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An Economic Analysis of the U.S. Cleaning Products Industry

EXECUTIVE SUMMARY

A Report Prepared for the
American Cleaning Institute

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Executive Summary

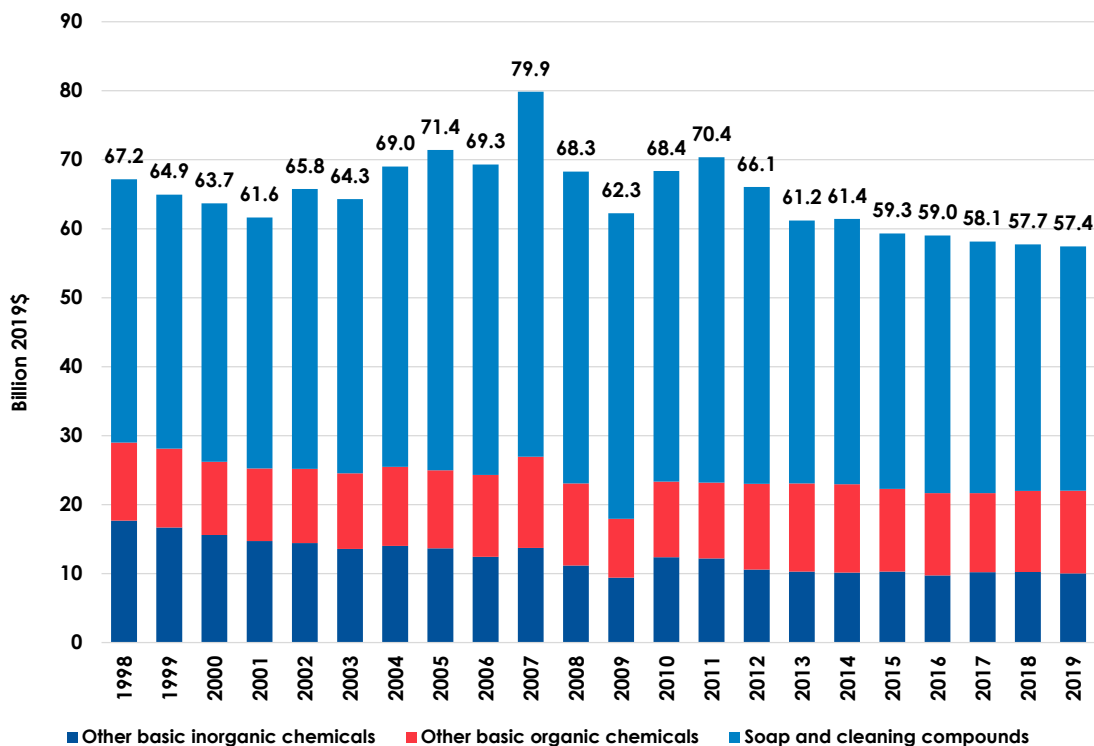
This report presents a current snapshot and summary of the recent economic evolution of the domestic cleaning products industry. The analysis provides information on the size, scope, and growth of the industry, along with its contributions to the U.S. economy. The report was prepared for the American Cleaning Institute (ACI). ACI represents more than 130 companies in the industry, including many of its largest firms.

The industry segments analyzed in this study include portions of:

- All Other Inorganic Chemicals Manufacturing (NAICS 32518)
- All Other Organic Chemicals Manufacturing (NAICS 32519)
- Soap and Cleaning Compounds Manufacturing (NAICS 32561)

