

Productivity in retail miscellaneous shopping goods stores

Productivity is expected to increase as more stores computerize their retail operations; also, the industry's change toward more chain-owned stores has helped boost productivity because of chain stores' significant advantages over their independent rivals

Ziaul Z. Ahmed
and
Patricia S. Wilder

Productivity growth in the miscellaneous shopping goods stores industry is moderate, compared with other retail industries, as reported by the Bureau of Labor Statistics. Among 22 retail industries, 15 had higher productivity rates and 7 had lower rates between 1977 and 1992. As measured by output per hour of all workers, productivity rose at an average annual rate of 1.7 percent between 1977 and 1992. Output grew at 4.5 percent annually and hours of all persons rose by 2.8 percent.¹ (See table 1.)

The industry recorded its largest productivity gain of 8.4 percent in 1978. Output grew 15.3 percent and hours of all persons rose 6.3 percent that year. The sharpest decline in productivity—2.0 percent—occurred in 1979; output and hours grew 0.9 and 2.9 percent. Output rose 7.0 percent in 1992 as productivity rose 5.5 percent and hours of all persons rose 1.4 percent. Also in 1992, output and productivity attained their peak levels, while hours reached a high for the period in 1989. (See table 2.)

Industry structure

The miscellaneous shopping goods stores industry comprises a variety of retail stores.² (See table 3.) Nine sub-industries include stores that sell sporting goods; books; stationery; jewelry; hobby

supplies, toys, and games; camera and photographic supplies; gifts, novelties and souvenirs; luggage and leather goods; and sewing equipment, needlework supplies, and piece goods. In 1992, 56 percent of the industry's retail sales and employment were accounted for in sporting goods stores and bicycle shops, book stores, and jewelry stores.

The miscellaneous shopping goods stores industry is characterized by small, single-unit, specialty shops, each retailing a narrow line of full-priced, high-quality merchandise. Customers pay more for a wider array of services and for a complete line of goods.³ Employees are trained on the job to present a personal style that fits each store's image. These specialty shops build a regular clientele by knowing their customers' names, tastes, and interests.⁴

Miscellaneous shopping goods stores have relatively few employees. In 1977, the industry comprised 164,635 establishments with an average work force of about five employees in each store. By 1992, the number of establishments rose to 311,182 with an average of six employees in a store.

Most retail miscellaneous shopping goods stores are not affiliated with chains. However, the number of stores associated with chains and their proportion in the industry increased during the 15-year study period. In 1977, 10 per-

Ziaul Z. Ahmed and Patricia S. Wilder are economists in the Office of Productivity and Technology, Bureau of Labor Statistics.

cent of miscellaneous shopping goods stores were affiliated with chains and accounted for 32 percent of sales, compared with 27 percent of the number of stores and 51 percent of sales in 1992.

Generally, stores associated with chains tend to have higher sales per store than independent stores. In 1992, average independent miscellaneous shopping goods store had annual sales of \$353,371 per establishment, while the average chain affiliate had sales of \$959,928 per establishment.

For some components of the industry, the trend toward affiliating with chains has been faster. For example, stores associated with chains in the sporting goods stores industry represented only 4 percent of the number of stores and 20 percent of sales in 1977. By 1992, these ratios had risen to 15 percent and 39 percent. Book stores went through a revolution, changing from independent stores to chain affiliates during the period studied. The proportion of stores associated with chains rose from 16 percent in 1977 to 40 percent in 1992, while their share of sales increased from 40 percent to 61 percent. Among jewelry stores, chain affiliates represented 12 percent of the number of stores and 34 percent of sales in 1977. By 1992, chains had captured 31 percent of the number of stores and 44 percent of sales.

Factors affecting productivity

The change in industry structure toward more chain-owned stores has helped boost productivity because of the significant advantages chain stores have over their independent rivals. Chains can better afford modern technology in retail operations because they have access to more capital, lower merchandise costs due to centralized purchasing, better employee training programs and employee benefits, and sufficient size to afford expensive media advertising. Chains also are in a stronger financial position to secure shopping mall locations that are better than those of independents.⁵

Another important trend in the miscellaneous shopping goods stores industry is the growth of "super stores" or

warehouse stores. This is particularly the case in book stores, sporting goods and bicycle stores, sewing and needle work stores, and toy and game stores. These stores are growing as a response to changing buying habits, better technology, and intensified competition. The super stores are very large and offer selections of all brands in narrowly focused categories. This saves consumers' shopping time. The stores are highly

Table 1. Annual percent changes in productivity, output, and hours of all persons in the miscellaneous shopping goods stores industry, 1977-92

