennessee	18,020	1,150	63,970	9,220	370
Texas	54,090	4,630	85,680	61,510	840
Utah	6,950	450	64,170	2,990	160
Vermont	130	10	71,090	240	20
Virginia	12,730	950	74,330	7,790	150
Washington	7,320	530	72,270	2,900	180
West Virginia	6,400	500	77,930	3,860	60
Wisconsin	31,220	2,050	65,510	11,200	420
Wyoming	340	20	56,610	100	10
<b>U.S. TOTAL</b>	<b>666,070</b>	<b>\$48,560</b>	<b>\$72,910</b>	<b>\$379,550</b>	<b>11,610</b>

## NAICS 3261 Plastics Product Manufacturing (2024)

State	Employment	Total Annual Wages (\$mil)	Average Annual Salary	Shipments (\$mil)	Establishments
Alabama	14,820	890	59,960	4,100	110
Alaska	n/a	n/a	n/a	n/a	n/a
Arizona	5,600	360	64,670	2,900	160
Arkansas	6,890	400	58,210	3,000	80
California	37,200	3,130	84,100	17,400	980
Colorado	4,370	340	77,530	1,300	130
Connecticut	4,240	310	73,310	1,300	110
Delaware	910	65	71,310	500	n/a
District of Columbia	n/a	n/a	n/a	n/a	n/a
Florida	12,030	820	68,180	5,000	430
Georgia	19,040	1,250	65,760	11,100	330
Hawaii	n/a	n/a	n/a	n/a	n/a
Idaho	2,040	120	59,360	700	50
Illinois	35,170	2,840	80,640	13,800	550
Indiana	32,850	1,940	59,130	12,100	400
Iowa	8,770	550	62,300	2,800	140
Kansas	7,370	450	60,800	3,200	n/a
Kentucky	13,360	880	65,600	7,200	150
Louisiana	2,960	230	77,730	1,200	60
Maine	1,910	130	67,420	800	n/a
Maryland	5,970	510	85,500	2,500	90
Massachusetts	11,760	940	79,720	4,100	180
Michigan	34,350	2,290	66,650	12,500	490
Minnesota	14,910	1,070	71,490	4,100	220
Mississippi	4,790	250	52,300	1,900	90
Missouri	13,370	850	63,610	3,700	210
Montana	370	25	67,650	100	n/a
Nebraska	3,710	220	58,950	1,300	50
Nevada	n/a	n/a	63,160	3,000	n/a
New Hampshire	4,310	322	74,660	800	60
New Jersey	12,870	1,020	79,260	4,600	250
New Mexico	n/a	n/a	n/a	n/a	n/a
New York	17,480	1,250	71,550	8,800	340
North Carolina	27,850	1,860	66,850	15,900	320
North Dakota	n/a	n/a	n/a	700	n/a
Ohio	43,440	2,700	62,200	20,300	660
Oklahoma	4,990	300	61,070	2,200	90
Oregon	3,990	260	64,200	2,100	120
Pennsylvania	34,420	2,290	66,530	13,200	500
Rhode Island	n/a	n/a	78,280	1,100	40
South Carolina	13,860	1,140	82,440	11,000	190
South Dakota	n/a	n/a	n/a	500	n/a
Tennessee	14,770	940	63,410	5,900	270
Texas	40,910	2,780	68,000	20,000	680
Utah	6,850	440	64,100	2,700	150
Vermont	n/a	n/a	58,580	200	n/a
Virginia	12,240	900	73,210	6,200	130
Washington	6,810	480	70,160	2,800	170
West Virginia	3,980	230	57,320	1,000	40
Wisconsin	29,880	1,950	65,190	10,000	370
Wyoming	n/a	n/a	n/a	n/a	n/a
<b>U.S. TOTAL</b>	<b>588,020</b>	<b>\$40,400</b>	<b>\$68,700</b>	<b>\$251,960</b>	<b>9,800</b>