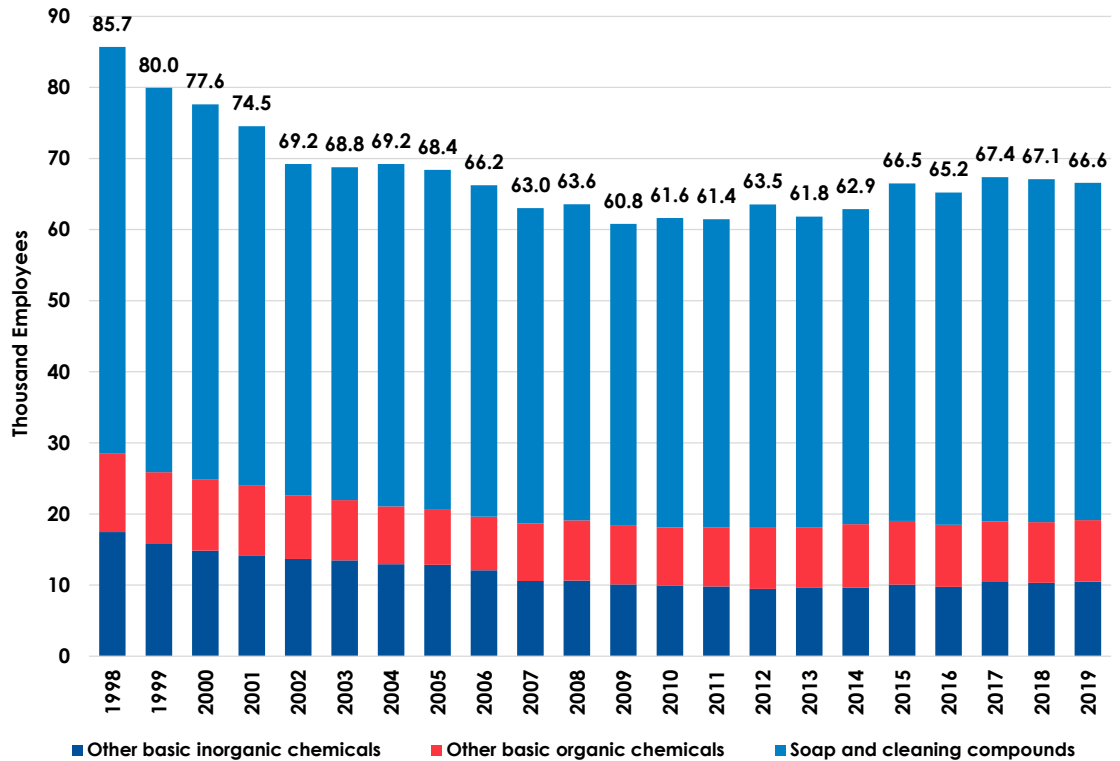
Over the period analyzed, the output of ACI-related products rose from a low of \$61.6 billion in 2001 to a peak of \$79.9 billion in 2007, growing an average of 4.3 percent per year. Following the Great Recession, ACI-related output quickly gained traction and recovered to levels of \$70.4 billion by 2011. However, expansion could not be sustained, and output levels have experienced a declining trend in subsequent years. Most recently, total ACI-related output slipped from \$61.4 billion in 2014 to \$57.4 billion in 2019.

Figure E.1. Real Output, ACI Product Scope
Units: Billions of 2019 Dollars



Like most manufacturing industries, the cleaning products industry experienced significant labor productivity growth in recent decades. This has led to a general decline in employment over the period studied, from a high of 85.7 thousand jobs in 1998 to a low of 60.8 in 2009. ACI-related employment has been relatively resilient since 2009, however, reaching 67.4 thousand in 2017 and finishing off 2019 at 66.6 thousand jobs.

Figure E.2. Employment
Units: Thousands of Jobs



The impact of the cleaning products industry extends beyond the direct economic impacts as measured by the variables described above. In this analysis, the domestic production of cleaning products is our starting point. This concept is called the *direct output*. This activity does not exist in isolation. Instead, it generates demand from supplier industries. These supplier industries in turn generate demand for their supplier industries. All output generated beyond the *direct output* is called the *indirect output*. In addition to the direct and indirect impacts, we calculate *induced output*. This represents the additional demand generated by the disposable income earned in the industry (this may be both wage income and capital income).

