



The North American Industry Classification System will replace the Standard Industrial Classification, establishing a new measure of all industry in the United States, Mexico, and Canada.

## The North American Industry Classification System: Change on the horizon

by Norman C. Saunders



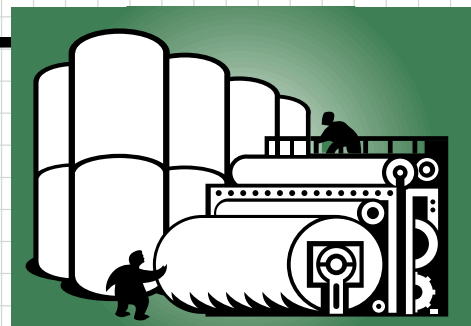
**S**ince the late 1930s, Federal statistical agencies have studied industries using definitions from the Standard Industrial Classification (SIC) manual. The SIC was updated from time to time through revisions. But major changes in both the U.S. and world economies forced development of a new system for defining industries: the North American Industry Classification System (NAICS). This article describes the Government's industry classification system, tracking its creation through the NAICS replacement of the SIC.

### Classifying industries

For over 60 years, Government economists and statisticians have been gathering, analyzing, and comparing data for detailed industries in our economy. The former Bureau of the Budget (now the Office of Management and Budget) in the Executive Office of the President published the first SIC in 1939 to ensure that everyone worked from common definitions of those industries.

Through several revisions, the SIC governed the way economists and statisticians viewed industries in the U.S. economy. But several problems emerged as changes at home and abroad affected the way industries fit the SIC definitions. NAICS was designed to address those problems.

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**Table 1****Comparison of major industry groupings for NAICS and SIC**

Sector	NAICS group	Total	Number of industries
		<b>713</b>	
11	Agriculture, forestry, fishing, and hunting		42
21	Mining		10
22	Utilities		4
23	Construction		28
31-33	Manufacturing		179
42	Wholesale trade		69
44-45	Retail trade		62
48-49	Transportation and warehousing		42
51	Information		28
52	Finance and insurance		32
53	Real estate and rental and leasing		19
54	Professional, scientific, and technical services		35
55	Management of companies and enterprises		1
56	Administrative and support and waste management and remediation services		28
61	Educational services		12
62	Health care and social assistance		29
71	Arts, entertainment, and recreation		23
72	Accommodation and food services		11
81	Other services		30
92	Public administration		29
		<b>904</b>	
Division	SIC group	Total	Number of industries
A	Agriculture, forestry, and fishing		58
B	Mining		31
C	Construction		26
D	Manufacturing		459
E	Transportation and public utilities		67
F	Wholesale trade		69
G	Retail trade		64
H	Finance, insurance, and real estate		53
I	Services		50
J	Public administration		27

**SIC revisions.** Economies evolve, and some industries disappear even as others appear. For this reason, economists in the Executive Office of the President prepared extensive reviews and revisions of the SIC in 1946, 1958,

**Table 2****Examples of new NAICS industries**

- ◆ Automotive oil change and lubrication shops
- ◆ Bed-and-breakfast inns
- ◆ Casino hotels
- ◆ Cellular and other wireless telecommunications
- ◆ Convenience stores
- ◆ Credit card issuing
- ◆ Diet and weight reducing centers
- ◆ Fiber optic cable manufacturing
- ◆ Food (health) supplement stores
- ◆ Gasoline stations with convenience stores
- ◆ Management consulting services
- ◆ Pet care services
- ◆ Satellite telecommunications
- ◆ Semiconductor machinery manufacturing
- ◆ Software publishers
- ◆ Telemarketing bureaus
- ◆ Temporary help services
- ◆ Warehouse clubs and superstores

1967, 1972, and 1987, with minor revisions occurring between the major revision years. In every case, the revised SIC maintained the primary structure of the original classification schemes established in the 1930s—that is, industries continued to be classified according to the major categories most prominent in the 1930s and 1940s, including agriculture, mining, and manufacturing—even as some of them, such as mining and many manufacturing industries, shrank over time.

The revisions allowed economists, statisticians, and other users to develop and estimate comparable data series over long periods. Such evolutionary change in the SIC seemed to work well and eased the maintenance of time-series data as industry definitions shifted with time.

**Problems arising.** In the long term, however, evolutionary development could not sustain the SIC. Three major problems emerged: definitional differences, shifts in the industrial economy, and the need for a more comprehensive approach to industry classification due to the signing of the North American Free Trade Agreement (NAFTA).

