186UA
For Reference Only.

# CANADIAN PRINTING INDUSTRIES ASSOCIATION

# STUDY OF THE PRINTING INDUSTRY IN UPSTATE NEW YORK AND WESTERN PENNSYLVANIA

Canadian-U.S. Business Consulting Service
Clarkson University
Potsdam, New York 13699
Tel: 315-268-7610 / FAX: 315-268-3810

Consultants:
Stephen Crossman
Sophia Gavrielides
David Hilton
Thomas McDonald
Tracy Meyer
William Thurber
Todd Wilmett
Stephen Wilkinson

May 13, 1994

# EXECUTIVE SUMMARY

This report was commissioned for the Canadian Printing Industry Association (CPIA) by the Canadian Consulate, Consular office in Buffalo, New York. The objectives were to provide an information base for Canadian printing firms that wish to pursue an export-based growth strategy, identify potential barriers, and supply information that will assist such growth into the U.S. marketplace.

The area of interest for the study includes all of upstate New York and western Pennsylvania. The economy of the area is primarily manufacturing based. Despite having suffered large losses of business and employment during the recent recession, the area remains one of the major industrial regions of the United States. The printing and publishing industry is the second largest group of the area's manufacturing sector. There are approximately 1,400 printing firms in the area, and most of the medium to large firms are concentrated in or near larger towns and cities.

Comparing the Canadian and U.S. printing industries on the basis of national averages indicates that growth in manufacturing productivity, labor productivity, and unit labor costs have been quite similar historically. However, the drop in value of the Canadian dollar with respect to the U.S. dollar has deteriorated the competitiveness of U.S. firms. Furthermore, the potential for rising costs for materials, environmental regulations, technology changes and employee training are expected to further erode U.S. competitiveness.

The projected growth in revenues for the printing industry in the United States is predicted to be more than 2% during 1994, rising to $177 billion (US). It is possible that with the current exchange rate and the amount of growth in the U.S. market, Canadians printers will be able to make considerable in-roads into U.S. markets.

Executives from Canadian printing firms that are currently exporting to the United States indicated that in order to successfully export to the U.S. market, a Canadian firm must find and be able to exploit a specific market niche. This can be accomplished through good market research, a buyout, and/or a joint venture. It was also noted that Canadian printers should make it appear to potential U.S. customers that they are located just next door. An easy and cost effective way to achieve this is through the use of an "800" number.

Print buyers in the United States were surveyed to determine if there is a "Buy American" bias that would hinder the chances of exporting for a Canadian printer. It was

determined that the Canadian perception of the "Buy American" bias is exaggerated. Most of the U.S. print buyers who were surveyed ranked the importance of their material being printed in the United States as very low. The three most important criteria for the U.S. print buyers were product quality, service, and price/cost. Although approximately one third of those surveyed anticipated no problems in working with a Canadian printer, the most frequently mentioned problems were on-time delivery, distance, and border crossing problems. Exchange rates, tariffs, and regulations were not major issues to U.S. print buyers.

Issues concerning movement of business travellers between countries are addressed in the North American Free Trade Agreement (NAFTA). Four categories for temporary entry are business visitor, traders and investors, intracompany transferee, and professional. Tariffs are all but eliminated on printed goods entering the United States. Nontariff impediments are being eliminated with the Printed in Canada labelling being relaxed over a wider range of products.

# CANADIAN PRINTING INDUSTRIES ASSOCIATION

# STUDY OF THE PRINTING INDUSTRY

# IN UPSTATE NEW YORK AND

# WESTERN PENNSYLVANIA

## VOLUME I

Canadian-U.S. Business Consulting Service
Clarkson University
Potsdam, New York 13699
Tel: 315-268-7610 / FAX: 315-268-3810

Consultants:
Stephen Crossman
Sophia Gavrielides
David Hilton
Thomas McDonald
Tracy Meyer
William Thurber
Todd Wilmett
Stephen Wilkinson

May 13, 1994

## Table of Contents - Volume I

## Table of Contents - Volume II

## INTRODUCTION

In 1993, approximately $344 million (US) of printed material (SIC 27) was exported by the United States into Canada, while Canada exported $151 million (US) into the United States. Clearly the printing industry of both nations has an interest in international trade. In this regard, this report was commissioned on behalf of the Canadian Printing Industries Association (CPIA) by the Canadian Consulate, Consular office in Buffalo, New York. The objectives of the study are to provide an information basis for Canadian printing firms that wish to pursue an export-based growth strategy, to identify potential trade barriers, and to supply information which will assist such growth into the U.S. marketplace.

The geographic area surveyed for this report consists of upstate New York and western Pennsylvania. In certain instances, the research fell outside of this geographic area. It was the decision of the Canadian-U.S. Business Consulting Service to include the information due to its relevance to the overall objectives.

This report consists of two volumes. The first volume is organized into 4 individual sections to facilitate its publication and dissemination by the CPIA. Each part is complete with its own objective, methodology and summary of results. Supporting material and data for the reports are included in the second volume that contains the Appendices. The research methods included reviewing literature from both government and private sources, interviews with both suppliers and purchasers of printed products and compilation of data from each of the sources.

The results and findings of the project are varied and cover many broad categories. However, in consideration of the scope of the study, the results and findings should be of great use to a variety of Canadian printers.

# Section 1

# Industry Background

## Industry Background

I. Introduction

II. The Economies of Upstate New York and Western Pennsylvania

III. Comparing U.S. and Canadian Manufacturing Productivity

IV. General Information on the Printing Industry in the Area of Interest

V. Cost Comparison of Canadian and Upstate New York Printers

VI. Sources of Information

VII. Summary

## I. INTRODUCTION

The area of interest includes all of upper New York state and the Pittsburgh area of western Pennsylvania. Major population centers within these areas include Buffalo, Rochester, Syracuse, Watertown, Binghamton, Plattsburgh, and Pittsburgh. The commercial base is diverse, with industries varying from primary forestry and mining operations to manufacturing of a wide spectrum of products. In addition, a well-developed and mature infrastructure of highways, rail lines, and communications exists.

The overall objectives of this study are to provide the CPIA and its members with information for pursuing an export-based growth strategy. This section of the report examines the general state of the economy and the printing industry within the area of interest. To assist Canadian companies in assessing the potential of entering the U.S. market, certain costs of U.S.-based businesses and printers are outlined and compared with Canadian firms. In addition, further information useful to companies looking to enter the U.S. market is presented, consisting of sources of data regarding market background and news.

## II. THE ECONOMIES OF UPSTATE NEW YORK AND WESTERN PENNSYLVANIA

New York state borders the provinces of Ontario and Quebec, and is accessible from Canada by six major border crossing ports. These ports include Fort Erie/Buffalo, Niagara, Hill Island crossing, Prescott/Ogdensburg, Cornwall/Massena and Champlain, New York. Other lesser border crossings exist; however, the above six represent the principal commercial ports. Pennsylvania has no direct border contact with Canada, but adjoins New York along its southern boundary.

The area of interest for study consists of thirty-five (35) counties in upstate New York and five (5) counties in western Pennsylvania around Pittsburgh. These counties are listed in Tables 1 and 2 and maps displaying the locations of each of the counties can be found in Appendix A. Additional data[1] contained in the tables are statistics on the labor force for both countries, and the size and classification of the associated printing industry[2]. The purpose of

[1] U.S. Dept. Labor, Bureau of Labor Statistics, Resident Civilian Labor Force summary, July and August, 1993

[2] U.S. Bureau of the Census, County Business Patterns, New York, 1993

examining labor statistics is to illustrate the relationship of economic welfare of any region with employment rates.

For the counties of upstate New York, the weighted average of unemployed civilian workers in 1993 was approximately 6.3%, while western Pennsylvania similarly reported 6.6%. At a time when national figures in the United States were 6.6%, the region may be seen to be faring well in comparison with the country as a whole.

Another significant factor regarding the area's economy is its comparative size with regard to the Unites States. New York's economy is second in size only to California's in terms of total employment and number of operating companies[3]. Pennsylvania is comparatively ranked fifth in these criteria among U.S. states.

Principally, New York and Pennsylvania have manufacturing-based economies. For example, in New York, the manufacturing sector in 1991 comprised of nearly 16% of the total employment and 18% of the total payroll. Also, when combined with the complementary business sectors of transportation and utilities, these three sectors employed 26% of the total work force and earned 30% of the total civilian payroll. Pennsylvania has similar statistics for the relative size of its manufacturing and complementary sectors. Within the manufacturing sector, the printing and publishing group is the second largest group, based on employment and payroll.

However, the recent recession has effected the general economy of the area. During the period of 1990 to 1991, New York faced a state-wide reduction in the total number of employed persons in the order of 270,000. The manufacturing sector has been particularly vulnerable, with employment losses of 88,000 during this period. Furthermore, this trend has not improved in recent times as reflected in the loss of approximately 90,000 jobs during the period of July to August, 1993.

With an end to the recession in the United States, the level of economic activity of the area of interest should increase. To monitor any improvements in the economy of the area, one can utilize data regularly published by both the federal and state governments such as in the annual U.S. Industrial Outlook (U.S. Department of Commerce), and the Resident Civilian

[3] U.S. Dept of Commerce, Bureau of Statistics, ES87-1, Large Companies

Labor Force Summary or the Monthly Labor Review (U.S. Department of Labor).

## III. COMPARING U.S. AND CANADIAN MANUFACTURING SECTORS

In order to obtain a better understanding of the U.S. business environment for Canadian printers, several economic indicators for the two countries can be compared. Of particular interest are the rate of labor productivity growth, unit labor costs, and manufacturing productivity. The Monthly Labor Review, published by the U.S. Department of Labor, closely monitors these data for the United States, regularly releases these and other useful figures, and was the primary source of the following discussion.

During the period of 1991 to 1993, both Canada and the United States experienced labor productivity growth of approximately 4.3%. In addition, Canada and the United States have experienced little change in unit labor costs since 1991 with labor hourly compensation actually rising only 5% for each country. However, during that period, the Canadian dollar's exchange rate continuously declined by about 9% of its value relative to the U.S. dollar. Consequently, there has been a deterioration of the U.S. manufacturing competitiveness in terms of unit labor costs relative to Canada.

During 1992, unit labor costs in Canada decreased by 5.2% over U.S. costs. In fact, this relative decline in the unit labor costs for Canada has been ongoing and averaged 1.7% during the period of 1979 to 1992. With the recent further decline in the relative value of the Canadian dollar, there may well be a continuation of this trend, thus making Canadian manufacturing even more competitive to their U.S. counterparts.

## IV. GENERAL INFORMATION ON THE PRINTING INDUSTRY IN THE AREA OF INTEREST

For the purposes of this study, the classification of printing and publishing firms has been by the general SIC code of 27. The companies presented in Table 1 and Table 2 include newspapers and periodicals, book printing and publishing, commercial printing, business forms, bankbooks and bookbinding, and printing trade services. A more thorough subdivision by county is available in County Business Patterns (U.S. Department of Commerce). Data for the most populated counties in upstate New York and Pennsylvania are contained in Appendix B that include the types and numbers of the major types of printing firms within each county.

With approximately 970 printing companies in upstate New York and 460 in the Pittsburgh area, there is no obvious shortfall of printers within the area. The distribution of printing companies throughout the area is for the most part in proportion with the general population and work force. Overall, there is about one printing firm per 2,000 workers within each county unit. Even though there is no way of determining whether or not there may exist any particular market type or niche within which a Canadian printer could become successfully active, the tables do show a concentration of medium and large printing companies in areas of higher population densities.

As mentioned above, the economy of the area is primarily manufacturing based. The second largest group within the manufacturing sector is printing and publishing. Like the entire manufacturing sector, the printing industry in the region has been significantly affected by the recent recession. Over the 1990-91 period, more than 260 printing firms went out of business and nearly 4,000 printing jobs were eliminated. These figures suggest that a large number of the firms that shut down were in the medium size range. The primary cause of the downturn in the printing industry has been identified as the response to a slowdown in advertising expenditures, cuts in library and education materials, reduced demand from new and existing businesses, and reduced usage of newspapers and magazines.

However, with the end of the recession and the improving U.S. economy, the U.S. Industrial Outlook 1994 - Printing and Publishing states that "an improved economy, coupled with gains in advertising expenditures, should raise shipments of the U.S. printing and publishing industry (SIC 27) to U.S.$177 billion in 1994, an increase of nearly 2% over 1993

**Table 1:** Information on employment and labor during 1993, and the printing industry of upstate New York for 1991.

| County | Labor Information: Labor Force ('000s) | Employed ('000s) | Unemployed Rate (%) | Printing Industry Data: Operations Total No.Of Operations | Classed by 1 to 9 | Number of 10 to 49 | Employees 50+ |
|---|---|---|---|---|---|---|---|
| Chautauqua | 63.9 | 59.7 | 6.6 | 22 | 13 | 6 | 3 |
| Niagara | 96.1 | 88.3 | 8.1 | 33 | 22 | 6 | 5 |
| Erie | 463.4 | 432.3 | 6.7 | 219 | 122 | 74 | 23 |
| Cattaraugus | 35.9 | 32.9 | 8.3 | 10 | 3 | 6 | 1 |
| Orleans | 19.2 | 17.8 | 7.2 | 6 | 2 | 2 | 2 |
| Genesee | 26.6 | 24.8 | 6.9 | 12 | 6 | 3 | 3 |
| Wyoming | 16.9 | 15.5 | 6.1 | 4 | 1 | 3 | 0 |
| Allegany | 18.8 | 17.3 | 8.1 | 11 | 8 | 3 | 0 |
| Monroe | 369.6 | 351.9 | 4.1 | 204 | 126 | 61 | 17 |
| Livingston | 31.2 | 29.8 | 4.5 | 14 | 7 | 3 | 4 |
| Wayne | 45.4 | 42.7 | 5.9 | 16 | 9 | 5 | 2 |
| Ontario | 49.5 | 47.3 | 4.4 | 15 | 8 | 3 | 4 |
| Steuben | 42.8 | 40.1 | 6.4 | 15 | 10 | 2 | 3 |
| Yates | 8.9 | 8.3 | 6.1 | 0 | 0 | 0 | 0 |
| Seneca | 12.6 | 11.6 | 8.0 | 7 | 3 | 4 | 0 |
| Schuyler | 8.6 | 8.1 | 6.7 | 0 | 0 | 0 | 0 |
| Chemung | 42.9 | 40.6 | 5.4 | 15 | 10 | 2 | 3 |
| Cayuga | 37.6 | 35.2 | 6.5 | 11 | 6 | 4 | 1 |
| Tompkins | 55.0 | 53.4 | 3.0 | 36 | 20 | 13 | 3 |
| Tioga | 24.2 | 22.5 | 7.0 | 0 | 0 | 0 | 0 |
| Jefferson | 46.5 | 42.4 | 4.1 | 16 | 10 | 5 | 1 |
| Oswego | 54.8 | 50.3 | 8.3 | 18 | 9 | 7 | 2 |
| Onondaga | 233.0 | 220.0 | 5.6 | 116 | 69 | 31 | 16 |
| Cortland | 23.7 | 22.0 | 7.0 | 12 | 8 | 3 | 1 |
| Broome | 96.6 | 89.4 | 7.5 | 47 | 28 | 13 | 6 |
| St. Lawrence | 46.6 | 42.8 | 8.1 | 10 | 7 | 3 | 0 |
| Lewis | 11.6 | 10.6 | 9.1 | 3 | 1 | 1 | 1 |
| Oneida | 111.8 | 105.4 | 5.8 | 45 | 29 | 8 | 8 |
| Madison | 33.6 | 31.8 | 5.4 | 10 | 8 | 2 | 0 |
| Chenango | 20.8 | 19.0 | 8.5 | 13 | 3 | 7 | 3 |
| Herkimer | 29.5 | 27.4 | 6.8 | 7 | 2 | 4 | 1 |
| Franklin | 22.2 | 20.8 | 6.3 | 9 | 6 | 3 | 0 |
| Hamilton | 3.3 | 3.1 | 5.1 | 0 | 0 | 0 | 0 |
| Clinton | 38.6 | 36.0 | 6.9 | 9 | 5 | 2 | 2 |
| Essex | 20.4 | 19.1 | 6.5 | 6 | 3 | 3 | 0 |
| Totals | 2262.1 | 2120.2 | 6.3 | 971 | 564 | 292 | 115 |

**Table 2:** Labor and printing industry statistics for western Pennsylvania during 1991. Unemployed rate for 1993 from the Monthly Labor Review, Jan. 1993. (Current county data not available, n/a)

| County | Labor Information | | Printing Industry Data | | | |
|---|---|---|---|---|---|---|
| | Employed ('000s) | Unemployed Rate (%) | Operations Total No.Of Operations | Classed by Number of Employees 1 to 9 | 10 to 49 | 50+ |
| Allegheny | 647.8 | n/a | 324 | 208 | 88 | 28 |
| Armstrong | 16.1 | n/a | 9 | 7 | 1 | 1 |
| Beaver | 42.4 | n/a | 18 | 15 | 2 | 1 |
| Butler | 44.7 | n/a | 24 | 11 | 11 | 2 |
| Washington | 58.7 | n/a | 37 | 28 | 8 | 1 |
| Westmoreland | 105.4 | n/a | 51 | 32 | 12 | 7 |
| Totals | 915.1 | 6.6 | 463 | 301 | 122 | 40 |

in constant dollars." The Industrial Outlook continues to state that certain subdivisions within the industry will do exceptionally well. These subdivisions and their projected growth include; book publishing (8.5%), commercial printing (6.1%), greeting cards (9.0%), bankbooks and binders (5.5%), and platemaking services (5.9%).

It is interesting to note that the Industrial Outlook looks at the potential for exporting from and importing into the United States. In 1992, 32% of all U.S. printing exports were made to Canada and had a value of $344 million (US). Canadian imports amounted to 34% of all imported printed material, but the value was only $151 million (US). However, with the international competitiveness of the U.S. industry being eroded by the exchange rate, the Industrial Outlook noted that foreign printers have made in roads on the U.S. market. The trend is bound to continue.

In the longer term, the Industrial Outlook indicated that U.S. printers will have cost pressures which may make them less competitive. These pressures are expected to be due to stricter environmental standards, materials costs, technology advances and capital equipment upgrading. Furthermore, the cost of training employees in new printing technologies is anticipated to be significant.

## V. COST COMPARISON OF CANADIAN AND UPSTATE NEW YORK PRINTERS

With the volatility of foreign exchange markets, it is difficult to present an accurate comparison of costs between Canadian and U.S. printing firms. Depending upon the relative value of the two currencies, a direct measure of any two competing firms may well be obsolete the day after the comparison is completed. However, it is possible to examine the relative cost in a general way to determine any particular cost area where there is a noticeable variance. This approach has been followed by the Printing Industries of America ("PIA") and the results are presented in Table 3.

The purpose of the PIA study was to examine the distribution of costs that can be attributed to the value-added of a printing job. The objective of Table 3 was to identify any cost area(s) in which there could be an advantage for either the Canadian or U.S. firm. The type of firms illustrated in the table were sheet-fed offset printers with annual incomes in the range of \$3 million (US) to \$10 million (US). The jobs that were costed were mainly commercial advertising.

The results, as shown in Table 3, fail to identify any significant variances in the distribution of the costs between Canadian and U.S. printers. For the costs of operations, such as Factory Payroll and Factory Expenses, the two columns tracked costs in a near parallel fashion. Any differences worth noting occur in the areas of administrative and selling expenses. The costs of administration for the typical U.S. firm were approximately 40% greater than Canadian firms, but the reverse was the case for selling expenses. Overall, there were very similar distributions of the value-added costs of printing jobs.

For both the U.S. and Canadian printers, the single largest category of costs was direct labor. For U.S. commercial printers, labor costs and rates are annually reported in the Statistical Abstracts of the United States. Over the period 1980 to 1992, the national average for U.S. commercial printers labor rates for nonsupervisory workers have risen from \$7.85 (US) to \$11.94. As of November 1993, the average labor rate as reported in the Monthly Labor Review had risen to \$12.17. By monitoring U.S. labor rates, Canadian printing firms should be able to obtain an indication of the relative costs of general printing jobs with the information contained in Table 3 (and also taking into account the prevailing exchange rates).

Table 3: Relative proportion of cost distribution between Canadian and U.S. printers, 1993.

| | NEW YORK | CANADA |
|---|---|---|
| **FACTORY PAYROLL** | | |
| Salaries- Executive | 3.82 % | 2.84 % |
| Direct Wages | 30.81 | 27.40 |
| General Factory Salary and Wages | 1.47 | 6.09 |
| Packing Shipping and Delivery Wages | 0.92 | 1.67 |
| Payroll Taxes | 3.34 | 1.27 |
| Employee Benefits | 4.95 | 3.99 |
| TOTAL FACTORY PAYROLL | 45.31 % | 43.26 % |
| **FACTORY EXPENSES** | | |
| FIXED EXPENSES | | |
| Depreciation - Real estate | 0.27 % | 0.37 % |
| Depreciation - Other | 6.95 | 6.59 |
| Taxes - Real Estate | 0.61 | 0.73 |
| Taxes - Other | 0.00 | 0.08 |
| Insurance | 1.33 | 0.38 |
| Building Rent | 1.80 | 2.79 |
| Utilities | 2.23 | 1.91 |
| Equipment Rental | 0.55 | 1.01 |
| | 13.74 % | 13.86 % |
| OTHER FIXED EXPENSES | | |
| Factories Supplies and Expenses | 2.82 % | 2.49 % |
| Packing, Shipping and Delivery Expenses | 1.58 | 2.21 |
| Repairs and Maintenance | 2.44 | 2.16 |
| Other Factory expenses | 1.23 | 2.63 |
| | 8.07 % | 9.49 % |
| TOTAL FACTORY EXPENSES | 21.81 % | 23.35 % |
| **ADMIN. EXPENSES** | | |
| Salaries - Executive | 5.41 % | 3.15 % |
| Salaries - Office | 3.49 | 3.18 |
| Payroll Taxes | 0.69 | 0.17 |
| Employee Benefits | 1.20 | 0.68 |
| Bad Debts | 0.80 | 1.38 |
| Office Supplies and Expenses | 0.76 | 0.51 |
| Professional Fees | 0.98 | 0.95 |
| Taxes - Business | 0.11 | 0.39 |
| Telephone Expenses | 0.72 | 0.70 |
| Other Administrative Expenses | 2.85 | 1.88 |
| TOTAL ADMINISTRATIVE EXPENSES | 17.01 % | 12.99 % |
| **SELLING EXPENSES** | | |
| Salaries - Executive | 1.62 % | 1.60 % |
| Salaries and Commissions - Sales | 4.97 | 9.67 |
| Salaries - Sales Office Clerical | 1.59 | 2.82 |
| Payroll Taxes | 0.60 | 0.34 |
| Employee Benefits | 0.87 | 0.92 |
| Advertising | 0.48 | 0.76 |
| Travel and Entertainment | 1.26 | 2.16 |
| Other Selling Expenses | 0.52 | 1.04 |
| TOTAL SELLING EXPENSES | 11.91 % | 19.31 |
| **GRAND TOTAL** | 96.04 % | 98.91 % |

## VI. SOURCES OF INFORMATION

There are literally thousands of sources of information on the United States and its markets. Listed below and tabulated in Appendix D are certain selected information sources that may be utilized for gaining insights into the U.S. printing industry and markets.

The U.S. federal government and the individual state governments collect and publish data on population, business and industries, and domestic and foreign markets. Two major federal departments supplying significant information are the departments of Commerce and Labor. The U.S. Department of Commerce contains two data-generating agencies: the Bureau of Statistics and the Bureau of the Census. The U.S. Department of Labor similarly has its own Bureau of Statistics and publishes a wide range of useful data in the Monthly Labor Review. Each of these bureaus regularly collects and publishes information on business activity, labor and trade. The publications can be obtained through or inquired about by contacting:

Superintendent of Documents,
U.S. Government Printing Office,
Washington, DC. 20402

State information is also widely available much like that from the federal level. Regular releases are available on employment, business and population. A check list of all serial publications since 1985 and contained in the N.Y. State Library, may be obtained by contacting:

University of the State of New York,
N.Y. State Library,
Collection, Acquisition & Processing,
Cultural Education Center,
Albany, NY 12230

Tel: (518) 474-7492

Private industry has several of its own sources of information. For the most part, information is made available through trade journals sponsored by national and state wide

associations. With regard to this study, the principal association is the Printing Industries of America, (PIA). The PIA can be contacted for membership and other information at:

Printing Industries of America, Inc.
100 Daingerfield Road,
Arlington, VA 22209

Tel: (703) 519-8100
Fax: (703) 548-3227

There are several other associations that could be of interest to specialized factions of the Canadian printing industry. Some of these associations and their addresses and also presented in Appendix E.

Possibly one of the best means of accessing data and gaining insights in the U.S. printing market is to monitor the independent trade and associations' publications. The timeliness of the publications combined with their tracking of newsworthy industry trends and developments keeps their readers well informed and in touch. The following passage presents summaries of some selected publications and articles. A list of the publications with contact addresses is presented in Appendix F.

The *Canadian Printer*, published by McLean Hunter has run a number of articles that will aid any firm considering exporting. The July/August 1993 issue (v. 101-6) reported the establishment of export markets by Tri-Graphic Printing in Ottawa and Mercury Graphics in Saskatoon, Saskatchewan. Both firms reported that the combination of specialized niche markets, a reputation for quality, the low value of the Canadian dollar and demand from American Print brokers contributed to their success. Similar articles describing how Canadian Printers can compete successfully in the United States ran in the September 1991 issue (v. 100-9) and the June 1990 issue (v. 99-6).

Since niche marketing should be an important part of any expansion effort, the May 1993 issue of *Canadian Printer* (v.102-4), which attempts to define niche markets, provides valuable information. Although the industries discussed are quick printing, business forms and in-plants, the article does raise many of the same issues confronting commercial printers.

Journals that serve the existing U.S. trade can also provide useful insights for the potential exporting firm. For example, *American Printer*, in September 1993, ran an article of particular interest, "How to Conduct Market Research". The item is a case study documenting the efforts of Printing Arts in Minneapolis to find and explore new opportunities in the existing account base of the firm. The program is described as providing Printing Arts with information such as client mission statements, marketing directions, geographic markets, status of competitors, and history with Printing Arts.

The August 1993 issue (v. 211) of *American Printer* reminds firms to stick to niches that have proven to be successful. The article makes the point that past success can be transferred to new markets. This echoes the view of many of the Canadian executives who had successfully penetrated the U.S. market.

Firms wishing to find a niche in a quality-based strategy might look at a review of Total Quality Management (TQM) in the same issue of *American Printer* (August 1993). TQM was seen as a necessity in maintaining a competitive edge in today's competitive environment. A case study of the successful niche strategy of HM Graphics of Milwaukee, Wisconsin is described in the July 1993 (v. 211) issue. According to the article, HM Graphics discovered that many of their customers were utilizing quick printers for short-run one and two color work. However, these competitors were unable to satisfactorily meet needs for add-ons such as die cuts, perfing, and folding. HM Graphics expanded into this marketplace and quickly found that profits were 30% higher than it projected.

A case study of how Japs-Olsen Printing, a commercial printer in Minneapolis with sales of $47 million (US), has profited from sales of labels is included in the March 1993 (v. 210) issue of *American Printer*. Japs-Olsen President Bob Murphy, claims that the label niche is recession proof, but intense competition makes profit margins narrow. The experiences of Atlanta-based First Image Demand Publishing in the high tech, on demand printing arena are discussed in the February 1993 (v. 210) issue of *American Printer*. From a single site in 1981 First Image has grown into a $21 million (US) firm with offices in Atlanta, Georgia; Los Angeles and San Jose, California; and Seattle, Washington. It has successfully targeted the needs of Fortune 100 firms for high volume and fast turnaround on demand printing.

Firms who wish to follow a product or process niche based strategy should examine the January 1993 issue (v. 210) of *American Printer*. The article, titled "What's Hot for 1993" cites

the expected real growth in the printing industry and lists the 25 most promising vertical markets in the United States. Similarly, the July 1993 issue (v. 211) ranks the top 100+ printing companies in North America. The listing includes sales volume and growth, sales per employee, primary business, as well as plant openings and closings.

*American Printer* frequently discusses sales promotion campaigns. The July 1993 (v. 211) issue discusses sales promotions from three different printers and why these promotions have been successful. The May 1993 (v. 211) issue also describes successful promotion campaigns, including a description of the efforts of The Printer in Halifax, Nova Scotia.

*Graphic Arts Monthly Magazine*, another American based trade publication has run a similar array of articles in the past year. Three times in the past year, *Graphic Arts Monthly* published intent to buy surveys. In July 1993 (v. 65), the subject was large format sheet presses; in May 1993 (v. 65), it was heatset web offset presses; in March, the subject was standard size sheet fed. All of these surveys included data on industry growth, average order size, and percentage of sales volume from different types of printers.

Specific examples and case studies have also been featured in *Graphic Arts Monthly*. The May 1993 issue (v. 65) examines the case of Smith Lithograph of Rockville, Maryland. The firm with sales of $25 million (US) was expanding its capacity in the heatset web format to meet an anticipated demand for nonpublication work. The April 1993 issue (v. 65) illustrates the strategy of Quantam Color Graphics of Niles, Illinois. Quantam established a clean room environment of its shop floor that, along with its existing continuous improvement process and statistical process control, was responsible for much of its success.

## VII. SUMMARY

The area of interest consists of 35 counties of upstate New York and 5 counties of western Pennsylvania. Manufacturing is the largest business sector for the area, and printing and publishing is the second largest group of the sector. During the last recession, the printing industry of the area had some significant losses with more than 260 firms closing and approximately 4,000 jobs lost.

The end of the recession should mean improving trends in the United States, particularly for the printing and publishing industry. Certain sectors of the industry are expected to see growth rates of up to 9.0% in 1994. However, costs are expected to rise for U.S printers due to environmental regulations, capital improvements and employee training.

In addition to the rising costs, the relative competitiveness of U.S. firms has been shown to be weakening due in the most part to the deteriorating value of the Canadian dollar relative to the U.S. dollar. The exchange rate has been especially noticeable in the comparisons of changes unit labor costs.

In order to remain informed about the U.S. printing market, numerous sources of information are available. These sources include federal and state government agencies, trade associations, and industry publications. Lists contained in Appendix D for reference. The types of information that can be readily accessed includes labor rates and costs, distributions of printing firms by sizes within specific geographic regions, regular economic measures such as employment and work force figures, industry news and features, and business trends and forecasts.

# Section 2

# Interviews With Exporting Canadian Printers

**Interviews With Exporting Canadian Printers**

I. INTRODUCTION

- Statement of Objectives
- How the Report is Structured
- Method Used to Obtain Information
- Background on Printers and Publishers Interviewed

II. HOW TO GET INTO THE U.S. MARKET

- Overcoming Perceived Barriers to Exporting
  1. Overcoming *"Buy American"*
  2. Overcoming *"Printed in Canada"*
  3. Overcoming Large Geographic Distances
- Identifying a Market Niche
- The Need For Market Research
- Buyouts, Joint Ventures and Partnerships
- Sales Representatives and Print Brokers
- Networking
  1. Tradeshows
  2. Associations
  3. Suppliers
  4. Bi-National Companies

III. HOW TO STAY IN THE U.S. MARKET

- Service
- Shipping
- Customs

VI. SUMMARY OF FINDINGS

# I. INTRODUCTION

## Statement of Objectives

The objective of this section of the report is to provide information and advice from the executives of Canadian printers that have expanded their markets to the United States. It is intended that this information will assist other Canadian printers to avoid problems and pitfalls that can be encountered in attempting to enter the U.S. market.

## How this Section of the Report is Structured

This section contains information regarding gaining access to the U.S. market, necessities for U.S. market success, and methods for entering the market. *How to Stay in the U.S. Market* discusses how to maintain a position in the United States with details regarding how to generate and/or retain U.S. sales. Please note that all dollar figures are in Canadian dollars.

## Method Used to Obtain Information

The information for this section was obtained through interviews of five Canadian printers with U.S. export or expansion experience. The firms which volunteered their assistance are all members of the Canadian Printing Industry Association (CPIA).

## Background on Printers Interviewed

Key personnel interviewed from each of the five Canadian printing companies were: Don Griffin, owner and operator, and Randy Pope, Lowe-Martin's President of Synergy, of Lowe Martin, Ottawa, Ontario; Lyle Henderson, owner and operator of Henderson Printing in Brockville, Ontario; Brian Auty, owner and operator of Auty Printing in Toronto, Ontario; Mike Colinge, Vice President of Marketing and Sales for Webcom, Toronto, Ontario; and finally, John Morris, Chairman and Managing Partner of McLaren, Morris and Todd (MM&T) in Toronto, Ontario. Summaries of these interviews are provided in Appendix I to this report.

# II. HOW TO GET INTO THE U.S. MARKET

## Overcoming Perceived Barriers to Exporting

This section contains a discussion of methods that have either been successful or unsuccessful for Canadian printers who have exported products to the United States. According

to the interviewees, motivation is an important quality that is commonly lacking in Canadian printers. Several of these Canadian printers think U.S. buyers would not be interested in importing their printing due to a strong "Buy American" bias, "Printed in Canada" labeling requirements, and geographic distance. However, interviewees believe that these can be overcome and should not prevent a Canadian printer from exporting.

*1. Overcoming "Buy American"*

The "Buy American" bias is perhaps the most feared impediment. John Morris of McLaren, Morris and Todd (MM&T) approached a large food manufacturer in the United States for its label business. His negotiations proceeded to the point where MM&T was invited to give a presentation to the key decision makers and submit a bid. On the day of the presentation he went to the manufacture's office and was greeted by a secretary wearing a large "Buy American" pin. Mr. Morris turned to his associate and said, "Were not selling anything here." Mr. Morris was right. He went into the meeting and faced a group of executives, who were almost visibly upset at his being there. Ultimately, MM&T did not get the account. Stories like this need not scare Canadian printers from trying to expand to the United States, but should be taken as forewarning of what could happen. All exporters may eventually run into the "Buy American" prejudice, and therefore must prepare themselves. The executives of MM&T decided they were not going to let this bias stop them. They are currently working on buying a printing company in the United States to establish a base of operations. This is one way to overcome the bias, but it may not be the best way.

It may be true that a U.S. buyer may prefer to choose a U.S. printer instead of a Canadian printer. To overcome this, a foreign printer must find out the most important benefits U.S. print buyers are seeking. "Buy American" loyalty can take a back seat to many other factors. Each of the printers/publishers interviewed overcame the "Buy American" objection by calling attention to other more important benefits that they offer. For example, Brian Auty found that there was a significant quality difference between his and U.S. printed material. Once he showed this to U.S. print buyers, his sales began to increase. Mike Colinge of Webcom believes that the most important factors are: cost, product quality, service, and reliability. If Mr. Colinge is correct, then a skillful job of sales information probing will find which of these benefits is most important to the U.S. customer. Once this is determined, a sales to the interviewees, motivation is an important quality that is commonly lacking in Canadian printers. Several of these Canadian printers think U.S. buyers would not be interested in importing their printing due to a strong "Buy American" bias, "Printed in Canada" labeling requirements, and geographic distance. However, interviewees believe that these can be overcome and should not prevent a Canadian printer from exporting.

A. Overcoming "Buy American"

The "Buy American" bias is perhaps the most feared impediment. John Morris of McLaren, Morris and Todd (MM&T) approached a large food manufacturer in the United States for its label business. His negotiations proceeded to the point where MM&T was invited to give a presentation to the key decision makers and submit a bid. On the day of the presentation he went to the manufacturer's office and was greeted by a secretary wearing a large "Buy American" pin. Mr. Morris turned to his associate and said, "Were not selling anything here." Mr. Morris was right. He went into the meeting and faced a group of executives, who were almost visibly upset at his being there. Ultimately, MM&T did not get the account. Stories like this need not scare Canadian printers from trying to expand to the United States, but should be taken as forewarning of what could happen. All exporters may eventually run into the "Buy American" prejudice, and therefore must prepare themselves. The executives of MM&T decided they were not going to let this bias stop them. They are currently working on buying a printing company in the United States to establish a base of operations. This is one way to overcome the bias, but it may not be the best way.

It may be true that a U.S. buyer may prefer to choose a U.S. printer instead of a Canadian printer. To overcome this, a foreign printer must find out the most important benefits U.S. print buyers are seeking. "Buy American" loyalty can take a back seat to many other factors. Each of the printers/publishers interviewed overcame the "Buy American" objection by calling attention to other more important benefits that they offer. For example, Brian Auty found that there was a significant quality difference between his and U.S. printed material. Once he showed this to U.S. print buyers, his sales began to increase. Mike Collinge of Webcom believes that the most important factors are: cost, product quality, service, and reliability. If Mr. Collinge is correct, then a skillful job of sales information probing will find which of these benefits is most important to the U.S. customer. Once this is determined, a sales pitch can target one or all of these important benefits.

*2. Overcoming "Printed in Canada"*

U.S. Customs regulations require that certain Canadian print exports must have "Printed in Canada" printed on the product. This labeling requirement has caused many U.S. buyers to turn down a Canadian print bid. Lyle Henderson, of Henderson Printing and Mike Colinge of Webcom have directly combated the "Printed in Canada" labeling requirement. Webcom prints mostly books and catalogs, which traditionally have the publisher printed on the front or back cover. Printing the name and address of the publisher on any page (including the cover) requires that the "Printed in Canada" label must also be on that page. Both Webcom and Henderson have avoided this difficulty by placing the printer/publisher name along with "Printed in Canada" in an inconspicuous location, such as the copyright page of the book or catalog. This meets the legal requirements, but allows the firms to respond to the labeling concerns of U.S. print buyers.

*3. Overcoming Large Geographic Distance*

A Canadian printer should not worry about a large geographic distance that may exist between itself and its U.S. buyers. Auty Printing does business with customers in New York, Illinois, Texas, Arizona, and other states. Brian Auty says he has been able to accomplish this because U.S. print buyers are used to dealing over long distances with suppliers located throughout the United States. According to Mr. Auty, the trick is to make it seem like you are the printer next door. To do this, he believes it is an absolute necessity to have an "800" number to serve both U.S. and Canadian customers. This will help increase communication and reduce the perceived distance, which in turn leads to increased sales. In Auty's case, the "800" line calls cost approximately $0.22 a minute and is seen as an affordable and wise investment.

**Identifying a Market Niche**

The interviewees all suggest that to successfully export to the United States, a firm should target a product or market niche in which it already excels. Randy Pope, President of Synergy for Lowe Martin, believes that if a Canadian firm has the idea that it will supply general printing needs to U.S. print buyers, it will surely fail. He believes that the U.S. market is already saturated with general printers and "being the 101st supplier on some buyer's list won't work."

The export strategy of Lowe Martin reflects his belief. Lowe Martin is an excellent sheet-fed general printer, but is taking only what it does best to the United States. The high-tech front end and digital imaging (DI) capabilities of the firm allow it to compete exceptionally well in the high-tech marketplace. As a result, its ideal export target market is any concentration of scientific and engineering firms. Once it has identified a concentration of such in a given geographic area, Lowe Martin will set up a U.S. office and sales rep.