Associated with the output at each round of impact is the employment required in that sector to produce that output, as well as the value added or income earned. The “upstream” impacts of supplier industries are displayed below in Table E.1. Total jobs within the industry (66,600) plus upstream suppliers (125,500) plus induced jobs (213,000) came to a total of 405,100 in 2019.

Table E.1. Summary of Upstream Analysis
Units Indicated

	Output (Billion \$)	Employment (thousand persons)	Value Added (Billion \$)	Labor Income (Billion \$)
Direct	57.4	66.6	26.4	8.5
Indirect	44.8	125.5	21.5	10.1
Induced	47.2	213.0	26.8	12.9
Total	149.4	405.1	74.7	31.5

In addition to these upstream impacts, economic activity is generated in wholesale and retail trade (“downstream”) industries that distribute cleaning products. These are displayed in Table E.2. Total downstream jobs, including direct, indirect, and induced, came to 290,500 in 2019. The combined impacts are seen in Table E.3, with total upstream and downstream employment amounting to 695,700 jobs.

Table E.2. Summary of Downstream Analysis
Units Indicated

	Output (Billion \$)	Employment (thousand persons)	Value Added (Billion \$)	Labor Income (Billion \$)
Direct	15.5	153.3	9.5	6.0
Indirect	10.1	36.7	5.4	2.8
Induced	22.2	100.5	12.6	6.1
Total	47.8	290.5	27.5	14.9

Table E.3. Combined Summary
Units Indicated

	Output (Billion \$)	Employment (thousand persons)	Value Added (Billion \$)	Labor Income (Billion \$)
Upstream	149.4	405.1	74.7	31.5
Downstream	47.8	290.5	27.5	14.9
Total	197.2	695.7	102.2	46.4

The national level economic impacts can be seen as the sum of economic impacts at the state level. National level direct production, employment, value added, and earnings have been distributed to the state level using employment shares taken from the BLS Census of Employment and Wages (CEW), for both the upstream and the downstream analysis.

To calculate the indirect and induced impacts of production at the state level, we use the Regional Input-Output Modeling System (RIMS) multipliers produced by the Bureau of Economic Analysis. RIMS is often used by investors, planners and elected officials to assess potential local economic impacts of various projects. We have used RIMS to calculate direct, indirect, and induced impacts for output, employment (jobs), total value added, and labor income.

ACI-related activity tends to be focused in specific regions. State-level upstream output effects are summarized in Figure E.3. The top fifteen states account for over 75 percent of upstream direct output. Ohio, Texas, Wisconsin, California, and Illinois make up the top five states. These states are also the largest employers; employment effects are shown in Figure E.4.

Figure E.3. State-Level Upstream Output Effects

Units: Million \$

Output (Million \$)							
Direct			Total (Direct + Indirect + Induced)				
Rank	State	Share of Country	Rank	State	Share of Country		
	USA	57,432	100.0%	USA	149,358	100.0%	
1	Ohio	6,133	10.7%	1	Ohio	17,845	11.9%
2	Texas	4,206	7.3%	2	Texas	13,788	9.2%
3	Wisconsin	3,505	6.1%	3	Illinois	9,321	6.2%
4	California	3,496	6.1%	4	Wisconsin	8,925	6.0%
5	Illinois	3,118	5.4%	5	Louisiana	8,104	5.4%

Figure E.4. State-Level Upstream Employment Effects

Units: Number of Jobs

Employment							
Direct			Total (Direct + Indirect + Induced)				
Rank	State	Share of Country	Rank	State	Share of Country		
	USA	66,567	100.0%	USA	405,126	100.0%	
1	Ohio	7,253	10.9%	1	Ohio	49,686	12.3%
2	Wisconsin	4,286	6.4%	2	Texas	35,040	8.6%
3	California	4,249	6.4%	3	Illinois	25,656	6.3%
4	Texas	4,189	6.3%	4	Wisconsin	25,272	6.2%
5	Illinois	3,805	5.7%	5	Louisiana	21,786	5.4%