Years	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
1977-78.....	8.4	6.5	15.3	6.3	8.2
1978-79.....	-2.0	-4.1	.9	2.9	5.1
1979-80.....	-1.1	-2.3	-.3	.9	2.1
1980-81.....	-1.7	-1.3	2.9	4.6	4.2
1981-82.....	2.4	.9	1.8	-.5	.9
1982-83.....	-1.1	-.2	3.3	4.4	3.5
1983-84.....	5.1	5.4	10.2	4.9	4.5
1984-85.....	1.7	.6	2.6	.9	2.0
1985-86.....	3.0	1.8	7.3	4.1	5.3
1986-87.....	3.1	3.6	9.1	5.8	5.3
1987-88.....	-1.5	-2.1	6.0	7.6	8.3
1988-89.....	3.4	2.9	5.5	2.0	2.5
1989-90.....	.2	.0	-.3	-.5	-.3
1990-91.....	.8	-.1	-1.9	-2.7	-1.8
1991-92.....	5.5	6.5	7.	1.4	.6
1977-92.....	1.7	1.2	4.5	2.8	3.3

Table 2. Output per hour of all persons and related indexes in the miscellaneous shopping goods stores industry, 1977-92

[1987=100]					
Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
1977.....	84.2	90.1	60.3	71.6	66.9
1978.....	91.3	96.0	69.5	76.1	72.4
1979.....	89.5	92.1	70.1	78.3	76.1
1980.....	88.5	90.0	69.9	79.0	77.7
1981.....	87.0	88.8	71.9	82.6	81.0
1982.....	89.1	89.6	73.2	82.2	81.7
1983.....	88.1	89.4	75.6	85.8	84.6
1984.....	92.6	94.2	83.3	90.0	88.4
1985.....	94.2	94.8	85.5	90.8	90.2
1986.....	97.0	96.5	91.7	94.5	95.0
1987.....	100.0	100.0	100.0	100.0	100.0
1988.....	98.5	97.9	106.0	107.6	108.3
1989.....	101.8	100.7	111.8	109.8	111.0
1990.....	102.0	100.7	111.5	109.3	110.7
1991.....	102.8	100.6	109.4	106.4	108.7
1992.....	108.5	107.1	117.1	107.9	109.3

Table 3. Relative importance of industries, miscellaneous shopping goods stores, 1987

SIC code	Industry	Establishments with payroll		Four-digit industry as a percent of three-digit industry	
		Sales (in thousands)	Paid employees	Sales	Paid employees
594	Miscellaneous shopping goods stores	\$49,459,912	706,363	100	100
5941	Sporting goods stores and bicycle shops	10,077,322	120,714	20	17
5942	Book stores	5,115,507	72,334	10	10
5943	Stationery stores	1,813,533	26,898	4	4
5944	Jewelry stores	11,994,271	162,795	24	23
5945	Hobby, toy, and game shops	7,031,359	75,932	14	11
5946	Camera and photographic supply stores	2,294,000	21,425	5	3
5947	Gift, novelty, and souvenir shops	7,459,217	150,730	15	21
5948	Luggage and leather goods stores	839,091	11,033	2	2
5949	Sewing, needlework, and piece goods stores	2,835,612	64,502	6	9

organized, have huge sales volumes, and operate with computerized systems. They generally use point-of-sale systems that keep track of inventory and help manage store operations. Superstores tend to focus on presenting products in a more organized fashion with improved graphics and signs, helping consumers find items quickly and learn more about the products. This reduces time in sales assistance, boosting cost efficiency and keeping prices lower than that charged by competitors.⁶

The major technological change in the miscellaneous shopping goods stores industry has been the widespread and increasing use of computers for retail operations. In large independent and chain stores, computers are used for inventory control, including electronic cash registers (point of sale terminals), and electronic scanning devices. Information coded on merchandise is fed into the computers using these scanning devices. This results in accurate inventory records and reduces employee time to monitor shelf stocks. Computerized cash registers also balance the cash register accurately, reduce audit expense, and speed up credit authorization. Computers are used to perform recordkeeping and administrative functions that were once performed manually. By using computerized information provided on sales activity, store managers can schedule staff hours more efficiently.⁷

Independent retailers in the miscellaneous shopping goods stores industry have not computerized their retail operations as fully as have the larger stores. These systems are costly and are not always suited for the smaller retailers. However, most small retailers have replaced mechanical cash registers with electronic cash registers, which has saved labor time in accounting and inventory control.

Labor time also has been reduced as retailers rely more on other means of merchandise delivery instead of their own delivery trucks. Manufacturers also are offering prepackaged and prepriced merchandise. The retailer dictates the price to

the distribution center and the supplier prints it as part of the packaging, thus eliminating in-store marking and most display work.