Definitional differences began to creep into the classification scheme because of an inconsistency in how industry definitions were based. The SIC defined most industries

**Table 3****Major programs affected by NAICS shift**

Program	Data year	Expected publication date
<b>Bureau of Labor Statistics programs</b>		
Current Employment Statistics Survey (monthly)	2002	2003
Employment and Wages Report (annual)	2000	2001
Occupational Employment Statistics (annual)	2002	2003
Producer Price Index/1997 Net Output Indexes (monthly)	1997	2004
<b>Census Bureau programs</b>		
<b>1997 Economic Census</b>		
Advance employment, receipts, and payroll	1997	1999
Bridge Between NAICS and SIC	1997	March 2000
Comparative Statistics Report	1997	January 2000
<b>Manufacturing surveys</b>		
Annual Survey of Manufactures	1998	June 2000
Current Industrial Reports	1998	2000
Manufacturers' Shipments, Inventories, and Unfilled Orders	2001	2001
<b>Services surveys</b>		
Annual Trade Survey (wholesale)	1998-99	March 2001
Annual Retail Trade Survey	1998-99	April 2001
Retail Trade Monthly	2001	2001
Service Annual Survey	1998-99	February 2001
Transportation Annual Survey	1998-99	February 2001
Wholesale Trade Monthly	2001	2001
<b>Other Programs</b>		
Annual Capital Expenditures Survey	1999	February 2001
County Business Patterns	1998	March 2000
Manufacturing and Trade Inventory and Sales	2001	2001
Quarterly Financial Report	4th quarter 2000	March 2001
Research and Development Survey	1997-98	April 2001
<b>Bureau of Economic Analysis programs</b>		
Annual Foreign Direct Investment in the United States Survey	1998	2000
Annual U.S. Direct Investment Abroad Survey	2000	2002
Benchmark Input-Output Accounts	1997	2002
Corporate Profits	1998	2001
Foreign Direct Investment in the United States Benchmark Survey	1997	1999
Gross Product Originating by Industry	2001	2002
Gross State Product by Industry	2001	2003
Quarterly Foreign Direct Investment in the United States Survey	2001	2001
Quarterly U.S. Direct Investment Abroad Survey	2002	2002
Real Inventories, Sales, and Inventory-Sales Ratios, Manufacturing and Trade	2001	2002
State Personal Income	2000	2001
U.S. Direct Investment Abroad Benchmark Survey	1999	2001

based on production relationships, the traditional concept of classifying according to an industry's method of production. Others were defined based on demand, an industry classification focusing on markets rather than on production methods. Simply revising the existing system would not clarify differences resulting from its original design.

For example, many apparel industries were defined based on categories such as men's pants or women's pants, even though the products were manufactured in much the same way: They were classified in different industries because of their different markets. Many manufactured metal products, on the other hand, were categorized in an industry based on differing production methods, such as "chain made from purchased wire" (SIC 3496) versus "chain made from forged steel" (SIC 3462). In the latter case, the end product was similar, but the input requirements differed.

Incremental shifts in the U.S. industrial economy have occurred over time. During the 1980s and 1990s, however, many economists noticed fundamental changes in the ways many industries do business in the United States. This type of structural change reflects the concept of "contracting out," the practice of purchasing services such as accounting, legal, and buildings maintenance from other industries instead of hiring employees within the industry. It became increasingly obvious that another revision of the existing classification system would not address the structural changes that had taken place—or worse, it might mask important shifts that are still happening.

NAFTA formalized a free-trade area between the United States, Canada, and Mexico in 1993. At that time, U.S. industry classification was governed by the 1987 SIC revision; Canada's classification system dated from 1980; and Mexico had no industry classification system (its first was published in 1994). None of these classification systems was consistent with the others. To meet the monitoring requirements built into NAFTA, a coordinated industry classification needed to be developed across all three economies.

**Creation of the NAICS.** By the early 1990s, there was an obvious need for a new industry classification system that addressed these structural and comparability issues. In 1992, the Office of Management and Budget created the Economic Classification Policy Committee, comprising members from all the major Federal statistical agencies. The committee's task: to conduct a "fresh slate" examination of economic classifications.

The committee worked in cooperation with the statistical agencies of Canada and Mexico to create a uniform industry



classification system. In 1998, the NAICS was published. The NAICS improves upon the SIC by using a production-based framework throughout to eliminate definitional differences; identifying new industries and reorganizing industry groups to better reflect the dynamics of our economy (see tables 1 and 2); and allowing first-ever industry comparability across North America, addressing the monitoring provision of NAFTA.

In the future, all industry-based data developed by the Bureaus of the Census, Economic Analysis, and Labor Statistics, as well as any other Federal statistical agency producing industry-based statistics, will be transformed from an SIC to a NAICS basis. The changeover schedule varies by agency. (See table 3.) In most cases, there will be an overlap period—that is, one period in which statistics will be developed and released using both the NAICS and the SIC. Beyond this single-period overlap, however, there are no plans for long-run, backward revisions of SIC-based measures to the NAICS scheme.

### Ongoing development

The NAICS as published in 1998 is far from a finished product. Just as the SIC before it evolved, the NAICS will continue to evolve over the coming years. In addition to regular updates to reflect changes in our economy, all three North American countries will review the NAICS every 5 years and make revisions as necessary.

To learn more about the NAICS or some of the problems that may exist in the transition from SIC to NAICS, visit the Bureau of the Census NAICS website, <http://www.census.gov/epcd/www/naics.html>. OOO