As a rule, Canadian printers cannot supply general printing needs in the United States from their Canadian center of operations because of U.S. competition. However, there are exceptions to this rule. Lyle Henderson, president of Henderson Printing, in Brockville, Ontario, is successful in exporting general printing due mainly to being located in close proximity to the Canadian-U.S. border. However, even with proximity to U.S. markets, Henderson has run into the perception among U.S. buyers that there is "a wall at the border." This perception has two parts: first, the U.S. buyers believe that Canada is a faraway and foreign country and second, international trade is too difficult. As an example, Henderson approached a U.S. buyer just 50 miles from Brockville and learned that the buyer was working with a general printer in the United States over 150 miles away. The buyer admitted that the distance made it difficult to work with the present printer. When Henderson explained that he could complete the work in Brockville, the first reaction of the buyer was that Brockville was too far away. Once the buyer learned that Henderson Printing was much closer than his current vendor and that international trade was not difficult, the buyer decided to hire Henderson.

Auty Printing, in contrast, is a successful exporter because it has exploited its niche in printing promotional material. This does not mean Auty has given up on expanding its product line. Brian Auty plans to expand into the U.S. in-store custom signage market by making an investment in innovative signage technologies that will allow him to present new and significant benefits to U.S. buyers.

If a Canadian firm is planning to get into a U.S. market, it should plan to be the best supplier in that market. A good indication of whether or not a firm can be a market leader is how well it serves its own markets. Randy Pope of Lowe-Martin believes that a firm currently serving only 2% of its local market niche will probably not be successful when expanding or exporting. The firm should excel in its local marketplace before it attempts to expand to the highly competitive U.S. market.

## The Need for Market Research

When considering the option of expanding into the United States, market research is extremely important. Brian Auty has made a regular practice of traveling to U.S. cities to explore for opportunities. He suggests that if a firm plans to export to the United States, it must research its target market with the objective of "finding the real reason that Americans would want to buy from Canadian printers." Lowe-Martin, is currently researching U.S. markets for scientific and engineering company concentrations. Webcom has already completed its market research. One niche of Webcom is colleges and universities, and it has thus chosen the college and university-rich Boston market for a sales branch.

Once a firm finds a market concentration, its next step should be to survey the competition. For example, Lowe-Martin is an excellent high-tech printer, but so is the world-wide conglomerate Donnelly Printing. Since Donnelly has the advantages of size and market credibility, Lowe Martin wisely plans to conduct its business in a market that Donnelly does not currently serve.

## Buyouts, Joint Ventures and Partnerships

After deciding to enter the U.S. market, a Canadian firm has several alternatives to execute its plan of expansion. John Morris of MM&T believes that a buyout is the only way to enter the market. He feels this is the best way to gain credibility with certain provincially-minded U.S. buyers. His opinion is based on the failure of MM&T's attempt to establish a branch office in New York City.

The partnership between Auty and Advanced Screen Printers (A.S.P. and later Auty, U.S.A.) was extremely successful. A.S.P. produced screen printed promotional products, just as Auty did, but was much smaller. After Mr. Auty showed the owner of A.S.P. that a partnership would be mutually beneficial, the companies developed a partnership contract, and A.S.P. changed its name to Auty, U.S.A.. Annual revenues for Auty, U.S.A. jumped from $360,000 to nearly $2 million largely because of the expertise and investment provided by Auty, Canada. The owner of Auty, U.S.A. decided he did not want to take the risks that would be necessary to boost revenues to $5 to $10 million per year, so the official partnership was ended. Presently, a less structured working relationship continues to exist and is beneficial to both companies.

Don Griffin of Lowe-Martin suggests that a joint venture will work if both partners contribute something of value to the relationship. For example, one company has capital, but has no potential investments in mind whereas the other company has identified some opportunities but has limited capital. Geographic location can be valuable as well. For example, Lowe-Martin has cutting edge front end and DI technology. Obviously, a partnership with a U.S. company in a high-tech center could be extremely successful. Finally, Mr. Griffin, of Lowe-Martin, believes that joint ventures and partnerships are being made easier by advanced communication technology. Diskettes, computers, faxes and modems all make working with someone in another country easier.

**Sales Representatives and Print Brokers**

For clarification, this report defines sales representative as an individual who works solely for a particular Canadian printer. A print broker is an agent who represents many different printers. Some of the interviewees recommended avoiding print brokers. They felt that brokers could not provide the detailed product information which U.S. buyers would need. Sales representatives were preferable because they would provide individual attention and in-depth product knowledge to customers. The estimated cost of a U.S. representative salary and commission plus office expenses range from $75,000 to $150,000 per year ($75,000/yr. for a smaller market like Columbus, Ohio, but $150,000/yr. for a large eastern city like New York). Two of the companies interviewed, Webcom and MM&T, had previous experience in establishing stand-alone representatives and offices, but John Morris of MM&T found this strategy to be "totally ineffective." MM&T had opened an office in New York City to prospect the consumer-goods labeling niche. After approximately one year it found the anti-foreigner bias to be too great and withdrew from the market. On the other hand, Webcom has been very successful with its offices in the United States and its New York City and Cleveland offices have successfully targeted the large book publishing markets in those cities. As mentioned earlier, the Boston office of Webcom has also generated substantial business for catalogs and related products through colleges and universities in the area.

**Networking**

Networking generates personal contacts that may lead to future business operations. This type of activity is essential for generating prospective clients. Although following up on these leads can often be time consuming and may not prosper, one good contact may open several U.S. doors for a Canadian printer. Thus, networking is an excellent route for generating information regarding potential U.S. customers and joint venture partners.

*1. Trade Shows*

Brian Auty uses this prospecting method extensively. Mr. Auty examines the printed promotional material trade magazines for calendars of events and upcoming trade shows. In addition, he looks for trade shows or potential networking events in geographically focused printing trade magazines, trade magazines of customers in his printed promotional material niche, and newsletters from the Printing Industry Association (PIA), the CPIA, and other associations. At a typical U.S. trade show, Mr. Auty can generate 1,000 to 1,500 marketing leads. He follows these leads by placing them on a mailing list for Auty marketing materials and his firm regularly issues newsletters describing new products or industry developments. While at the shows, Mr. Auty regularly explores the background of a prospect and, if warranted, he will later make a personal call on the key decision makers of that company.

*2. Associations*

Associations sponsor numerous networking events such as seminars and conferences (see Section 7). For example, the PIA recently sponsored a seminar in Mexico entitled, "How to Sell Printing in Canada." Any person attending this meeting would be a prime candidate for a U.S.-to-Canada joint venture. Even if a Canadian firm was not actively seeking a joint venture, it might find the possibility interesting. However, Mr. Auty was the only Canadian printer present at the event. He believes that Canadian firms are not exploiting association opportunities and cites that he is one of only three CPIA printers who are also members of the PIA, that attend U.S. meetings.

*3. Suppliers*

U.S. suppliers are also valuable contacts. When Mr. Auty informed his U.S. supplier

that he wanted to start a joint venture with a U.S. company, the supplier put him in touch with the company that eventually became Auty, U.S.A..

*4. Bi-National Companies*

Another networking route is to establish ties with a Canadian subsidiary of a U.S. parent company or with a Canadian company that has a U.S. subsidiary. This method has been extremely effective for both MM&T and Lowe Martin. Don Griffin established strong ties with the president of Xerox, Canada who later became the president of Xerox, U.S.A.. When the Xerox executive moved, the business moved with him.

## III. HOW TO STAY IN THE U.S. MARKETPLACE

**Service**

To stay in the U.S. market, excellent service is essential. As previously mentioned, an "800" line can be established to reduce the perceived distance and increase communication. Customers usually find an "800" number convenient for answering questions. Mike Colinge of Webcom best summed up the service philosophy of an exporter: "Our objective from day one is to make it seem that Webcom is the printer down the street. Webcom takes care of all the issues . . . we do not use metric measurement, pricing is all in U.S. dollars, and we take care of all required export documentation." The objective is to minimize any unforseen obstacles for the customer.

Service can also win new accounts. Auty won a U.S. account because it was willing to provide extra customer service. The prospective customer needed the final product shipped to 100 destinations instead of one, and this required special packaging that U.S. printers would not do. Auty stepped in, provided the necessary service, and won the account.

**Shipping**

Minimizing shipping costs is crucial to prolonged exporting success. The shipping costs for Webcom have averaged less than 5% of total costs, which often is less than its U.S. competition. To keep shipping costs low, Webcom ships regularly, allowing for possible negotiations with major independent carriers for better rates.

Auty Printing does not create the volume of cross border shipping that Webcom does.

However, it reduces shipping costs by using a secondary shipping site in the United States. According to Mr. Auty, a firm shipping one pound from Canada to the United States through a major carrier can expect to pay approximately $35. However, if a firm ships to a U.S. destination by transport truck first, and then re-ships from that U.S. city, the cost would be roughly $3 a pound. Generally, it costs Auty $5 a pound to ship from Toronto to Columbus on its transport truck. Therefore, the total for Auty averages approximately $8 per pound. All shipments made by Auty are prepackaged for secondary shipment by UPS once they are unloaded in Columbus.

**U.S. Customs**

There are various steps a company can take to minimize the delays at U.S. Customs. Although there is "free trade," a border crossing is virtually never without cost. According to Mr. Auty, clearance fees at Customs range from $100 to $200 per transport of printed products.

As volumes increase, border crossing difficulties generally decrease. If a firm ships one transport per week with 5,000 to 15,000 pounds on the truck, it will justify a line-item-release-form. This form is extremely helpful in not only avoiding delays, but speeding up border crossings as well. In addition, a firm should try to use the same point of entry. This will help increase familiarity between Customs and your firm, resulting in the reduction of delays.

It is important to properly mark the content of every box, because U.S. Customs will hold improperly marked shipments for classification and origin inquiries. A customs broker can help an exporter manage border crossings. Therefore, it can be beneficial to build a strong relationship with a broker.

## IV. SUMMARY OF FINDINGS

Interviews with key executives have produced a great amount of useful data. The value of this input will vary depending on the specific type of business a printer or publisher engages in. However, some key conclusions that cut across all printing specialties are summarized below.

1. Successful exporters may need to overcome "Buy American" prejudice, but it is possible to do so by stressing factors such as product quality, cost, service, and reliability.

2. Canadian printers should make it seem like they are located next door to the print buyers, rather than in a foreign country.

3. A firm should identify and exploit a product niche and, if possible, a concentration of buyers in a given geographic region.

4. Once a firm identifies a possible market, it should conduct appropriate market research and identify the competition.

5. Buyouts, joint ventures, and partnerships should be considered as means of entering the U.S. marketplace.

6. Sales representatives, rather than print brokers, should be used in direct sales to provide detailed product and vendor information to potential customers.

7. Canadian printers should take advantage of networking opportunities through trade shows, associations, supplier contacts, and Canadian subsidiaries of U.S. printers.

8. Providing good service is important in staying competitive in the U.S. marketplace.

9. Exporters should consider drop-shipping their product to a secondary U.S. site as a way to reduce shipping costs.

10. U.S. duties on printed products are generally limited, but exporters should be aware of U.S. Customs procedures. A customs broker is recommended.

# Section 3

# Print Buyer

# Survey

## Print Buyer Survey

**I. Overview of Print Buyer Survey**

**II. Method of Obtaining Information**

**III. Survey Topics**

How Should a Canadian Printer Approach a U.S. Print Buyer?
- Qualifications
- Criteria Ranking
  1. Cost and Service
  2. Delivery
  3. Printed in the U.S.A.
  4. Product Quality
  5. Turnaround
- Anticipated Problems with a Canadian Printer
- Strengths & Weaknesses of Current Vendors
  1. Strengths
  2. Weaknesses

**IV. Impediments for Canadian Printers**

**V. Information for Each Geographic Location in the Area of Interest**

**VI. Summary of Findings**

## I. OVERVIEW OF PRINT BUYER SURVEY

A main objective of the print buyer survey was to find if there is a "Buy American" prejudice among U.S. print buyers that would hinder the chances for a Canadian printer to successfully export to the United States. In addition, information was gathered regarding how Canadian printers might best approach a U.S. print buyer and the specific criteria which influence print buyers' decisions. Our research further attempted to define other barriers that might prevent a Canadian printer from exporting to the United States.

## II. METHOD OF OBTAINING INFORMATION

In order to gather relevant information, two methods were used to survey several large companies in six metropolitan areas: Plattsburgh, Binghamton, Syracuse, Rochester, Buffalo, and Pittsburgh. First, an attempt was made to call the purchasing agent in charge of commercial print buying for each company. If the person was cooperative, an interview was conducted. On the other hand, if the person was busy or otherwise not available, interview questions were faxed to be filled out and returned. Out of 90 companies contacted, 30 responded to the interview questions.

The companies were chosen on the basis of their annual revenues. Most of the firms contacted had revenues greater than $10 million (US). Several of these firms had revenues greater than $100 million (US) or even $1 billion (US). Some of the exceptions to this were educational facilities, health care, governmental agencies, and advertising agencies (which were chosen due to their large annual printing expenditures).

## III. SURVEY TOPICS

The following sections present the questions contained in the survey and give a synopsis of the most significant responses.

### How Should a Canadian Printer Approach a U.S. Print Buyer?

In discussing ways for a printer to successfully approach an American print buyer, 62.5% of the companies surveyed had the same general view. In order to have a successful approach, a new vendor must make the initial contact. Canadian printers who wish to expand into the U.S. market must be extremely self-motivated when contacting U.S. print buyers. After the initial

contact, the buyer normally sets the tone of the business relationship. It may involve completing bid application packets, sending samples, quoting prices, or making a presentation. One company representative explained that any vendor who contacted them will be put on the bid list.

A Canadian printer, given a first offer from a print buyer, should be prepared to start with a small project. Generally, print buyers do not give large print jobs to printers that they have never worked with before. Most importantly, if the printer intends to become a regular supplier, then every aspect of this first print job must be flawless and impressive.

**Qualifications of Vendors**

The information obtained from the question of how vendors are qualified shows similarities among the responses from the print buyers. Unless the projects are extremely large and important, companies usually do not implement a qualification process. Only 7% of those surveyed revealed that they qualify their vendors.

**Ranking of Order Winning Criteria**

Each print buyer was asked to individually rank criteria based on the level of importance in making decisions to hire a print vendor. The ranking was classified on a scale from one to five, one being the most important and five being the least important. The items listed for consideration were cost or price, delivery (reliability), "Printed in the U.S.A.," product quality, turnaround, and service.

**1. Cost and Price**

Print buyers found cost or price to be an important criterion when hiring a vendor. The average total ranking for cost and service in the survey is 1.5, which scored third. Several of the firms surveyed stated that they work on a bid basis and thus projects are awarded to the lowest bidder. This criterion was ranked number one in Syracuse and Plattsburgh.

**2. Delivery Reliability**

The average total ranking score for delivery reliability in the survey is 1.67. Its overall total ranking by all of the areas surveyed is fourth. From the data obtained by the rankings, delivery reliability was an important factor in the decisions of the U.S. print buyers to hire a

vendor.

### 3. Printed in the U.S.A.

Overall, U.S. print buyers ranked the importance of their material being printed in the United States very low. "Printed in the U.S.A" averaged a total ranking of 3.33 and scored last for five out of the six geographical areas surveyed (one area ranked this criteria fifth). The information gathered from this survey suggests that the "Buy American" bias which Canadians believe exists in American firms is much less than perceived. Far more important were criteria such as product quality, service, and cost or price.

From this survey, several U.S. print buyers expressed that since their printers are hired on a bid basis, Canadian printers would not be discriminated against. Nevertheless, there will be a small portion of print buyers who feel strongly about "Buy American." Only 17% out those firms survey represented this minority.

### 4. Product Quality

The average total ranking of product quality was 1.2 which signified that it was the most important criteria in the decision of hiring a vendor. Out of all the areas surveyed, Syracuse and Rochester ranked product quality as the most important factor. In the remaining areas, product quality was ranked a close second.

### 5. Turnaround

Turnaround received an average total ranking score of 1.75. Although this number represents a high degree of importance, several of those surveyed expressed their attempts to avoid rush deliveries or rush orders unless there was a critical time limit for an important project. In cases such as this, buyers stated that delivery would be ranked number one. In general, turnaround was given the highest importance in Binghamton only. All other areas ranked this criterion with lower importance.

### 6. Service

Overall, service scored an average total ranking of 1.33 and was placed as a close second to the most important criteria in the survey which was product quality. While Pittsburgh and

Rochester felt that service was the most important criteria, the remaining areas surveyed considered it to be less important.

**Anticipated Problems With a Canadian Printer**

While 36.67% of the print buyers surveyed anticipated having no problems in working with a vendor based in Canada, others expressed concerns. The biggest concern was on-time delivery (of those surveyed, 23.33% stated this concern). The second largest concern (expressed by 20% of the firms surveyed) was distance. The following is a list of concerns and the percentages representing those firms surveyed that stated those concerns.

| CONCERN | PERCENTAGE |
|---|---|
| None | 36.67% |
| On time delivery | 23.33% |
| Distance | 20.00% |
| Border crossing/paperwork | 16.67% |
| Communication | 13.33% |
| Physical sales | 13.33% |
| "Printed in Canada" requirement | 6.67% |
| Exchange rate | 6.67% |
| Regulations | 3.33% |
| Quality of work | 3.33% |
| Approval of client | 3.33% |
| Tariffs | 3.33% |

**Strengths & Weaknesses of Current Vendors**

The following are strengths and weaknesses which the surveyed print buyers feel their current vendors possess:

**1. Strengths**

- Long term relationship
- Stores and packs
- Easy to check color and quality
- Cutting edge design and appeal
- Good service
- Cost competitive
- Good delivery
- Interaction with departments
- Very innovative
- Timely delivery even with rush jobs
- Anticipates needs
- Meets deadlines
- Good creative team
- Local
- Fair pricing;good quality
- Executive quality
- Customer-oriented
- Very aggressive
- Problem solvers
- Looks for ways to save company money

## 2. Weaknesses

- Size constraints
- Distance from printer
- Meeting deadlines
- Not innovative
- No silkscreening
- Small
- Pre-press problems
- Understaffed
- Small plant capacity
- Not very motivated

## IV. IMPEDIMENTS FOR CANADIAN PRINTERS

There are only two reported general barriers for Canadian printers who wish to export to the United States. First, some firms are fearful of dealing with border crossing procedures. Since feelings like this are common, it is extremely important that cross-border transactions are handled smoothly. For such international expansion, it is essential for Canadian printers to research and learn the proper procedures for making border crossing simple and trouble free for the customer.

Another perceived barrier is distance. Many Americans think that Canada is located a great distance away and therefore do not want to work with a Canadian printer, thinking that they will not receive their product in a timely manner. To avoid this misunderstanding, Canadian printers should explain to American print buyers why distance is not necessarily a problem and how it can be overcome.

One option for a Canadian firm to ensure its ability to compete with other local U.S. printers is to explore either buying out or forming a joint venture with a firm already located in an area. As a result, distribution costs and delivery times could be reduced.

## V. INFORMATION FOR EACH GEOGRAPHIC LOCATION IN THE AREA OF INTEREST

### Pittsburgh

Pittsburgh is the largest city that was included in the survey. Allegheny County, within which Pittsburgh is located, has a population of approximately 1.3 million people and is home to nearly 200 commercial printing firms (see Appendix B). Since this western Pennsylvania city has significantly more printing firms than the other cities included in the survey, it is not surprising that many print buyers in Pittsburgh mentioned that their printing needs are being satisfied locally. However, this does not necessarily mean that there are no opportunities for Canadian printers to penetrate the Pittsburgh market. Even though there are more printers in

Pittsburgh, there are also numerous firms which require printing services. Pittsburgh is home to nine FORTUNE 500 industrial corporations, and five FORTUNE 500 service corporations. It is generally characterized as a blue-collar city, and is considered to be the capital of the U.S. steel industry.

Print buyers in Pittsburgh were no more concerned with their distance to Canada than their counterparts in upstate New York State. Also, the relative importance of being printed in the United States is still consistently the least important factor affecting print buyers in Pittsburgh, just as it is in most of the upstate New York areas which were also surveyed.

For these reasons, it appears that there are opportunities for Canadian printers to obtain print jobs in Pittsburgh without necessarily opening a branch office in the city.

**Buffalo**

Buffalo is located in Erie County, New York and is the second largest area included in the survey in terms of population. There are approximately 970,000 people and 125 commercial printing establishments in this western New York area. The Buffalo market lies very close to the Canadian border, and many of the firms contacted are already conducting business with Canadian printing firms. Any printing firm based in the Toronto area would be able to service the Buffalo area very easily. Buffalo has a large amount of government and educational based organizations. Six of the top ten employers in Buffalo fall into one of these two categories.

Generally, print buyers in Buffalo are extremely open to being contacted by Canadian firms. However, since many Buffalo firms have experience in dealing with Canadian companies, they have also become knowledgeable regarding the problems that can arise. When asked about problems in dealing with Canadian printers, several Buffalo print buyers mentioned communication and distance to Canadian printers. For this reason, Canadian printers may have a harder time dealing with print buyers in Buffalo than in other areas that are located farther from the Canadian border.

**Rochester**

Rochester, New York, a large city on Lake Ontario, it is located in Monroe County which has a population of approximately 700,000 people and about 114 commercial printing companies. Despite being slightly smaller than Buffalo, Rochester is home to many well known

Pittsburgh, there are also numerous firms which require printing services. Pittsburgh is home to nine FORTUNE 500 industrial corporations, and five FORTUNE 500 service corporations. It is generally characterized as a blue-collar city, and is considered to be the capital of the U.S. steel industry.

Print buyers in Pittsburgh were no more concerned with their distance to Canada than their counterparts in upstate New York State. Also, the relative importance of being printed in the United States is still consistently the least important factor affecting print buyers in Pittsburgh, just as it is in most of the upstate New York areas which were also surveyed.

For these reasons, it appears that there are opportunities for Canadian printers to obtain print jobs in Pittsburgh without necessarily opening a branch office in the city.

**Buffalo**

Buffalo is located in Erie County, New York and is the second largest area included in the survey in terms of population. There are approximately 970,000 people and 125 commercial printing establishments in this western New York area. The Buffalo market lies very close to the Canadian border, and many of the firms contacted are already conducting business with Canadian printing firms. Any printing firm based in the Toronto area would be able to service the Buffalo area very easily. Buffalo has a large amount of government and educational based organizations. Six of the top ten employers in Buffalo fall into one of these two categories.

Generally, print buyers in Buffalo are extremely open to being contacted by Canadian firms. However, since many Buffalo firms have experience in dealing with Canadian companies, they have also become knowledgeable regarding the problems that can arise. When asked about problems in dealing with Canadian printers, several Buffalo print buyers mentioned communication and distance to Canadian printers. For this reason, Canadian printers may have a harder time dealing with print buyers in Buffalo than in other areas that are located farther from the Canadian border.

**Rochester**

Rochester, New York, a large city on Lake Ontario, is is located in Monroe County which has a population of approximately 738,000 people and about 114 commercial printing companies. Despite being slightly smaller than Buffalo, Rochester is home to many well known industrial corporations such as Eastman Kodak, Bausch & Lomb, and Xerox.

Print buyers in Rochester anticipated more problems in dealing with Canadian printers than print buyers in any of the other cities surveyed. Distance, delivery times, border crossing, exchange rates, communications, and "Printed in Canada" requirements, are just some of the concerns that Rochester print buyers mentioned. This was reinforced by the criteria-ranking section of the survey. When asked how the importance of being printed in the United States fit into their buying decision, Rochester print buyers ranked (on a scale of 1 to 5) it very important, with an average score of 1.8 (1 indicated most important and 5 indicated least important as it relates to their buying decision). For Rochester, "Printed in the U.S.A." scored higher than the importance of product price, which averaged 2.2. In each of the other cities involved in the study, the importance of being printed in the United States was consistently ranked least important in the buying decision, with an average score of 3.64. This data indicates that Rochester is not a favorable market for Canadian printers. Any Canadian firm attempting to enter the Rochester market would clearly have to overcome this barrier.

**Syracuse**

Syracuse, New York, located in Onondaga County, lies in the central part of New York State. Onondaga County is home to approximately a half million people and 61 commercial printing firms. There are few industrial firms such as Carrier Corporation and Martin Marietta. However, Syracuse contains a large number of medium-sized service related firms. Health care, banking, and insurance companies are very common in the city.

Of all the cities surveyed, Syracuse print buyers were the most optimistic about working with Canadian printers. Sixty percent of the firms contacted in Syracuse indicated that they would not anticipate having any problems while working with a Canadian printer (the average for the other cities in the survey was 32%) indicating that the Syracuse market holds attractive opportunities for Canadian printers to target.

**Binghamton**

Broome County, New York, where Binghamton is located, has approximately 200,000 people and 28 commercial printing firms. This southern New York area is a much smaller market than those areas previously discussed. However, this does not mean that Binghamton

should be ignored. The importance of being printed in the United States was rated the lowest in this city, with an average score of 4.33. Also, since Binghamton is located directly south of Syracuse on Interstate Highway 81, it would be easy to service the two cities together. As a single market, Binghamton does not have very many large print buyers, and therefore would not require a full-time sales representative located in the area. However, it still warrants a look by Canadian printers.

**Plattsburgh**

Plattsburgh, New York, is a small city located in Clinton county which lies close to the Canadian border in the northeastern part of the state. Clinton County, an area with approximately 86,000 people and 10 printing firms, is by far the smallest market studied. Virtually all of the print buyers in this market have worked with Canadian vendors for two reasons. First, there is a definite lack of printing services in the area. Second, the closest large city to the Plattsburgh area is Montreal, Canada which is only one hour away. Working with Canadians is an everyday event for many Plattsburgh residents and businesses. The Plattsburgh area is a popular destination for Quebec vacationers, and its economy is heavily driven by Canadian tourist dollars. For these reasons, a Canadian printer would most likely be able to have success in this area. However, since it is an extremely small market, it would probably only be worthwhile for Montreal area firms who are in close proximity to Plattsburgh.

## V. SUMMARY OF FINDINGS

The survey of print buyers indicated that there definitely are opportunities for Canadian printers to export into the United States. It will not be an easy task, but with a good plan and hard work, it should be feasible. If a Canadian printer can compete in areas such as quality, service, fast turnaround, reliable delivery, and low cost, then it is very likely to be successful at winning orders for print jobs over its U.S. competitors.

Findings:

1. The most important criteria, as ranked by U.S. print buyers, were product quality, service, and price/cost.

2. U.S. print buyers in all cities except Rochester ranked "Printed in the United States" the least important criterion in their buying decision.

3. The importance of the bidding process was mentioned several times. This indicates that any Canadian firm that can compete on a cost basis can win print jobs.

4. On-time delivery, distance, and border crossing problems were the most frequently mentioned problems that American print buyers expect when dealing with a Canadian printing firm.

5. Exchange rates, regulations, and tariffs were not major issues to U.S. print buyers.

6. There is no best way to successfully approach U.S. print buyers. Sending business cards and samples, and making personal appearances and presentations were the two most frequently mentioned ways.

7. There are many opportunities for Canadian printing firms to export to Upstate New York and Western Pennsylvania. Of the cities surveyed, Rochester, New York, would seem to be the most difficult market for Canadian printers to enter.

# Section 4

# Border Crossing Information

## Border Crossing Information

### I. Immigration and Temporary Entry Issues

NAFTA Chapter 16
Categories of Business Persons

1. Business Visitor
2. Traders or Investors
3. Intracompany Transferee
4. Professionals

### II. Tariffs on Printing Products

### III. "Printed in Canada" Requirements

### IV. Shipping Alternatives and Costs

## I. IMMIGRATION AND TEMPORARY ENTRY ISSUES

### NAFTA Chapter 16

Chapter 16, "Temporary Entry for Business Persons Entry" of the North American Free Trade Agreement (NAFTA) discusses the issues concerning movement of business travellers among Canada, Mexico, and the United States.

The objective of chapter 16 is to "reflect the preferential trading relationship between the parties (the U.S. and Canada), the desirability of facilitating temporary entry on a reciprocal basis and of establishing transparent criteria and procedures for temporary entry, and the need to ensure border security and to protect the domestic labor force and permanent employment in their respective territories" (NAFTA, Article 1601).

**Definitions:**

**Business Person** A citizen of a Party who is engaged in the trade in goods, the provision of services or the conduct of investment activities.

**Temporary Entry** Entry into the territory of a Party by a business person of another Party without the intent to establish permanent residence (NAFTA, Article 1608).

To enter the United States under NAFTA, an individual must be a citizen of either Mexico or Canada, and must prove admissibility under the existing United States immigration laws. Generally, Americans and Canadians are not required to carry passports or visas when entering each other's country. However, the person(s) entering may be required to provide proof of citizenship, in the form of a passport or birth certificate. Also, the person(s) entering must meet the measures relating to public health, safety, and national security of the visiting country.

**Categories of Business Persons**

Chapter 16 establishes four categories of business persons eligible for temporary entry. These categories, described in NAFTA Annex 1603, are as follows: Business Visitor, Traders and Investors, Intracompany Transferee, and Professional.

**(1) Business Visitor**

To qualify as a Business Visitor, an individual must meet the following definition:

> "A person engaged in international business activities related to research and design, growth, manufacture and production, marketing, sales, distribution, after-sales service, and other general services reflecting the activities in a complete business cycle, and receiving no remuneration from a United States source."

Business Visitors may enter the U.S. temporarily to engage in commercial activities of an international nature for an enterprise in Canada. Application for admission as a Business Visitor can be made at any U.S. point-of-entry. No fee is payable for an application in this category. Appendix J contains an arrival and departure card, which is required to be filled out at the U.S. point-of-entry, and surrendered at the Canadian point of entry.

The Business Visitor may be required to provide proof of the type of business activities that will be pursued while in the U.S, particularly if entry is being requested for an extended period of time. Generally, it is advisable to carry documentation describing the activity being carried out in the visited country. This documentation should be in the form of a letter written on company letterhead explaining the purpose of the visit, the product being promoted, and the length of the visit.

**(2) Traders and Investors**

*Traders*

A Trader is a business person seeking temporary entry into the U.S. to carry on substantial trade involving the flow of goods or services principally between the U.S. and Canada. Business persons may also qualify as a Trader if he/she is entering in an executive or supervisory capacity, or if they maintain skills which are essential to the efficient operation of the business.

**Definitions:**

**(a) Substantial** Trade is substantial if it generates enough income to support his/her family.

**(b) Principally** Over 50% of the trade must be between the U.S. and Canada.

*Investors*

An Investor is a business person seeking temporary entry into the United States to develop and direct a bonafide enterprise in which he/she has made a substantial investment of capital. The business person must own over 50% of the enterprise, or maintain a controlling interest.

Business persons may also qualify as an Investor if they are entering in an executive or supervisory capacity, or if they maintain skills which are essential to the efficient operation of the business.

A Canadian qualifying as a Trader or Investor must proceed to the U.S. Consulate and have the required nonimmigrant visa inserted into his/her passport, or other travel documentation. This is one of the few times in which a Canadian must show a visa at the time of application for admission.

**(3) Intracompany Transferee**

An Intracompany Transferee is a business person seeking temporary entry into the U.S. for the purpose of rendering services to the same employer. The same employer may be in the form of a parent, branch, subsidiary or affiliate of a Canadian company. The individual must be coming to the U.S. in a capacity that is either executive, managerial, or requires specialized knowledge.

A Canadian seeking status as an Intracompany Transferee must have a petition filed, Form L-129, on his/her behalf by either the U.S. or foreign company. The Intracompany transferee may apply for admission at a port-of entry. This is done by presenting the petition, proof of citizenship and identity, and evidence of experience at the port of entry. A fee of $50 dollars (US) is applicable upon application.

**(4) Professional**

A Professional is a business person seeking entry into the U.S. to engage in business as an occupation listed in Appendix 1603.D.1 of the NAFTA. A Canadian citizen seeking Professional status must present a letter of employment offering employment in a professional status, and proof that he/she possess professional status. Also, appropriate evidence of compliance with state license requirements must be presented. Application for Professional

status can be made at the point-of-entry.

Appendix L, Additional Border Crossing Information, provides the above mentioned data in detail, as well as, additional information regarding border crossing issues.

## II. TARIFFS ON PRINTED PRODUCTS

Tariffs on selected Canadian exports of commercial printing and related printing matter were gathered via the Harmonized Tariff Schedule (HS) of the United States (1994). The HS is an internationally recognized coding system intended to describe and classify goods in international trade. The following is a brief summary of how to read the HS Schedule.

**Column Title:**

Rates of Duty - General: Sets forth the general most-favored-nation (MFN) rates. Applicable to all products which do not fall within the Special column.

Rates of Duty - Special: Rates of duty applicable under one or more special tariff treatment programs. These programs, which include NAFTA, are further described in Appendix C, page 3 subparagraph (iii) and page 4 paragraph (c). Programs under which special tariff treatment may be provided, and the corresponding symbols which identify the programs are as follows:

| | |
|---|---|
| Generalized system of preference | A or A* |
| Automotive Products Trade Act | B |
| Agreement on Trade in Civil Aircraft | C |
| North American Free Trade Agreement: | |
| Goods of Canada | CA |
| Goods of Mexico | MX |
| Caribbean Basin Economic Recovery Act | E or E* |
| United States-Israel Free Trade Area | IL |
| Andean Trade Preference Act | J or J* |

Rates of Duty - 2: Rates of duty that apply to products, whether imported directly or indirectly, from the following countries:

| | | |
|---|---|---|
| - Afghanistan | - Kampuchea | - Tajikstan |
| - Azerbaijan | - Laos | - Cuba |
| - Uzbekistan | - North Korea | - Vietnam |

Most of the selected printed products fall within the *Special* rate of duty column. All of these products are free from duty. If a product does not fall within the *Special* column, it will commonly fall within the *General* column. The rates of duty in this column range from a high of 5.8% to free. The selected goods and their respected tariffs can be found on the following page.

## TARIFF SCHEDULE

| Commodity | HS Code | Special | Rates of Duty General | 2 |
|---|---|---|---|---|
| Registers, account books, diaries, etc. | | | | |
| - Diaries, notebooks, and address books memo pads, letter pads, and similar articles | 4820.10.20 | FREE | 4% | 25% |
| - Other | 4820.10.40 | FREE | FREE | 25% |
| Mainfold business forms | 4820.40 | FREE | 5.3% | 25% |
| Albums for sample & collections | 4820.50 | FREE | 4% | 30% |
| Paper labels, printed in whole or part by a lithographic process | 4821.10.20.00 | FREE | $.0088/Kg | $.88/Kg |
| Paper labels, not printed | | | | |
| - Pressure sensitive | 48219.20.00 | FREE | 5.8% | 40% |
| -Other | 48219.40.00 | FREE | 3% | 30% |
| Printed paper for resorting machines | 4823.40 | FREE | 5.3% | 35% |
| Paper, printed, embossed, etc. | 4823.51 | FREE | 3% | 30% |
| Brochures, leaflets, etc. in single sheets | 4109.10 | FREE | FREE | FREE |
| Music printed | 4904.00 | FREE | FREE | FREE |
| Globes, topographical, printed | 4905.10 | FREE | 5.3% | 35% |
| Maps & charts in book form | 4905.91 | FREE | FREE | FREE |
| Maps & charts not in book form | 4905.99 | FREE | FREE | FREE |
| Plans & drawings | 4906.00 | FREE | FREE | FREE |
| Stamps, cheque forms, banknotes, bonds | 4907.00 | FREE | FREE | $.66/Kg |
| Transfers, vitrifiable | 4908.10 | FREE | $.132/Kg +3.5% | $.66/Kg +15% |
| Transfer, nes | 4908.90 | FREE | $.154/Kg | $.88/Kg |
| Postcards, greeting cards | | | | |
| - Postcards | 4909.00.20 | FREE | 4% | 25% |
| - Other | 4909.00.40 | FREE | 4.9% | 45% |
| Calendars | | | | |
| - Printed on paper or paperboard in whole or in part by a lithographic process | | | | |
| * not over 0.51 mm in thickness | 4910.00.20 | FREE | FREE | $.66/Kg |
| * Over 0.51 mm in thickness | 4910.00.40 | FREE | $.0044/Kg | $.19/Kg |
| - Other | 4910.00.60 | FREE | 3% | 35% |
| Trade advertising materials | 4911.10 | FREE | FREE | FREE |
| Playing cards | 9504.40 | FREE | $.008/Kg +0.8% | $.10/Kg +20% |
| Film for printing plates, not developed | 3704.00.00 | FREE | FREE | $3.88/m2 |
| Film for offset printing plates, developed | 3705.10 | FREE | FREE | 25% |
| Photo plates & films, nes, developed | 3705.90 | FREE | FREE | FREE |
| Binders of paper | 4820.30.00.10 | FREE | 5.3% | 35% |
| Printing type, blocks, plates, etc. | | | | |
| - Plates | 8442.50.10.10 | FREE | FREE | FREE |
| - Other | 8442.50.10.90 | FREE | 8% | 60% |

Additional tariffs for various printed, and other products can be found in the HS Tariff Schedule in Appendix M. The additional headings on the tariff schedule are as follows:

**Column Title:**

Heading/Subheading: The 4 to 8 digit HS number relates to a specific product or family of products.
Stat. Suffix: Further classification of products, if necessary.
Article Description: Written description of specific products.
Units of Quantity: The units of measure applied to the specific products.

## III. "PRINTED IN CANADA" REQUIREMENTS

All printed products being exported to the U.S. must be labelled "Printed In Canada". However, the specific requirements for labeling products "Printed In Canada" have changed under NAFTA. Under NAFTA, only the *ultimate purchaser* of the product must be made aware of the country of origin. The ultimate purchaser is defined as the last person to buy the products. For example, if a retail store purchases printed products with the intent to resell the products, the *ultimate purchasers* are the consumers whom purchase the printed products from the retail store. However, if the same retail store purchased the printed products with the intent to give the products away as promotion, the *ultimate purchaser* is the retail store.

The labeling requirements are different depending upon the *ultimate purchaser*. If printed products are being imported into the U.S. for resale, these products must have "Printed In Canada" on them However, if the same products were being imported as gifts or promotional items, only the box in which the products are shipped in must have "Printed In Canada" on it.

Information obtained from:

Sally Farrell
U.S. Customs
Albany, NY 12231
Tel: (518) 298-8333

## IV. SHIPPING ALTERNATIVES AND COSTS

One method for shipping to the United States is via United Parcel Service ("UPS"). Shipping products by other sources such as Federal Express or independent trucking agencies were also explored, but were found to vary too greatly to be thoroughly reported in this study.

### UPS

Shipping charges are based upon service level, weight, and shipping zone. The service level can be either Express, Expedited, or Standard service. Explanations for the remaining two components follows.