## NAICS 325211 Plastics Material and Resin Manufacturing (2024)

State	Employment	Total Annual Wages (\$mil)	Average Annual Salary	Shipments (\$mil)	Establishments
Alabama	2,160	210	97,890	2,400	30
Alaska	n/a	n/a	n/a	n/a	n/a
Arizona	550	40	65,200	100	20
Arkansas	180	20	76,350	700	10
California	1,680	150	90,660	1,900	110
Colorado	140	10	87,870	100	10
Connecticut	470	50	102,620	500	30
Delaware	90	15	124,340	100	n/a
District of Columbia	n/a	n/a	n/a	n/a	n/a
Florida	710	60	90,390	2,800	50
Georgia	1,410	140	99,210	1,000	40
Hawaii	n/a	n/a	n/a	n/a	n/a
Idaho	10	<1	107,130	20	10
Illinois	2,700	290	110,530	3,900	80
Indiana	1,870	190	101,640	3,100	50
Iowa	430	60	136,890	1,300	10
Kansas	2,210	200	92,780	200	n/a
Kentucky	3,590	500	139,500	4,900	30
Louisiana	3,500	470	134,270	18,000	30
Maine	110	10	87,840	100	n/a
Maryland	160	10	59,470	200	10
Massachusetts	1,340	160	124,170	1,000	50
Michigan	5,210	630	120,670	3,200	70
Minnesota	1,030	90	89,360	700	30
Mississippi	620	60	97,820	1,900	10
Missouri	840	70	84,540	400	10
Montana	30	5	100,140	45	n/a
Nebraska	640	50	85,420	15	10
Nevada	n/a	n/a	43,300	50	n/a
New Hampshire	120	8	106,810	100	10
New Jersey	960	120	120,580	1,400	30
New Mexico	n/a	n/a	n/a	n/a	n/a
New York	960	110	112,810	600	50
North Carolina	1,640	140	84,940	1,900	40
North Dakota	n/a	n/a	n/a	10	n/a
Ohio	4,090	440	106,850	4,600	110
Oklahoma	570	50	78,510	400	10
Oregon	90	10	94,880	500	20
Pennsylvania	2,830	310	108,480	3,600	60
Rhode Island	n/a	n/a	81,270	100	10
South Carolina	1,870	170	91,890	4,500	40
South Dakota	n/a	n/a	n/a	10	n/a
Tennessee	2,360	160	67,780	1,700	80
Texas	11,810	1,750	148,370	40,600	120
Utah	90	10	68,250	200	10
Vermont	n/a	n/a	81,430	40	n/a
Virginia	440	40	105,820	1,500	20
Washington	510	50	100,560	100	10
West Virginia	2,270	260	114,230	2,800	10
Wisconsin	870	60	71,580	900	40
Wyoming	n/a	n/a	n/a	n/a	n/a
<b>U.S. TOTAL</b>	<b>61,060</b>	<b>\$6,890</b>	<b>\$112,830</b>	<b>\$113,970</b>	<b>1,340</b>

## NAICS 3259911 Custom Compounding of Purchased Resins (2024)

State	Employment	Total Annual Wages (\$mil)	Average Annual Salary	Shipments (\$mil)	Establishments
Alabama	180	10	54,930	200	<10
Alaska	n/a	n/a	n/a	n/a	n/a
Arizona	80	6	n/a	200	<10
Arkansas	30	1	39,380	100	<10
California	960	62	64,040	300	34
Colorado	n/a	n/a	n/a	n/a	n/a
Connecticut	300	22	n/a	200	10
Delaware	n/a	n/a	n/a	n/a	n/a
District of Columbia	n/a	n/a	n/a	n/a	n/a
Florida	30	3	93,480	500	15
Georgia	970	76	77,850	800	23
Hawaii	n/a	n/a	n/a	n/a	n/a
Idaho	n/a	n/a	n/a	n/a	n/a
Illinois	540	41	n/a	500	17
Indiana	1,780	143	80,240	1,400	33
Iowa	170	13	n/a	200	<10
Kansas	160	12	n/a	100	<10
Kentucky	110	8	n/a	100	<10
Louisiana	n/a	n/a	n/a	n/a	n/a
Maine	n/a	n/a	n/a	n/a	n/a
Maryland	50	4	n/a	100	<10
Massachusetts	550	47	84,260	300	14
Michigan	1,450	107	74,120	600	36
Minnesota	720	63	87,000	300	<10
Mississippi	640	52	81,000	600	<10
Missouri	290	22	n/a	200	<10
Montana	n/a	n/a	n/a	n/a	n/a
Nebraska	n/a	n/a	n/a	n/a	n/a
Nevada	120	9	n/a	100	<10
New Hampshire	20	2	n/a	100	<10
New Jersey	590	50	85,010	400	15
New Mexico	90	6	n/a	100	<10
New York	80	5	67,130	400	<10
North Carolina	730	46	63,000	400	25
North Dakota	n/a	n/a	n/a	n/a	n/a
Ohio	1,550	116	n/a	1,300	38
Oklahoma	n/a	n/a	n/a	n/a	n/a
Oregon	10	1	51,550	100	<10
Pennsylvania	810	60	74,310	n/a	21
Rhode Island	490	45	93,510	300	<10
South Carolina	350	21	58,970	300	11
South Dakota	180	13	74,900	100	<10
Tennessee	890	56	63,160	1,600	21
Texas	1,370	100	73,310	900	44
Utah	10	1	74,910	100	<10
Vermont	20	1	n/a	n/a	<10
Virginia	60	4	n/a	100	<10
Washington	n/a	n/a	n/a	n/a	n/a
West Virginia	150	11	n/a	100	<10
Wisconsin	470	35	n/a	300	12
Wyoming	n/a	n/a	n/a	n/a	n/a
<b>U.S. TOTAL</b>	<b>17,000</b>	<b>\$1,274</b>	<b>\$74,910</b>	<b>\$13,600</b>	<b>468</b>