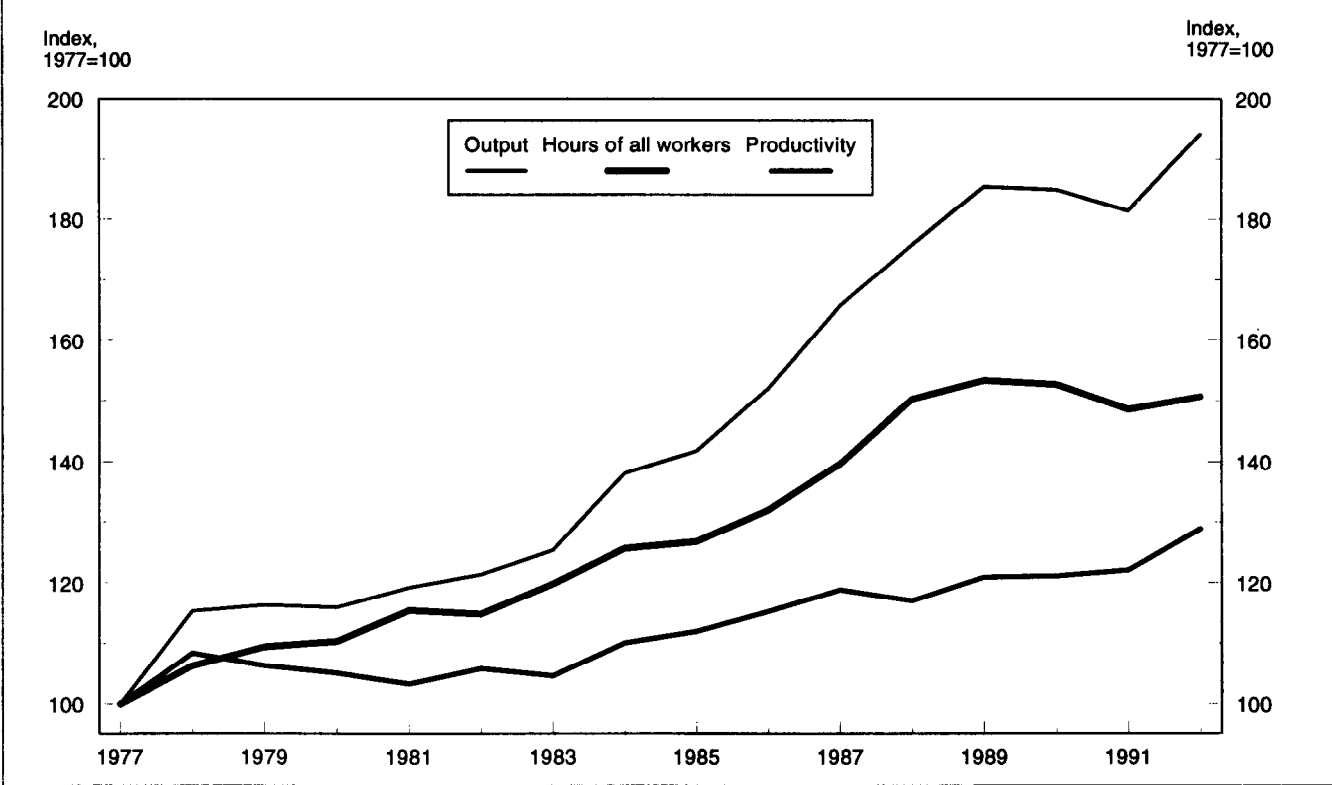
Use of computers to analyze sales data has increased recently. Computers promote use of electronic data interchange to capture sales and reorder data at point of sale. Use of universal bar codes also is increasing. Bar code format describes characters that can replace messages contained in typewritten shipping documents. Bar codes ease tracking of parcels in the delivery process, resulting in fewer distribution errors, better scheduling of trucks and warehouse space, and smoother reordering. More recent bar codes include several hundred characters in a square inch of space.⁸

Automated markdown is another labor saving device that is being introduced and integrated gradually in the retail market. Scanned markdown applications can save 50 percent of the time of manual ticketing.⁹

Location—accessibility and exposure to shopper traffic—is a prime determinant of how well a store's capacity and labor force are used. The rapid expansion in the number of malls and shopping centers in suburban locations contributed to productivity growth. Between 1972 and 1984, the number of shopping centers nearly doubled, increasing by 93 percent. Shopping centers offer greater sales exposure for a retailer than any other type of location.¹⁰

Employment

The number of workers in shopping goods stores increased from a little more than 624,000 in 1977 to more than 1.0 million in 1992, a 63-percent rise, or 3.3 percent a year on average. Hours of all persons increased at an average annual rate of 2.8 percent. Employment increased faster than hours because of a steady decline in average weekly hours. This is particularly true of nonsupervisory workers, whose average

Chart 1. Output, hours of all workers, and productivity in miscellaneous shopping goods stores, 1977—92

weekly hours declined from 31.9 in 1977 to 28.1 in 1992. The decrease in average weekly hours reflects an increase in part-time salespersons, often of school age, who work weekends and evenings.