The rates are based on the actual weight or the dimensional weight of the shipment, which ever is greater. The dimensional weight is determined using the International Air Transport Association (IATA) volumetric standard. The formula used to calculate the dimensional weight is:

$$\frac{\text{Length x Width x Height}}{166}$$

Once the weight has been determined, the shipping zone must be determined. This is done simply by matching the destinations postal code with the appropriate zone. After the zone has been determined a shipping rate can be determined.

A set rate charge has been determined for shipments under 500 pounds. This rate is zone dependent and will change from zone to zone. For shipments over 200 pounds, the rate is determined by multiplying the weight by the appropriate price per pound.

For more specific shipping information contact the following:

United Parcel Service
International Services
1-800-782-7892
Ext. 4151
Contact: Shannon

# Section 5
# Summary of Findings

## I. INDUSTRY BACKGROUND SUMMARY

The area of interest consists of 35 counties of upstate New York and 5 counties of western Pennsylvania. Manufacturing is the largest business sector for the area, and printing and publishing is the second largest group of the sector. During the latest recession, the printing industry in the area had some significant losses with more than 260 firms closing and approximately 4,000 jobs lost.

The end of the recession should mean improving trends in the United States, particularly for the printing and publishing industry in general. Certain sectors of the industry are expected to see growth rates of up to 9.0%. However, costs are expected to rise for U.S printers due to environmental regulations, capital improvements and employee training.

In addition to rising costs, the competitiveness of U.S. firms has been shown to be weakening recently due to the deteriorating value of the Canadian dollar relative to the U.S. dollar. The exchange rate has been especially noticeable in the comparisons of changes in unit labor costs and manufacturing costs. Despite very similar national patterns for each of these cost areas, the decline in the Canadian exchange rate has been responsible for making Canadian manufacturing firms more competitive relative to U.S. firms.

In order to remain informed on the U.S. printing market, numerous sources of information should be followed from sources including both federal and state government agencies, trade associations and industry publications. Lists of these are contained in Appendix D for reference. The types of information that can be readily reviewed includes labor rates and costs, distributions of printing firms by sizes within specific geographic regions, regular economic measures such as employment and work force figures, industry news and features, and business trends and forecasts.

## II. FINDINGS FROM INTERVIEWS OF CANADIAN PRINTING EXPORTERS

Interviews with key executives have produced a great amount of useful data. The value of this input will vary depending on the specific type of business a printer or publisher engages in. However, some key conclusions that cut across all printing specialties are summarized as follows:

1. Successful exporters may need to overcome "Buy American" prejudice, but it is possible to do so by stressing factors such as product quality, cost, service, and reliability.

2. Canadian printers should make it seem like they are located next door to the print buyers, rather than in a foreign country.

3. A firm should identify and exploit a product niche and, if possible, a concentration of buyers in a given geographic region.

4. Once a firm identifies a possible market, it should conduct appropriate market research and identify the competition.

5. Buyouts, joint ventures, and partnerships should be considered as means of entering the U.S. marketplace.

6. Sales representatives, rather than print brokers, should be used in direct sales to provide detailed product and vendor information to potential customers.

7. Canadian printers should take advantage of networking opportunities through trade shows, associations, supplier contacts, and Canadian subsidiaries of U.S. printers.

8. Providing good service is important in staying competitive in the U.S. marketplace.

9. Exporters should consider drop-shipping their product to a secondary U.S. site as a way to reduce shipping costs.

10. U.S. duties on printed products are generally limited, but exporters should be aware of U.S. Customs procedures. A customs broker is recommended.

## III. SUMMARY OF FINDINGS FROM U.S. PRINT BUYER SURVEY

The survey of print buyers indicated that there definitely are opportunities for Canadian printers to export into the United States. It will not be an easy task, but with a good plan and hard work, it should be feasible. If a Canadian printer can compete in areas such as quality, service, fast turnaround, reliable delivery, and low cost, then it is very likely to be successful at winning orders for print jobs over its U.S. competitors.

Findings:

1. The most important criteria, as ranked by U.S. print buyers, were product quality, service, and price/cost.

2. U.S. print buyers in all cities except Rochester ranked "Printed in the United States" the <u>least</u> important criterion in their buying decision.

3. The importance of the bidding process was mentioned several times. This indicates that any Canadian firm that can compete on a cost basis can win print jobs.

4. On-time delivery, distance, and border crossing problems were the most frequently mentioned problems that American print buyers expect when dealing with a Canadian printing firm.

5. Exchange rates, regulations, and tariffs were not major issues to U.S. print buyers.

6. There is no best way to successfully approach U.S. print buyers. Sending business cards and samples, and making personal appearances and presentations were the two most frequently mentioned ways.

7. There are many opportunities for Canadian printing firms to export to Upstate New York and Western Pennsylvania. Of the cities surveyed, Rochester, New York, would seem to be the most difficult market for Canadian printers to enter.

# CANADIAN PRINTING INDUSTRIES ASSOCIATION

# STUDY OF THE PRINTING INDUSTRY

# IN UPSTATE NEW YORK AND

# WESTERN PENNSYLVANIA

## VOLUME II

Canadian-U.S. Business Consulting Service
Clarkson University
Potsdam, New York 13699
Tel: 315-268-7610 / FAX: 315-268-3810

Consultants:
Stephen Crossman
Sophia Gavrielides
David Hilton
Thomas McDonald
Tracy Meyer
William Thurber
Todd Wilmett
Stephen Wilkinson

May 13, 1994

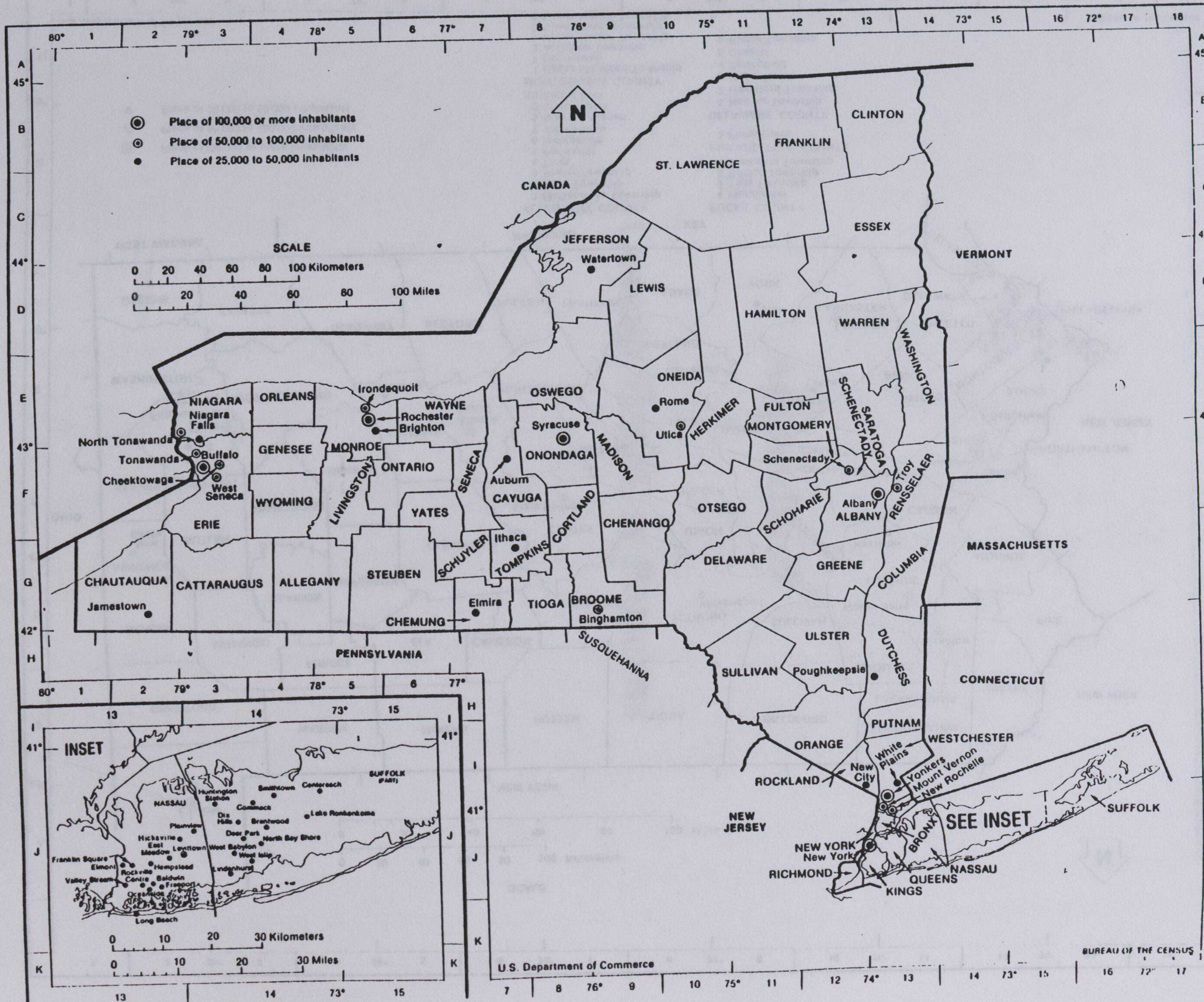
# Section 6:

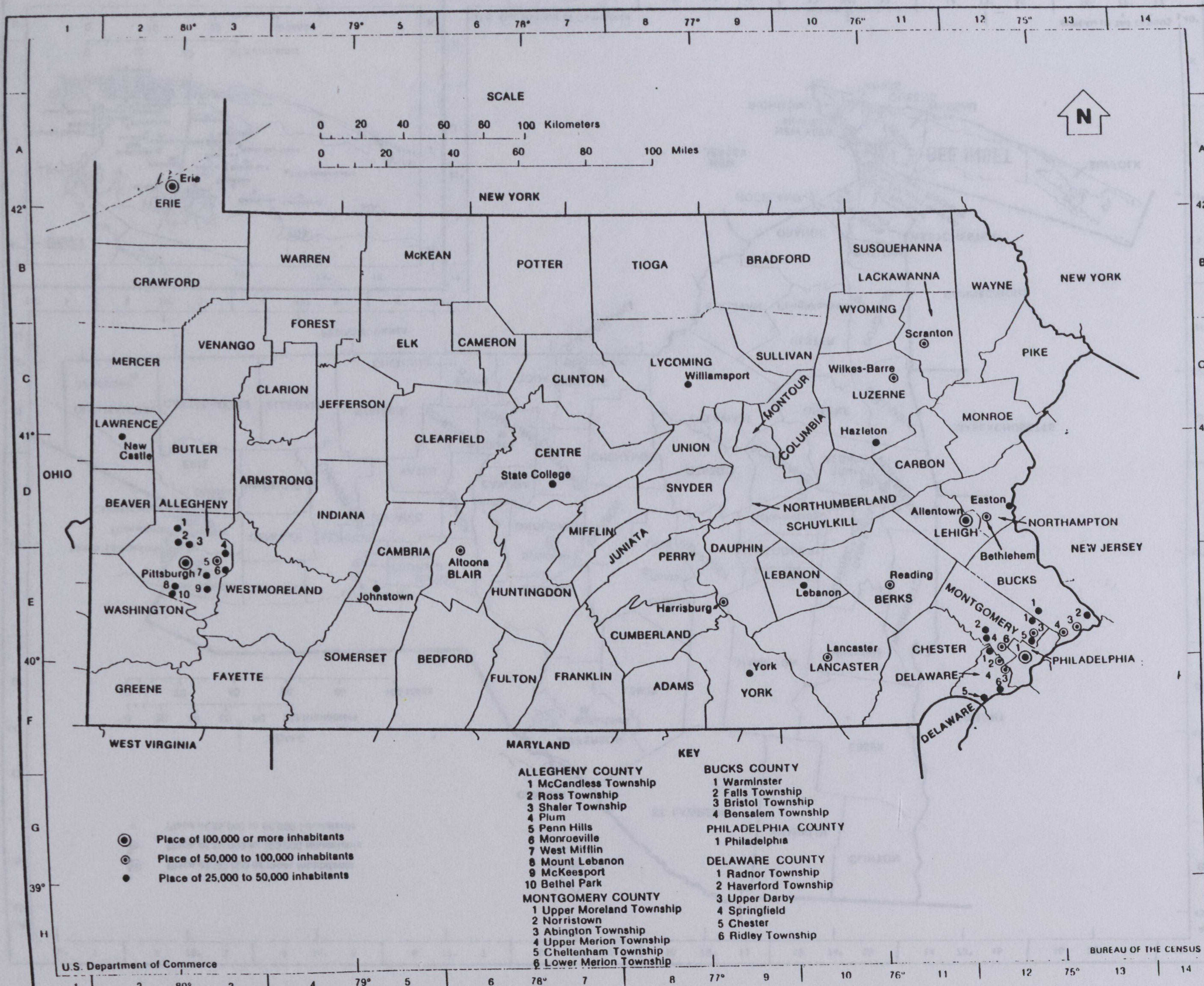
# Appendices A to M

## Appendices

# Appendix A

# Maps of New York and Pennsylvania


Place of 100,000 or more inhabitants
Place of 50,000 to 100,000 inhabitants
Place of 25,000 to 50,000 inhabitants
SCALE
0 20 40 60 80 100 Kilometers
0 20 40 60 80 100 Miles
N
CANADA
VERMONT
MASSACHUSETTS
CONNECTICUT
PENNSYLVANIA
NEW JERSEY
CLINTON
FRANKLIN
ST. LAWRENCE
ESSEX
JEFFERSON
Watertown
LEWIS
HAMILTON
WARREN
WASHINGTON
OSWEGO
ONEIDA
Rome
Utica
HERKIMER
FULTON
MONTGOMERY
SCHENECTADY
SARATOGA
Schenectady
Troy
RENSSELAER
Albany
ALBANY
NIAGARA
Niagara Falls
North Tonawanda
Tonawanda
Buffalo
Cheektowaga
West Seneca
ORLEANS
Irondequoit
Rochester
Brighton
WAYNE
GENESEE
MONROE
ONTARIO
SENECA
Syracuse
ONONDAGA
MADISON
Auburn
CAYUGA
WYOMING
LIVINGSTON
YATES
ERIE
CORTLAND
CHENANGO
OTSEGO
SCHOHARIE
Ithaca
TOMPKINS
SCHUYLER
DELAWARE
GREENE
COLUMBIA
CHAUTAUQUA
CATTARAUGUS
ALLEGANY
STEUBEN
Jamestown
Elmira
CHEMUNG
TIOGA
BROOME
Binghamton
SUSQUEHANNA
ULSTER
DUTCHESS
SULLIVAN
Poughkeepsie
PUTNAM
WESTCHESTER
ORANGE
White Plains
New City
ROCKLAND
Yonkers
Mount Vernon
New Rochelle
SEE INSET
SUFFOLK
BRONX
NEW YORK
New York
RICHMOND
NASSAU
QUEENS
KINGS
INSET
SUFFOLK (PART)
NASSAU
Huntington Station
Smithtown
Centereach
Commack
Dix Hills
Brentwood
Lake Ronkonkoma
Plainview
Deer Park
North Bay Shore
Hicksville
East Meadow
Levittown
West Babylon
West Islip
Franklin Square
Elmont
Rockville Centre
Hempstead
Lindenhurst
Valley Stream
Baldwin
Freeport
Oceanside
Long Beach
0 10 20 30 Kilometers
0 10 20 30 Miles
U.S. Department of Commerce
BUREAU OF THE CENSUS


SCALE
0 20 40 60 80 100 Kilometers
0 20 40 60 80 100 Miles
N
NEW YORK
OHIO
WEST VIRGINIA
MARYLAND
NEW JERSEY
Erie
ERIE
CRAWFORD
WARREN
McKEAN
POTTER
TIOGA
BRADFORD
SUSQUEHANNA
LACKAWANNA
WAYNE
PIKE
WYOMING
Scranton
MERCER
VENANGO
FOREST
ELK
CAMERON
CLINTON
LYCOMING
Williamsport
SULLIVAN
Wilkes-Barre
LUZERNE
MONROE
CLARION
JEFFERSON
MONTOUR
COLUMBIA
Hazleton
CARBON
LAWRENCE
New Castle
BUTLER
CLEARFIELD
CENTRE
UNION
State College
ARMSTRONG
SNYDER
NORTHUMBERLAND
Easton
Allentown
NORTHAMPTON
LEHIGH
BEAVER
ALLEGHENY
INDIANA
SCHUYLKILL
MIFFLIN
JUNIATA
PERRY
DAUPHIN
Bethlehem
CAMBRIA
Altoona
BLAIR
Pittsburgh
WESTMORELAND
Johnstown
HUNTINGDON
LEBANON
Lebanon
Reading
BERKS
BUCKS
MONTGOMERY
WASHINGTON
Harrisburg
CUMBERLAND
Lancaster
LANCASTER
CHESTER
PHILADELPHIA
SOMERSET
BEDFORD
FULTON
FRANKLIN
ADAMS
York
YORK
DELAWARE
GREENE
FAYETTE
KEY
Place of 100,000 or more inhabitants
Place of 50,000 to 100,000 inhabitants
Place of 25,000 to 50,000 inhabitants
ALLEGHENY COUNTY
1 McCandless Township
2 Ross Township
3 Shaler Township
4 Plum
5 Penn Hills
6 Monroeville
7 West Mifflin
8 Mount Lebanon
9 McKeesport
10 Bethel Park
MONTGOMERY COUNTY
1 Upper Moreland Township
2 Norristown
3 Abington Township
4 Upper Merion Township
5 Cheltenham Township
6 Lower Merion Township
BUCKS COUNTY
1 Warminster
2 Falls Township
3 Bristol Township
4 Bensalem Township
PHILADELPHIA COUNTY
1 Philadelphia
DELAWARE COUNTY
1 Radnor Township
2 Haverford Township
3 Upper Darby
4 Springfield
5 Chester
6 Ridley Township
U.S. Department of Commerce
BUREAU OF THE CENSUS

# Appendix B

# County Business Patterns

## Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1990—Con.

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ALLEGHENY—Con.** | | | | | | | | | | | | | |
| | **Manufacturing—Con.** | | | | | | | | | | | | | |
| 25 | Furniture and fixtures | 1 159 | 5 814 | 24 929 | 49 | 23 | 7 | 10 | 3 | 4 | 1 | 1 | - | - |
| 251 | Household furniture | 163 | 670 | 3 082 | 16 | 10 | 2 | 2 | 1 | 1 | - | - | - | - |
| 2515 | Mattresses and bedsprings | (C) | (D) | (D) | 6 | 3 | 1 | 1 | - | 1 | - | - | - | - |
| 252 | Office furniture | (E) | (D) | (D) | 3 | - | - | 2 | - | - | - | 1 | - | - |
| 2522 | Office furniture, except wood | (E) | (D) | (D) | 2 | - | - | 1 | - | - | - | 1 | - | - |
| 254 | Partitions and fixtures | 371 | 1 885 | 7 696 | 12 | 2 | 3 | 3 | 1 | 2 | 1 | - | - | - |
| 2541 | Wood partitions and fixtures | (C) | (D) | (D) | 10 | 2 | 3 | 3 | 1 | 1 | - | - | - | - |
| 2542 | Partitions and fixtures, except wood | (C) | (D) | (D) | 2 | - | - | - | - | 1 | 1 | - | - | - |
| 259 | Miscellaneous furniture and fixtures | 96 | 422 | 1 742 | 9 | 6 | - | 2 | - | 1 | - | - | - | - |
| 2591 | Drapery hardware and blinds and shades | (B) | (D) | (D) | 4 | 2 | - | 1 | - | 1 | - | - | - | - |
| 26 | Paper and allied products | 820 | 5 863 | 21 327 | 15 | - | 1 | 2 | 5 | 4 | 3 | - | - | - |
| 262 | Paper mills | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 265 | Paperboard containers and boxes | 439 | 2 809 | 11 448 | 7 | - | - | 1 | 2 | 2 | 2 | - | - | - |
| 2653 | Corrugated and solid fiber boxes | (E) | (D) | (D) | 4 | - | - | - | 1 | 1 | 2 | - | - | - |
| 2656 | Sanitary food containers | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 267 | Misc. converted paper products | 288 | 2 516 | 7 168 | 6 | - | - | 1 | 3 | 1 | 1 | - | - | - |
| 2673 | Bags: plastics, laminated, and coated | (B) | (D) | (D) | 2 | - | - | 1 | 1 | - | - | - | - | - |
| 2677 | Envelopes | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2679 | Converted paper products, n.e.c. | (B) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 27 | Printing and publishing | 7 394 | 50 593 | 199 998 | 324 | 135 | 73 | 49 | 39 | 16 | 9 | 2 | - | 1 |
| 271 | Newspapers | 2 790 | 24 164 | 92 461 | 30 | 9 | 8 | 3 | 5 | - | 3 | 1 | - | 1 |
| 272 | Periodicals | 115 | 702 | 3 199 | 14 | 7 | 3 | 2 | 2 | - | - | - | - | - |
| 273 | Books | 95 | 442 | 1 917 | 12 | 6 | 2 | 2 | 2 | - | - | - | - | - |
| 2731 | Book publishing | (B) | (D) | (D) | 9 | 5 | 1 | 1 | 2 | - | - | - | - | - |
| 274 | Miscellaneous publishing | 78 | 806 | 2 959 | 6 | 3 | 1 | 1 | 1 | - | - | - | - | - |
| 275 | Commercial printing | 2 660 | 15 638 | 63 284 | 191 | 80 | 43 | 31 | 23 | 11 | 3 | - | - | - |
| 2752 | Commercial printing, lithographic | 2 049 | 11 948 | 48 137 | 126 | 50 | 26 | 20 | 19 | 8 | 3 | - | - | - |
| 2759 | Commercial printing, n.e.c. | 611 | 3 383 | 14 667 | 59 | 26 | 16 | 10 | 4 | 3 | - | - | - | - |
| 276 | Manifold business forms | (E) | (D) | (D) | 5 | 1 | 1 | 1 | 1 | - | - | 1 | - | - |
| 278 | Blankbooks and bookbinding | 550 | 3 056 | 12 278 | 10 | 1 | 3 | 1 | 2 | 1 | 2 | - | - | - |
| 2782 | Blankbooks and looseleaf binders | (E) | (D) | (D) | 3 | - | - | - | 1 | - | 2 | - | - | - |
| 2789 | Bookbinding and related work | (C) | (D) | (D) | 7 | 1 | 3 | 1 | 1 | 1 | - | - | - | - |
| 279 | Printing trade services | 549 | 3 551 | 13 799 | 28 | 8 | 8 | 5 | 2 | 4 | 1 | - | - | - |
| 2791 | Typesetting | 299 | 1 570 | 5 785 | 23 | 7 | 8 | 4 | 2 | 2 | - | - | - | - |
| 2796 | Platemaking services | 250 | 1 981 | 8 014 | 5 | 1 | - | 1 | - | 2 | 1 | - | - | - |
| 28 | Chemicals and allied products | 3 993 | 28 855 | 115 691 | 65 | 15 | 14 | 11 | 9 | 4 | 8 | 3 | 1 | - |
| 281 | Industrial inorganic chemicals | 257 | 2 118 | 8 423 | 13 | 5 | 2 | 4 | - | 1 | 1 | - | - | - |
| 2813 | Industrial gases | (B) | (D) | (D) | 9 | 5 | 1 | 3 | - | - | - | - | - | - |
| 2819 | Industrial inorganic chemicals, n.e.c. | (C) | (D) | (D) | 4 | - | 1 | 1 | - | 1 | 1 | - | - | - |
| 282 | Plastics materials and synthetics | 984 | 7 801 | 30 816 | 7 | 2 | - | - | 2 | - | 1 | 2 | - | - |
| 2821 | Plastics materials and resins | (F) | (D) | (D) | 6 | 1 | - | - | 2 | - | 1 | 2 | - | - |
| 283 | Drugs | (F) | (D) | (D) | 5 | - | 2 | - | 2 | - | - | - | 1 | - |
| 2834 | Pharmaceutical preparations | (F) | (D) | (D) | 2 | - | 1 | - | - | - | - | - | 1 | - |
| 284 | Soap, cleaners, and toilet goods | 341 | 1 380 | 6 012 | 11 | 3 | 3 | 2 | 1 | - | 2 | - | - | - |
| 2842 | Polishes and sanitation goods | (E) | (D) | (D) | 8 | 2 | 2 | 2 | - | - | 2 | - | - | - |
| 285 | Paints and allied products | 879 | 8 158 | 31 002 | 13 | 1 | 1 | 5 | 2 | 2 | 1 | 1 | - | - |
| 286 | Industrial organic chemicals | (E) | (D) | (D) | 3 | - | 1 | - | - | - | 2 | - | - | - |
| 2865 | Cyclic crudes and intermediates | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2869 | Industrial organic chemicals, n.e.c. | (E) | (D) | (D) | 2 | - | 1 | - | - | - | 1 | - | - | - |
| 289 | Miscellaneous chemical products | 312 | 2 505 | 10 306 | 12 | 3 | 5 | - | 2 | 1 | 1 | - | - | - |
| 2899 | Chemical preparations, n.e.c. | 284 | 2 361 | 9 723 | 8 | 2 | 2 | - | 2 | 1 | 1 | - | - | - |
| 29 | Petroleum and coal products | 453 | 3 569 | 15 841 | 20 | 5 | 4 | 6 | 2 | 2 | 1 | - | - | - |
| 291 | Petroleum refining | 50 | 367 | 1 442 | 4 | 1 | - | 2 | 1 | - | - | - | - | - |
| 295 | Asphalt paving and roofing materials | 51 | 341 | 1 962 | 6 | 2 | 2 | 1 | 1 | - | - | - | - | - |
| 299 | Misc. petroleum and coal products | 347 | 2 842 | 12 327 | 9 | 2 | 1 | 3 | - | 2 | 1 | - | - | - |
| 2992 | Lubricating oils and greases | (E) | (D) | (D) | 6 | - | 1 | 2 | - | 2 | 1 | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 2 059 | 10 722 | 46 026 | 54 | 13 | 4 | 11 | 15 | 5 | 5 | 1 | - | - |
| 306 | Fabricated rubber products, n.e.c. | 67 | 384 | 1 613 | 4 | 1 | - | 2 | 1 | - | - | - | - | - |
| 3069 | Fabricated rubber products, n.e.c. | (B) | (D) | (D) | 3 | 1 | - | 1 | 1 | - | - | - | - | - |
| 308 | Miscellaneous plastics products, n.e.c. | 1 930 | 9 647 | 42 316 | 42 | 7 | 4 | 7 | 13 | 5 | 5 | 1 | - | - |
| 3081 | Unsupported plastics film and sheet | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3082 | Unsupported plastics profile shapes | 271 | 1 757 | 7 732 | 4 | 1 | - | - | 2 | - | 1 | - | - | - |
| 3089 | Plastics products, n.e.c. | 1 457 | 7 050 | 30 392 | 31 | 2 | 4 | 6 | 10 | 5 | 3 | 1 | - | - |
| 32 | Stone, clay, and glass products | 2 564 | 17 854 | 74 511 | 89 | 27 | 20 | 16 | 14 | 5 | 5 | 2 | - | - |
| 321 | Flat glass | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 322 | Glass and glassware, pressed or blown | 632 | 5 951 | 22 902 | 6 | 2 | - | 1 | - | - | 2 | 1 | - | - |
| 3221 | Glass containers | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 3229 | Pressed and blown glass, n.e.c. | (E) | (D) | (D) | 5 | 2 | - | 1 | - | - | 2 | - | - | - |
| 323 | Products of purchased glass | (E) | (D) | (D) | 11 | 3 | 6 | - | - | 1 | - | 1 | - | - |
| 325 | Structural clay products | 172 | 786 | 3 597 | 9 | 2 | - | 3 | 3 | 1 | - | - | - | - |
| 3251 | Brick and structural clay tile | (B) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 3255 | Clay refractories | (B) | (D) | (D) | 7 | 2 | - | 3 | 2 | - | - | - | - | - |
| 326 | Pottery and related products | (C) | (D) | (D) | 3 | 1 | - | - | - | 1 | 1 | - | - | - |
| 3269 | Pottery products, n.e.c. | (C) | (D) | (D) | 3 | 1 | - | - | - | 1 | 1 | - | - | - |
| 327 | Concrete, gypsum, and plaster products | 386 | 2 350 | 12 614 | 31 | 10 | 5 | 8 | 8 | - | - | - | - | - |
| 3271 | Concrete block and brick | 57 | 252 | 1 251 | 4 | - | 1 | 3 | - | - | - | - | - | - |
| 3272 | Concrete products, n.e.c. | 190 | 1 341 | 7 033 | 13 | 3 | 3 | 3 | 4 | - | - | - | - | - |
| 3273 | Ready-mixed concrete | 138 | 756 | 4 247 | 12 | 6 | 1 | 1 | 4 | - | - | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

## Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.

[1]Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **BROOME** | | | | | | | | | | | | | |
| | **Total** | 86 116 | 465 968 | 1 969 632 | 4 621 | 2 242 | 1 012 | 561 | 428 | 159 | 86 | 19 | 5 | 9 |
| | **Agricultural services, forestry, and fishing** | 265 | 1 151 | 6 647 | 44 | 29 | 5 | 8 | 1 | 1 | - | - | - | - |
| 07 | Agricultural services | (E) | (D) | (D) | 43 | 29 | 4 | 8 | 1 | 1 | - | - | - | - |
| 074 | Veterinary services | 93 | 354 | 1 560 | 12 | 4 | 3 | 5 | - | - | - | - | - | - |
| 078 | Landscape and horticultural services | 164 | 790 | 5 052 | 29 | 23 | 1 | 3 | 1 | - | - | - | - | - |
| | **Mining** | (A) | (D) | (D) | 2 | - | 2 | - | - | - | - | - | - | - |
| | **Construction** | 3 569 | 20 676 | 102 810 | 446 | 268 | 86 | 48 | 33 | 8 | 3 | - | - | - |
| 15 | General contractors and operative builders | 935 | 4 573 | 22 737 | 130 | 88 | 22 | 9 | 9 | 1 | 1 | - | - | - |
| 151 | General building contractors | 747 | 3 914 | 19 124 | 77 | 48 | 13 | 6 | 8 | 1 | 1 | - | - | - |
| 16 | Heavy construction, except building | 170 | 967 | 7 944 | 30 | 16 | 8 | 5 | 1 | - | - | - | - | - |
| 161 | Highway and street construction | 80 | 450 | 3 762 | 12 | 6 | 3 | 2 | 1 | - | - | - | - | - |
| 162 | Heavy construction, except highway | 64 | 431 | 3 606 | 12 | 6 | 4 | 2 | - | - | - | - | - | - |
| 17 | Special trade contractors | 2 464 | 15 136 | 72 129 | 286 | 164 | 56 | 34 | 23 | 7 | 2 | - | - | - |
| 171 | Plumbing, heating, air-conditioning | 653 | 4 559 | 20 508 | 55 | 22 | 17 | 8 | 6 | 1 | 1 | - | - | - |
| 172 | Painting and paper hanging | 94 | 373 | 2 592 | 31 | 25 | 1 | 5 | - | - | - | - | - | - |
| 173 | Electrical work | 490 | 3 435 | 17 312 | 32 | 12 | 8 | 6 | 3 | 2 | 1 | - | - | - |
| 174 | Masonry, stonework, and plastering | 419 | 2 892 | 12 582 | 30 | 16 | 4 | 5 | 2 | 3 | - | - | - | - |
| 1741 | Masonry and other stonework | 95 | 651 | 2 925 | 11 | 6 | 2 | 1 | 2 | - | - | - | - | - |
| 1742 | Plastering, drywall, and insulation | 280 | 1 960 | 8 844 | 13 | 8 | - | 2 | - | 3 | - | - | - | - |
| 175 | Carpentry and floor work | 82 | 417 | 2 126 | 24 | 21 | 1 | 1 | 1 | - | - | - | - | - |
| 176 | Roofing, siding, and sheet metal work | 250 | 1 449 | 6 046 | 27 | 13 | 7 | 1 | 6 | - | - | - | - | - |
| 177 | Concrete work | 69 | 218 | 1 717 | 20 | 14 | 4 | 1 | 1 | - | - | - | - | - |
| 179 | Misc. special trade contractors | 322 | 1 470 | 7 293 | 40 | 21 | 10 | 4 | 4 | 1 | - | - | - | - |
| 1793 | Glass and glazing work | (B) | (D) | (D) | 3 | 1 | - | 1 | - | 1 | - | - | - | - |
| 1794 | Excavation work | 97 | 345 | 2 619 | 18 | 10 | 5 | 2 | 1 | - | - | - | - | - |
| 1799 | Special trade contractors, n.e.c. | 136 | 647 | 2 824 | 14 | 6 | 4 | 1 | 3 | - | - | - | - | - |
| | **Manufacturing** | 26 608 | 209 188 | 877 308 | 252 | 63 | 50 | 32 | 42 | 28 | 22 | 7 | 3 | 5 |
| 20 | Food and kindred products | 938 | 5 489 | 23 931 | 14 | 3 | - | 3 | 4 | 2 | 1 | - | 1 | - |
| 202 | Dairy products | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2026 | Fluid milk | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 205 | Bakery products | 174 | 520 | 2 426 | 6 | 1 | - | 1 | 2 | 2 | - | - | - | - |
| 2051 | Bread, cake, and related products | 162 | 505 | 2 363 | 5 | 1 | - | - | 2 | 2 | - | - | - | - |
| 209 | Misc. food and kindred products | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 2096 | Potato chips and similar snacks | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 23 | Apparel and other textile products | 319 | 1 488 | 6 190 | 11 | 4 | 3 | - | 2 | 1 | 1 | - | - | - |
| 239 | Misc. fabricated textile products | (E) | (D) | (D) | 9 | 4 | 2 | - | 1 | 1 | 1 | - | - | - |
| 2393 | Textile bags | (B) | (D) | (D) | 3 | 2 | - | - | - | 1 | - | - | - | - |
| 2394 | Canvas and related products | (C) | (D) | (D) | 2 | - | 1 | - | - | - | 1 | - | - | - |
| 24 | Lumber and wood products | 91 | 455 | 1 897 | 11 | 6 | 2 | 1 | 2 | - | - | - | - | - |
| 242 | Sawmills and planing mills | 65 | 365 | 1 613 | 3 | - | - | 1 | 2 | - | - | - | - | - |
| 2421 | Sawmills and planing mills, general | 65 | 365 | 1 613 | 3 | - | - | 1 | 2 | - | - | - | - | - |
| 25 | Furniture and fixtures | 114 | 657 | 2 321 | 7 | 2 | 2 | 1 | 1 | 1 | - | - | - | - |
| 252 | Office furniture | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2522 | Office furniture, except wood | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 26 | Paper and allied products | 303 | 1 299 | 7 085 | 5 | - | 2 | - | 1 | 1 | 1 | - | - | - |
| 265 | Paperboard containers and boxes | (C) | (D) | (D) | 4 | - | 2 | - | 1 | - | 1 | - | - | - |
| 2652 | Corrugated and solid fiber boxes | (C) | (D) | (D) | 2 | - | 1 | - | - | - | 1 | - | - | - |
| 267 | Misc. converted paper products | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2675 | Die-cut paper and board | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 27 | Printing and publishing | 1 626 | 8 368 | 33 304 | 47 | 15 | 13 | 6 | 7 | 4 | - | 1 | 1 | - |
| 271 | Newspapers | (E) | (D) | (D) | 3 | 2 | - | - | - | - | - | 1 | - | - |
| 273 | Books | (F) | (D) | (D) | 5 | 1 | 1 | - | 1 | 1 | - | - | 1 | - |
| 2732 | Book printing | (F) | (D) | (D) | 3 | - | - | - | 1 | 1 | - | - | 1 | - |
| 274 | Miscellaneous publishing | 82 | 110 | 298 | 4 | 2 | - | 1 | - | 1 | - | - | - | - |
| 275 | Commercial printing | 373 | 2 020 | 7 437 | 27 | 8 | 10 | 2 | 5 | 2 | - | - | - | - |
| 2752 | Commercial printing, lithographic | 361 | 1 973 | 7 230 | 24 | 7 | 8 | 2 | 5 | 2 | - | - | - | - |
| 28 | Chemicals and allied products | (C) | (D) | (D) | 2 | - | 1 | - | - | 1 | - | - | - | - |
| 284 | Soap, cleaners, and toilet goods | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2844 | Toilet preparations | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 974 | 5 165 | 18 923 | 19 | 1 | 1 | 5 | 5 | 4 | 3 | - | - | - |
| 302 | Rubber and plastics footwear | (C) | (D) | (D) | 2 | - | - | - | 1 | - | 1 | - | - | - |
| 306 | Fabricated rubber products, n.e.c. | (C) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 3069 | Fabricated rubber products, n.e.c. | (C) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 308 | Miscellaneous plastics products, n.e.c. | (F) | (D) | (D) | 15 | 1 | 1 | 5 | 3 | 3 | 2 | - | - | - |
| 3084 | Plastics pipe | 434 | 2 568 | 10 401 | 4 | - | - | - | - | 2 | 2 | - | - | - |
| 3089 | Plastics products, n.e.c. | 169 | 829 | 3 309 | 8 | 1 | - | 4 | 2 | 1 | - | - | - | - |
| 31 | Leather and leather products | 524 | 2 289 | 9 392 | 3 | - | - | - | - | 1 | 1 | 1 | - | - |
| 313 | Footwear cut stock | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 314 | Footwear, except rubber | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 3143 | Men's footwear, except athletic | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 319 | Leather goods, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

## Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establish-ments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **CLINTON** | | | | | | | | | | | | | |
| | **Total** | 22 953 | 97 958 | 428 469 | 1 888 | 1 002 | 418 | 240 | 152 | 45 | 24 | 4 | 2 | 1 |
| | **Agricultural services, forestry, and fishing** | 60 | 188 | 1 023 | 14 | 9 | 4 | 1 | - | - | - | - | - | - |
| 07 | Agricultural services | (B) | (D) | (D) | 12 | 8 | 3 | 1 | - | - | - | - | - | - |
| | **Mining** | (A) | (D) | (D) | 1 | 1 | - | - | - | - | - | - | - | - |
| | **Construction** | 1 057 | 5 901 | 31 983 | 185 | 127 | 34 | 15 | 8 | - | 1 | - | - | - |
| 15 | General contractors and operative builders | 598 | 3 613 | 17 213 | 79 | 55 | 13 | 5 | 5 | - | 1 | - | - | - |
| 151 | General building contractors | 484 | 3 127 | 14 789 | 40 | 24 | 7 | 3 | 5 | - | 1 | - | - | - |
| 16 | Heavy construction, except building | 51 | 250 | 3 863 | 10 | 6 | 2 | 2 | - | - | - | - | - | - |
| 17 | Special trade contractors | 408 | 2 038 | 10 907 | 96 | 66 | 19 | 8 | 3 | - | - | - | - | - |
| 171 | Plumbing, heating, air-conditioning | 66 | 391 | 2 431 | 13 | 8 | 3 | 2 | - | - | - | - | - | - |
| 172 | Painting and paper hanging | 66 | 449 | 1 674 | 12 | 8 | 2 | 1 | 1 | - | - | - | - | - |
| 173 | Electrical work | 75 | 429 | 1 872 | 12 | 8 | 2 | - | 2 | - | - | - | - | - |
| | **Manufacturing** | 4 291 | 26 479 | 114 154 | 93 | 37 | 15 | 9 | 10 | 10 | 8 | 2 | 2 | - |
| 20 | Food and kindred products | (C) | (D) | (D) | 3 | - | 1 | - | 1 | - | 1 | - | - | - |
| 205 | Bakery products | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2051 | Bread, cake, and related products | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 22 | Textile mill products | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 225 | Knitting mills | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 2259 | Knitting mills, n.e.c. | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 24 | Lumber and wood products | 144 | 329 | 1 293 | 22 | 13 | 7 | - | 1 | 1 | - | - | - | - |
| 241 | Logging | 116 | 225 | 872 | 15 | 9 | 4 | - | 1 | 1 | - | - | - | - |
| 25 | Furniture and fixtures | 108 | 482 | 1 136 | 4 | 3 | - | - | - | - | 1 | - | - | - |
| 252 | Office furniture | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 2521 | Wood office furniture | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 26 | Paper and allied products | 1 155 | 8 698 | 35 203 | 5 | - | 1 | - | 1 | - | 1 | 1 | 1 | - |
| 262 | Paper mills | (F) | (D) | (D) | 2 | - | - | - | 1 | - | - | - | 1 | - |
| 267 | Misc. converted paper products | (F) | (D) | (D) | 2 | - | - | - | - | - | 1 | 1 | - | - |
| 2679 | Converted paper products, n.e.c. | (F) | (D) | (D) | 2 | - | - | - | - | - | 1 | 1 | - | - |
| 27 | Printing and publishing | 318 | 1 075 | 4 288 | 9 | 3 | 2 | 1 | 1 | 1 | 1 | - | - | - |
| 271 | Newspapers | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 276 | Manifold business forms | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 28 | Chemicals and allied products | (F) | (D) | (D) | 4 | 2 | - | - | - | 1 | - | - | 1 | - |
| 283 | Drugs | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 2834 | Pharmaceutical preparations | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 284 | Soap, cleaners, and toilet goods | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2844 | Toilet preparations | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 536 | 2 119 | 10 702 | 8 | - | 1 | - | 1 | 4 | 2 | - | - | - |
| 306 | Fabricated rubber products, n.e.c. | (B) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 3069 | Fabricated rubber products, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 308 | Miscellaneous plastics products, n.e.c. | (E) | (D) | (D) | 6 | - | 1 | - | - | 3 | 2 | - | - | - |
| 3084 | Plastics pipe | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3089 | Plastics products, n.e.c. | 359 | 1 563 | 8 305 | 5 | - | 1 | - | - | 3 | 1 | - | - | - |
| 33 | Primary metal industries | (C) | (D) | (D) | 2 | - | 1 | - | - | 1 | - | - | - | - |
| 332 | Iron and steel foundries | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3321 | Gray and ductile iron foundries | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 36 | Electronic and other electronic equipment | (C) | (D) | (D) | 4 | 2 | - | - | 1 | - | 1 | - | - | - |
| 364 | Electric lighting and wiring equipment | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 3645 | Residential lighting fixtures | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 38 | Instruments and related products | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 384 | Medical instruments and supplies | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 3842 | Surgical appliances and supplies | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| — | Administrative and auxiliary | (F) | (D) | (D) | 5 | 1 | - | 1 | - | 1 | 1 | 1 | - | - |
| | **Transportation and public utilities** | 1 421 | 8 894 | 38 286 | 112 | 56 | 18 | 23 | 8 | 5 | 2 | - | - | - |
| 41 | Local and interurban passenger transit | (B) | (D) | (D) | 5 | 3 | - | 1 | 1 | - | - | - | - | - |
| 42 | Trucking and warehousing | 448 | 2 397 | 10 553 | 65 | 39 | 13 | 10 | 2 | 1 | - | - | - | - |
| 421 | Trucking and courier services, except air | 419 | 2 263 | 9 908 | 58 | 33 | 13 | 9 | 2 | 1 | - | - | - | - |
| 45 | Transportation by air | (C) | (D) | (D) | 5 | 2 | - | 2 | - | - | 1 | - | - | - |
| 451 | Air transportation, scheduled | (C) | (D) | (D) | 3 | - | - | 2 | - | - | 1 | - | - | - |
| 47 | Transportation services | 272 | 1 301 | 5 717 | 15 | 6 | 2 | 2 | 3 | 2 | - | - | - | - |
| 473 | Freight transportation arrangement | 256 | 1 240 | 5 482 | 9 | 1 | 1 | 2 | 3 | 2 | - | - | - | - |
| 48 | Communication | 288 | 2 117 | 7 998 | 13 | 2 | - | 7 | 2 | 2 | - | - | - | - |
| 481 | Telephone communication | (C) | (D) | (D) | 7 | 1 | - | 4 | 2 | - | - | - | - | - |
| 4813 | Telephone communications, exc. radio | (C) | (D) | (D) | 7 | 1 | - | 4 | 2 | - | - | - | - | - |
| 483 | Radio and television broadcasting | 153 | 793 | 3 064 | 4 | - | - | 2 | - | 2 | - | - | - | - |
| 49 | Electric, gas, and sanitary services | (C) | (D) | (D) | 3 | - | 1 | 1 | - | - | 1 | - | - | - |
| 491 | Electric services | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

# Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ERIE—Con.** | | | | | | | | | | | | | |
| | **Manufacturing—Con.** | | | | | | | | | | | | | |
| 24 | Lumber and wood products | 789 | 3 116 | 14 223 | 43 | 18 | 8 | 4 | 8 | 3 | 2 | - | - | - |
| 242 | Sawmills and planing mills | 177 | 631 | 2 982 | 7 | 4 | - | 1 | - | 1 | 1 | - | - | - |
| 2421 | Sawmills and planing mills, general | (C) | (D) | (D) | 6 | 3 | - | 1 | - | 1 | 1 | - | - | - |
| 243 | Millwork, plywood and structural members | 234 | 1 039 | 4 634 | 15 | 5 | 4 | 2 | 3 | 1 | - | - | - | - |
| 2431 | Millwork | (C) | (D) | (D) | 6 | 3 | 1 | - | 1 | 1 | - | - | - | - |
| 2434 | Wood kitchen cabinets | 60 | 296 | 1 247 | 6 | 1 | 3 | 1 | 1 | - | - | - | - | - |
| 244 | Wood containers | 84 | 280 | 1 241 | 6 | 2 | - | 1 | 3 | - | - | - | - | - |
| 2448 | Wood pallets and skids | 84 | 280 | 1 241 | 6 | 2 | - | 1 | 3 | - | - | - | - | - |
| 249 | Miscellaneous wood products | 281 | 1 132 | 5 183 | 10 | 3 | 3 | - | 2 | 1 | 1 | - | - | - |
| 2499 | Wood products, n.e.c. | 281 | 1 132 | 5 183 | 10 | 3 | 3 | - | 2 | 1 | 1 | - | - | - |
| 25 | Furniture and fixtures | 981 | 4 553 | 19 236 | 29 | 8 | 2 | 6 | 6 | 6 | - | 1 | - | - |
| 251 | Household furniture | (E) | (D) | (D) | 8 | 2 | 1 | 2 | 2 | - | - | 1 | - | - |
| 2511 | Wood household furniture | (E) | (D) | (D) | 4 | 1 | 1 | 1 | - | - | - | 1 | - | - |
| 2515 | Mattresses and bedsprings | 108 | 290 | 1 227 | 4 | 1 | - | 1 | 2 | - | - | - | - | - |
| 252 | Office furniture | 213 | 1 222 | 3 982 | 5 | 1 | - | 1 | - | 3 | - | - | - | - |
| 2521 | Wood office furniture | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2522 | Office furniture, except wood | (C) | (D) | (D) | 4 | 1 | - | 1 | - | 2 | - | - | - | - |
| 254 | Partitions and fixtures | 247 | 983 | 4 458 | 12 | 4 | 1 | 2 | 3 | 2 | - | - | - | - |
| 2541 | Wood partitions and fixtures | (C) | (D) | (D) | 10 | 3 | 1 | 2 | 2 | 2 | - | - | - | - |
| 259 | Miscellaneous furniture and fixtures | (B) | (D) | (D) | 3 | 1 | - | 1 | - | 1 | - | - | - | - |
| 2599 | Furniture and fixtures, n.e.c. | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 26 | Paper and allied products | 1 974 | 12 725 | 52 243 | 33 | 4 | 3 | 7 | 6 | 6 | 7 | - | - | - |
| 265 | Paperboard containers and boxes | 1 046 | 7 348 | 30 578 | 14 | 1 | - | 3 | 2 | 3 | 5 | - | - | - |
| 2653 | Corrugated and solid fiber boxes | (E) | (D) | (D) | 5 | - | - | - | 1 | 2 | 2 | - | - | - |
| 2655 | Fiber cans, drums and similar products | (C) | (D) | (D) | 2 | - | - | 1 | - | 1 | - | - | - | - |
| 2657 | Folding paperboard boxes | 518 | 3 606 | 14 455 | 6 | 1 | - | 1 | 1 | - | 3 | - | - | - |
| 267 | Misc. converted paper products | 888 | 5 186 | 20 858 | 16 | 2 | 3 | 3 | 3 | 3 | 2 | - | - | - |
| 2672 | Paper coated and laminated, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2673 | Bags: plastics, laminated, and coated | 159 | 937 | 3 860 | 5 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 2677 | Envelopes | 540 | 3 097 | 11 924 | 4 | - | - | 1 | - | 1 | 2 | - | - | - |
| 27 | Printing and publishing | 7 233 | 42 881 | 174 274 | 219 | 78 | 44 | 47 | 27 | 15 | 4 | 1 | 1 | 2 |
| 271 | Newspapers | 2 008 | 10 682 | 44 718 | 20 | 2 | 6 | 6 | 2 | 2 | - | 1 | - | 1 |
| 272 | Periodicals | 237 | 693 | 2 821 | 8 | 2 | 2 | 2 | 1 | - | 1 | - | - | - |
| 273 | Books | 130 | 648 | 2 888 | 14 | 8 | - | 4 | 2 | - | - | - | - | - |
| 2731 | Book publishing | (C) | (D) | (D) | 12 | 8 | - | 2 | 2 | - | - | - | - | - |
| 274 | Miscellaneous publishing | (C) | (D) | (D) | 6 | 2 | 2 | 1 | - | 1 | - | - | - | - |
| 275 | Commercial printing | 4 320 | 27 501 | 108 703 | 136 | 46 | 29 | 29 | 16 | 11 | 3 | - | 1 | 1 |
| 2752 | Commercial printing, lithographic | 2 322 | 14 354 | 56 285 | 96 | 32 | 21 | 19 | 13 | 8 | 2 | - | 1 | - |
| 2754 | Commercial printing, gravure | (G) | (D) | (D) | 1 | - | - | - | - | - | - | - | - | 1 |
| 2759 | Commercial printing, n.e.c. | (F) | (D) | (D) | 39 | 14 | 8 | 10 | 3 | 3 | 1 | - | - | - |
| 276 | Manifold business forms | 123 | 755 | 4 511 | 3 | - | - | 1 | 1 | 1 | - | - | - | - |
| 278 | Blankbooks and bookbinding | (C) | (D) | (D) | 6 | 1 | 2 | - | 3 | - | - | - | - | - |
| 2789 | Bookbinding and related work | (C) | (D) | (D) | 6 | 1 | 2 | - | 3 | - | - | - | - | - |
| 279 | Printing trade services | 159 | 790 | 3 352 | 17 | 8 | 3 | 4 | 2 | - | - | - | - | - |
| 2791 | Typesetting | 117 | 577 | 2 360 | 13 | 8 | 2 | 1 | 2 | - | - | - | - | - |
| 28 | Chemicals and allied products | 3 472 | 26 662 | 108 588 | 52 | 12 | 9 | 7 | 10 | 4 | 6 | 3 | 1 | - |
| 281 | Industrial inorganic chemicals | 575 | 4 244 | 17 233 | 9 | 1 | 2 | - | 2 | 2 | 2 | - | - | - |
| 2819 | Industrial inorganic chemicals, n.e.c. | (F) | (D) | (D) | 6 | - | 1 | - | 1 | 2 | 2 | - | - | - |
| 283 | Drugs | 1 619 | 13 160 | 54 454 | 8 | 2 | - | - | 2 | - | 1 | 2 | 1 | - |
| 2834 | Pharmaceutical preparations | (G) | (D) | (D) | 5 | 1 | - | - | 1 | - | 1 | 1 | 1 | - |
| 2835 | Diagnostic substances | (E) | (D) | (D) | 2 | - | - | - | 1 | - | - | 1 | - | - |
| 284 | Soap, cleaners, and toilet goods | 216 | 1 062 | 4 527 | 15 | 5 | 3 | 3 | 3 | 1 | - | - | - | - |
| 2842 | Polishes and sanitation goods | 164 | 851 | 3 736 | 8 | 2 | 1 | 2 | 2 | 1 | - | - | - | - |
| 285 | Paints and allied products | (C) | (D) | (D) | 3 | - | - | 1 | - | 1 | 1 | - | - | - |
| 286 | Industrial organic chemicals | (E) | (D) | (D) | 4 | 1 | - | - | 1 | - | 1 | 1 | - | - |
| 2865 | Cyclic crudes and intermediates | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 2869 | Industrial organic chemicals, n.e.c. | (C) | (D) | (D) | 3 | 1 | - | - | 1 | - | 1 | - | - | - |
| 289 | Miscellaneous chemical products | 338 | 2 153 | 8 200 | 10 | 2 | 2 | 3 | 2 | - | 1 | - | - | - |
| 2891 | Adhesives and sealants | (B) | (D) | (D) | 3 | - | 1 | 1 | 1 | - | - | - | - | - |
| 2899 | Chemical preparations, n.e.c. | (C) | (D) | (D) | 5 | 2 | 1 | - | 1 | - | 1 | - | - | - |
| 29 | Petroleum and coal products | 357 | 2 803 | 15 322 | 15 | 5 | 1 | 4 | 3 | 1 | 1 | - | - | - |
| 295 | Asphalt paving and roofing materials | 277 | 2 232 | 12 790 | 10 | 3 | 1 | 2 | 2 | 1 | 1 | - | - | - |
| 2951 | Asphalt paving mixtures and blocks | (E) | (D) | (D) | 9 | 3 | 1 | 1 | 2 | 1 | 1 | - | - | - |
| 299 | Misc. petroleum and coal products | (B) | (D) | (D) | 4 | 2 | - | 1 | 1 | - | - | - | - | - |
| 2992 | Lubricating oils and greases | (B) | (D) | (D) | 2 | - | - | 1 | 1 | - | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 5 379 | 37 651 | 152 868 | 59 | 13 | 5 | 11 | 8 | 9 | 8 | 4 | - | 1 |
| 301 | Tires and inner tubes | (G) | (D) | (D) | 1 | - | - | - | - | - | - | - | - | 1 |
| 305 | Hose and belting and gaskets and packing | (E) | (D) | (D) | 6 | 2 | 1 | 1 | - | - | 2 | - | - | - |
| 3052 | Rubber and plastics hose and belting | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3053 | Gaskets, packing, and sealing devices | (C) | (D) | (D) | 5 | 2 | 1 | 1 | - | - | 1 | - | - | - |
| 306 | Fabricated rubber products, n.e.c. | (E) | (D) | (D) | 7 | 2 | 1 | - | 1 | 1 | 2 | - | - | - |
| 3061 | Mechanical rubber goods | (C) | (D) | (D) | 2 | - | - | - | - | 1 | 1 | - | - | - |
| 3069 | Fabricated rubber products, n.e.c. | (C) | (D) | (D) | 5 | 2 | 1 | - | 1 | - | 1 | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

# Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **MONROE—Con.** | | | | | | | | | | | | | |
| | **Manufacturing—Con.** | | | | | | | | | | | | | |
| 20 | Food and kindred products—Con. | | | | | | | | | | | | | |
| 208 | Beverages | (G) | (D) | (D) | 8 | - | 2 | 3 | 1 | - | - | 1 | 1 | - |
| 2082 | Malt beverages | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 2086 | Bottled and canned soft drinks | (E) | (D) | (D) | 4 | - | 2 | 1 | - | - | - | 1 | - | - |
| 209 | Misc. food and kindred products | 57 | 237 | 1 026 | 6 | 3 | - | 2 | 1 | - | - | - | - | - |
| 22 | Textile mill products | (B) | (D) | (D) | 4 | 3 | - | - | - | 1 | - | - | - | - |
| 222 | Broadwoven fabric mills, manmade | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 23 | Apparel and other textile products | 1 182 | 5 128 | 22 992 | 17 | 7 | 4 | 2 | - | 2 | - | 1 | 1 | - |
| 231 | Men's and boys' suits and coats | (F) | (D) | (D) | 3 | 1 | - | - | - | 1 | - | - | 1 | - |
| 232 | Men's and boys' furnishings | (E) | (D) | (D) | 2 | - | 1 | - | - | - | - | 1 | - | - |
| 2329 | Men's and boys' clothing, n.e.c. | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 239 | Misc. fabricated textile products | (C) | (D) | (D) | 11 | 6 | 2 | 2 | - | 1 | - | - | - | - |
| 2393 | Textile bags | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 24 | Lumber and wood products | 296 | 1 843 | 7 359 | 26 | 15 | 3 | 5 | 2 | 1 | - | - | - | - |
| 243 | Millwork, plywood and structural members | 232 | 1 547 | 5 967 | 13 | 5 | 2 | 3 | 2 | 1 | - | - | - | - |
| 2431 | Millwork | 97 | 757 | 2 609 | 4 | 1 | - | 1 | 2 | - | - | - | - | - |
| 2434 | Wood kitchen cabinets | 135 | 790 | 3 358 | 9 | 4 | 2 | 2 | - | 1 | - | - | - | - |
| 25 | Furniture and fixtures | 154 | 1 290 | 3 329 | 24 | 11 | 8 | 5 | - | - | - | - | - | - |
| 252 | Office furniture | 62 | 832 | 1 428 | 6 | 1 | 1 | 4 | - | - | - | - | - | - |
| 2521 | Wood office furniture | 62 | 832 | 1 428 | 6 | 1 | 1 | 4 | - | - | - | - | - | - |
| 26 | Paper and allied products | 1 853 | 11 386 | 48 910 | 27 | 2 | 1 | 4 | 4 | 9 | 7 | - | - | - |
| 262 | Paper mills | (B) | | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 265 | Paperboard containers and boxes | 1 015 | 6 610 | 28 320 | 10 | - | - | 1 | 1 | 3 | 5 | - | - | - |
| 2653 | Corrugated and solid fiber boxes | (E) | (D) | (D) | 6 | - | - | 1 | - | 3 | 2 | - | - | - |
| 2657 | Folding paperboard boxes | (E) | (D) | (D) | 3 | - | - | - | - | - | 3 | - | - | - |
| 267 | Misc. converted paper products | (F) | (D) | (D) | 15 | 1 | 1 | 3 | 3 | 5 | 2 | - | - | - |
| 2672 | Paper coated and laminated, n.e.c. | 138 | 1 240 | 4 882 | 4 | - | - | 1 | 2 | 1 | - | - | - | - |
| 2673 | Bags: plastics, laminated, and coated | (C) | (D) | (D) | 3 | - | - | 1 | - | 2 | - | - | - | - |
| 2675 | Die-cut paper and board | (B) | (D) | (D) | 3 | 1 | - | 1 | - | 1 | - | - | - | - |
| 2677 | Envelopes | (E) | (D) | (D) | 2 | - | - | - | - | - | 2 | - | - | - |
| 2679 | Converted paper products, n.e.c. | (B) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 27 | Printing and publishing | 6 210 | 44 765 | 183 716 | 204 | 74 | 52 | 30 | 31 | 7 | 7 | - | 1 | 2 |
| 271 | Newspapers | (G) | (D) | (D) | 19 | 8 | 2 | 1 | 6 | 1 | - | - | - | 1 |
| 272 | Periodicals | 98 | 309 | 2 042 | 8 | 4 | 2 | - | 2 | - | - | - | - | - |
| 273 | Books | (G) | (D) | (D) | 3 | 1 | - | - | 1 | - | - | - | - | 1 |
| 2731 | Book publishing | (G) | (D) | (D) | 3 | 1 | - | - | 1 | - | - | - | - | 1 |
| 274 | Miscellaneous publishing | 261 | 1 489 | 6 307 | 11 | 3 | 1 | 1 | 6 | - | - | - | - | - |
| 275 | Commercial printing | 2 377 | 18 126 | 73 403 | 118 | 41 | 34 | 24 | 10 | 3 | 5 | - | 1 | - |
| 2752 | Commercial printing, lithographic | 1 384 | 10 089 | 40 650 | 84 | 28 | 26 | 16 | 7 | 3 | 4 | - | - | - |
| 2759 | Commercial printing, n.e.c. | (F) | (D) | (D) | 31 | 11 | 8 | 8 | 2 | - | 1 | - | 1 | - |
| 276 | Manifold business forms | (C) | (D) | (D) | 2 | - | - | - | 1 | - | 1 | - | - | - |
| 278 | Blankbooks and bookbinding | 218 | 1 144 | 4 518 | 8 | 2 | 3 | - | 1 | 1 | 1 | - | - | - |
| 2782 | Blankbooks and looseleaf binders | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2789 | Bookbinding and related work | (C) | (D) | (D) | 7 | 2 | 3 | - | 1 | 1 | - | - | - | - |
| 279 | Printing trade services | 340 | 2 480 | 9 874 | 23 | 5 | 8 | 4 | 4 | 2 | - | - | - | - |
| 2791 | Typesetting | 172 | 918 | 3 633 | 15 | 4 | 6 | 3 | 1 | 1 | - | - | - | - |
| 2796 | Platemaking services | 168 | 1 562 | 6 241 | 8 | 1 | 2 | 1 | 3 | 1 | - | - | - | - |
| 28 | Chemicals and allied products | 2 596 | 27 344 | 106 659 | 22 | 5 | 4 | 4 | 3 | 1 | 2 | 2 | - | 1 |
| 283 | Drugs | (G) | (D) | (D) | 1 | - | - | - | - | - | - | - | - | 1 |
| 2834 | Pharmaceutical preparations | (G) | (D) | (D) | 1 | - | - | - | - | - | - | - | - | 1 |
| 284 | Soap, cleaners, and toilet goods | 717 | 5 415 | 21 121 | 5 | 2 | - | - | - | 1 | 1 | 1 | - | - |
| 2841 | Soap and other detergents | (E) | (D) | (D) | 2 | 1 | - | - | - | - | - | 1 | - | - |
| 2842 | Polishes and sanitation goods | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 2843 | Surface active agents | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 286 | Industrial organic chemicals | (E) | (D) | (D) | 2 | - | - | - | - | - | 1 | 1 | - | - |
| 2865 | Cyclic crudes and intermediates | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2869 | Industrial organic chemicals, n.e.c. | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 289 | Miscellaneous chemical products | (C) | (D) | (D) | 12 | 3 | 3 | 3 | 3 | - | - | - | - | - |
| 2893 | Printing ink | 107 | 802 | 3 146 | 6 | 1 | 1 | 2 | 2 | - | - | - | - | - |
| 2899 | Chemical preparations, n.e.c. | (B) | (D) | (D) | 4 | 2 | 1 | - | 1 | - | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 2 644 | 17 510 | 75 908 | 51 | 15 | 7 | 4 | 13 | 2 | 8 | 1 | 1 | - |
| 306 | Miscellaneous plastics products, n.e.c. | 2 607 | 17 307 | 74 819 | 48 | 14 | 6 | 4 | 12 | 2 | 8 | 1 | 1 | - |
| 3082 | Unsupported plastics profile shapes | (C) | (D) | (D) | 6 | 2 | 1 | 1 | 1 | - | 1 | - | - | - |
| 3086 | Plastics foam products | (E) | (D) | (D) | 2 | 1 | - | - | - | - | - | 1 | - | - |
| 3089 | Plastics products, n.e.c. | (G) | (D) | (D) | 38 | 9 | 5 | 3 | 11 | 2 | 7 | - | 1 | - |
| 32 | Stone, clay, and glass products | 607 | 4 401 | 18 967 | 32 | 5 | 11 | 4 | 9 | 3 | - | - | - | - |
| 322 | Glass and glassware, pressed or blown | (B) | (D) | (D) | 4 | 1 | 1 | 1 | - | 1 | - | - | - | - |
| 3229 | Pressed and blown glass, n.e.c. | (B) | (D) | (D) | 3 | - | 1 | 1 | - | 1 | - | - | - | - |
| 323 | Products of purchased glass | 100 | 551 | 2 263 | 8 | 3 | 2 | 1 | 2 | - | - | - | - | - |
| 327 | Concrete, gypsum, and plaster products | 318 | 2 599 | 11 419 | 12 | - | 4 | 2 | 4 | 2 | - | - | - | - |
| 3271 | Concrete block and brick | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 3272 | Concrete products, n.e.c. | (B) | (D) | (D) | 3 | - | 2 | - | 1 | - | - | - | - | - |
| 3273 | Ready-mixed concrete | 193 | 1 503 | 6 489 | 7 | - | 2 | 2 | 1 | 2 | - | - | - | - |
| 329 | Misc. nonmetallic mineral products | (B) | (D) | (D) | 3 | - | 1 | - | 2 | - | - | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

## Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **NIAGARA—Con.** | | | | | | | | | | | | | |
| | **Manufacturing—Con.** | | | | | | | | | | | | | |
| 26 | Paper and allied products | 1 050 | 6 814 | 28 244 | 10 | 2 | - | - | 1 | 3 | 3 | 1 | - | - |
| 263 | Paperboard mills | (C) | (D) | (D) | 2 | - | - | - | - | 1 | 1 | - | - | - |
| 265 | Paperboard containers and boxes | 676 | 4 757 | 19 280 | 5 | 1 | - | - | - | 1 | 2 | 1 | - | - |
| 2653 | Corrugated and solid fiber boxes | (E) | (D) | (D) | 3 | - | - | - | - | 1 | 2 | - | - | - |
| 2657 | Folding paperboard boxes | (E) | (D) | (D) | 2 | 1 | - | - | - | - | - | 1 | - | - |
| 267 | Misc. converted paper products | (C) | (D) | (D) | 3 | 1 | - | - | 1 | 1 | - | - | - | - |
| 2679 | Converted paper products, n.e.c. | (C) | (D) | (D) | 3 | 1 | - | - | 1 | 1 | - | - | - | - |
| 27 | Printing and publishing | 688 | 2 454 | 9 135 | 33 | 16 | 6 | 1 | 5 | 3 | 2 | - | - | - |
| 271 | Newspapers | 299 | 665 | 2 650 | 3 | - | - | - | 1 | - | 2 | - | - | - |
| 275 | Commercial printing | 218 | 1 042 | 4 143 | 19 | 9 | 6 | 1 | 1 | 2 | - | - | - | - |
| 2752 | Commercial printing, lithographic | (C) | (D) | (D) | 15 | 8 | 4 | 1 | 1 | 1 | - | - | - | - |
| 2759 | Commercial printing, n.e.c. | (B) | (D) | (D) | 4 | 1 | 2 | - | - | 1 | - | - | - | - |
| 276 | Manifold business forms | (B) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 28 | Chemicals and allied products | 3 260 | 29 397 | 120 292 | 26 | 2 | 4 | 4 | 5 | 5 | 2 | 2 | 2 | - |
| 281 | Industrial inorganic chemicals | 93 | 912 | 3 442 | 4 | 1 | - | 1 | 1 | 1 | - | - | - | - |
| 2813 | Industrial gases | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 282 | Plastics materials and synthetics | (F) | (D) | (D) | 5 | - | 1 | - | 2 | - | 1 | 1 | - | - |
| 2821 | Plastics materials and resins | (F) | (D) | (D) | 4 | - | 1 | - | 1 | - | 1 | 1 | - | - |
| 286 | Industrial organic chemicals | 1 531 | 12 902 | 53 117 | 8 | - | - | 1 | 2 | 3 | - | 1 | 1 | - |
| 2869 | Industrial organic chemicals, n.e.c. | 1 531 | 12 902 | 53 117 | 8 | - | - | 1 | 2 | 3 | - | 1 | 1 | - |
| 287 | Agricultural chemicals | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2879 | Agricultural chemicals, n.e.c. | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 289 | Miscellaneous chemical products | (F) | (D) | (D) | 2 | - | - | - | - | 1 | - | - | 1 | - |
| 2899 | Chemical preparations, n.e.c. | (F) | (D) | (D) | 2 | - | - | - | - | 1 | - | - | 1 | - |
| 29 | Petroleum and coal products | 211 | 2 153 | 8 665 | 5 | 1 | - | 1 | 1 | 2 | - | - | - | - |
| 291 | Petroleum refining | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 299 | Misc. petroleum and coal products | (B) | (D) | (D) | 2 | - | - | 1 | - | 1 | - | - | - | - |
| 2992 | Lubricating oils and greases | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 791 | 3 086 | 12 602 | 18 | 7 | 1 | 1 | 2 | 3 | 4 | - | - | - |
| 305 | Hose and belting and gaskets and packing | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3053 | Gaskets, packing, and sealing devices | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 308 | Miscellaneous plastics products, n.e.c. | (F) | (D) | (D) | 15 | 5 | 1 | 1 | 2 | 2 | 4 | - | - | - |
| 3089 | Plastics products, n.e.c. | 720 | 2 808 | 11 343 | 14 | 4 | 1 | 1 | 2 | 2 | 4 | - | - | - |
| 32 | Stone, clay, and glass products | 1 206 | 9 707 | 39 055 | 19 | 2 | 4 | 5 | 2 | 1 | 4 | 1 | - | - |
| 327 | Concrete, gypsum, and plaster products | 160 | 878 | 4 019 | 9 | 1 | 2 | 3 | 2 | 1 | - | - | - | - |
| 3272 | Concrete products, n.e.c. | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 3273 | Ready-mixed concrete | 62 | 368 | 2 079 | 4 | - | 1 | 2 | 1 | - | - | - | - | - |
| 329 | Misc. nonmetallic mineral products | 1 030 | 8 724 | 34 411 | 8 | 1 | - | 2 | - | - | 4 | 1 | - | - |
| 3291 | Abrasive products | (F) | (D) | (D) | 5 | 1 | - | 1 | - | - | 2 | 1 | - | - |
| 3295 | Minerals, ground or treated | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3297 | Nonclay refractories | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 33 | Primary metal industries | 738 | 5 874 | 22 529 | 12 | 1 | 1 | 1 | 1 | 6 | 2 | - | - | - |
| 331 | Blast furnace and basic steel products | 359 | 2 946 | 11 484 | 3 | - | - | - | - | 1 | 2 | - | - | - |
| 3312 | Blast furnaces and steel mills | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3313 | Electrometallurgical products | (E) | (D) | (D) | 2 | - | - | - | - | - | 2 | - | - | - |
| 332 | Iron and steel foundries | (C) | (D) | (D) | 3 | - | - | 1 | 1 | 1 | - | - | - | - |
| 3321 | Gray and ductile iron foundries | (C) | (D) | (D) | 3 | - | - | 1 | 1 | 1 | - | - | - | - |
| 333 | Primary nonferrous metals | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3339 | Primary nonferrous metals, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 334 | Secondary nonferrous metals | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 336 | Nonferrous foundries (castings) | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3365 | Aluminum foundries | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 339 | Miscellaneous primary metal products | (B) | (D) | (D) | 3 | 1 | 1 | - | - | 1 | - | - | - | - |
| 3399 | Primary metal products, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 34 | Fabricated metal products | 1 381 | 8 181 | 36 482 | 37 | 8 | 4 | 9 | 9 | 3 | 3 | 1 | - | - |
| 342 | Cutlery, handtools, and hardware | (B) | (D) | (D) | 3 | - | 1 | - | 2 | - | - | - | - | - |
| 3425 | Saw blades and handsaws | (B) | (D) | (D) | 3 | - | 1 | - | 2 | - | - | - | - | - |
| 344 | Fabricated structural metal products | 187 | 1 057 | 5 700 | 11 | 4 | 1 | 2 | 3 | 1 | - | - | - | - |
| 3441 | Fabricated structural metal | (B) | (D) | (D) | 4 | 1 | - | 1 | 2 | - | - | - | - | - |
| 3443 | Fabricated plate work (boiler shops) | 123 | 659 | 4 094 | 5 | 1 | 1 | 1 | 1 | 1 | - | - | - | - |
| 346 | Metal forgings and stampings | 61 | 276 | 1 114 | 4 | - | 1 | 2 | 1 | - | - | - | - | - |
| 3469 | Metal stampings, n.e.c. | 61 | 276 | 1 114 | 4 | - | 1 | 2 | 1 | - | - | - | - | - |
| 347 | Metal services, n.e.c. | 381 | 2 222 | 9 956 | 8 | 1 | 1 | 2 | 1 | 1 | 2 | - | - | - |
| 3471 | Plating and polishing | (E) | (D) | (D) | 5 | - | 1 | 1 | 1 | - | 2 | - | - | - |
| 3479 | Metal coating and allied services | (B) | (D) | (D) | 3 | 1 | - | 1 | - | 1 | - | - | - | - |
| 349 | Misc. fabricated metal products | (F) | (D) | (D) | 8 | 3 | - | 2 | - | 1 | 1 | 1 | - | - |
| 3491 | Industrial valves | (E) | (D) | (D) | 2 | 1 | - | - | - | - | - | 1 | - | - |
| 3496 | Misc. fabricated wire products | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3499 | Fabricated metal products, n.e.c. | (C) | (D) | (D) | 3 | - | - | 2 | - | - | 1 | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

Table 2. **Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.**

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ONEIDA—Con.** | | | | | | | | | | | | | |
| | Manufacturing | 18 089 | 121 762 | 481 979 | 285 | 102 | 48 | 40 | 38 | 22 | 17 | 12 | 4 | 2 |
| 20 | Food and kindred products | 549 | 2 833 | 11 093 | 31 | 16 | 4 | 4 | 3 | 2 | 2 | - | - | - |
| 201 | Meat products | 122 | 384 | 990 | 5 | 2 | 2 | - | - | - | 1 | - | - | - |
| 2011 | Meat packing plants | (C) | (D) | (D) | 4 | 2 | 1 | - | - | - | 1 | - | - | - |
| 202 | Dairy products | 170 | 1 251 | 5 163 | 8 | 3 | 1 | 1 | 2 | 1 | - | - | - | - |
| 2024 | Ice cream and frozen desserts | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 2026 | Fluid milk | (C) | (D) | (D) | 5 | 3 | 1 | - | - | 1 | - | - | - | - |
| 205 | Bakery products | 94 | 263 | 1 117 | 8 | 4 | 1 | 2 | - | 1 | - | - | - | - |
| 2051 | Bread, cake, and related products | (B) | (D) | (D) | 5 | 2 | - | 2 | - | 1 | - | - | - | - |
| 208 | Beverages | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 2082 | Malt beverages | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 22 | Textile mill products | (E) | (D) | (D) | 4 | 1 | - | - | 2 | - | 1 | - | - | - |
| 229 | Miscellaneous textile goods | (C) | (D) | (D) | 2 | - | - | - | 1 | - | 1 | - | - | - |
| 2296 | Tire cord and fabrics | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 23 | Apparel and other textile products | 896 | 2 222 | 9 937 | 8 | 2 | 2 | 1 | - | 1 | - | 2 | - | - |
| 231 | Men's and boys' suits and coats | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 239 | Misc. fabricated textile products | (F) | (D) | (D) | 5 | 2 | 1 | - | - | 1 | - | 1 | - | - |
| 2399 | Fabricated textile products, n.e.c. | (F) | (D) | (D) | 2 | - | - | - | - | 1 | - | 1 | - | - |
| 24 | Lumber and wood products | 346 | 1 484 | 7 061 | 26 | 14 | 4 | 4 | 2 | 1 | 1 | - | - | - |
| 242 | Sawmills and planing mills | (B) | (D) | (D) | 6 | 3 | 2 | - | - | 1 | - | - | - | - |
| 2421 | Sawmills and planing mills, general | (B) | (D) | (D) | 6 | 3 | 2 | - | - | 1 | - | - | - | - |
| 243 | Millwork, plywood and structural members | 91 | 455 | 2 230 | 5 | 2 | - | 1 | 2 | - | - | - | - | - |
| 245 | Wood buildings and mobile homes | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 2451 | Mobile homes | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 25 | Furniture and fixtures | 767 | 3 784 | 15 761 | 9 | 3 | 1 | 1 | 2 | - | 1 | 1 | - | - |
| 251 | Household furniture | (F) | (D) | (D) | 6 | 3 | - | 1 | - | - | 1 | 1 | - | - |
| 2511 | Wood household furniture | (F) | (D) | (D) | 5 | 2 | - | 1 | - | - | 1 | 1 | - | - |
| 26 | Paper and allied products | 428 | 2 571 | 10 217 | 5 | - | 1 | - | 1 | 2 | 1 | - | - | - |
| 265 | Paperboard containers and boxes | (E) | (D) | (D) | 3 | - | - | - | - | 2 | 1 | - | - | - |
| 2653 | Corrugated and solid fiber boxes | (E) | (D) | (D) | 3 | - | - | - | - | 2 | 1 | - | - | - |
| 27 | Printing and publishing | 1 395 | 5 463 | 23 961 | 45 | 15 | 14 | 6 | 2 | 4 | 2 | 2 | - | - |
| 271 | Newspapers | 791 | 1 996 | 9 350 | 8 | 1 | 3 | - | - | 1 | 1 | 2 | - | - |
| 273 | Books | (C) | (D) | (D) | 2 | - | 1 | - | - | - | 1 | - | - | - |
| 2732 | Book printing | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 275 | Commercial printing | 419 | 2 424 | 10 370 | 25 | 8 | 9 | 4 | 1 | 3 | - | - | - | - |
| 2752 | Commercial printing, lithographic | 257 | 1 421 | 6 368 | 16 | 5 | 7 | 2 | - | 2 | - | - | - | - |
| 2759 | Commercial printing, n.e.c. | 162 | 1 003 | 4 002 | 9 | 3 | 2 | 2 | 1 | 1 | - | - | - | - |
| 279 | Printing trade services | (B) | (D) | (D) | 5 | 2 | - | 2 | 1 | - | - | - | - | - |
| 2791 | Typesetting | (B) | (D) | (D) | 5 | 2 | - | 2 | 1 | - | - | - | - | - |
| 28 | Chemicals and allied products | 124 | 285 | 1 385 | 7 | 4 | 1 | - | 1 | 1 | - | - | - | - |
| 287 | Agricultural chemicals | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2879 | Agricultural chemicals, n.e.c. | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 123 | 478 | 2 086 | 7 | 3 | 1 | 1 | 2 | - | - | - | - | - |
| 308 | Miscellaneous plastics products, n.e.c. | 119 | 468 | 2 039 | 5 | 1 | 1 | 1 | 2 | - | - | - | - | - |
| 3089 | Plastics products, n.e.c. | (B) | (D) | (D) | 4 | 1 | 1 | 1 | 1 | - | - | - | - | - |
| 32 | Stone, clay, and glass products | 258 | 1 233 | 6 275 | 16 | 5 | 4 | 3 | 3 | 1 | - | - | - | - |
| 327 | Concrete, gypsum, and plaster products | (C) | (D) | (D) | 11 | 2 | 4 | 2 | 3 | - | - | - | - | - |
| 3272 | Concrete products, n.e.c. | (B) | (D) | (D) | 6 | 2 | 2 | 1 | 1 | - | - | - | - | - |
| 3273 | Ready-mixed concrete | 98 | 506 | 2 773 | 5 | - | 2 | 1 | 2 | - | - | - | - | - |
| 329 | Misc. nonmetallic mineral products | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3291 | Abrasive products | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 33 | Primary metal industries | 2 943 | 23 034 | 89 400 | 17 | 2 | 3 | 1 | 1 | 3 | 3 | 1 | 3 | - |
| 331 | Blast furnace and basic steel products | (E) | (D) | (D) | 5 | 1 | 1 | - | - | 2 | 1 | - | - | - |
| 3312 | Blast furnaces and steel mills | (B) | (D) | (D) | 2 | 1 | - | - | - | 1 | - | - | - | - |
| 3315 | Steel wire and related products | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3316 | Cold finishing of steel shapes | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 334 | Secondary nonferrous metals | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 335 | Nonferrous rolling and drawing | 2 250 | 18 138 | 68 984 | 7 | 1 | - | - | 1 | 1 | - | 1 | 3 | - |
| 3351 | Copper rolling and drawing | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 3356 | Nonferrous rolling and drawing, n.e.c. | (E) | (D) | (D) | 1 | - | - | - | - | - | - | 1 | - | - |
| 3357 | Nonferrous wiredrawing and insulating | (G) | (D) | (D) | 4 | - | - | - | 1 | 1 | - | - | 2 | - |
| 339 | Miscellaneous primary metal products | (C) | (D) | (D) | 2 | - | - | 1 | - | - | 1 | - | - | - |
| 3399 | Primary metal products, n.e.c. | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 34 | Fabricated metal products | 372 | 1 895 | 8 345 | 16 | 4 | 3 | 4 | 3 | 2 | - | - | - | - |
| 342 | Cutlery, handtools, and hardware | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3421 | Cutlery | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 343 | Plumbing and heating, except electric | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 3433 | Heating equipment, except electric | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 344 | Fabricated structural metal products | 103 | 486 | 2 180 | 8 | 2 | 2 | 3 | 1 | - | - | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

## Table 2. Counties—Employees, Payroll, and Establishments, by Industry: 1991—Con.

[Excludes most government employees, railroad employees, and self-employed persons. Size class 1 to 4 includes establishments having payroll but no employees during mid-March pay period. (D) denotes figures withheld to avoid disclosing data for individual companies. For explanation of terms, statement on reliability, and comparability with other data, see introductory text.]

| SIC code | Industry | Number of employees for week including March 12 | Payroll ($1,000) First quarter | Payroll ($1,000) Annual | Total number of establishments | 1 to 4 | 5 to 9 | 10 to 19 | 20 to 49 | 50 to 99 | 100 to 249 | 250 to 499 | 500 to 999 | 1,000 or more |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ONONDAGA—Con.** | | | | | | | | | | | | | |
| | Manufacturing—Con. | | | | | | | | | | | | | |
| 24 | Lumber and wood products | 296 | 1 482 | 5 456 | 18 | 9 | 3 | 2 | 2 | 2 | - | - | - | - |
| 244 | Wood containers | 165 | 948 | 3 285 | 4 | 1 | - | 1 | - | 2 | - | - | - | - |
| 2448 | Wood pallets and skids | 165 | 948 | 3 285 | 4 | 1 | - | 1 | - | 2 | - | - | - | - |
| 249 | Miscellaneous wood products | (B) | (D) | (D) | 4 | 1 | 2 | - | 1 | - | - | - | - | - |
| 2499 | Wood products, n.e.c. | (B) | (D) | (D) | 4 | 1 | 2 | - | 1 | - | - | - | - | - |
| 25 | Furniture and fixtures | 135 | 550 | 1 908 | 9 | 3 | 2 | 1 | 3 | - | - | - | - | - |
| 251 | Household furniture | (B) | (D) | (D) | 3 | 1 | - | - | 2 | - | - | - | - | - |
| 2515 | Mattresses and bedsprings | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 26 | Paper and allied products | 993 | 5 386 | 23 515 | 17 | 1 | - | 6 | 6 | - | 3 | 1 | - | - |
| 265 | Paperboard containers and boxes | 400 | 2 043 | 10 053 | 10 | - | - | 4 | 4 | - | 2 | - | - | - |
| 2652 | Setup paperboard boxes | (B) | (D) | (D) | 2 | - | - | - | 2 | - | - | - | - | - |
| 2653 | Corrugated and solid fiber boxes | 256 | 1 424 | 7 556 | 4 | - | - | 2 | - | - | 2 | - | - | - |
| 2657 | Folding paperboard boxes | (B) | (D) | (D) | 2 | - | - | 1 | 1 | - | - | - | - | - |
| 267 | Misc. converted paper products | (F) | (D) | (D) | 5 | 1 | - | 1 | 1 | - | 1 | 1 | - | - |
| 2675 | Die-cut paper and board | (E) | (D) | (D) | 3 | 1 | - | 1 | - | - | - | 1 | - | - |
| 2678 | Stationery products | (E) | (D) | (D) | 2 | - | - | - | 1 | - | 1 | - | - | - |
| 27 | Printing and publishing | 3 200 | 18 556 | 77 181 | 116 | 45 | 24 | 16 | 15 | 9 | 4 | 2 | 1 | - |
| 271 | Newspapers | (F) | (D) | (D) | 12 | 6 | 1 | 1 | 2 | 1 | - | - | 1 | - |
| 273 | Books | (C) | (D) | (D) | 4 | 2 | - | - | 1 | - | 1 | - | - | - |
| 2731 | Book publishing | (C) | (D) | (D) | 4 | 2 | - | - | 1 | - | 1 | - | - | - |
| 274 | Miscellaneous publishing | (C) | (D) | (D) | 8 | 6 | - | 1 | - | - | 1 | - | - | - |
| 275 | Commercial printing | 1 301 | 7 273 | 29 313 | 64 | 18 | 16 | 10 | 11 | 7 | 2 | - | - | - |
| 2752 | Commercial printing, lithographic | 1 093 | 6 193 | 24 568 | 47 | 12 | 11 | 7 | 9 | 6 | 2 | - | - | - |
| 2759 | Commercial printing, n.e.c. | 208 | 1 080 | 4 745 | 17 | 6 | 5 | 3 | 2 | 1 | - | - | - | - |
| 278 | Blankbooks and bookbinding | (F) | (D) | (D) | 7 | 1 | 2 | 1 | 1 | - | - | 2 | - | - |
| 2782 | Blankbooks and looseleaf binders | (F) | (D) | (D) | 3 | - | 1 | - | - | - | - | 2 | - | - |
| 2789 | Bookbinding and related work | (B) | (D) | (D) | 4 | 1 | 1 | 1 | 1 | - | - | - | - | - |
| 279 | Printing trade services | 102 | 692 | 2 738 | 10 | 5 | 2 | 2 | - | 1 | - | - | - | - |
| 2791 | Typesetting | (B) | (D) | (D) | 8 | 4 | 2 | 1 | - | 1 | - | - | - | - |
| 28 | Chemicals and allied products | 1 306 | 13 565 | 55 362 | 18 | 4 | 6 | 2 | 2 | 1 | 2 | - | 1 | - |
| 281 | Industrial inorganic chemicals | 81 | 676 | 2 666 | 6 | 1 | 3 | 1 | 1 | - | - | - | - | - |
| 2819 | Industrial inorganic chemicals, n.e.c. | (B) | (D) | (D) | 4 | 1 | 1 | 1 | 1 | - | - | - | - | - |
| 283 | Drugs | (G) | (D) | (D) | 5 | - | 2 | - | - | 1 | 1 | - | 1 | - |
| 2833 | Medicinals and botanicals | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 2834 | Pharmaceutical preparations | (F) | (D) | (D) | 3 | - | 1 | - | - | - | 1 | - | 1 | - |
| 284 | Soap, cleaners, and toilet goods | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 2841 | Soap and other detergents | (C) | (D) | (D) | 2 | 1 | - | - | - | - | 1 | - | - | - |
| 285 | Paints and allied products | (B) | (D) | (D) | 4 | 1 | 1 | 1 | 1 | - | - | - | - | - |
| 29 | Petroleum and coal products | 56 | 595 | 2 532 | 5 | 2 | 1 | 1 | 1 | - | - | - | - | - |
| 295 | Asphalt paving and roofing materials | 56 | 595 | 2 532 | 5 | 2 | 1 | 1 | 1 | - | - | - | - | - |
| 2951 | Asphalt paving mixtures and blocks | 56 | 595 | 2 532 | 5 | 2 | 1 | 1 | 1 | - | - | - | - | - |
| 30 | Rubber and miscellaneous plastics products | 909 | 4 748 | 19 236 | 19 | 4 | 1 | 4 | 5 | 3 | 1 | 1 | - | - |
| 306 | Miscellaneous plastics products, n.e.c. | (F) | (D) | (D) | 15 | 2 | - | 4 | 4 | 3 | 1 | 1 | - | - |
| 3089 | Plastics products, n.e.c. | 821 | 4 191 | 17 180 | 12 | - | - | 4 | 3 | 3 | 1 | 1 | - | - |
| 32 | Stone, clay, and glass products | 822 | 4 392 | 20 386 | 10 | 1 | 4 | 1 | 1 | 2 | - | - | 1 | - |
| 326 | Pottery and related products | (F) | (D) | (D) | 2 | - | - | - | 1 | - | - | - | 1 | - |
| 3262 | Vitreous china table and kitchenware | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 327 | Concrete, gypsum, and plaster products | (C) | (D) | (D) | 3 | - | 1 | - | - | 2 | - | - | - | - |
| 3273 | Ready-mixed concrete | (C) | (D) | (D) | 2 | - | - | - | - | 2 | - | - | - | - |
| 33 | Primary metal industries | 1 671 | 14 883 | 54 558 | 16 | 1 | 2 | - | 5 | 3 | 3 | 1 | 1 | - |
| 331 | Blast furnace and basic steel products | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 3312 | Blast furnaces and steel mills | (F) | (D) | (D) | 1 | - | - | - | - | - | - | - | 1 | - |
| 332 | Iron and steel foundries | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3322 | Malleable iron foundries | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 334 | Secondary nonferrous metals | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 335 | Nonferrous rolling and drawing | (E) | (D) | (D) | 2 | - | - | - | - | 1 | - | 1 | - | - |
| 3357 | Nonferrous wiredrawing and insulating | (E) | (D) | (D) | 2 | - | - | - | - | 1 | - | 1 | - | - |
| 336 | Nonferrous foundries (castings) | 406 | 2 294 | 9 965 | 8 | - | 2 | - | 3 | 2 | 1 | - | - | - |
| 3363 | Aluminum die-castings | (C) | (D) | (D) | 2 | - | - | - | 1 | 1 | - | - | - | - |
| 3365 | Aluminum foundries | (E) | (D) | (D) | 5 | - | 2 | - | 1 | 1 | 1 | - | - | - |
| 34 | Fabricated metal products | 3 018 | 23 836 | 94 049 | 59 | 14 | 11 | 8 | 14 | 7 | 4 | - | - | 1 |
| 342 | Cutlery, handtools, and hardware | (G) | (D) | (D) | 9 | 4 | 1 | - | 1 | 1 | 1 | - | - | 1 |
| 3421 | Cutlery | (C) | (D) | (D) | 1 | - | - | - | - | - | 1 | - | - | - |
| 3429 | Hardware, n.e.c. | (G) | (D) | (D) | 5 | 1 | 1 | - | 1 | 1 | - | - | - | 1 |
| 344 | Fabricated structural metal products | 593 | 4 419 | 17 561 | 21 | 4 | 3 | 3 | 7 | 4 | - | - | - | - |
| 3441 | Fabricated structural metal | 330 | 2 387 | 9 007 | 8 | - | 2 | - | 4 | 2 | - | - | - | - |
| 3443 | Fabricated plate work (boiler shops) | (C) | (D) | (D) | 3 | 1 | - | - | - | 2 | - | - | - | - |
| 3444 | Sheet metalwork | (C) | (D) | (D) | 8 | 2 | 1 | 2 | 3 | - | - | - | - | - |
| 345 | Screw machine products, bolts, etc. | 329 | 1 710 | 8 282 | 5 | 1 | - | 1 | - | 1 | 2 | - | - | - |
| 3451 | Screw machine products | (E) | (D) | (D) | 4 | 1 | - | 1 | - | - | 2 | - | - | - |
| 3452 | Bolts, nuts, rivets, and washers | (B) | (D) | (D) | 1 | - | - | - | - | 1 | - | - | - | - |
| 347 | Metal services, n.e.c. | 310 | 1 639 | 7 674 | 10 | 2 | 5 | 1 | - | 1 | 1 | - | - | - |
| 3471 | Plating and polishing | (E) | (D) | (D) | 5 | 1 | 2 | - | - | 1 | 1 | - | - | - |
| 349 | Misc. fabricated metal products | (C) | (D) | (D) | 9 | 2 | - | 2 | 5 | - | - | - | - | - |
| 3499 | Fabricated metal products, n.e.c. | 96 | 543 | 2 203 | 4 | 1 | - | 1 | 2 | - | - | - | - | - |

Note: Employment-size classes are indicated as follows: A—0 to 19; B—20 to 99; C—100 to 249; E—250 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

# Appendix C

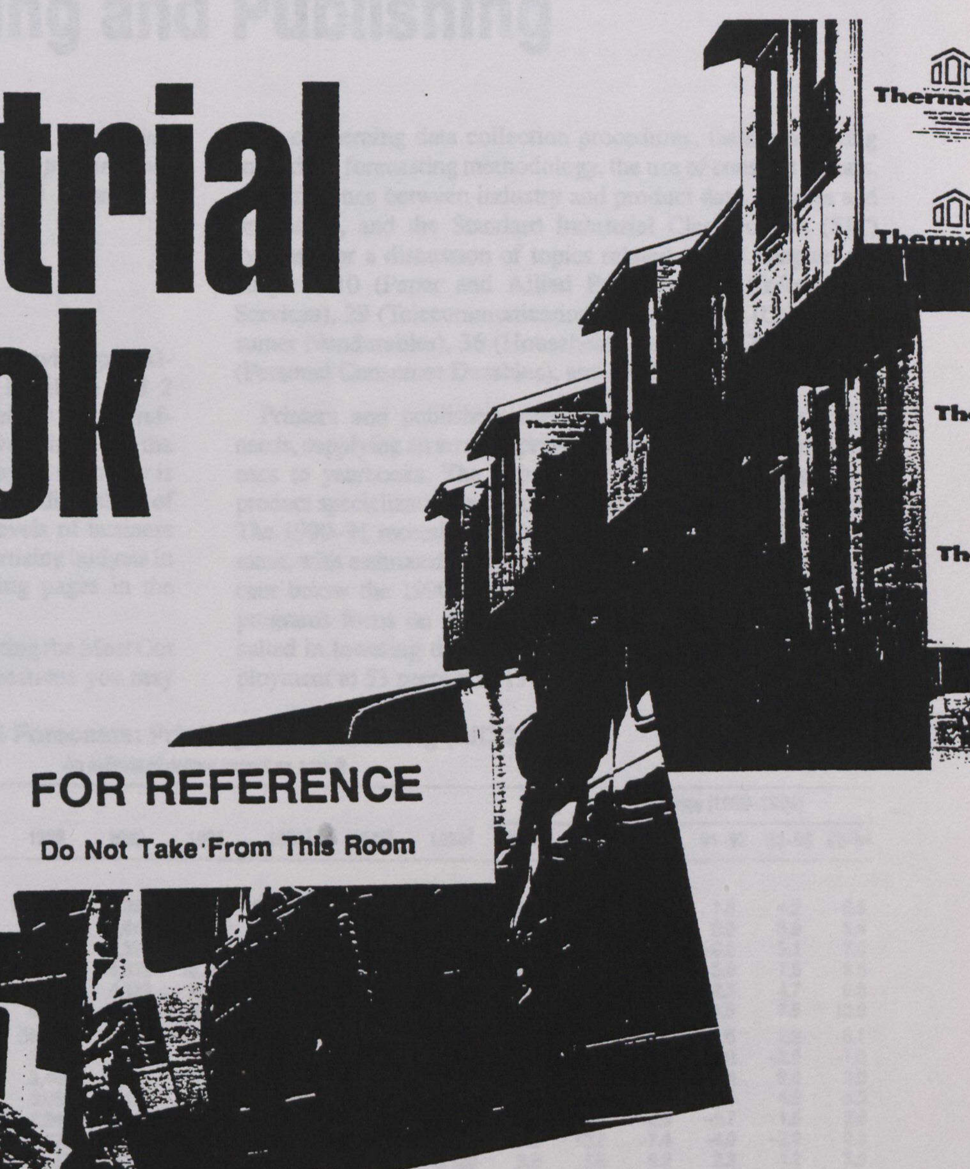
# U.S. Industrial Outlook 1994

## An Almanac of Industry, Technology and Services





# U.S. Industrial Outlook 1994





**A comprehensive, easy-to-use desk reference that gives you an overall picture of an industry in minutes**

U.S. DEPARTMENT OF COMMERCE / International Trade Administration

24

# Printing and Publishing

*An improved economy, coupled with gains in advertising expenditures, should raise shipments of the U.S. printing and publishing industry to $177 billion in 1994, an increase of nearly 2 percent over 1993 in constant dollars.*

The U.S. printing and publishing industry, with approximately 60,000 firms and between 1 million and 2 million employees, remains shadowed by the aftereffects of the 1990–91 recession. With two-thirds of the industry's shipments tied to advertising, a buoyant economy is required to end the gradual erosion of the print media's share of total U.S. advertising expenditures. Rising levels of business and consumer confidence should expand advertising budgets in 1994, and increase the number of advertising pages in the nation's newspapers and magazines.

Before reading this chapter, please see "Getting the Most Out of *Outlook '94*" on page 1. It will answer questions you may have concerning data collection procedures, factors affecting trade data, forecasting methodology, the use of constant dollars, the difference between industry and product data, sources and references, and the Standard Industrial Classification (SIC) system. For a discussion of topics related to this chapter, see chapters 10 (Paper and Allied Products), 25 (Information Services), 29 (Telecommunications Services), 34 (Other Consumer Nondurables), 36 (Household Consumer Durables), 37 (Personal Consumer Durables), and 39 (Retailing).

Printers and publishers serve the nation's communication needs, supplying an array of printed products ranging from almanacs to yearbooks. The industry's cost pressures have led to product specialization in an effort to achieve economies of scale. The 1990–91 recession had a severe impact on industry investment, with estimated 1992–93 capital expenditures 10 to 15 percent below the 1990 peak of $5.8 billion. Capital investment programs focus on increasing plant efficiencies, and have resulted in lowering the ratio of production workers to total employment to 53 percent in 1993 from 65 percent in 1973.

**Trends and Forecasts: Printing and Publishing (SIC 27)**

(in millions of dollars except as noted)

| Item | 1987 | 1988 | 1989 | 1990 | 1991 | 1992[1] | 1993[1] | 1994[2] | Percent Change (1989–1994) 88–89 | 89–90 | 90–91 | 91–92 | 92–93 | 93–94 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Industry Data** | | | | | | | | | | | | | | |
| Value of shipments[3] | 136,196 | 143,907 | 149,912 | 157,060 | 156,685 | 159,503 | 166,194 | 176,638 | 4.2 | 4.8 | −0.2 | 1.8 | 4.2 | 6.3 |
| 2711 Newspapers | 31,850 | 32,927 | 34,146 | 34,642 | 33,702 | 34,545 | 35,892 | 37,830 | 3.7 | 1.5 | −2.7 | 2.5 | 3.9 | 5.4 |
| 2721 Periodicals | 17,329 | 18,612 | 19,787 | 20,397 | 20,345 | 21,667 | 22,772 | 24,368 | 6.3 | 3.1 | −0.3 | 6.5 | 5.1 | 7.0 |
| 2731 Book publishing | 12,620 | 13,571 | 14,074 | 15,318 | 16,596 | 17,425 | 18,730 | 20,320 | 3.7 | 8.8 | 8.3 | 5.0 | 7.5 | 8.5 |
| 2732 Book printing | 3,256 | 3,566 | 3,839 | 4,132 | 4,140 | 4,235 | 4,435 | 4,700 | 7.7 | 7.6 | 0.2 | 2.3 | 4.7 | 6.0 |
| 2741 Misc publishing | 7,810 | 8,154 | 8,021 | 8,875 | 9,762 | 10,395 | 11,175 | 12,290 | −1.6 | 10.6 | 10.0 | 6.5 | 7.5 | 10.0 |
| 275 Commercial printing | 44,786 | 47,460 | 50,312 | 52,904 | 51,948 | 51,115 | 52,595 | 55,800 | 6.0 | 5.2 | −1.8 | −1.6 | 2.9 | 6.1 |
| 2761 Manifold business forms | 7,397 | 7,781 | 7,553 | 7,808 | 7,234 | 6,872 | 6,735 | 6,668 | −2.9 | 3.4 | −7.4 | −5.0 | −2.0 | −1.0 |
| 2771 Greeting cards | 2,911 | 3,082 | 3,449 | 3,721 | 3,810 | 4,069 | 4,435 | 4,834 | 11.9 | 7.9 | 2.4 | 6.8 | 9.0 | 9.0 |
| 2782 Blankbooks & binders | 2,904 | 3,058 | 3,058 | 3,186 | 3,243 | 3,325 | 3,475 | 3,665 | 0.0 | 4.2 | 1.8 | 2.5 | 4.5 | 5.5 |
| 2789 Bookbinding | 1,176 | 1,218 | 1,240 | 1,363 | 1,328 | 1,305 | 1,325 | 1,360 | 1.8 | 9.9 | −2.6 | −1.7 | 1.5 | 2.6 |
| 2791 Typesetting | 1,784 | 1,920 | 1,776 | 1,957 | 1,813 | 1,725 | 1,680 | 1,685 | −7.5 | 10.2 | −7.4 | −4.9 | −2.6 | 0.3 |
| 2796 Platemaking services | 2,373 | 2,559 | 2,657 | 2,758 | 2,764 | 2,825 | 2,945 | 3,120 | 3.8 | 3.8 | 0.2 | 2.2 | 4.2 | 5.9 |
| Value of shipments (1987$) | 136,196 | 136,941 | 135,281 | 136,044 | 130,577 | 129,508 | 130,880 | 133,378 | −1.2 | 0.6 | −4.0 | −0.8 | 1.1 | 1.9 |
| 2711 Newspapers | 31,850 | 30,859 | 30,031 | 28,653 | 26,126 | 25,348 | 25,196 | 25,221 | −2.7 | −4.6 | −8.8 | −3.0 | −0.6 | 0.1 |
| 2721 Periodicals | 17,329 | 17,525 | 17,449 | 16,815 | 15,735 | 16,018 | 16,194 | 16,517 | −0.4 | −3.6 | −6.4 | 1.8 | 1.1 | 2.0 |
| 2731 Book publishing | 12,620 | 12,803 | 12,455 | 12,872 | 13,341 | 13,675 | 14,085 | 14,610 | −2.7 | 3.3 | 3.6 | 2.5 | 3.0 | 3.7 |
| 2732 Book printing | 3,256 | 3,409 | 3,480 | 3,647 | 3,594 | 3,540 | 3,610 | 3,720 | 2.1 | 4.8 | −1.5 | −1.5 | 2.0 | 3.0 |
| 2741 Misc publishing | 7,810 | 7,707 | 7,246 | 7,670 | 7,975 | 8,195 | 8,500 | 8,840 | −6.0 | 5.9 | 4.0 | 2.8 | 3.7 | 4.0 |
| 275 Commercial printing | 44,786 | 46,065 | 46,653 | 47,782 | 46,129 | 45,437 | 46,376 | 47,651 | 1.3 | 2.4 | −3.5 | −1.5 | 2.1 | 2.7 |
| 2761 Manifold business forms | 7,397 | 7,218 | 6,726 | 6,971 | 6,470 | 6,224 | 5,775 | 5,486 | −6.8 | 3.6 | −7.2 | −3.8 | −7.2 | −5.0 |
| 2771 Greeting cards | 2,911 | 2,885 | 3,136 | 3,241 | 3,151 | 3,178 | 3,214 | 3,278 | 8.7 | 3.3 | −2.8 | 0.8 | 1.2 | 2.0 |
| 2782 Blankbooks & binders | 2,904 | 2,929 | 2,716 | 2,714 | 2,609 | 2,555 | 2,595 | 2,645 | −7.3 | −0.1 | −3.9 | −2.1 | 1.6 | 1.9 |
| 2789 Bookbinding | 1,176 | 1,175 | 1,155 | 1,241 | 1,181 | 1,145 | 1,135 | 1,140 | −1.7 | 7.4 | −4.8 | −3.0 | −0.9 | 0.4 |
| 2791 Typesetting | 1,784 | 1,864 | 1,675 | 1,831 | 1,666 | 1,555 | 1,495 | 1,470 | −10.1 | 9.3 | −9.0 | −6.7 | −3.9 | −1.7 |
| 2796 Platemaking services | 2,373 | 2,501 | 2,559 | 2,607 | 2,600 | 2,640 | 2,705 | 2,800 | 2.3 | 1.9 | −0.3 | 1.5 | 2.5 | 3.5 |

[1]Estimate.
[2]Forecast.
[3]Value of all products and services sold by establishments in the printing and publishing industry.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

**U.S. Trade Patterns in 1992**
**Printing and Publishing**
SIC 27
(in millions of dollars, percent)

| Exports | | | Imports | | |
|---|---|---|---|---|---|
| | Value | Share | | Value | Share |
| Canada and Mexico | 1,940 | 50.6 | Canada and Mexico | 473 | 22.6 |
| European Community | 794 | 20.7 | European Community | 695 | 33.2 |
| Japan | 295 | 7.7 | Japan | 173 | 8.3 |
| East Asia NICs | 203 | 5.3 | East Asia NICs | 633 | 30.2 |
| South America | 94 | 2.4 | South America | 32 | 1.5 |
| Other | 507 | 13.2 | Other | 87 | 4.1 |
| World Total | 3,833 | 100.0 | World Total | 2,093 | 100.0 |
| **Top Five Countries** | | | | | |
| | Value | Share | | Value | Share |
| Canada | 1,721 | 44.9 | Canada | 396 | 18.9 |
| United Kingdom | 408 | 10.6 | United Kingdom | 302 | 14.4 |
| Japan | 295 | 7.7 | Hong Kong | 251 | 12.0 |
| Mexico | 219 | 5.7 | Japan | 173 | 8.3 |
| Australia | 187 | 4.9 | Singapore | 120 | 5.7 |

See "Getting the Most Out of *Outlook '94*" for definitions of the country groupings.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration.

Demand for printed products is determined by a number of factors, including general economic activity, disposable personal income, advertising expenditures, business formations and transactions, and appropriations for schools, libraries and institutions. The United States is the world's largest market for printed products and a favorable set of demographic factors over the period 1993–98 should reinforce this preeminent position. The U.S. population should reach 270 million in 1998, an increase of more than 12 million over 1993. The number of U.S. households should expand to 101 million in 1998, a gain of almost 5 million from 1993. School enrollments—elementary, secondary and college—should expand by close to 5 million, to 68 million in 1998, from 63 million in 1993.

Growing competition from the electronic media and a squeeze on leisure time are forcing U.S. printers and publishers to reappraise their traditional markets. Printed products originally issued as books, directories, newsletters, and reference materials increasingly appear in the form of audio books, laser disks, compact disks, software, facsimile, and on-line information. To date, these electronic products supplement rather than supplant demand for printed products, but inroads by these electronic media should become more evident by the close of the decade. Gains by the electronic media are well perceived by leading U.S. printers, several of whom have established facilities to produce electronic materials such as compact disks for their publishing customers.

## *ENVIRONMENTAL PROFILE*

Meeting environmental challenges is affecting the cost structures of both printers and publishers. Printers' concerns with toxins, carcinogens, and volatile organic compounds (VOCs) have led to increased use of alcohol-free fountain solutions, water-based inks, and solvent-less developers and finishers. More use of recycled paper and greater care in the disposal of materials now classified as hazardous result in higher printing production costs. Publishers' environmental issues center on the nation's dwindling space for landfills. Greater use of recycled paper throughout the printed product spectrum, coupled with growing legislative efforts to separate more printed products for recycling purposes from the stream of consumer waste, add to publishers' costs.

## *INTERNATIONAL COMPETITIVENESS*

Since the United States is the world's largest market for printed products, most U.S. printers and publishers have at best a peripheral interest in international trade. Yet the United States is the second largest exporter of printed products (exceeded only by Germany), with 1993 shipments of slightly more than $4 billion. Major markets for U.S. printed product exports are Canada, the United Kingdom, Japan, and Mexico, with combined purchases accounting for two-thirds of the total. Approximately 60 percent of U.S. printed product exports consist of books and periodicals, but a wide variety of other items, including greeting cards, catalogs, labels, posters, decals, playing cards, calendars, and other trade advertising materials contribute to export markets totaling $1.6 billion in 1993.

Imports of printed products reached $2.2 billion in 1993, with combined shipments from Canada, the United Kingdom, Hong Kong, and Germany representing approximately 54 percent of the total. Shipments of books constituted 46 percent of all U.S. printed product imports in 1993, with some U.S. publishers contracting with Pacific Rim or Mediterranean suppliers who offer attractive pricing.

The next five years should provide significant opportunities for those U.S. printers and publishers seeking an international presence. Successful conclusion of the North American Free Trade Agreement (NAFTA) and the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) will reduce or eliminate trade barriers to exports of U.S. printed products and strengthen protection of international copyrights. By addressing the information requirements of global markets—and assisted by the dominance of English as the world's language of commerce and the professions—the U.S. printing and publishing industry should dominate in providing information services to an increasingly international clientele.—*William S. Lofquist, Office of Consumer Goods (202) 482–0379, September 1993.*

## NEWSPAPERS

Although newspaper industry receipts continued to show a loss in constant-dollar terms in 1993, they fell at a slower rate than in the past five years, declining less than 1 percent from 1992. Receipts totaled about $35.9 billion.

First-quarter 1993 newspaper advertising was on a strong upward swing, but slowed by the second quarter. For the year, newspaper advertising revenues were expected to show a gain of 3 to 4 percent, coupled with a slight loss in advertising pages. Still uncertain about the economy and their employment prospects, consumers spent more cautiously in 1993. With local retail markets soft in many areas of the country, businesses, especially large retail chains and supermarkets, held back on their advertising. In addition, newspapers' classified advertising (employment, real estate, and auto) recovered at a slower pace in 1993 than newspaper publishers anticipated earlier in the year. While both local retail and classified newspaper advertising receipts showed some gain in 1993, national advertising receipts continued to drop.

Circulation revenue gains were largely due to increases in newsstand and subscription prices. Total newspaper circulation remained nearly flat in 1993, although morning and Sunday circulation gained slightly as evening circulation continued to decline.

Newspapers are dealing with more complex market trends on the local and national levels. Increasingly, newspapers have had to compete for advertising dollars and audience with direct-mail operations, cable television, community-based shopper newspapers, radio, local television, Yellow Pages, and weekly newspapers. Not only have newspapers' competitors been changing, but community demographics, local retail markets, and households have changed as well.

Despite these challenges, newspapers have remained profitable, although profits have dropped in recent years. Lower-than-expected prices for newsprint, cost-cutting measures, and higher advertising rates have helped many newspapers to remain profitable, but sharp newsprint price hikes in 1993 were expected to weaken earnings. Publishers focused on reversing readership declines and developing more aggressive marketing strategies to attract advertising. Many developed new zoned products and publications to attract readers and advertisers.

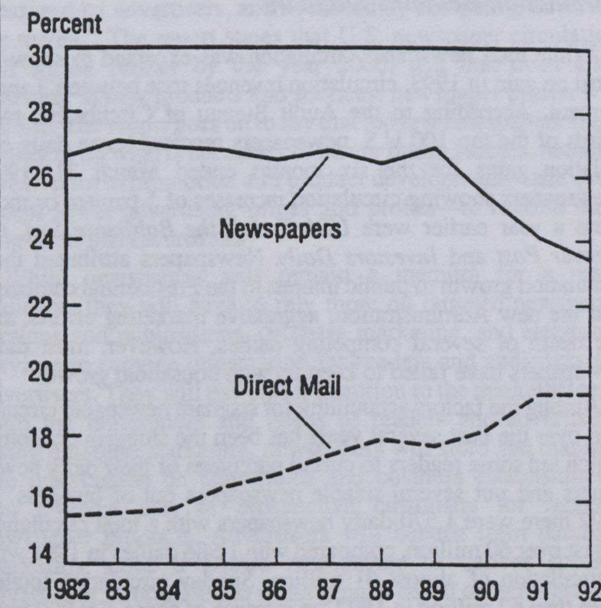
### *Momentum Builds, Then Slows For Advertising Revenues*

According to the Newspaper Association of America (NAA), newspaper advertising spending was expected to rise 3 to 4 percent in 1993, after increasing about 1 percent in 1992, and plunging more than 5 percent in 1991. First-quarter 1993 expenditures for advertising rose 5 percent from the same period in 1992. Local retail advertising spending for the first quarter was up more than 5 percent from the previous year, and classified advertising spending grew nearly 6 percent during the same period. National advertising spending in newspapers during the first quarter declined about 1 percent, compared with the first quarter of 1992. First-quarter figures for local retail and national advertising failed to reach the growth levels forecast earlier in the year. For the rest of 1993, total newspaper advertising spending was forecast to show slower growth. Newspaper advertising pages were expected to be flat or down about 1 percent. Newspaper advertising rates were up an estimated 4 to 5 percent in 1993.

Local retail and classified advertising experienced stronger recovery in regional markets where the local economy was healthier—the South, Southwest, and Midwest. Newspapers in the East and West experienced slower, more gradual advertising growth. Some publishers, including The New York Times Company and Times Mirror Company, still showed declines in classified advertising early in the year.

Figure 24-1

**Media Advertising: Direct Mail Gains as Newspapers' Share Erodes**




SOURCE: McCann-Erickson.

Newspapers' share of total media advertising expenditures continued to shrink in 1993. Their share has dropped from almost 27 percent in 1982 to slightly more than 23 percent in 1992. Over the decade, direct-mail marketers have been the main beneficiaries of these advertising losses for newspapers. Direct-mail's share of total media advertising climbed from more than 15 percent in 1982 to more than 19 percent in 1992. Newspapers remain heavily dependent on advertising revenues. According to 1991 Census data, daily newspapers received

**Trends and Forecasts: Newspapers (SIC 2711)**

(in millions of dollars except as noted)

| Item | 1987 | 1988 | 1989 | 1990 | 1991 | 1992[1] | 1993[2] | 1994[3] | Percent Change (1989–1994) 88-89 | 89-90 | 90-91 | 91-92 | 92-93 | 93-94 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Industry Data** | | | | | | | | | | | | | | |
| Value of shipments[4] | 31,850 | 32,927 | 34,146 | 34,642 | 33,702 | 34,545 | 35,892 | 37,830 | 3.7 | 1.5 | -2.7 | 2.5 | 3.9 | 5.4 |
| Value of shipments (1987$) | 31,850 | 30,859 | 30,031 | 28,653 | 26,126 | 25,348 | 25,196 | 25,221 | -2.7 | -4.6 | -8.8 | -3.0 | -0.6 | 0.1 |
| Total employment (000) | 434 | 432 | 431 | 443 | 428 | 421 | 422 | 424 | -0.2 | 2.8 | -3.4 | -1.6 | 0.2 | 0.5 |
| Production workers (000) | 148 | 146 | 147 | 149 | 145 | 143 | 142 | 143 | 0.7 | 1.4 | -2.7 | -1.4 | -0.7 | 0.7 |
| Average hourly earnings ($) | 11.38 | 11.42 | 11.82 | 12.37 | 12.27 | 12.58 | 12.87 | 13.25 | 3.5 | 4.7 | -0.8 | 2.5 | 2.3 | 3.0 |
| Capital expenditures | 1,523 | 1,631 | 1,985 | 1,886 | 1,538 | — | — | — | 21.7 | -5.0 | -18.5 | — | — | — |
| **Product Data** | | | | | | | | | | | | | | |
| Value of shipments[5] | 30,495 | 31,461 | 32,457 | 32,818 | 31,860 | 32,657 | 33,931 | 35,763 | 3.2 | 1.1 | -2.9 | 2.5 | 3.9 | 5.4 |
| Value of shipments (1987$) | 30,495 | 29,485 | 28,546 | 27,144 | 24,698 | 23,963 | 23,819 | 23,843 | -3.2 | -4.9 | -9.0 | -3.0 | -0.6 | 0.1 |
| **Trade Data** | | | | | | | | | | | | | | |
| Value of imports | — | — | 96.1 | 62.0 | 48.3 | 53.4 | 48.1 | 51.9 | — | -35.5 | -22.1 | 10.6 | -9.9 | 7.9 |
| Value of exports | — | — | 28.6 | 37.7 | 38.0 | 30.1 | 27.7 | 28.5 | — | 31.8 | 0.8 | -20.8 | -8.0 | 2.9 |

[1]Estimate, except exports and imports.
[2]Estimate.
[3]Forecast.
[4]Value of all products and services sold by establishments in the newspapers industry.
[5]Value of products classified in the newspapers industry produced by all industries.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

about 76 percent of their total receipts from advertising; weeklies obtained about 71 percent from this source. Over the past few years, advertising's contribution to total newspaper receipts for both dailies and weeklies has dropped slightly.

### *Circulation Remains Stagnant*

While total newspaper circulation was expected to show almost no gain in 1993, circulation revenues rose between 3 and 4 percent. According to the Audit Bureau of Circulation, two-thirds of the top 100 U.S. newspapers reported some daily circulation gains for the six months ended March 31, 1993. Newspapers showing circulation increases of 5 percent or more from a year earlier were *USA Today, the Baltimore Sun, the Denver Post* and *Investors Daily.* Newspapers attributed their circulation growth to public interest in the Presidential campaign and the new Administration, aggressive marketing efforts, and the death of several competing dailies. However, most daily newspapers have failed to keep up with household growth.

Among the factors accounting for stagnant newspaper circulation over the past several years has been the sluggish economy, which led some readers to curtail purchases of their daily newspapers and put several sizable newspapers out of business. In 1992 there were 1,570 daily newspapers with a total circulation of just over 60 million, compared with 1,586 dailies in 1991 with a circulation of almost 61 million. Sunday circulation totaled more than 62 million in 1992, an increase of about 400,000 from 1991. The *Dallas Times Herald, the Tulsa Tribune, the Spokane Chronicle, the Pittsburgh Press,* and *the San Antonio Light* were among the dailies that folded in the past few years. The debt-ridden *New York Post* briefly suspended publication in July 1993.