Data are available for four categories of workers in the miscellaneous shopping goods stores industry: nonsupervisory workers, supervisory workers, partners and proprietors, and unpaid family workers. Nonsupervisory workers constitute the largest group, which includes salespersons, cashiers, stock workers, and nonsupervisory office workers. Nonsupervisory workers were 68 percent of the industry's work force in 1977 and 69 percent in 1992.

The number of supervisory workers—office supervisors, store managers, and assistant managers—increased from 70,500 in 1977 to 146,400 in 1992. Self-employed and unpaid family workers accounted for 21 percent of the industry's work force in 1977 and 16 percent in 1992.

Miscellaneous shopping goods stores employ a significantly higher proportion of women workers than other retail industries. Women in this industry accounted for 64 percent of all paid employees in 1992, higher than their proportion of 53 percent in total retail trade and 47 percent in all private nonfarm establishments in the same year. Women represented only 33 percent of all employees in manufacturing. In addition to school-age women, young mothers take part-time em-

ployment at retail businesses as work schedules in retail operations can be tailored to better meet their needs.¹¹

Average hourly earnings for nonsupervisory workers in the industry were 49 percent below average hourly earnings of all private nonfarm employees in 1992 and 62 percent below the average for all manufacturing. Low average hourly earnings is a major factor contributing to the high employee turnover rate in the industry. Some studies show that retail employee turnover is as high as 60 percent. The high turnover rate among nonsupervisory workers hinders productivity gains in the industry because new employees must undergo training and are not as productive during this period.¹²

Outlook

Productivity in the retail miscellaneous shopping goods store industry is expected to increase as more stores computerize their retail operations. The industry will benefit from the continuing diffusion of electronic data processing equipment. The availability of more affordable personal computers has brought computer technology within reach of many more small store owners. Point-of-sale technology may become more widely used in the small specialty stores; increased use of bar code and scanning devices will save labor time in inventory control. Computerized reordering and markdown

will replace manual systems and reduce labor time.¹³

In addition, electronic shopping will become a more important part of retailing as new technology becomes more widespread. Electronic marketing has made it possible for consumers to shop from their living rooms and to compare prices and order merchandise for immediate delivery.¹⁴

Chains are expected to continue to grow through mergers

and acquisitions. The size of many of these specialty stores also will likely increase, approaching the scale of a "super store" or warehouse store. The super stores are likely to grow rapidly as consumers' shopping habits change.¹⁵ Some retailers of books, sporting goods, and toys and games already have opened such super stores, and the trend will probably continue. □

Footnotes

¹ All average annual rates of change pertaining to the industry and mentioned in the text or in tables are based on the compound interest method of computation. The indexes for productivity and related variables are updated and published annually in the BLS publication, *Productivity Measures for Selected Industries and Government Services*.

² The retail miscellaneous shopping goods stores industry is designated by the U.S. Office of Management and Budget as sic 594 in the 1987 *Standard Industrial Classification Manual*. The industry consists of the following four-digit industries (because the industries are descriptive, the sic definitions are not given for each of the industries):

5941 - sporting goods stores and bicycle shops

5942 - book stores

5943 - stationery stores

5944 - jewelry stores

5945 - hobby, toy, and game shops

5946 - camera and photographic supply stores

5947 - gift, novelty, and souvenir shops

5948 - luggage and leather goods stores

5949 - sewing, needlework, and piece goods stores

³ Barry Bluestone, Patricia Hannah, Sarah Kuhn, and Laura Moore, *The*

Retail Revolution (Boston, MA, Auburn House Publishing Co., 1981), p. 27-28

⁴ *Ibid.*, pp. 27-28.

⁵ 1989 *U.S. Industrial Outlook* (Department of Commerce, 1989), p. 43-2.

⁶ *Washington Business*, "See How Big The Stores Are," Dec. 13, 1993

⁷ Bluestone, and others, *The Retail Revolution*, pp. 112-17.

⁸ 1992 *U.S. Industrial Outlook* (U.S. Department of Commerce, 1992), p. 39-2.

⁹ Gary Robins, "Automated Markdown," *Stores*, March 1993, p. 28.

¹⁰ Brian Friedman, "Productivity trend in department stores, 1967-86," *Monthly Labor Review*, March 1988, pp. 17-20.

¹¹ Joan Bergman, "Who is Selling the Merchandise in Your Store," *Stores*, January 1984, p. 28.

¹² Brian Friedman, "Apparel stores display above-average productivity," *Monthly Labor Review*, October 1984, pp. 37-42.

¹³ Gary Robins, "Technology Matters," *Stores*, November 1988, p. 20.

¹⁴ *The Washington Post*, "A New Era of Retailing," Dec. 6, 1993, p. D5.

¹⁵ *The Washington Business*, "See How Big the Stores Are," Dec. 13, 1993.