Circulation losses also occurred as newspapers raised newsstand and subscription prices sharply to compensate for sagging advertising revenues. The NAA reported that daily newspapers charged an average of $0.35 for a copy in 1992, compared with $0.32 in 1991 and $0.31 in 1990. In 1992, 809 dailies charged $0.35 for a single copy, compared with 779 in 1991.

U.S. weekly newspapers have fared somewhat better than dailies. Their number dropped from 7,417 in 1992 to 7,406 in 1993, as average weekly circulation climbed from more than 54 million in 1992 to more than 55 million in 1993. A number of dailies switched to weekly publication, accounting for some of the circulation gain.

### *Industry Structure and Operations*

Newspaper chains owned 76 percent of the U.S. dailies in 1992. These 132 chains produced 79 percent of weekday newspaper circulation. Many of these companies are small, with total daily circulation below 50,000. The biggest acquisition of 1993 was the New York Times Company's purchase of the *Boston Globe* from Affiliated Publications for about $1.1 billion.

The total number of newspapers dropped by 16 between 1991 and 1992 due to shutdowns, mergers of morning-evening combinations, and conversions to weekly publication. Over the decade, the number of dailies has dropped by 141. Many metropolitan areas that once supported two competing newspapers now have only one major paper.

Employment in the industry fell about 2 percent in 1992 to 421,000 and was expected to show little change in 1993. Production workers accounted for about 34 percent of total employment in 1993, compared with 37 percent a decade earlier. Some employment losses resulted from companies' cost-cutting measures and technological displacement.

**U.S. Trade Patterns in 1992**
**Newspapers**
SIC 2711
(in millions of dollars, percent)

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada and Mexico | 16 | 53.2 | Canada and Mexico | 44 | 82.8 |
| European Community | 11 | 37.0 | European Community | 9 | 16.0 |
| Japan | 0 | 0.2 | Japan | 0 | 0.2 |
| East Asia NICs | 0 | 1.2 | East Asia NICs | 0 | 0.2 |
| South America | 1 | 2.2 | South America | 0 | 0.1 |
| Other | 2 | 6.2 | Other | 0 | 0.8 |
| World Total | 30 | 100.0 | World Total | 53 | 100.0 |

**Top Five Countries**

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada | 14 | 47.1 | Canada | 39 | 73.0 |
| United Kingdom | 10 | 32.5 | Mexico | 5 | 9.8 |
| Mexico | 2 | 6.1 | France | 3 | 6.0 |
| Australia | 1 | 3.0 | Italy | 3 | 5.5 |
| Netherlands | 1 | 1.7 | United Kingdom | 2 | 3.4 |

See "Getting the Most Out of *Outlook '94*" for definitions of the country groupings.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration.

According to Veronis Suhler and Associates, a New York investment banking firm specializing in the communications industry, the newspaper industry has remained one of the most profitable media, even during the recent recessionary period, although the industry's profit margins have declined by about one-third over the past five years. Morton Research, in its *Newspaper Newsletter*, reported that the newspaper businesses of publicly held companies achieved average operating profit margins of better than 13 percent in 1991, which was one of the most difficult years for newspapers since World War II. Newspaper closings helped to improve the profit pictures for some competing papers. Escalating newsprint prices were expected to have a smaller impact on profitability in 1993 than earlier anticipated.

NAA reported that capital expenditures for U.S. newspapers dropped about 27 percent over 1991, the lowest level of spending since 1984. It projected that expenditures would rebound in 1993, rising an estimated 16 percent.

## ENVIRONMENTAL PROFILE

Proposed national recycling legislation, which would require large newspaper companies to use Government-mandated levels of recycled newsprint, failed to be enacted in 1992 and by 1993 Congress showed even less interest in the issue. *Presstime* magazine reports that in 26 states and the District of Columbia, state government regulators and newspaper officials have instituted voluntary or mandatory agreements on increasing the recycled content of newsprint.

Newspapers have one of the best recycling records of any U.S. industry. According to NAA, 55 percent of old newspapers, totaling some 7 million metric tons, were recycled in 1992, compared with 35 percent in 1988.

## INTERNATIONAL COMPETITIVENESS

Since most U.S. newspapers serve local markets, newspaper exports remain small. Newspapers exported in 1993 totaled $28 million, down 8 percent from 1992. Canada received 47 percent of the total in 1992, the United Kingdom accounted for 33 percent, and Mexico took 6 percent.

While still few in number, some U.S. newspaper companies have expanded their business interests to international markets. Both *USA Today* and *the Wall Street Journal* have considerable distribution overseas. Several U.S. publishers have launched papers abroad through joint ventures. *The Washington Post* and *the New York Times*, together with Whitney Communications, have published the *International Herald Tribune* for more than 25 years. More than 200,000 copies of the *IHT* are now printed daily by facsimile transmission at 11 printing sites and distributed in more than 160 countries. Recently *the New York Times* and *Moscow News* jointly launched *the New York Times News in Review*, a Russian-language edition of the *Times*; the Hearst Corporation and the Russian newspaper *Izvestia* joined in publishing *We/Mbl.*

Newspaper imports amounted to $48 million in 1993, falling 10 percent from 1992. Canada supplied 73 percent of U.S. newspaper imports, Mexico provided 10 percent, and France, 6 percent.

## Outlook for 1994

Newspaper industry receipts in constant dollars are expected to grow less than 1 percent in 1994. The industry's steady recovery depends on a healthier economy generally and improving consumer confidence. Expanding employment, together with increasing retail, automotive, and real estate sales, would boost retail and classified advertising receipts. If economic gains occur in most regions of the nation, newspaper advertising revenues could grow 5 to 6 percent.

Only Sunday newspaper circulation will likely see any gain in 1994. Circulation revenues are expected to grow by at least 5 percent. Consumers may continue to purchase fewer papers because of increases in subscription and newsstand prices over the past few years. The smaller gains in real disposable personal income and personal consumption expenditures forecast for 1994 may cause consumers to modify their purchases of discretionary items, including newspapers. A range of new products, appealing to both readers and advertisers, such as telephone voice-mail information services, could help boost newspaper revenues slightly in 1994.

The two principal expenses for newspapers, labor and newsprint, are expected to show only moderate increases. If demand for newsprint is stronger than expected, prices could rise sharply. Postal rate hikes are not expected before 1995.

## Long-Term Prospects

Over the next five years, newspaper industry receipts are forecast to grow at an average yearly rate of 1 to 2 percent in constant dollars. This forecast depends on moderate economic and advertising growth. It is also based on increasing consumer confidence and a moderate rise in both real disposable personal income and personal consumption expenditures.

During this period, the industry will focus more attention on becoming an information services provider for targeted audiences than on remaining a print media business for mass audiences. A diverse group of customers by age, gender, ethnicity and other factors will require newspapers to consider information products in a range of formats tailored to their customers' interests. Rather than countering the impact of their competitors, more and more newspapers will work with them to provide electronic information services to the public.

According to a market study by consultants Clark, Martire & Bartolomeo, Inc. of Englewood Cliffs, New Jersey, newspapers are beleaguered on three fronts: "struggling to maintain readers, pressured by advertisers, and squeezed by competing advertising media." The report states that U.S. newspaper circulation will shrink further by the year 2000, and that even after investing in new products and services, newspaper profits will decline. The report goes on to say that too few newspapers seem willing to do what is necessary to insure future success, namely, invest more in promotion and product development—and even accept lower advertising prices and profits—to reverse their long-term market erosion.

While newspapers will remain a medium for a mass audience, they will have to rely more on targeted newspaper sections and publications, database marketing, and electronic services to provide information for readers and audiences for advertisers. They will pay closer attention to the marketplace to learn the preferences and needs of readers and advertisers. Using database marketing, newspapers will store and manipulate information on households and business establishments and produce lists of prospective customers for targeted newspaper products. Advertisers will benefit from database marketing since it allows newspapers to deliver specific advertising information to small groups based on demographic and lifestyle data.

Over the next several years, the newspaper industry will work to market itself more effectively. It will address readership declines (readers as a percent of total adult population) especially among younger persons, negative perceptions of newspapers on the part of advertisers and advertising agencies, and obstacles to purchasing newspaper advertising. A report of a survey in *Presstime* magazine indicates that each successive generation is less likely to read newspapers as frequently as the prior generation. According to the study, readers' perceptions of newspapers as a useful medium significantly affect advertisers' perception of newspapers as an effective advertising medium. Newspapers will have to develop circulation strategies and editorial products to appeal to various age groups to boost circulation and target audiences advertisers want to reach. In addition, newspapers will have to do more targeting of ethnic and racial groups, the elderly, women, and other demographic and lifestyle markets. In particular, Hispanics and aging baby boomers represent growing segments of the consumer market that newspapers will actively pursue for their advertisers over the next 10 years.

Simmons Market Research Bureau reports that while about 63 percent of adults 18 and older read one or more newspapers on an average weekday, newspaper daily adult readership has fallen from nearly 81 percent in the early 1960's. In 1992, persons aged 55 to 64 had the highest newspaper readership (72 percent), while the lowest readership (54 percent) was among young adults, aged 18 to 24. With a broad range of leisure pursuits competing for Americans' time and a wide range of media wanting to provide the public with entertainment and information, newspapers will have to become more valuable information sources in such areas as health and fitness, money management, parenting and family activities, entertainment, and lifestyle trends. Some papers have attracted new readers by offering additional information on various topics in electronic as well as new print forms.

Large retailers and national advertisers should find it easier to purchase advertising from newspapers as electronic data interchange systems become available for handling advertising transactions via computer. To make it easier for national advertisers to purchase advertising in a number of newspapers at the same time, newspapers will soon offer a "one-order/one-bill" newspaper advertising network. Newspapers should also attract more advertising when they begin producing and distributing special newspaper sections for delivery only to households that subscribe to them. Other targeted advertising strategies will include selective delivery of advertising inserts to counter direct-mail's continuing threat.

Although some newspapers are joining with telephone and cable companies to create new electronic products, many still view these communication businesses as formidable competitors vying with newspapers for readers' and advertisers' time and money. Over the next few years, newspapers increasingly will form alliances with other media, including television, cable, and phone companies. They will do so even as they continue to support legislation restricting the regional Bell companies from providing electronic information services over their own telephone lines.

At the same time, newspapers will assess their own role in the electronic communications networks more carefully as telephone and cable television companies increase their ability to send huge amounts of information through these networks. Newspapers' ability to gather, analyze, and report the news places the medium in a strategic position to provide valuable information content for distribution in an electronic format. Much of the information in their databases can already be accessed electronically. The Hearst Corporation, the *Los Angeles Times*, and Advance Publications, Inc., among others, are exploring electronic communication technologies and opportunities through their own organizations or with other companies. Newspapers will become more involved in media/communications alliances on a global level as they seek additional revenues in the international advertising market. *—Rose Marie Zummo Bratland, Office of Consumer Goods (202) 482–0380, July 1993.* .

## Additional References

(Call the Bureau of the Census at (301) 763–4100 for information about how to order Census documents).

*Statistics for Industry Groups and Industries*, 1991 Annual Survey of Manufactures, M91(AS)-1, Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Value of Product Shipments*, 1991 Annual Survey of Manufactures, M91(AS)-2, Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Newspapers, Periodicals, Books*, 1987 Census of Manufactures, MC87-1-27A, Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Employment and Earnings*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212. Telephone: (202) 606–6555.

*Producer Price Indexes*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20221. Telephone: (202) 606–6555.

*Advertising Age*. Crain Communication Inc., 740 Rush St., Chicago, IL 60611. Telephone: (312) 649–5200.

*Editor & Publisher*, Editor & Publisher Co., 11 West 19th St., New York, NY 10011. Telephone: (212) 675–4380.

*Newspaper Newsletter*, Morton Research, 1037 30th St., N.W., Washington, DC 20037. Telephone: (202) 337–9090.

*Presstime*, Newspaper Association of America, Inc., 11600 Sunrise Valley Dr., Reston, VA 22091. Telephone: (703) 648–1000.

*Publisher's Auxiliary*, National Newspaper Association, 1627 K St., N.W. Washington, DC 20006. Telephone: (202) 466–7200.

## PERIODICALS

Periodical advertising continued to recover in 1993, but at a slower-than-expected pace. After experiencing an upswing in 1992, the industry expected to see strong growth throughout 1993. Nagging uncertainty about the nation's economic recovery kept advertisers from substantially increasing their advertising budgets for magazines. Circulation was expected to be flat for the year or down slightly. Magazine industry receipts totaled $22.8 billion, up slightly more than 1 percent in constant dollars from 1992.

Advertising in consumer periodicals during the first half of 1993 recorded its strongest first-half gains in revenue and advertising pages since 1989. However, after a sharp gain in advertising pages during the first quarter, advertising pages were flat for consumer magazines during the second quarter.

### Trends and Forecasts: Periodicals (SIC 2721)

(in millions of dollars except as noted)

| | | | | | | | | | Percent Change (1989–1994) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | 1987 | 1988 | 1989 | 1990 | 1991 | 1992[1] | 1993[2] | 1994[3] | 88-89 | 89-90 | 90-91 | 91-92 | 92-93 | 93-94 |
| **Industry Data** | | | | | | | | | | | | | | |
| Value of shipments[4] | 17,329 | 18,612 | 19,787 | 20,397 | 20,345 | 21,667 | 22,772 | 24,366 | 6.3 | 3.1 | –0.3 | 6.5 | 5.1 | 7.0 |
| Value of shipments (1987$) | 17,329 | 17,525 | 17,449 | 16,815 | 15,735 | 16,018 | 16,194 | 16,517 | –0.4 | –3.6 | –6.4 | 1.8 | 1.1 | 2.0 |
| Total employment (000) | 110 | 111 | 116 | 115 | 111 | 108 | 109 | 111 | 4.5 | –0.9 | -3.5 | -2.7 | 0.9 | 1.8 |
| Production workers (000) | 18.3 | 19.1 | 20.7 | 21.6 | 20.7 | 19.5 | 19.3 | 19.7 | 8.4 | 4.3 | –4.2 | –5.8 | -1.0 | 2.1 |
| Average hourly earnings ($) | 11.06 | 11.99 | 12.45 | 13.09 | 13.21 | 13.64 | 14.05 | 14.47 | 3.8 | 5.1 | 0.9 | 3.3 | 3.0 | 3.0 |
| Capital expenditures | 246 | 246 | 272 | 275 | 223 | — | — | — | 10.6 | 1.1 | -18.9 | — | — | — |
| **Product Data** | | | | | | | | | | | | | | |
| Value of shipments[5] | 16,492 | 17,664 | 18,748 | 19,256 | 19,424 | 20,473 | 21,517 | 23,023 | 6.1 | 2.7 | 0.9 | 5.4 | 5.1 | 7.0 |
| Value of shipments (1987$) | 16,492 | 16,632 | 16,533 | 15,874 | 15,022 | 15,292 | 15,460 | 15,769 | –0.6 | –4.0 | -5.4 | 1.8 | 1.1 | 2.0 |
| **Trade Data** | | | | | | | | | | | | | | |
| Value of imports | — | — | 140 | 122 | 121 | 136 | 163 | 179 | — | -12.9 | –0.8 | 12.4 | 19.9 | 9.8 |
| Value of exports | — | — | 448 | 666 | 705 | 731 | 768 | 829 | — | 48.7 | 5.9 | 3.7 | 5.1 | 7.9 |

[1]Estimate, except exports and imports.
[2]Estimate.
[3]Forecast.
[4]Value of all products and services sold by establishments in the periodicals industry.
[5]Value of products classified in the periodicals industry produced by all industries.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

Advertising gains for the business press were also more impressive early in the year but slowed during the second quarter. Advertisers were cautious in their advertising spending because of lower-than-expected consumer purchasing and their own uneasiness about the health of the economy.

Competition from television, special advertising promotions, and direct mail became more intense as publishers vied for shrinking advertising dollars. Magazines continued to fight their image as a secondary advertising medium by offering advertisers targeted markets for their products through a growing number of special-interest publications and ancillary products.

Industry cost-cutting measures implemented during the recession were expected to boost profit gains during 1993. Over the year, publishers focused on the effectiveness of magazine advertising, the profitability of circulation, and on the growing importance of pleasing their readers. In addition, publishers directed their attention to recycling issues and state and Federal tax proposals affecting magazines.

### *Advertising Recovery Slows*

After experiencing their strongest first quarter in eight years, consumer magazines' advertising growth halted in the second quarter. Publishers Information Bureau reported that for the first quarter, advertising pages rose about 6 percent and advertising receipts climbed about 12 percent from the first-quarter 1992 level. During the first seven months of 1993, advertising pages were up nearly 2 percent from the same period in 1992, and advertising revenues increased about 6 percent, reflecting the slowdown in growth during the second quarter and advertising page and revenue declines in July. In many instances, large advertisers reconsidered their advertising commitments to magazines and canceled or cut back their scheduled advertising on short notice as business growth slowed. Publishers resorted to advertising rate discounting and special offers to attract advertisers. For the year, advertising pages grew 1 to 2 percent, and advertising receipts rose 5 to 6 percent. Consumer magazine groups recording the most growth in advertising revenues in 1992 included woman/fashion/service, outdoor and sports, national business titles, and computer magazines. In 1993, advertising recovery for magazines was spotty; some magazines in special-interest segments did well while others in the same group recorded declines.

Most of the top 10 consumer magazine advertising categories recorded revenue gains during the first half of 1993. Categories showing the largest increases were drugs/remedies, direct-response companies, business/consumer services, and toiletries/cosmetics. Computer/office equipment/stationery and cigarettes/tobacco experienced substantial declines.

Business and professional magazines as a group saw no growth in advertising pages in 1992, and very little overall growth in pages was likely in 1993. *International Business Communication's 1994 Business Press Outlook* projected an 8 to 9 percent gain in advertising revenues in 1993, based on the 250 business publications tracked. American Business Press, the major trade association for business publishers, expected advertising revenues to rise about 4 percent in 1993. Advertising recovery for business publications groups was mixed, with some sectors performing very well, and others doing poorly. Groups that did well included computers, electronics, telecommunications, and long-term health care. Those performing poorly included aviation and aerospace, advertising and marketing, and construction-related publications.

From 1982 to 1992, advertising's share of total magazine receipts have declined slightly for both consumer magazines and the business press. In 1982, advertising accounted for 55 percent of total consumer magazine receipts. By 1992 it had fallen to 51 percent. Over the same decade, advertising receipts for business and professional publications dropped from 63 percent of total receipts to 60 percent. A growing number of business and professional magazines have gone from controlled circulation (sent free to industry executives and professionals) to paid circulation as advertising revenues have become more difficult to obtain. As their advertising receipts have become more unpredictable, consumer magazines have looked more to increasing circulation revenues.

### *Circulation Declines*

Economic uncertainty, weak consumer confidence, and modest gains in real disposable personal income took their toll on consumer magazine circulation in 1992 and 1993. Although a record number of new magazines were started in 1992, magazine suspensions increased in a number of magazine groups in 1992 and 1993.

Audit Bureau of Circulation (ABC) data for 1992 reported that for the 570 consumer magazines tracked, total circulation fell for a second consecutive year. Annual combined circulation per issue for single-copy and subscription circulation each declined by about 1 million. Single-copy circulation totaled about 71 million per issue, while subscriptions numbered about 292 million per issue for consumer magazines. This was the first time since 1976 that subscription circulation fell for these ABC-audited magazines, although in 1991 subscription circulation was virtually unchanged from the previous year.

Newsstand magazines accounted for 20 percent of total consumer magazine circulation in 1991, but for 31 percent of total magazine circulation revenues; subscription represented 80 percent of circulation and 69 percent of circulation receipts.

Over the past decade, publishers have charged higher cover prices for newsstand editions of their publications than for subscriptions and have also increased rates on newsstand prices more rapidly. However, higher magazine cover prices in recent years have led to declining newsstand sales as consumers became more cautious in their purchasing. In the past few years, publishers have resisted increasing magazine cover prices but have attempted to make subscription sales more profitable. According to ABC data on the 50 leading magazines' cost to readers, the average single-copy price of a magazine rose from \$2.65 in 1990 to \$2.67 in 1992, an increase of less than 1 percent. By comparison, the average subscription price rose 2 percent, going from \$27.11 in 1990 to \$27.77 in 1992. During the 1987–90 period the average yearly single-copy price climbed 20 percent, as the average yearly subscription price increased 11 percent.

### *Changing Industry Profile*

The *Gale Directory of Publications* listed 11,143 U.S. periodicals (consumer, farm, and business) for 1992, 96 fewer than in 1991. The *Consumer & Farm Magazines* publication of Standard Rate and Data Service reported a total of 2,318 consumer and farm publications in 1992, 42 more than in 1992. According to Samir Husni's *Guide to New Consumer Magazines*, a record 679 new magazine titles were launched in 1992, an increase of 126 over 1991. The largest number of startups were erotica and life-style/service magazines, but health, food, and children's publications also recorded strong gains. Many of the new magazines were special issues and one-time publications. *Esquire* launched two special issues in 1992, *Esquire Gentleman* and *Esquire Sportsman.* In early 1993, *Scientific American* published *Scientific American Medicine*, a one-time newsstand publication.

Magazines targeted to the baby boomers or their children, the so-called baby boomlets, were successful launches even during the recent recession. Hot magazine groups in the last five years have been children and teen magazines, which have doubled in number. New titles include *The Simpsons*, *Disney Adventures*, and *American Girl.* Spinoffs from established magazines have been popular, with such titles as *Discover for Kids*, *Money for Kids*, and *Field & Stream Jr.* Personal finance titles for the boomers have also done well. New launches, *Smart Money* and *Worth*, were aimed at this group.

A number of magazines targeted age or demographic sectors of the population by publishing a number of special editions. Several parenting magazines, including *Child* and *American Baby*, offered editions tailored to the age of a reader's child. Other recent publications targeted to a niche market include *Emerge*, a newsweekly for Black Americans, *The Senior Golfer*, targeted at aging baby boomers, and *Skiing for Women.*

Several prominent consumer and trade publications ceased to publish in 1993 as cautious advertisers, declining readership, and saturated magazine sectors made the survival of some magazines increasingly difficult. Conde Nast Publications' folding of *HG (House & Garden)*, a 92-year old home magazine, sent shock waves through the magazine industry. Univision publications suspended *Mas*, a general interest, Spanish-language lifestyle magazine with controlled circulation of 630,000. Among business journals, the 120-year old *Home Improvement Center* folded, as did *MagazineWeek*, the only weekly trade title serving the magazine industry. Ziff-Davis, a computer publishing giant, closed both *Corporate Computing* and *PC Sources.*

Acquisition activity in 1993 focused on Conde Nast Publications' $170 million purchase of Knapp Communications Corp., publisher of *Bon Appetit* and *Architectural Digest*, giving Conde Nast a dominant position in the home decor and epicurean markets. This followed an announcement late in 1992 that Time Inc. would form a joint venture with American Express Publishing to manage several of AmEx's magazines, including *Travel & Leisure* and *Food & Wine*. Rather than acquiring properties, publishers focused on redesigning their publications, creating spinoff magazines and other products, including fax and videotext editions.

### *Employment and Production Costs*

After a three-year period of downsizing to improve efficiency and cut cost, many magazine publishing companies began hiring in 1993. Publishers sought employees who could perform a number of jobs because of lean hiring budgets. Total employment rose about 1 percent to an estimated 109,000. The number of production workers was about 19,300, slightly less than in 1992.

Overall production and distribution costs rose moderately in 1993. Magazine publishers expected some publication grades of paper to rise as much as 9 percent during 1993, but anticipated no increases in ink prices. No postal rate increases took effect, but Congress passed legislation that would phase in higher postal rates for nonprofit magazines over a five-year period.

## ENVIRONMENTAL PROFILE

Recycling has become an important issue. A few publishers have switched to coated recycled paper for their magazines, while others are gradually converting. Still others have no plans to use paper with recycled content. Many publishers are aware that the magazine industry must initiate a voluntary recycling program to keep Congress from enacting mandatory recycling requirements for the industry. Some major publishers are still reluctant to consider using recycled paper because of its higher cost, lower quality, and limited availability. Publishers are beginning to realize that they need to demand more recycled paper before paper producers will begin producing more and better quality recycled paper.

Although the Environmental Protection Agency (EPA) has not proposed any mandatory requirements for printing and writing papers, the agency revised its guidelines for Government procurement of recycled paper in 1993. This was of concern to publishers since any guidelines the EPA sets are likely to become the industry's standards.

According to one industry estimate, U.S. output of recycled printing and writing paper is 6 percent of total production, about the same level as 15 years ago. *Folio Magazine* reports that about 80 percent, or about 6 million tons, of high-grade printing and writing paper is disposed of in landfills annually.

## INTERNATIONAL COMPETITIVENESS

Export growth slowed for U.S. magazines in 1993. Exports totaled an estimated $768 million, a gain of about 5 percent from 1992. Between 1989 and 1992, U.S. periodical exports grew at an average annual rate of 18 percent. The principal markets for U.S. magazines in 1992 were Canada (74 percent), the United Kingdom (7 percent), and Mexico (5 percent). While U.S. exports to Canada rose at an average yearly rate of 16

**U.S. Trade Patterns in 1992**
**Periodicals**
**SIC 2721**
(in millions of dollars, percent)

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada and Mexico | 573 | 78.3 | Canada and Mexico | 83 | 61.1 |
| European Community | 95 | 13.0 | European Community | 36 | 26.6 |
| Japan | 8 | 1.1 | Japan | 8 | 6.2 |
| East Asia NICs | 9 | 1.3 | East Asia NICs | 4 | 3.0 |
| South America | 11 | 1.6 | South America | 3 | 1.9 |
| Other | 35 | 4.8 | Other | 2 | 1.3 |
| World Total | 731 | 100.0 | World Total | 136 | 100.0 |

**Top Five Countries**

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada | 538 | 73.6 | Canada | 78 | 57.6 |
| United Kingdom | 52 | 7.1 | United Kingdom | 20 | 14.8 |
| Mexico | 35 | 4.7 | Japan | 8 | 6.2 |
| Netherlands | 22 | 3.1 | Spain | 5 | 3.7 |
| France | 13 | 1.8 | Mexico | 5 | 3.5 |

See "Getting the Most Out of *Outlook '94*" for definitions of the country groupings.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration.

percent between 1989 and 1992, they dropped 1 percent in 1992 from their 1991 level. U.S. exports to Mexico, France, the United Kingdom, the Netherlands, and Bermuda recorded strong growth between 1989 and 1992. Most of these markets showed average annual growth rates of more than 25 percent during this period. Over the past few years, softness in the economies of many industrialized countries curtailed discretionary consumer purchases of items such as magazines. International distributors expect magazine sales to show substantial growth as global economic activity improves.

Some magazine publishers have found that with their revenues declining at home, they must seek readers abroad. More of them are exploring international markets not only in Europe but in Latin America, the Middle East, Africa, and Asia. Recently, Rodale Press, publisher of *Runner's World*, and General Media International, publisher of *Longevity*, launched South African editions of their publications through joint ventures. *Ms.* magazine began distributing in the United Kingdom, Australia, and New Zealand. *National Geographic* and *Time* are exploring the feasibility of launching Japanese-language editions of their magazines. Hearst Corporation has joined with Televisa S.A. of Mexico to have more of its titles translated into Spanish-language editions for the Latin American market. Currently, Spanish-language editions of Hearst's *Cosmopolitan*, *Harper's Bazaar*, *Popular Mechanics*, and *Good Housekeeping* are distributed in Latin America. A Canadian edition of *Sport Illustrated*, launched in 1993, encountered protests from Canadian magazine publishers. Under new Canadian government regulations, U.S. companies will have to obtain government approval for future Canadian editions of their magazines. For nearly 30 years, the Canadian government has imposed a number of restrictions on foreign magazines doing business in Canada.

U.S. publishers have been more cautious in approaching the Eastern European market, although a growing number of European publishers have sought business and investment opportunities in this area. These foreign publishers believe the market offers fast growth potential. The printing and publishing sector in Eastern Europe is in need of technical assistance for its publishing, printing, and distribution operations. Those foreign companies providing assistance are most likely to gain a strong foothold. *Reader's Digest* is planning to launch a Czech edition, and recently *Playboy* started a Polish edition.

Opportunities for U.S. magazine publishers in the world market continue to grow. Many U.S. publications are special-interest titles which are not available in other countries. The United States is the only country worldwide with a sufficiently large, affluent, and educated population to support a large number of special-interest titles. These titles appeal to a small segment of a country's population, and in most countries the population statistics do not support narrowly focused magazines. In addition, since English is widely read and spoken abroad, the language barrier does not greatly impede American magazine sales overseas. Ron Scott, a magazine industry consultant, notes in *Folio Magazine* that for many smaller U.S. special-interest magazines, international newsstand distribution offers an opportunity to sell a sizable number of copies and establish a presence in the international market.

U.S. imports of magazines climbed an estimated 20 percent in 1993, to about $163 million. Major suppliers in 1992 were Canada (58 percent), the United Kingdom (15 percent), and Japan (6 percent.)

## Outlook for 1994

Publishers expect 1994 to be a better year for magazine advertising and circulation as economic activity picks up. Projected growth in Gross Domestic Product (GDP) and corporate profits should encourage companies to increase their advertising budgets. If advertisers and consumers are more confident about the economy in 1994, U.S. magazine industry receipts could rise 2 to 3 percent in constant dollars. Advertising pages will likely increase modestly for consumer and business and professional publications, in the range of 2 to 4 percent, while circulation for both magazine groups will probably be flat or up less than 1 percent.

Even though real disposable personal income is expected to grow at a slightly slower rate than in 1993, increasing consumer confidence could produce more stability in magazine circulation than has existed over the past few years. With so many new titles, the shakeout of weaker titles could continue in 1994, especially in the absence of strong advertising growth.

Major costs, such as for printing, paper, and ink, should increase an average of 2 to 3 percent in 1994, unless demand rises sharply. No postal rate increases are expected before early 1995.

## Long-Term Prospects

Magazine publishers will work harder over the next five years to maintain their share of media advertising and hold on to valuable readers. With an increasing array of media choices available to advertisers and a growing number of leisure-time options open to consumers, magazine publishers will have to be more responsive to the needs of both groups. Publishers will provide a broader range of information services to readers and advertisers in various media formats, rather than focus only on magazines as the sole advertising medium for their customers. If GDP and advertising grow at a moderate rate over the next five years, the magazine industry should increase its receipts at an average annual rate of 1 to 2 percent in constant dollars.

Narrowly targeted magazines will gain more favor among advertisers in the next few years, since more readers are being attracted to publications that mirror their lifestyles and interests. While circulation for these publications is generally small, advertisers are finding these publications give them a better opportunity to reach consumers interested in their products. The editorial content of more and more magazines will be aimed at reaching specific age or demographic groups. Publishers will concentrate on providing higher quality editorial content for their special-interest publications by offering selective sections in their magazines or supplemental editorial content geared to the specific needs and interests of readers. These selective editorial options for readers not only add more editorial value to a magazine but also give advertisers added value for their advertising dollars. Selective binding techniques that permit publishers to create a number of customized editorial editions of a single issue of a magazine will become more commonplace over the next few years.

Publishers also will make greater use of their own subscriber databases in developing information profiles of their readers that both they and advertisers can use to market a wide range of other products. Magazines that are best able to identify their readers, the interests of these readers, and advertisers who desire to reach this audience will have an advantage over other magazine and media competitors. Increasingly, magazine publishers will have to demonstrate to advertisers how magazine advertising fits into advertisers' overall marketing plans.

A growing number of magazines will produce new products in numerous formats and pursue cross-media ventures as they seek new sources of revenues. They will make available database programs on CD-ROM and computer software and through on-line services. They also will provide more programming for radio, television, and cable and make their editorial materials available on tape and video. More publishers will explore publishing their magazines in an electronic format. Jay Melvin of the Magazine Publishers Association reports in his *Newsletter of International Publishing* that two related trends, the growing technical capability of information and entertainment providers and the growing consumer use of new technologies, are providing the momentum for new publishing opportunities. These trends are making it possible for magazines to deliver personalized services that enhance a publisher's relationship with both the reader and media user. In addition, publishers will provide a more direct and responsive link between advertisers and their prospective customers. More publishers will become involved in custom publishing projects with companies wanting to publish their own magazine titles for consumers of their products. IBM's *Profit* and *Beyond Computing* are being published in a partnership arrangement with the New York Times Company; Gruner + Jahr USA is producing *Target the Family* for Target Stores.

Particular age, ethnic, and lifestyle groups will be the focus of many special-interest publications as publishers and advertisers become more interested in reaching these groups. Children, senior citizens, and baby boomers are among the age groups that will be targeted. Hispanics, Asian Americans, and African Americans will also receive considerable attention, since marketing to these groups can be more effective if presented in a cultural context. More publications geared to families, teenagers, sports enthusiasts, hobbyists, and other lifestyle groups will emerge over the next few years.

A growing number of publishers of special-interest magazines will consider overseas distribution for their publications. Joint ventures with foreign partners will be the major vehicle of investment abroad for publishers since they offer more profitability, although licensing arrangements will continue as an option. Publishers will invest not only in business opportunities abroad that promote their U.S. titles, but will invest in new or existing foreign titles distributed abroad. Acquisitions and mergers, such as the recent megamerger of Elsevier of the Netherlands, the world's largest business-to business magazine publisher, and British-based Reed International, the eighth-largest media company, will increase as publishing companies seek to strengthen their position in the global market.—*Rose Marie Zummo Bratland, Office of Consumer Goods (202) 482–0380, August 1993.*

### Additional References

(Call Bureau of the Census at (301) 763–4100 for information on how to order Census documents).


*Newspapers, Periodicals, Books*, 1987 Census of Manufactures, MC87-1-27A, U.S. Department of Commerce, Washington, DC 20233.

*Statistics for Industry Groups and Industries*, 1991 Annual Survey of Manufactures, M91(AS)-1, U.S. Department of Commerce, Washington, DC 20233.

*Value of Product Shipments*, 1991 Annual Survey of Manufactures, M91(AS)-2, U.S. Department of Commerce, Washington, DC 20233.

*Producer Price Indexes*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20221. Telephone: (202) 606–7716.

*Advertising Age*, Crain Communications, Inc., 740 Rush St., Chicago, IL 60611, Telephone: (312) 649–5200.

*Business Publication Rates and Data*, Standard Rate & Data Service, 3004 Glenview Rd., Wilmette, IL 60091, Telephone: (708) 256–6067.

*Consumer Magazine and Agri-Media Rates and Data*, Standard Rate & Data Service, 3004 Glenview Rd., Wilmette, IL 60091, Telephone: (708) 256–6067.

*The Gale Directory of Publications*, Gale Research, Book Tower Bldg., Detroit, MI 48226, Telephone: (313) 961–2242.

*Folio: The Magazine for Magazine Management*, Cowles Business Media, 6 River Bend, P.O. Box 4949, Stamford, CT 06907-0949, Telephone: (203) 358–9900.

*IBC's American Business Press Outlook*, International Business Communications, P.O. Box 43134, Upper Montclair, NJ 07043. Telephone (201) 783–1567.

*Magazine and Bookseller*, North American Publishing Co., 545 Madison Avenue, New York, NY 10022, Telephone: (212) 620–7335.

*MagazineWeek*, Lighthouse Communication, Inc., 233 West Central St., Natick, MA 01760, Telephone:(508) 650–1001 (Ceased publication as of June 1993).

*Patterson Advertising Reports*, Suite 118, 778 Frontage St., Northfield, IL 60093, Telephone (708) 446–9233.

*Sumir Husni's Guide to New Magazines*, Department of Journalism, University of Mississippi, P.O. Box 2906, University, MS 38677.


## BOOK PUBLISHING

Growth in consumer demand lifted shipments of the U.S. book publishing industry (SIC 2731) to $18.7 billion in 1993, an inflation-adjusted gain of 3 percent over 1992. Sales of trade books—works of fiction or nonfiction sold through bookstores—increased by an estimated 10 percent in nominal dollars in 1993 over 1992, matching 1992's growth of trade book sales over 1991. Improved funding levels at U.S. schools and libraries raised demand for elementary and high school textbooks, as well as technical, scientific, and professional books. Exports of U.S. books grew modestly in 1993, a reflection of weak economic conditions in Canada and the European Community.

Employment in book publishing receded slightly in 1993, the result of the industry's continued cost-cutting efforts. Approximately 76,000 persons held book publishing positions in 1993, a decline of 800 jobs from 1992 and a drop of 1,300 positions from the 1991 employment peak of 77,300. Most job losses occurred in marketing, administrative, and editorial positions, but production workers also experienced some cutbacks.

Publisher's profit margins improved in 1993, the result of stable payroll and manufacturing costs, as well as from efficiencies achieved in marketing and distributing a larger volume of printed products. Merger and acquisition activities by book publishers were minimal in 1993, reflecting publishers' disinclination to absorb higher debt levels.

### *Emerging Trends in Marketing and Distribution*

A series of trends, barely out of gestation, is becoming critical to publishers' success in the 1990's. They include the large-store concept of retailing, the marketing of publishers' materials in nonprint media, and international protection of U.S. copyrights.

Book retailing in the 1970's was characterized by growth of U.S. chain bookstore operations in concert with the development of shopping malls. Traffic in bookstores in the 1980's was enhanced by the spread of discounting. In the 1990's, the superstore concept of book retailing is one of the driving forces behind double-digit growth of trade books in the period 1992–93. Generally situated near large shopping centers, superstores maintain large inventories of anywhere from 30,000 to 80,000 titles, and employ generally well-informed sales personnel. They present a competitive threat primarily to those mall-based chain stores with small book inventories and less well-informed staffs. By providing space for more books, superstores expand audiences for titles released by small to medium sized publishers whose books may not otherwise find a broad retail market.

The mass acceptance of audio books, beginning in the late 1980's, has encouraged publishers to seek additional markets for products released in nonprint formats. The initial focus is on supplying database and informational materials on CD-ROM disks, designed for sale to institutional and library markets. Publishers of encyclopedias and reference books have been the first to tap opportunities in the electronic marketplace, but virtually all publishers are seeking entry points to a thus far elusive audience. Until CD-ROM equipment becomes either more affordable or housed within personal computers, reaching U.S. households and educational markets will remain on the periphery of most publishers' marketing plans.

U.S. copyright law was revised and enhanced in the 1970's, and the application of its principles was carried to international markets in the 1980's. By the early 1990's, a rapidly growing number of U.S. publishers was becoming cognizant of foreign markets for U.S. books and the protection afforded by international copyright. Direct exports account for 10 percent of the book publishing industry's sales, but the fastest growing segment of the international market is U.S. royalties derived from the sale of rights and translations. Foreign payments to U.S. publishers from royalty transactions were placed in the range of $300 million to $500 million in 1993, values that could double by the close of the decade.

## *Changing Markets for U.S. Books*

Total sales of U.S. books approached $17.2 billion in 1993, with shipments spread among consumer, educational, business, and institutional markets. Factors influencing U.S. book demand include general economic conditions; disposable personal income; educational enrollments, funding levels and attainment; professional and occupational employment; and institutional and library funding. With approximately 50,000 new books or editions published annually, the industry's products defy simple classification. Ranked by market share, the categories consist of textbooks (27 percent), trade books (21 percent), technical, scientific, and professional books (21 percent), book club and mail-order publications (10 percent), mass market paperbound books (8 percent), and all other books (13 percent).

Enrollment gains at U.S. schools and colleges pushed textbook sales to $4.7 billion in 1993, but most of the increase in sales resulted from higher textbook prices. The nation's elementary and secondary schools drew 800,000 new students in 1993, while the matriculation level at U.S. colleges and universities increased by 150,000. Textbooks are the largest and generally most profitable sector of the U.S. publishing industry, but a gradual movement of more nonprint materials into the nation's classrooms could undermine the role of textbooks in the learning process.

Markets for adult and juvenile trade books totaled $3.6 billion in 1993, supported by an increase in U.S. retail outlets and stores with more square footage. Price discounting, author recognition, and disposable income influence demand for trade books, and a growing number of stores are building traffic by specializing in books covering selected subject categories. The nation's 20,000 retail bookstores are employing computerized order and inventory systems to better serve the book buying public and to increase store profitability. Books sold through retail warehouse operations focus on sales of the most popular titles and currently account for just 3 percent of total shipments, but their importance rests on bringing books to an audience not predisposed toward book buying.

Publishers of technical, scientific, and professional books recorded shipments of $3.6 billion in 1993, an increase of 10 percent in nominal dollars over 1992. Sales gains were supported by increases in library funding and growth in the number of persons employed in technical and professional occupations. Exports of U.S. technical, scientific, and professional books saw minimal growth in 1993, with stagnant economies in the EC and Japan limiting foreign demand.

Combined sales of book club books and mail-order publications approached $1.7 billion in 1993, with price increases lifting shipments fractionally above 1992. Growth in the number of U.S. retail book outlets provides stiff competition to book club and mail-order houses, but tight cost controls have

### Trends and Forecasts: Book Publishing (SIC 2731)

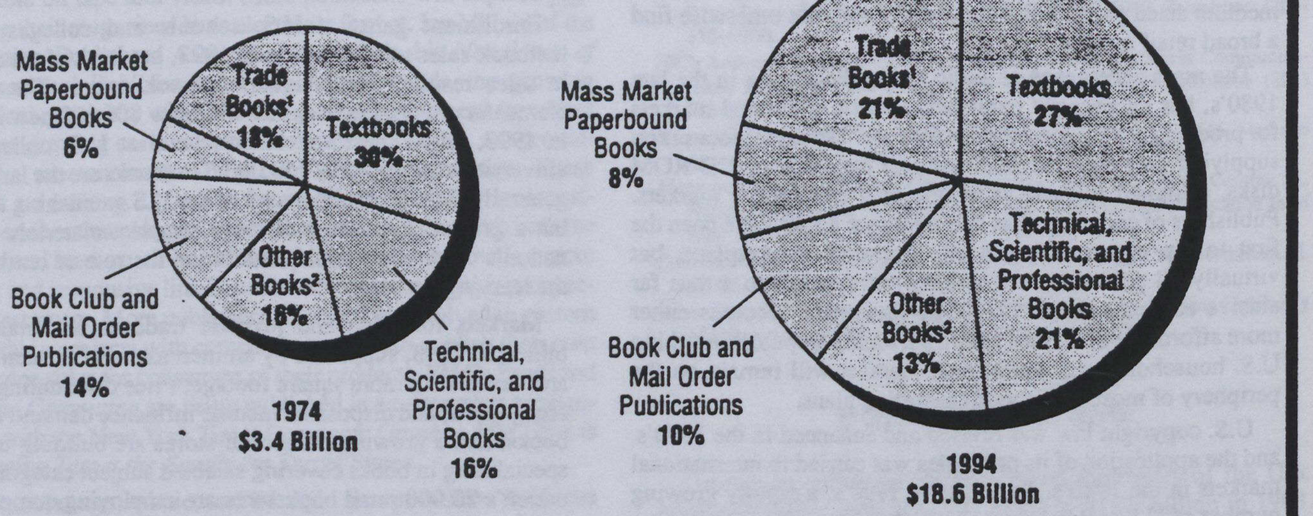
(in millions of dollars except as noted)

| Item | 1987 | 1988 | 1989 | 1990 | 1991 | 1992[1] | 1993[2] | 1994[3] | Percent Change (1989–1994) 88–89 | 89–90 | 90–91 | 91–92 | 92–93 | 93–94 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Industry Data** | | | | | | | | | | | | | | |
| Value of shipments[4] | 12,620 | 13,571 | 14,074 | 15,318 | 16,596 | 17,425 | 18,730 | 20,320 | 3.7 | 8.8 | 8.3 | 5.0 | 7.5 | 8.5 |
| Value of shipments (1987$) | 12,620 | 12,803 | 12,455 | 12,872 | 13,341 | 13,675 | 14,085 | 14,610 | -2.7 | 3.3 | 3.6 | 2.5 | 3.0 | 3.7 |
| Total employment (000) | 70.1 | 70.2 | 73.9 | 73.5 | 77.3 | 76.8 | 76.0 | 77.0 | 5.3 | -0.5 | 5.2 | -0.6 | -1.0 | 1.3 |
| Production workers (000) | 15.9 | 16.5 | 17.1 | 17.3 | 17.1 | 17.6 | 17.3 | 17.5 | 3.6 | 1.2 | -1.2 | 2.9 | -1.7 | 1.2 |
| Average hourly earnings ($) | 10.67 | 10.76 | 11.56 | 11.68 | 12.72 | 13.04 | 13.30 | — | 7.4 | 1.0 | 8.9 | 2.5 | 2.0 | — |
| Capital expenditures | 240 | 302 | 319 | 329 | 331 | — | — | — | 5.6 | 3.1 | 0.6 | — | — | — |
| **Product Data** | | | | | | | | | | | | | | |
| Value of shipments[5] | 11,630 | 12,156 | 12,981 | 14,267 | 15,215 | 15,975 | 17,175 | 18,635 | 6.8 | 9.9 | 6.6 | 5.0 | 7.5 | 8.5 |
| Value of shipments (1987$) | 11,630 | 11,468 | 11,487 | 11,989 | 12,230 | 12,535 | 12,910 | 13,395 | 0.2 | 4.4 | 2.0 | 2.5 | 3.0 | 3.8 |
| **Trade Data** | | | | | | | | | | | | | | |
| Value of imports | — | — | 746 | 845 | 878 | 990 | 1,020 | 1,075 | — | 13.3 | 3.9 | 12.8 | 3.0 | 5.4 |
| Value of exports | — | — | 1,123 | 1,428 | 1,498 | 1,636 | 1,690 | 1,775 | — | 27.2 | 4.9 | 9.2 | 3.3 | 5.0 |

[1]Estimate, except exports and imports.
[2]Estimate.
[3]Forecast.
[4]Value of all products and services sold by establishments in the book publishing industry.
[5]Value of products classified in the book publishing industry produced by all industries.

SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration (ITA). Estimates and forecasts by ITA.

Figure 24-2
**Trade and Technical Books Gain Market Share**




[1]Includes adult and juvenile books sold through retail outlets.
[2]Includes encyclopedias, reference books, religious books, music books, university press, and other books.

SOURCE: U.S. Department of Commerce, Bureau of the Census. 1994 values estimated by International Trade Administration.

helped these firms maintain an attractive profit range even in the face of slightly lower volume. Postage is a critical cost element that should remain stable through 1994.

Shipments of mass market paperbound books totaled $1.4 billion in 1993, with gains over 1992 resulting essentially from higher prices rather than increases in units sold. Publishers reach the broad U.S. audience for low-cost books by reprinting hardcover bestsellers and engaging in original publishing under such theme subjects as mysteries, romance, military, and Westerns. Constraints on leisure time and growth of television viewing have limited growth of the mass book market, and little relief from these conditions appears in the offing.

An additional $2.2 billion in publishers' shipments in 1993 were spread among an array of book categories, including religious, music, university press, and reference books. These are addressed to a variety of markets, some broadly based and others highly focused. Growth of the U.S. religious community has spurred demand for books with spiritual themes. Music publishing has a small but stable market, with price increases accounting for most of its growth. University press publishers benefitted from increased library funding in 1993, but expect future expansion to come from shipments of their materials in CD-ROM formats. Publishers of reference works have moved heavily into electronic publishing, using both CD-ROM and computer software to expand markets for their products.

**Table 1: Top 10 U.S. Book Publishers, 1992**

| Company | Sales (million $) |
|---|---|
| Paramount Publishing | $1,524 |
| Reader's Digest | 1,407 |
| Time Warner | 1,137 |
| Random House | 1,097 |
| HarperCollins | 979 |
| Bantam/Literary Guild | 900 |
| Harcourt Brace | 867 |
| Thomson Publishing | 793 |
| Addison-Wesley, Penguin | 727 |
| Times Mirror | 680 |

SOURCE: SIMBA Information, Inc.

### *INTERNATIONAL COMPETITIVENESS*

Foreign markets for U.S. books showed little growth in 1993, with U.S. exports of $1.7 billion just 3 percent ahead of exports for 1992. Continued weakness in the economies of Canada, Japan, Australia, and most EC countries restrained demand for U.S. books. An exception to this general trend was the United Kingdom, which accounted for U.S. book purchases estimated at $250 million in 1993, an increase of 10 percent over 1992.

International demand for U.S. books is a function of exchange rates, fluency with the English language, educational and occupational levels, and interest in the American experience. Combined shipments of U.S. textbooks and technical, scientific, and professional books account for 50 percent of U.S. book exports, reaching foreign college, university, library, and institutional markets in more than 120 countries. Exports of U.S. adult and juvenile trade books exceeded $500 million in 1993, but many U.S. publishers capture foreign markets for these books through the sale of rights and translations rather than direct exports.

Unlike their European colleagues, U.S. book publishers have not made significant investments abroad. The large British, Dutch, French, and German presence in the U.S. book market is not matched by an American presence overseas. While the

**U.S. Trade Patterns in 1992**
**Book Publishing**
SIC 2731
(in millions of dollars, percent)

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada and Mexico | 753 | 46.0 | Canada and Mexico | 111 | 11.2 |
| European Community | 391 | 23.9 | European Community | 406 | 41.0 |
| Japan | 90 | 5.5 | Japan | 92 | 9.2 |
| East Asia NICs | 99 | 6.1 | East Asia NICs | 321 | 32.4 |
| South America | 37 | 2.3 | South America | 22 | 2.2 |
| Other | 265 | 16.2 | Other | 39 | 4.0 |
| World Total | 1,636 | 100.0 | World Total | 990 | 100.0 |

**Top Five Countries**

| | Value | Share | | Value | Share |
|---|---|---|---|---|---|
| Canada | 702 | 42.9 | United Kingdom | 206 | 20.8 |
| United Kingdom | 228 | 14.0 | Hong Kong | 187 | 18.9 |
| Australia | 122 | 7.5 | Japan | 92 | 9.2 |
| Japan | 90 | 5.5 | Singapore | 89 | 9.0 |
| Germany | 51 | 3.1 | Canada | 86 | 8.7 |

See "Getting the Most Out of *Outlook '94*" for definitions of the country groupings.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration.

United States is the world's largest book exporter, U.S. investment in foreign publishing operations has lagged for the past decade, the result of unfavorable exchange rates and a perception of generally unattractive market conditions overseas.

Book imports by U.S. purchasers totaled $1 billion in 1993, a 3 percent gain from 1992. Imports of trade books dominate the U.S. market for foreign works, with combined shipments of textbooks and technical, scientific, and professional books representing about 23 percent of the U.S. import total. The weak U.S. dollar discourages imports, but 1993 book shipments from Germany exceeded $75 million, a 75 percent increase over 1992. The leading suppliers of books to the U.S. are Canada, Germany, Hong Kong, Japan, Singapore, and the United Kingdom, whose combined shipments in 1993 represented 75 percent of total U.S. imports.

## Outlook for 1994

An improved economy should lift shipments of the U.S. book publishing industry to $20.3 billion in 1994, a 4 percent increase over 1993. Growth in U.S. economic activity should yield more revenues to fund schools and libraries and enlarge these vital markets for U.S. textbooks, reference, and university press books, as well as for technical, scientific, and professional books. Approximately 1 million new students should enter U.S. elementary and secondary schools in 1994, but enrollments at the nation's colleges and universities should remain unchanged from 1993.

Sales of adult and juvenile trade books should benefit from higher U.S. disposable personal income in 1994, and from continued expansion in the number of retail book outlets. Markets for book club and mail-order publications should remain unchanged in 1994, though competition with retail outlets should intensify. Expanding sales of religious books is largely dependent on membership trends in organized religious bodies, with modest gains anticipated in 1994.

Employment in book publishing should increase to 77,000 in 1994, a gain of 1,000, primarily in editorial, marketing and administrative positions. While payroll costs will increase in 1994, competition among publishers' suppliers should hold typesetting and other manufacturing costs—for paper, printing, and binding—to modest gains over 1993.

## Long-Term Prospects

A combination of favorable factors is expected to sustain growth in shipments of the U.S. book publishing industry at an average annual rate of 3.5 percent over the next five years. The book industry's output of approximately 50,000 titles per year should increase in response to growth in the number of retail book outlets and the square footage allocated for display. An improved economy should yield more revenues for U.S. schools and libraries, expanding markets for textbooks, reference works, and scholarly materials. Book publishers should experience more merger and acquisition activity in light of the increased capital requirements necessary to expand positions in traditional book markets, as well as to enter new markets for nonprint media.

Demographics are critical determinants of U.S. book demand, and very positive conditions are anticipated over the period 1994–1998. The U.S. population should expand by more than 12 million, with more than 1 million entering the important book buying group aged 15 to 44. Household formations should increase by 5 million, reaching 101 million by 1998. Combined enrollments of elementary and secondary schools should grow by almost 5 million, with an additional 736,000 students entering U.S. colleges and universities. The expansion of educational attainment is an important feature of the U.S. population and linked strongly with U.S. demand for books. High school graduates grew from 62 percent of the U.S. population in 1975 to 78 percent in 1990. Over the same period, the proportion of college graduates increased from 14 percent to 21 percent. These desirable trends should continue for the balance of the decade.

Publishers' revenue streams and cost structures should undergo considerable change in the years immediately ahead. Success in capturing larger portions of U.S. educational markets will require more editorial focus on placing materials on CD-ROM and other electronic media. Textbooks as the primary instructional instrument will be increasingly supplemented by nonprint materials. Library budgets will expand to accommodate CD-ROM and on-line database operations, to the possible detriment of publishers' offering reference and informational materials only in printed formats. Publishers should expect to find environmental concerns raising their costs of operation. More use of recycled paper and acid-free paper for library markets will increase costs. Recycling of books, especially mass market paperbound books, will become an important issue.

U.S. book publishers will have new incentives to establish a larger international presence. Successful conclusion of the North American Free Trade Agreement (NAFTA) should encourage more trade with Mexico and focus U.S. marketing efforts on other Latin American countries. Greater international copyright protection will be afforded U.S. books by completion of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), expanding book markets in Asia, the Middle East, and Eastern Europe where copyright enforcement provisions require strengthening. Concluding these trade negotiations should provide U.S. book publishers with opportunities for expanding direct exports and obtaining more royalties from the sale of foreign rights and translations. In addition, the negotiations should further encourage leading U.S. publishers to consider direct investment in appropriate foreign markets.—*William S. Lofquist, Office of Consumer Goods (202) 482–0379, September 1993.*

## Additional References


(Call the Bureau of the Census at (301) 763–4100 for information on ordering Census documents)

*Newspapers, Periodicals, Books and Miscellaneous Publishing*, 1987 Census of Manufactures, MC87-I-27A. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Statistics for Industry Groups and Industries*, 1991 Annual Survey of Manufactures, M91(AS)-1. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Value of Product Shipments*, 1991 Annual Survey of Manufactures, M91(AS)-2. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Employment and Earnings*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212. Telephone: (202) 606–6555.

*Producer Price Indexes*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212. Telephone: (202) 606–7716.

*American Bookseller*, American Booksellers Association, Inc., 560 White Plains Rd., Tarrytown, NY 10591. Telephone: (914) 631–7800.

*Book Industry Trends*, Book Industry Study Group, Inc., 160 Fifth Ave., New York, NY 10010. Telephone: (212) 929–1393.

*BP Report*, SIMBA Information, Inc., P.O. Box 7430, Wilton, CT 06897. Telephone: (203) 834–0033.

*Communications Industry Forecast*, Veronis, Suhler & Associates, Inc., 350 Park Ave., New York, NY 10022. Telephone: (212) 935–4990.

*CPDA News*, Council for Periodical Distributors Association, 60 East 42nd St., Suite 2134, New York, NY 10165. Telephone: (212) 818–0234.

*Industry Statistics*, Association of American Publishers, Inc., 220 East 23rd St., New York, NY 10010. Telephone: (212) 689–8920.

*Magazine & Bookseller*, North American Publishing Co., 322 Eighth Ave., 18th Floor, New York, NY 10001. Telephone: (212) 620–7330.

*Publishing Markets*, Cahners Publishing Co., 275 Washington St., Newton, MA 05158. Telephone: (617) 964–3030.

*Publishers Weekly*, Cahners Publishing Co., 249 West 17th St., New York, NY 10011. Telephone: (212) 463–0758.


## COMMERCIAL PRINTING

After posting two years of sales declines, shipments of the U.S. commercial printing industry (SIC 275) rose to $52.6 billion in 1993, an inflation-adjusted increase of 2 percent from 1992. The U.S. economic recovery that began in the final two quarters of 1993 lifted shipments of catalogs, newspaper inserts, and direct-mail materials, but failed to revive magazine advertising, which remained at depressed 1991–92 levels.

Printing industry employment totaled 555,000 in 1993, a marginal increase over 1992, and was still below the industry's peak of 580,000 attained in 1990. The addition of 2,000 printing production workers came essentially in 1993's second half, a response to increased demand for printed products that stemmed from an improving economy. But the number of commercial printing establishments fell to an estimated 37,000, with mergers and plant closings most pronounced among the industry's smallest firms—those with fewer than 20 employees.

Commercial printers' profits improved in 1993 over 1992. Labor, material, and supply costs remained stable for most of the year, but paper prices edged lower, reflecting excess capacity at U.S. mills and continued weakness in paper demand. Improvements in productivity, the result of more efficient work-flow systems and equipment utilization, also led to 1993's increased profit margins.

### *Industry's Transition Brings Challenges*

The past decade has brought a series of challenges to the commercial printing industry, including environmental concerns, new developments in printing technology, and growth in demand for non-print media. These challenges have focused the industry's attention on material and supply requirements, workforce training needs, and capital expenditure levels.

### *ENVIRONMENTAL PROFILE*

Since the manufacture and sale of printed products involves the use of air, water, and land, commercial printers are extremely conscious of their relationship with the environment. Meeting increased environmental requirements has contributed to the higher costs printers pay for materials and supplies: to 45 percent of total costs in 1992 compared with 40 percent in 1972. Paper made without chlorine or acid and which contains moderate quantities of recyclable materials costs appreciably more than ordinary printing paper. Nontoxic printing inks and printing press fountain solutions, with volatile organic compound levels either reduced or removed, also raise costs.

Advances in printing technology have changed the industry's workforce. The continued automation of the printing process, through application of computer-related electronics to presses and other machinery and equipment, reduces the need for craft-oriented employees, but raises demand for workers with electronic skills. Training programs in the past were largely craft-oriented, union-run activities, but today fewer than one

**Trends and Forecasts: Commercial Printing (SIC 275)**

(in millions of dollars except as noted)

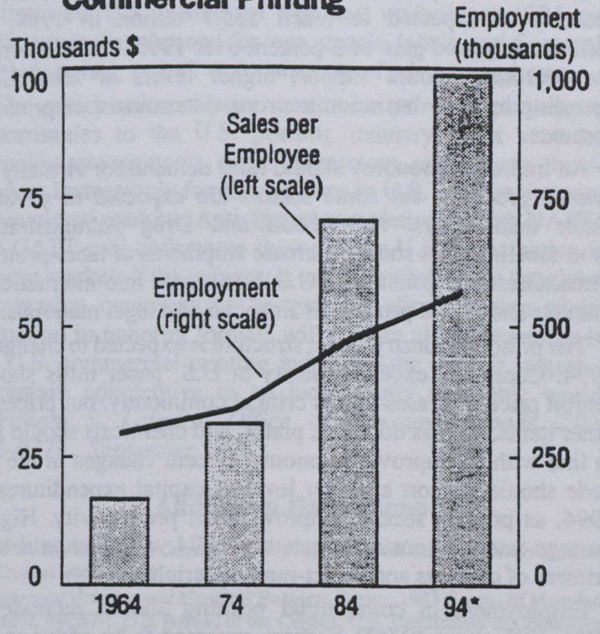
| Item | 1987 | 1988 | 1989 | 1990 | 1991 | 1992[1] | 1993[2] | 1994[3] | Percent Change (1989–1994) 88–89 | 89–90 | 90–91 | 91–92 | 92–93 | 93–94 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Industry Data** | | | | | | | | | | | | | | |
| Value of shipments[4] | 44,786 | 47,460 | 50,312 | 52,904 | 51,948 | 51,115 | 52,595 | 55,800 | 6.0 | 5.2 | -1.8 | -1.6 | 2.9 | 6.1 |
| Value of shipments (1987$) | 44,786 | 46,065 | 46,653 | 47,782 | 46,129 | 45,437 | 46,376 | 47,651 | 1.3 | 2.4 | -3.5 | -1.5 | 2.1 | 2.7 |
| Total employment (000) | 554 | 557 | 569 | 580 | 556 | 553 | 555 | 565 | 2.2 | 1.9 | -4.1 | -0.5 | 0.4 | 1.8 |
| Production workers (000) | 401 | 402 | 414 | 421 | 401 | 398 | 400 | 409 | 3.0 | 1.7 | -4.8 | -0.7 | 0.5 | 2.3 |
| Average hourly earnings ($) | 9.93 | 10.01 | 10.34 | 10.47 | 10.75 | 10.91 | 11.10 | — | 3.3 | 1.3 | 2.7 | 1.5 | 1.7 | — |
| Capital expenditures | 2,013 | 1,898 | 2,135 | 2,220 | 2,051 | — | — | — | 12.5 | 4.0 | -7.6 | — | — | — |
| **Product Data** | | | | | | | | | | | | | | |
| Value of shipments[5] | 43,995 | 46,597 | 49,621 | 52,572 | 51,761 | 50,985 | 52,465 | 55,665 | 6.5 | 5.9 | -1.5 | -1.5 | 2.9 | 6.1 |
| Value of shipments (1987$) | 43,995 | 45,215 | 45,997 | 47,466 | 45,949 | 45,260 | 46,165 | 47,435 | 1.7 | 3.2 | -3.2 | -1.5 | 2.0 | 2.8 |
| **Trade Data** | | | | | | | | | | | | | | |
| Value of imports | — | — | 371 | 393 | 420 | 442 | 465 | 500 | — | 5.9 | 6.9 | 5.2 | 5.2 | 7.5 |
| Value of exports | — | — | 811 | 772 | 1,026 | 1,056 | 1,160 | 1,275 | — | -4.8 | 32.9 | 2.9 | 9.8 | 9.9 |

[1]Estimate, except exports and imports.
[2]Estimate.
[3]Forecast.
[4]Value of all products and services sold by establishments in the commercial printing industry.
[5]Value of products classified in the commercial printing industry produced by all industries.

SOURCE: U.S. Department of Commerce: Bureau of the Census, International Trade Administration (ITA). Estimates and forecasts by ITA.

Figure 24-3

**Productivity Gains in Commercial Printing**




*Estimate by International Trade Administration.

SOURCE: U.S. Department of Commerce, Bureau of the Census.

out of every five employees is represented by organized labor. Printing managers are seeking persons with broader skills, but to date have had limited success in attracting qualified candidates from the nation's vocational schools.

Growth in U.S. demand for non-print media, including electronic databases, CD-ROM disks, and audio and video cassettes, influences the capital investment decisions of U.S. printers. Printed products designed for mass audiences, such as catalogs, directories, and direct mail, are increasingly replaced by products targeted to less populous markets. This requires printing machinery and equipment with efficient, high-volume output levels, yet with minimal paper waste and short turnaround intervals between jobs. Capital expenditure levels increased in 1993 to an estimated $2.2 billion, slightly higher than the recessionary level of 1991-92.

### *Diversity of Printed Products and Markets*

The commercial printing industry uses a variety of processes—lithography (offset), letterpress, gravure, flexography, and screen printing—to reach local, regional, national, and international markets. Product shipments of the nation's 37,000 printers totaled an estimated $52.5 billion in 1993, a 2 percent increase over 1992 in constant dollars. Printing by the lithographic method is by far the dominant process, accounting for 79 percent of the industry's shipments. Most U.S. printing establishments are small (80 percent have fewer than 20 employees) and serve primarily local or regional markets.

Demand for printed products is a function of general economic activity, personal consumption expenditures, business formations and transactions, and advertising expenditures. Print advertising takes many forms—direct mail, posters, newspaper inserts, shopping news—but combined shipments of $21 billion in 1993 represented 40 percent of the total U.S. market for printed products. This product sector experienced virtually no growth over the 1991–92 recession, but rose by 2 percent in 1993 as the economy recovered. More than 90 percent of print advertising materials are manufactured by the lithographic process.

Revenues from magazine printing totaled $7.4 billion in 1993, an increase of slightly less than 2 percent from 1992. A downturn in the number of advertising pages placed in U.S. magazines over the 1991–92 period was matched by a decline in printing receipts from this sector. Magazine printing accounts for 14 percent of total printing shipments, with all but the largest publications printed by the lithographic process. Gravure printers, with presses geared to print runs exceeding 1 million copies per issue, have contracts to print virtually all U.S. comic books and about one-half of the 20 largest U.S. consumer publications.

Shipments of printed catalogs and directories were marginally affected by the 1991–92 recession, but surged 3 percent in 1993 to $6.3 billion. The gradual disappearance of large, mass-audience catalogs has not had a significantly adverse effect. Such publications have been replaced by multi-mailings of more sharply focused catalogs, targeted to receptive, niche markets. Catalog and directory printing represents 12 percent of total industry shipments, with all but the largest publications printed by lithography.

Markets for label and wrapper printing have surged over the past decade, primarily the result of U.S. business demand for printed bar codes to control inventory. Shipments of label and wrapper printing in 1993 reached $4.2 billion, a gain of 3 percent over 1992. This sector is dominated by the production of pressure-sensitive labels printed by flexography. Label and wrapper printing proved generally resistant to the recession and accounted for 8 percent of total printing shipments in 1993.

Printers of financial and legal documents were battered by the stock market downturn in 1987 and the paucity of debt/equity offerings in 1991, but shipments in 1993 totaled $2.1 billion, an increase of more than 3 percent from 1992. This sector caters to banks, insurance firms, and brokerage houses, with receipts tied primarily to stock market activity. Significant consolidation of financial and legal printing firms occurred in the late 1980's, with profitability in the 1990's dependent on serving national and international clients from geographically dispersed printing locations.

A diversity of printed products is included in the category "all other printing," such as art prints, maps, lottery tickets, decals,

**Table 2: Top 10 U.S. Commercial Printers, 1992**

| Company | Sales (million $) |
|---|---|
| R.R. Donnelly and Sons Company | $3,650 |
| Deluxe Corporation | 1,375 |
| Quebecor Printing (USA) Corporation | 925 |
| World Color Press, Inc. | 838 |
| Ringier America, Inc. | 610 |
| Banta Corporation | 595 |
| Quad/Graphics, Inc | 565 |
| Treasure Chest Advertising Company, Inc. | 536 |
| Sullivan Graphics, Inc. | 500 |
| Valassis Communications, Inc. | 488 |

SOURCE: *Trade & Technology Press.*

### U.S. Trade Patterns in 1992
### Commercial Printing
SIC 275

(in millions of dollars, percent)

| Exports | Value | Share | Imports | Value | Share |
|---|---|---|---|---|---|
| Canada and Mexico | 423 | 40.1 | Canada and Mexico | 164 | 37.2 |
| European Community | 222 | 21.1 | European Community | 160 | 36.2 |
| Japan | 183 | 17.3 | Japan | 37 | 8.4 |
| East Asia NICs | 67 | 6.3 | East Asia NICs | 58 | 13.2 |
| South America | 28 | 2.6 | South America | 1 | 0.1 |
| Other | 133 | 12.6 | Other | 22 | 4.9 |
| World Total | 1,056 | 100.0 | World Total | 442 | 100.0 |
| **Top Five Countries** | | | | | |
| | Value | Share | | Value | Share |
| Canada | 344 | 32.5 | Canada | 151 | 34.1 |
| Japan | 183 | 17.3 | Germany | 47 | 10.6 |
| United Kingdom | 83 | 7.9 | United Kingdom | 42 | 9.4 |
| Mexico | 79 | 7.5 | Japan | 37 | 8.4 |
| Germany | 47 | 4.4 | France | 33 | 7.5 |

See "Getting the Most Out of *Outlook '94*" for definitions of the country groupings.
SOURCE: U.S. Department of Commerce: Bureau of the Census; International Trade Administration.

calendars, stamps, playing cards, menus and coupons. Total shipments of these items in 1993 approached $11.5 billion, representing 22 percent of the printing industry's aggregate receipts. Although some individual products reach national and international markets, most items are printed by small- to medium-sized firms in response to local or regional needs.

## *INTERNATIONAL COMPETITIVENESS*

Some of the factors critical to success in capturing domestic markets for printed products, including plant productivity, production workers' wages, and costs of supplies and materials, are outweighed by geographic proximity and exchange-rate considerations when addressing international markets. In common with other industrialized nations, the U.S. has both a low ratio of imports to apparent consumption (1 percent) and a low ratio of exports to domestic production (2 percent). Given relative geographic accessibility and a favorable exchange rate, penetrating foreign markets for printed products depends on transportation costs, time constraints, trade barriers, and service availability.

Foreign markets for products of the U.S. commercial printing industry have expanded steadily since 1990, with exports in 1993 approaching $1.2 billion. International demand for U.S. printing is split three ways: financial, legal, and security materials; trade advertising items, including catalogs and posters; and all other products, including decals, labels, playing cards, pictorial, and other items. Canada is by far the major market for U.S. printing, accounting for one-third of total exports, but combined shipments to Japan, the United Kingdom, Mexico, and Germany also represent one-third of total U.S. printed product exports.

Imports of printed products by the U.S. consist primarily of trade advertising materials, including tourist literature, posters, catalogs, and pictorial matter. The principal source is Canada, which accounts for 40 percent of the total, with combined shipments from Germany, the United Kingdom, and Japan representing another 25 percent. The United States imported printed products valued at $465 million in 1993, an increase of slightly more than 5 percent over 1992 in nominal dollars.

### Outlook for 1994

Demand for products of the U.S. commercial printing industry is expected to reach $55.7 billion in 1994, an inflation-adjusted gain of 3 percent over 1993. Recovery from the recession should support higher levels of advertising spending by U.S. business, a strong determinant of printers' fortunes.

An improved economy should raise demand for virtually all printed products, but some sectors are expected to advance faster than others. New Food and Drug Administration food-labeling rules should increase shipments of label-printing firms. Greater expansion of U.S. businesses into international markets should aid printers of financial and legal materials.

The printing industry's cost structure is expected to change in 1994. Continued excess capacity at U.S. paper mills should inhibit price increases in this critical commodity, but prices of other items, such as ink, film, plates, and chemicals should rise in line with an improved economy. Recent changes in the tax code should support a higher level of capital expenditures in 1994, as printers seek to improve plant productivity. Higher postage rates are not anticipated in 1994, which should help printers of catalogs and direct-mail materials.

Employment in commercial printing should increase in 1994, with about 10,000 workers expected to be added to the industry's payrolls. Most of these new employees will be production workers; only a small increase is anticipated in the number of sales or administrative personnel. Even with moderate employment gains, the total number of employees (565,000 in 1994) will likely remain below the peak level of 580,000 attained in 1990.

### Long-Term Prospects

As the economy continues to strengthen, commercial printers should find shipments increasing at an average annual rate of 3 percent through 1998 in constant dollars. Since advertising expenditures represent two-thirds of the industry's receipts, a return to higher levels of economic growth and improved business and consumer confidence are critical to the industry's long-term prospects.

Commercial printers' costs, held in check in the early 1990's as a result of the recession, are expected to rise during the balance of the decade. Hiring and training a more electronically oriented workforce will pit the industry against other manufacturing firms in competition for the best employees in what is anticipated to be a shrinking U.S. labor pool. As U.S. mills work off excess paper supply, paper prices should firm but essentially stabilize in response to competitive pressures from paper sources offshore. Anticipated postal rate increases during the period 1995–96 will add to the costs of printing and distributing catalogs and direct-mail materials. But the industry's largest cost increases are expected to come from meeting more stringent environmental standards. Greater expenditures for waste management, such as collecting and recycling printed products, will be added to already substantial expenses for air and water pollution control.

Printers' rising costs through 1998 should be mitigated by growth in demand for printed products. The U.S. population is forecast to increase by more than 12 million over the period 1993–98, thus enlarging the industry's markets. Approximately 5 million new U.S. households should be formed over this period, creating new markets for print advertising materials, including magazines, catalogs, and direct mail. An estimated 2 million new U.S. businesses will start up between 1994 and 1998, expanding demand for tags, decals, labels, and financial/legal materials, as well as for an array of advertising items.

The proliferation of print worldwide provides challenging opportunities to the U.S. printing industry. Joint ventures, licensing arrangements, direct investment, and exports should become increasingly familiar options to U.S. printers pursuing international markets. Anticipated completion of both NAFTA and GATT will underscore the need for U.S. participation in foreign markets if the industry is to play a vital role in the global information community. The growing dissemination of information in nonprint formats will require all the resources of the U.S. commercial printing industry—the world's largest—to remain competitive in an increasingly electronic world. *—William S. Lofquist, Office of Consumer Goods (202) 482–0379, September 1993.*

### Additional References


(Call the Bureau of the Census at (301) 763–4100 for information on ordering Census documents)

*Commercial Printing and Manifold Business Forms*, 1987 Census of Manufactures, MC87-I-27B. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Statistics for Industry Groups and Industries*, 1991 Annual Survey of Manufactures, M91(AS)-1. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Value of Product Shipments*, 1991 Annual Survey of Manufactures, M91(AS)-2. Bureau of the Census, U.S. Department of Commerce, Washington, DC 20233.

*Employment and Earnings*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212. Telephone: (202) 606–6555.

*Industrial Production and Capacity Utilization*, SIC 274-6,8,9, Job Printing. Industrial Output Section, Mail Stop #82, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, DC 20551. Telephone: (202) 452–2570.

*Producer Price Indexes*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212. Telephone: (202) 606–7716.

*American Printer*, Maclean Hunter Publishing Co., 29 N. Wacker Dr., Chicago, IL 60606. Telephone: (312) 726–2802.

*Graphic Arts Literature Abstracts*, Rochester Institute of Technology, One Lomb Memorial Dr., Rochester, NY 14623. Telephone: (716) 475–2791.

*Graphic Arts Monthly*, Cahners Publishing Co., 249 West 17th St., New York, NY 10011. Telephone: (212) 463–6828.

*Graphic Communications World*, Green Sheet Communications, Inc., P.O. Box 727, Hartsdale, NY 10530. Telephone: (914) 472–3051.

*High Volume Printing*, Innes Publishing Co., P.O. Box 368, 425 Huehl Rd., Building 11, Northbrook, IL 60062. Telephone: (312) 564–5940.

*Printing Business Report*, National Association of Printers and Lithographers, Inc., 780 Palisade Ave., Teaneck, NJ 07666. Telephone: (201) 342–0707.

*Printing Impressions*, North American Publishing Co., 401 N. Broad St., Philadelphia, PA 19108. Telephone: (215) 238–5300.

*Printing News*, Cahners Publishing Co., 249 West 17th St., New York, NY 10011. Telephone: (212) 463–6727.

*Printing 2000*, Printing Industries of America, Inc., 100 Daingerfield Rd., Alexandria, VA 22314. Telephone: (703) 519–8100.

*Printmarkets*, Trade & Technology Press, 26 Sixth St., Suite 262, Stamford, CT 06905. Telephone: (203) 323–3385.

*Print Market Outlook*, Cahners Publishing Co., 275 Washington St., Newton, MA 02158. Telephone: (617) 964–3030.

*Ratio Studies*, Printing Industries of America, Inc., 100 Daingerfield Rd., Alexandria, VA 22314. Telephone: (703) 519–8100.

*Techno-Economic Market Profiles*, Graphic Arts Technical Foundation, Inc., 4615 Forbes Ave., Pittsburgh, PA 15213. Telephone: (412) 621–6941.

*What's New(s) in Graphic Communications*, Michael H. Bruno, 5129 Wedge Court East, Bradenton, FL 34203. Telephone: (813) 751–4838.

# Appendix D

# Sources of Information

## OTHER SOURCES OF INFORMATION

For Federal Government Documents:
(Partial list of available documents used in the preparation of study)

U.S. Department of Labor:

- Employee Benefits Survey
- Employee Benefits in Small Private Establishments
- Handbook of Labor Statistics
- County Business Review
- Monthly Labor Review
- Occupational Outlook Handbook
- Statistical Abstract of the United States

U.S. Department of Commerce:

- Annual Survey of Manufacturers
- Census of Manufacturers
    - (a) Industrial Series (by SIC Codes)
    - (b) Geographic Series (by State)
- Economic Series
    - (a) Large Companies (by SIC Codes)
    - (b) Company Summaries (by SIC Codes)
- County Business Patterns
- U.S. Industrial Outlook 1994 (annual)
- Survey of Current Business

Contact:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

<u>For All Governments Serial Publications:</u>
(Available by interlibrary loans)

Contact:

University of the State of New York,
New York State Library,
Collection, Acquisition & Processing,
Cultural Education Center,
Albany, NY 12230

Tel: (518) 474-7492

# Appendix E

# Selected U.S. Printing Associations

## PROFESSIONAL ASSOCIATIONS AS OTHER INFORMATION SOURCES

Printing Industries of America, Inc.,
100 Dangerfield Road,
Alexandria, VA 22314

Tel: (703) 519-8100
Fax: (703) 548-3227

National Association of Printers & Lithographers
780 Palisades Ave.,
Teaneck, NJ 07666

Graphics Philately Association,
Division of Topical Study Unit of the American Topical Association,
N50th Street,
Milwaukee, WI 53216

Screen Printing Association, International
10015 Main Street,
Fairfax, VA 22031

Tel: (703) 385-1335

Technical Associations of the Pulp & Paper Industries
1 Dunwoody Park,
Atlanta, GA 30338

Tel: (404) 394-6130

Technical Association of the Graphic Arts,
P.O. Box 3064,
Federal Station,
Rochester, NY 14614

# Appendix F

# Magazine Literature Listing

# Magazine Literature Listing

*American Printer*, MacLean Hunter Publishing Company, 29 N. Wacker Dr., Chicago, IL 60606. Telephone: (312) 726-2802.

*Printing Business Report*, National Association of Printers and Lithographers, Inc., 780 Palisade Ave., Teaneck, NJ 07666. Telephone: (201) 342-0707.

*Graphics Arts Literature Abstracts*, Rochester Institute of Technology, One Lomb Memorial Dr., Rochester, NY 14623. Telephone: (716) 475-2791.

*Graphic Arts Monthly*, Cahners Publishing Company, 249 West 17th St., New York, NY 10011. Telephone: (212) 463-6828.

*Graphic Communications World*, Green Sheet Communications, Inc., P.O. Box 727, Hartsdale, NY 10530. Telephone: (914) 472-3051.

*High Volume Printing*, Innes Publishing Company, P.O. Box 368, 425 Huehl Rd., Bldg. 11, Northbrook, IL 60062. Telephone: (312) 564-5940.

*Printing Impressions*, North American Publishing Company, 401 N. Broad St.,Philadelphia, PA 19108. Telephone: (215) 238-5300.

*Printing News*, Cahners Publishing Company, 249 West 17th St., New York, NY 10011. Telephone: (212) 436-6727.

*Printing 2000*, Printing Industries of America, Inc., 100 Daingerfield Rd., Alexandria, VA 22314. Telephone: (703) 519-8100.

*Print Market Outlook*, Cahners Publishing Company, 275 Washington St., Newton, MA 02158. Telephone: (617) 964-3030.

*Ratio Studies*, Printing Industries of America, Inc., 100 Daingerfield Rd., Alexandria, VA 22314. Telephone: (703) 519-8100.

*Blue Book of Printing and Graphic Arts Buyers*, A.F. Lewis and Co., 79 Madison Ave., New York, NY 10016.

*Instant & Small Commercial Printers*, Innes Publishing Co., 425 Huel Rd., Bldg. 11, Northbrook, IL, 60062-2319.

*Canadian Printer*, MacLean Hunter Ltd., MacLean Hunter Bldg, 777 Bay At., Toronto, Ont. M5W1A7 Canada. Telephone: (416) 596-5000.

# Appendix G

# New York State Printing Industries Association Members

*[illegible] Printing and Graphic Arts Buyers*, A.F. Lewis and Co., 79 Madison Ave., New York, NY 10016.

*Instant & Small Commercial Printers*, Innes Publishing Co., 425 Huel Rd., Bldg. 11, Northbrook, IL. 60062-2319.

*Canadian Printer*, MacLean Hunter Ltd., MacLean Hunter Bldg. 777 Bay St., Toronto, Ont., M5W1A7 Canada. Telephone: (416) 596-5000.

## PRINTING INDUSTRIES ASSOCIATION OF NEW YORK STATE, INC.

## MEMBERSHIP LISTING

### ACTIVE MEMBERS

**Acme Press**
306-314 Union Street
Schenectady, NY 12305
(518) 374-4536
Mr. Michael Cesar

**Ahrens Graphics, Inc.**
4011 Sheridan Drive
Buffalo, NY 14226
(716) 632-2491
Mr. Mark Ahrens

**Albion-Holley Pennysaver**
170 N. Main Street
P. O. Box 231
Albion, NY 14411
(716) 589-5641
Ms. Karen Mitchell

**Alchar Printing**
602 Pawling Avenue
Troy, NY 12180
(518) 274-2421
Mr. Thomas Dowd

**Allsafe Company**
1105 Broadway
P. O. Box 825
Buffalo, NY 14240
(716) 896-4515
Mr. Ed Pokornowski

**Alternative Ink, Ltd.**
35 Fuller Road
Albany, NY 12205
(518) 458-9000
Mr. John Hendricks

**Amsterdam Printing**
Wallins Corners Road
Amsterdam, NY 12010
(518) 842-6000
Mr. Steven Singer

**Ansel Press, Inc.**
126 S. Elmwood Avenue
Buffalo, NY 14202
(716) 853-4480
Mr. Larry Borga

**Arkwright Printing Co., Inc.**
19 Norton Place
Fredonia, NY 14063
(716) 672-5686
Mr. Ronald Pacos

**Arsenal Packaging Services**
2345 Walden Avenue
P. O. Box 1089
Buffalo, NY 14240
(716) 681-4370
Mr. Dwight Gould

**Artcraft-Burow Color Printers**
80 Metcalfe Street
Buffalo, NY 14206
(716) 854-3241
Ms. Laura Weyler

**Banconsumer Service, Inc.**
275 Fillmore Avenue
Tonawanda, NY 14150
(716) 693-3400
Mr. Nick Roth

**Barry & Wilson Printing Co.**
80 West Valley Road
Lake Placid, NY 12946
(518) 523-2403
Mr. Lawrence Barry

**Bates Jackson Engraving**
19-21 Elm Street
Buffalo, NY 14205
(716) 854-3000
Mr. Edward Flammer

**Benchemark Printing, Inc.**
31 Lafayette Street
Schenectady, NY 12301
(518) 393-1361
Mr. Robert Kosineski

**Benton Announcements**
3006 Bailey Avenue
Buffalo, NY 14215
(716) 836-4100
Mr. Michael Guerra

**Bok Industries, Inc.**
8741 Lake Road
P. O. Box 10
Leroy, NY 14482
(716) 768-8174
Mr. John Quincey

**Boncraft, Inc.**
4222 S. Taylor Road
Orchard Park, NY 14127
(716) 662-9720
Mr. Raymond Bubar

**M.M. Bork & Sons, Inc.**
80 Metcalfe Street
Buffalo, NY 14206
(716) 854-7980
Mr. Mark Gregory

**Boyd Printing Company**
49 Sheridan Avenue
P. O. Box 1413
Albany, NY 12201
(518) 436-9686
Ms. Jane Carey

**Breitwieser Printing Corp.**
1800 Broadway
Buffalo, NY 14212
(716) 895-7370
Mr. James Breitwieser

**Brennan's Quick Print, Inc.**
278 Bay Road
Queensbury, NY 12804
(518) 793-4999
Mr. Thomas Brennan

**Brodock Press, Inc.**
502 Court Street
Utica, NY 13502
(315) 735-9577
Mr. Craig Brodock

**Brown Printing Company**
363 Fifth Avenue
P. O. Box 388
Troy, NY 12182
(518) 235-4080
Mr. John Parry, Jr.

**Buffalo Lithograph Co., Inc.**
36 Mason Street
Buffalo, NY 14213
(716) 883-8016
Mr. George Zenger

**C.C.S. Princeton**
521 Cornwall Avenue
Buffalo, NY 14215
(716) 837-0800
Mr. Ted Majewski

**Canfield & Tack, Inc.**
925 Exchange Street
Rochester, NY 14608
(716) 235-7710
Mr. Daniel Mahany

**Canfield, G. W. & Son Litho**
600 Plant Street
P. O. Box 874
Utica, NY 13503
(315) 735-7575
Mr. Gene Canfield

**Canterbury Press**
301 Mill Street
P. O. Box 4299
Rome, NY 13440
(315) 337-5900
Mr. David Johnson

**Carton Craft Corp.**
115 Ash Street
Buffalo, NY 14204
(716) 852-7910
Mr. Timothy Ortolani

**Case-Hoyt Corp.**
100 Beaver Road
P. O. Box 24001
Rochester, NY 14624
(716) 889-5670
Mr. Kevin Kirk

**Catskill Enterprises**
138 Grandview Avenue
Catskill, NY 12414
(518) 943-2660
Mr. Gordon Gibson

**Charm Graphics, Inc.**
25 Boxwood Lane
P. O. Box 211
Buffalo, NY 14225
(716) 668-5223
Mr. Richard Maussner

**Church Bulletins of Buffalo**
745 Englewood Avenue
Buffalo, NY 14223
(716) 836-2527
Ms. Rebecca Lee

**Clarence Graphics, Inc.**
9870 Main Street
Clarence, NY 14031
(716) 759-8007
Mr. Donald Albee

**Clarity Publishing, Inc.**
3 Enterprise Drive
Albany, NY 12204
(518) 465-4591
Mr. Thomas Clemente

**The Clinton Press, Inc.**
500 W. 12th Street
Erie, PA 16501
(814) 454-7415
Mr. Wayne Zimmer

**Cohber Press, Inc.**
1000 John Street
P. O. Box 93100
Rochester, NY 14692
(716) 475-9100
Mr. Howard Webber

**The Colad Group, Inc.**
701 Seneca Street
Buffalo, NY 14210
(716) 849-1776
Mr. William Brosnahan

**Color Tech Litho**
257 Warren Street
Glens Falls, NY 12801
(518) 793-4437
Mr. Christopher Belnap

**Coneco Laser Graphics**
58 Dix Avenue
P. O. Box 3255
Glens Falls, NY 12801
(518) 793-3823
Ms. Jean Cone

**Cox Graphics**
1057 Kensington Avenue
Buffalo, NY 14215
(716) 832-2578
Mr. Kevin Preston

**Creative Printing**
2011 E. Main Street
P. O. Box 210
Endicott, NY 13760
(607) 748-7491
Mr. Dann Lewis

**Delft Printers**
92 Holland Avenue
Lancaster, NY 14086
(716) 683-1100
Mr. Ronald Dimpfl

**Delta Printing & Graphics**
3347 Delaware Avenue
Kenmore, NY 14217
(716) 874-7616
Mr. Ron Biedenbach

**DeRidder, Inc.**
175 Humboldt Street
Rochester, NY 14610
(716) 482-1500
Mr. Joseph O'Heaney

**Diamond Packaging**
111 Commerce Drive
P. O. Box 23620
Rochester, NY 14692
(716) 334-8030
Mr. Harry Voss

**Dodge Graphic Press**
1501 Broad Street
Utica, NY 13501
(315) 735-9266
Mr. Mario Mannella

**Dual Printing, Inc.**
340 Nagel Drive
Cheektowaga, NY 14225
(716) 684-3825
Mr. William Sabio

**The DuBois Press**
100 College Aveue
Rochester, NY 14607
(716) 473-1660
Mr. J. Richard Dunlevy

**Dupli Graphics Corp.**
360 W. Jefferson Street
P. O. Box 1318
Syracuse, NY 13201
(315) 472-1316
Mr. Kemper Matt

**Elmira Quality Printers**
1323 College Avenue
Elmira, NY 14901
(607) 733-4695
Mr. Norman Griswold

**Farthing Press**
260 Oak Street
Buffalo, NY 14203
(716) 852-4674
Mr. David Snyder

**Finger Lakes Press, Inc.**
185 Clark Street
Auburn, NY 13021
(315) 252-7583
Mr. Gerard Mirabito, Sr.

**Fort Orange Press**
31 Sand Creek Road
P. O. Box 828
Albany, NY 12201
(518) 489-3233
Mr. Michael Witko

**Fuller's Printing Corp.**
1682 Central Avenue
Albany, NY 12205
(518) 869-9036
Mr. James Fuller

**Gintzler Graphics, Inc.**
100 Lawrence Bell Drive
Williamsville, NY 14221
(716) 631-9700
Mr. Franklin J. Nice

**Gooding Co., Inc.**
10 Gooding Street
Lockport, NY 14094
(716) 434-5501
Mr. Gerald Hace

**Goodrich Printing Co.**
9515 Clarence Center Road
Clarence Center, NY 14032
(716) 741-3131
Mr. Anthony Silvestro

**Graphic Controls Corp.**
189 Van Rensselaer Street
P. O. Box 1271
Buffalo, NY 14240
(716) 853-7500
Mr. Patrick Crotty

**Graphtrix, Inc.**
127 S. Long Street
Williamsville, NY 14221
(716) 634-0121
Mr. Gregory Orffeo

**Great Lakes Prep, Inc.**
1099 Jay Street
Rochester, NY 14611
(716) 328-4480
Mr. Randy Allen

**Grover Cleveland Press, Inc.**
4160 N. Bailey Avenue
Amherst, NY 14226
(716) 832-2211
Mr. Jim Degen

**Hamilton Printing Company**
579 Columbia Turnpike
P. O. Box 232
Rensselear, NY 12144
(518) 732-4491
Mr. Phillip Billow

**Hammer Lithograph Corp.**
330 Metro Park
Rochester, NY 14623
(716) 424-3880
Mr. James Hammer

**Hodgins Printing Co., Inc.**
56 Harvester Avenue
P. O. Box 636
Batavia, NY 14021
(716) 343-4429
Mr. Michael Hodgins

**Holling Press, Inc.**
501 Washington St.
Buffalo, NY 14203
(716) 854-5100
Mr. Brian Maher

**Howell, F. M. & Company**
79 Pennsylvania Avenue
P. O. Box 286
Elmira, NY 14902
(607) 734-6291
Mr. George Howell

**Impco**
100 Rockwood Street
Rochester, NY 14610
(716) 473-1432
Ms. Chris Blake

**Impco Mail Marketing**
29 Depot Street
Buffalo, NY 14206
(716) 847-6415
Mr. Christopher Rice

**In & Out Printing, Inc.**
630 Main St.
M.P.O. Box 2066
Niagara Falls, NY 14302
(716) 285-6266
Mr. Edward Gilbert

**Jacobs Press, Inc.**
77 Columbus Street
P. O. Box 580
Auburn, NY 13021
(315) 252-7166
Mr. Michael Trapani

**Jefferson Rehabilitation Center**
615 W. Main Street
Watertown, NY 13601
(315) 782-0330
Ms. Amy Turnbull

**Jerome Rapid Print Inc.**
50 Beaver Street
Albany, NY 12207
(518) 463-3231
Mr. Clarence Rockenstire

**Keith Clark, Inc.**
101 O'Neil Road
Sidney, NY 13838
(607) 563-9411
Mr. Joseph Forgiano

**KNE Printing, Inc.**
439 N. Pearl Street
Albany, NY 12204
(518) 436-4769
Mr. David Kidd

**KTB Associates, Inc.**
1 Tomsons Road
Saugerties, NY 12477
(914) 246-9552
Mr. Thomas A. Clemente

**Laminating Arts of NY, Inc.**
1237 E. Main Street
P. O. Box 90806
Rochester, NY 14609
(716) 482-1220
Mr. Joseph Durnherr, Jr.

**Landes of Buffalo**
201 Genesee Street
Buffalo, NY 14203
(716) 852-8087
Mr. Paul Roth

**Lane Press of Albany**
11 Kairnes Street
Albany, NY 12205
(518) 438-7834
Mr. Robert Luther

**Litho Services, Inc.**
201 Gifford Street
Syracuse, NY 13202
(315) 475-9523
Mr. Damon Dardaris

**Lower Forty Pre-Press**
1146 Central Avenue
Albany, NY 12205
(518) 482-1920
Mr. Charles Batcher

**Maar Printing Service**
49 Oakley Street
Poughkeepsie, NY 12601
(914) 454-6860
Mr. Howard Gropper

**Majestic Plastic Corp.**
Route 17 M.
P. O. Box 381
Goshen, NY 10924
(914) 294-5424
Mr. Reynell Andrews

**Manhardt-Alexander, Inc.**
400 Creekside Drive
P. O. Box 570
Amherst, NY 14228
(716) 691-5533
Mr. Robert Alexander

**Marine Midland Bank, N.A.**
100 Stradtman Street
Buffalo, NY 14206
(716) 894-0718
Mr. Joseph Beardi

**Mark, Charles F. Inc.**
393 Sheridan Drive
Albany, NY 12206
(518) 434-1860
Mr. Richard Tenney

**McCarty Printing Company**
246 E. 7th Street
P. O. Box 1136
Erie, PA 16512
(814) 454-6337
Mr. Paul Seiber

**Merchants Press, Inc.**
17 Noxon Road
P. O. Box 3417
Poughkeepsie, NY 12603
(914) 471-1380
Mr. Allan Butler

**Mercury Print Production**
50 Holleder Pkwy.
Rochester, NY 14615
(716) 458-7900
Ms. Valerie Mannix

**Michael William Printery, Inc.**
36 Green Mountain Drive
Cohoes, NY 12047
(518) 783-8941
Mr. James Bushey

**Midstate Printing Corp.**
230 Ainsley Drive
Syracuse, NY 13205
(315) 475-4101
Mr. John Williams

**Modern Press**
One Colonie Street
Albany, NY 12207
(518) 434-2921
Mr. Michael Ryan

**Monroe Litho, Inc.**
39 Delevan Street
Rochester, NY 14605
(716) 454-3290
Mr. William Turri

**Moore Data Management Corp.**
120 Industrial Park Road
Albany, NY 12206
(518) 489-2538
Mr. Joseph Benoit

**New Art Printing Corp.**
25 Sand Creek Road
Albany, NY 12207
(518) 482-8819
Mr. Brian Gwynn

**Newtown/CPC**
36 Depot Street
Buffalo, NY 14206
(716) 842-1466
Mr. David Shular

**Niagara Envelope**
693 Seneca Street
Buffalo, NY 14210
(716) 854-8251
Mr. Robert Woollacott

**Northeast Printing Company**
63 Bridge Street
Plattsburgh, NY 12901
(518) 563-8214
Mr. Herb Carpenter

**Ogilvie Press, Inc.**
1300 Commerce Pkwy.
Lancaster, NY 14086
(716) 684-1300
Mr. Kenneth LaViolette

**Orffeo Printing Co.**
4490 Broadway
Depew, NY 14043
(716) 681-5757
Ms. Mary Jane Orffeo

**Oser Press**
1239 University Avenue
Rochester, NY 14607
(716) 442-5621
Mr. Seth Oser

**Paper Power, Inc.**
1971 Abbott Road
P. O. Box C
Lackawanna, NY 14218
(716) 824-6000
Mr. Jerry Banks

**Park Specialties**
15 Eagle Trace
Ballston Lake, NY 12019
(518) 877-7807
Mr. John Irwin

**Partners' Press, Inc.**
1881 Kenmore Avenue
Kenmore, NY 14217
(716) 876-2284
Mr. Albert Abgott

**PBR Graphics**
20 Railroad Avenue
Albany, NY 12205
(518) 458-2909
Mr. Robert Cullum

**PCI - Paper Conversions, Inc.**
6767 Thompson Rd. N.
Syracuse, NY 13211
(315) 437-1641
Mr. John Withers

**The Peters Print**
75 Jackson Avenue
Cohoes, NY 12047
(518) 233-9580
Mr. Leo Ashline

**Petit Printing Corp.**
155 Rano Street
Buffalo, NY 14207
(716) 871-9490
Mr. Rich Petit

**Pollack Printing Corp.**
877 Main Street
Buffalo, NY 14203
(716) 884-8204
Mr. William Pollack

**Printing Services of NY, Inc.**
52 Freemans Bridge Road
Scotia, NY 12302
(518) 370-1070
Mr. David Benny

**Professional Printing, Inc.**
4224 Maple Road
Amherst, NY 14226
(716) 832-9015
Mr. Stephen Morochnick

**Prout Printers, Inc.**
51 Collins Avenue
Troy, NY 12180
(518) 274-5941
Mr. William Prout

**Quad-Graphics, Inc.**
Du Plainville Road
Saratoga Springs, NY 12866
(518) 581-4000
Mr. Richard Marsel

**Quaker-Park Press**
5286 Seneca Street
Buffalo, NY 14224
(716) 674-8444
Mr. Paul Waggoner

**Quebecor Printing Buffalo Inc.**
TC Industrial Park
Depew, NY 14043
(716) 686-2500
Mr. Vincent Nardecchia

**Rapid Service Engraving**
1593 Genesee Street
Buffalo, NY 14211
(716) 896-4555
Mr. George Egloff

**Regal Art Press of Troy**
18 Industrial Park Road
Troy, NY 12180
(518) 274-4500
Mr. Edward Dickinson

**Remley & Company**
3816 Oak Orchard Road
P. O. Box 227
Albion, NY 14411
(716) 589-5551
Mr. F. Richard Remley

**The Reporter Company, Inc.**
181 Delaware Street
Walton, NY 13856
(607) 865-4131
Mr. Ken Walter

**The Riverside Group**
226 Jay Street
Rochester, NY 14608
(716) 263-2800
Mr. Peter Pape

**Rochester Empire Graphics**
150 Research Blvd.
P. O. Box 22804
Rochester, NY 14692
(716) 272-1100
Mr. William Bachman

**Salina Press, Inc.**
112 Fairgrounds Drive
P. O. Box 60
Manlius, NY 13104
(315) 682-8573
Mr. Charles Crothers

**Salt City Printing, Inc.**
6163 E. Molloy Road
E. Syracuse, NY 13057
(315) 437-1139
Mr. Lou Vinciguerra III

**Savage Printing**
1291 Main Street
Buffalo, NY 14209
(716) 884-1515
Mr. Edward Crangle

**Selco Graphics, Inc.**
148 Gifford Street
P. O. Box 1034
Syracuse, NY 13201
(315) 476-2108
Mr. Neale Bogardus

**Service Print Shop**
11 W. Third Street
Dunkirk, NY 14048
(716) 366-2677
Mr. Robert Persch

**Shaw, James E. Printing**
4299 N. Buffalo Road
Orchard Park, NY 14127
(716) 662-2679
Mr. Nelson Tschopp

**Shipman Printing Industries**
2424 Niagara Falls Blvd.
P. O. Box 157
Niagara Falls, NY 14302
(716) 731-3281
Mr. Frank Shipman

**Somerville Packaging Corp.**
3750 Monroe Avenue
Pittsford, NY 14534
(716) 248-1800
Ms. Lisa Geller

**Sommer, Sterling C. Inc.**
527 Fillmore Avenue
P. O. Box 217
Tonawanda, NY 14151
(716) 694-3377
Mr. Jack Evans

**Specialized Printed Forms**
352 Center Street
Box 158
Caledonia, NY 14423
(716) 538-2381
Mr. Paul Randall

**Staffield Printing Ltd.**
209 First Avenue
P. O. Box 627
Mechanicville, NY 12118
(518) 664-9770
Mr. Richard Staffield

**Star Printing, Inc.**
2728 Main Street
Newfane, NY 14108
(716) 778-8528
Mr. Donald Pomeroy

**Syracuse Lithographing Co.**
163 Solar Street
P. O. Box 391
Syracuse, NY 13201
(315) 422-0326
Mr. Darryl Grandy

**Target Media Graphics, Inc.**
42 Old Karner Road
Albany, NY 12205
(518) 869-2226
Mr. Kevin Clemente

**Team Dispatch**
917 Bacon Street
P. O. Box 6220
Erie, PA 16512
(814) 452-6724
Mr. E. Joseph Mehl

**Trident Printing Corp.**
2201 Teall Avenue
P. O. Box 465
Syracuse, NY 13206
(315) 437-2834
Mr. Lew Worlock

*Active Members (contd.)*

**Tucker Printers, Inc.**
270 Middle Road
Henrietta, NY 14467
(716) 359-3030
Mr. Daniel Tucker

**Upstate Litho**
1500 Brighton-Henrietta Townline Road
Rochester, NY 14623
(716) 424-2970
Mr. Michael Lehmann

**Vicks Lithograph**
Commercial Drive
P. O. Box 270
Yorkville, NY 13495
(315) 736-9346
Mr. Dwight Vicks, Jr.

**Walden Printing Co., Inc.**
63 Orange Street
P. O. Box 192
Walden, NY 12586
(914) 778-3575
Mr. Roger Gibboni

**Walter Snyder Printers**
691 River Street
Troy, NY 12180
(518) 272-8881
Mr. David Snyder

**Waterfront Press, Inc.**
325 Niagara Street
P. O. Box 728
Buffalo, NY 14205
(716) 854-2528
Mr. Les Leopold

**Whitney Printing Co.**
336 Genesee Street
Buffalo, NY 14204
(716) 852-3901
Mr. Ronnie Nudelman

**Williamson, David F. Co., Inc.**
116 Ellicott Square Bldg.
Buffalo, NY 14203
(716) 852-0026
Mr. Paul Marzello

**Word Management Corp.**
107 Everett Road
Albany, NY 12205
(518) 482-8659
Mr. Ben Fuina

PRINTING INDUSTRIES ASSOCIATION OF NEW YORK STATE, INC.

## MEMBERSHIP LISTING

### ASSOCIATE MEMBERS

**Alling and Cory**
45 Industrial Park Road
Albany, NY 12206
(518) 489-4416
Mr. Craig Meredith

**Alling and Cory**
136 N. Division Street
P. O. Box 982
Buffalo, NY 14205
(716) 852-7200
Mr. Stanley Ellson

**Alling and Cory**
25 Verona Street
P. O. Box 20403
Rochester, NY 14602
(716) 454-1880
Mr. Merit Wilkinson

**Alling and Cory**
6485 Ridings Road
P. O. Box 4887
Syracuse, NY 13221
(315) 432-1200
Mr. Paul Carney

**Ash Trading Corp.**
77 N. Broadway
P. O. Box 968
Latham, NY 12110
(518) 463-6666
Mr. Irwin Margolis

**BRAND Consultants**
P. O. Box 310
E. Greenbush, NY 12061
(518) 477-4934
Mr. Bruce Anderson

**Buffalo Printers Supply**
1747 Kenmore Avenue
Buffalo, NY 14217
(716) 877-3000
Mr. Thomas Nelson, Jr.

**Eastman Kodak Company**
343 State Street
Rochester, NY 14650
(716) 724-4723
Mr. John Toles

**Finch, Pruyn & Company, Inc.**
One Glen Street
Glens Falls, NY 12801
(518) 793-2541
Mr. Homer Feerer

**Flint Ink Corp.**
38 Loudonville Road
Albany, NY 12204
(518) 449-7111
Mr. Rich O'Brien

**Forbes Products Corp.**
45 High Tech Drive
P. O. Box 110
Rush, NY 14543
(716) 334-4800
Mr. Patrick McCormick

**Frontier Fibers, Inc.**
22 Mechanic Street
N. Tonawanda, NY 14120
(716) 692-3448
Mr. Howard Wiseman

**Gaebel, Arthur H. Inc.**
7040 Manlius Center Road
P. O. Box 5
E. Syracuse, NY 13057
(315) 656-2670
Mr. David May

**Heidelberg USA, Inc.**
2036 Washington Street
Hanover, MA 02339
(617) 871-3328
Mr. Ralph Pasquariello, Jr.

**Hudson Valley Paper Company**
981 Broadway
Albany, NY 12201
(518) 471-5111
Mr. Kurt Van Steemburg

**INX**
13 Cannon Street
Green Island, NY 12183
(518) 272-0200
Mr. Jeremy Wohlrab

**MacBeth Div. of Kollmorgen**
405 Little Britain Road
New Windsor, NY 12553
(914) 565-4440
Mr. Nick Lena

**National Graphic Supply**
226 N. Allen Street
Albany, NY 12206
(518) 438-8411
Mr. Alfred Landess

**Niagara Paper Company, Inc.**
99 Bud-Mill Drive
P. O. Box 886
Buffalo, NY 14240
(716) 856-5135
Mr. Michael Brummer

**Onondaga Litho Supply**
341 New Karner Road
Albany, NY 12205
(518) 456-8123
Mr. Thomas Parks

**Onondaga Litho Supply**
733 Linden Avenue
Rochester, NY 14625
(716) 381-7510
Mr. Thomas Board

**Onondaga Litho Supply**
101 Graphic Drive
Syracuse, NY 13206
(315) 463-9163
Mr. Jack Vosburgh

**Pajco Products, Inc.**
7740 West Street
P. O. Box 191
Lowville, NY 13367
(315) 376-3571
Mr. Samuel Villanti

**Plantrol Systems, Ltd.**
71 E. Main Street
Westfield, NY 14787
(716) 326-4975
Mr. Edwin Czajka

**Reppenhagen Roller Corp.**
813 Sycamore Street
Buffalo, NY 14212
(716) 853-0700
Mr. Frank Reppenhagen

**Ris Paper Company, Inc.**
3 Selina Drive
P. O. Box 13716
Albany, NY 12205
(518) 869-4220
Mr. Lee Reeves

**Rochester Institute of Technology**
School of Printing
1 Lomb Memorial Drive
Rochester, NY 14623
(716) 475-5955

**Ron Ink Company**
61 Halstead Street
Rochester, NY 14610
(716) 482-7050
Mr. Richard Saunders

**Safety-Kleen Corp.**
Factory & Mitchell Avenue
P. O. Box 475
Syracuse, NY 13211
(315) 455-1426
Mr. Carl Didomenico

**Seneca Paper, Inc.**
9 Interstate Avenue
Albany, NY 12205
(518) 459-5200
Mr. John Wolfgang

**Seneca Paper, Inc.**
75 Allied Drive
Buffalo, NY 14227
(716) 894-6369
Mr. R. James Scott

**Seneca Paper, Inc.**
48 King Street
P. O. Box 2010
Rochester, NY 14603
(716) 328-9300
Mr. L. Bruce Williams

**Stora Papyrus Newton Falls, Inc.**
1 Main Street
P. O. Box 253
Newton Falls, NY 13666
(315) 848-3321
Mr. Thomas Hanley

**Taussig's Graphic Supply**
9 Apollo Drive
Batavia, NY 14020
(716) 344-4444
Mr. Terry Reuschle

**VGC Corp.**
14 Walker Way #4
Albany, NY 12205
(518) 785-3455
Mr. Robert Baan

**VGC Corp.**
519 Hamburg Street
Buffalo, NY 14204
(716) 854-5630
Mr. Donald Pearce

**VGC Corp.**
175 Research Blvd.
Rochester, NY 14623
(716) 338-3440
Mr. Mark Lindsay

# Appendix H

# U.S. Print Buyers List

# U.S. PRINT BUYERS CONTACTED FOR THIS SURVEY

| Firm | City | Product or Service | Contact | Phone | Interviewed? |
|---|---|---|---|---|---|
| ABB Kent Taylor | Rochester | process control equip. | Pat Campbell | (716) 292-6050 | Yes |
| Allegheny Ludlum Steel Div. | Pittsburgh | steel & alloys | purchasing | (412) 394-2800 | |
| Aluminum Company of America | Pittsburgh | aluminum products | Audrey Parey | (412) 553-4545 | |
| Arnold & Company Inc. | Syracuse | advertising agency | Meg Stepanian | (315) 446-0037 | Yes |
| Bausch & Lomb | Rochester | eyewear | Harry Clauss | (716) 338-6000 | |
| Blair/BBDO Advertising | Rochester | advertising agency | Judy Hawthorne | (716) 473-0440 | |
| Buffalo Public Schools | Buffalo | education | Georgia Zeigler | (716) 851-3500 | Yes |
| Buffalo State College | Buffalo | education | Lynn Lions | (716) 878-4113 | Yes |
| Bush Industries Inc. | Buffalo | furniture manufacturer | Mike S. | (716) 665-2000 | Yes |
| CAE-Link Corporation | Binghamton | simulation training systems | Jackie Eck | (607) 721-2605 | |
| Calgon Corp. | Pittsburgh | air/water pollution control | Glenn Loper | (412) 777-8386 | Yes |
| Capintec Instruments | Pittsburgh | control instruments | Shirl Van Dyke | (412) 963-1988 | Yes |
| Carousel Center Mall | Syracuse | shopping center | Gina Mintzer | (315) 466-6000 | |
| Carrier Corporation | Syracuse | air conditioners | Frank Scarfino | (315) 432-7905 | Yes |
| Champlain Centres Mall | Plattsburgh | shopping center | Carolyn Harding | (518) 561-8660 | Yes |
| Champlain Hospital | Plattsburgh | health care | Noel Stewart | (518) 561-2000 | |
| Children's Hospital of Buffalo | Buffalo | health care | Beverly | (716) 878-1973 | Yes |
| Contraves-Goerz Corporation | Pittsburgh | industrial instruments | Wayne Perry | (412) 967-7700 | |
| Cooper Power Systems | Pittsburgh | power systems | purchasing dept. | (412) 777-3200 | |
| Crouse-Hinds E.C.M. | Syracuse | elec. construction materials | Kathy Duskee | (315) 477-5120 | |
| Daily Juice Products | Pittsburgh | food producer | Gary Tener | (412) 828-8602 | |
| Dresser-Rand Co. | Buffalo | compressors, engines | Linda Firkel | (716) 375-3148 | |
| DuPont Co. | Buffalo | imaging systems | purchasing dept. | (716) 277-1200 | |
| Eastman Kodak Co. | Rochester | cameras, film, imaging equip | purchasing dept. | (716) 724-4000 | |
| Endicott Johnson | Binghamton | shoe retailer | Jean Borelli | (607) 770-6521 | Yes |
| Eric Mower and Assoc. | Buffalo | advertising agency | Paul Wahler | (716) 842-2233 | Yes |
| Erie County Medical Center | Buffalo | health care | Barbara Sims | (716) 898-3000 | |
| Erie County, New York | Buffalo | county government | Vallie Trillizio | (716) 858-6312 | Yes |
| Fay's Incorporated | Syracuse | drug stores | Bill Fairchild | (315) 451-8000 | |
| Fisher-Price Toys | Buffalo | toy manufacturer | purchasing dept. | (716) 687-3000 | |
| Fleet Financial Group | Buffalo | commercial banking | Daryl Walker | (716) 431-7926 | |
| Ford Motor Co. | Buffalo | auto manufacturer | purchasing dept. | (716) 821-4000 | |
| Frito-Lay Corp. | Binghamton | snack foods | Vicki Rawding | (607) 775-4330 | Yes |
| General Motors/Delco Div. | Rochester | auto manufacturer | Keith Pinto | (716) 277-3700 | Yes |
| Genesee Brewery | Rochester | beer brewer | Todd Brady | (716) 546-1030 | |
| Gleason Corp. | Rochester | machine tools | purchasing dept. | (716) 473-1000 | |
| Great Lakes Plastic Co. Inc. | Buffalo | plastic fabrication | Barry Gonsior | (716) 896-3100 | |
| H.J. Heinz | Pittsburgh | food production | Mike Greca | (412) 237-5757 | |
| Hutchins, Young & Rubicam | Rochester | advertising agency | Bill Manzey | (716) 546-6480 | Yes |
| Ice Inc. | Rochester | advertising agency | Kathy Hamilton | (716) 244-5400 | |
| International Business Machines | Syracuse | computers, mainframes | Beverly Vecchio | (315) 424-2170 | |
| Iron Age Protective Co. | Pittsburgh | industrial footwear | Don Stella | (800) 223-8912 | Yes |
| Jones & Laughlin Steel | Pittsburgh | steel, coal, chemicals | purchasing dept. | (412) 227-4000 | |
| Joy Technologies | Pittsburgh | industrial equipment | purchasing dept. | (412) 562-4500 | |
| Koolvent Aluminum Products Inc. | Pittsburgh | windows, siding, awnings | Stella Scfranski | (412) 858-3500 | |

| Firm | City | Product or Service | Contact | Phone | Interviewed? |
|---|---|---|---|---|---|
| Machine Shop Technologies | Pittsburgh | education | Frank Sanns | (412) 922-2602 | Yes |
| Manufacturers and Traders Trust | Buffalo | commercial bank | purchasing dept. | (716) 842-4200 | |
| Marine Midland Bank | Buffalo | commercial bank | purchasing dept. | (716) 841-2424 | |
| Martin Marietta Co. | Syracuse | aerospace | Robert J. Martin | (315) 793-6032 | Yes |
| Miles Corporation | Pittsburgh | chemicals | Julie Steding | (412) 777-2321 | |
| Moog Inc. | Buffalo | precision control parts | Susan Valois | (716) 652-2000 | |
| National Fuel Gas Co. | Buffalo | gas and oil | John Mayberry | (716) 857-6933 | |
| New Hartford Advertising | Syracuse | advertising products | Chris Klumpach | (315) 699-6310 | Yes |
| New Venture Gear, Inc. | Syracuse | transmissions | purchasing dept. | (315) 432-4000 | |
| NFTA/NFT Metro System Inc. | Buffalo | transportation system | purchasing dept. | (716) 855-7300 | |
| Niagara Mohawk Power Co. | Syracuse | utility | Mike Kane | (315) 428-6656 | |
| NY State Electric & Gas | Binghamton | utility | Al Costello | (607) 729-2551 | |
| P&C Food Markets | Syracuse | food stores | Dick Hall | (315) 463-0354 | |
| Pennex Products | Pittsburgh | pharmaceutical | Sally Heur | (412) 362-5650 | Yes |
| Pennwalt Corporation | Rochester | pharmaceutical | purchasing dept. | (716) 475-9000 | |
| Power Piping Company | Pittsburgh | pipe and pipe hangers | purchasing dept. | (412) 323-6200 | |
| PPG Industries, Inc. | Pittsburgh | chemicals | Larry Gallanter | (412) 434-3076 | |
| Praxair Inc. | Buffalo | industrial glass | purchasing dept. | (716) 879-2000 | |
| RF Harris Communications | Rochester | electronic equipment | purchasing dept. | (716) 244-5830 | |
| Rich Products Corp. | Buffalo | frozen foods | Dick Dearborn | (716) 876-8000 | |
| Robicon Corporation | Pittsburgh | electronic control devices | John Duffy | (412) 327-7000 | |
| Rochester Community Savings | Rochester | commercial banking | Amy Cutrona | (716) 258-3000 | Yes |
| Rochester Gas & Electric | Rochester | utility | Charlotte Lammes | (716) 546-2700 | |
| Rochester Midland Corporation | Rochester | industrial chemicals | Mary Thoms | (716) 336-2200 | Yes |
| Rockwell International | Pittsburgh | actuators, clamps, valves | purchasing dept. | (412) 247-3000 | |
| Roswell Park Cancer Institute | Buffalo | treatment center | Doris Martin | (716) 845-5744 | |
| Scrivner of New York | Buffalo | wholesale and retail food | Bob Giraffa | (716) 668-7200 | |
| State of NY Central Purchasing | Albany | state government | Lou Renbano | (518) 474-5435 | Yes |
| State University of NY Health Ctr | Syracuse | education, health care | Kay Frank | (315) 464-5540 | |
| State University of NY-Buffalo | Buffalo | education | John Grabowski | (716) 645-2681 | Yes |
| State University of NY-Plattsburgh | Plattsburgh | education | Roy Garrant | (518) 564-2000 | Yes |
| Strong Memorial Hospital | Rochester | health care | purchasing dept. | (716) 275-2121 | |
| Syracuse University | Syracuse | education | Bob Martin | (315) 443-5748 | |
| Tops Markets, Inc. | Buffalo | convenient stores | Robert Jasinski | (716) 823-3712 | |
| United Health Services, Inc. | Binghamton | hospital management | Fran Olsa | (607) 763-6172 | Yes |
| Universal Instruments | Binghamton | electronic production equip. | Joyce Smith | (607) 772-7412 | |
| University of Pittsburgh | Pittsburgh | education | George Bernarski | (412) 624-6202 | |
| University of Rochester | Rochester | education | purchasing dept. | (716) 275-2002 | |
| Wegmans Food Markets, Inc. | Syracuse | food & pharmacy stores | purchasing dept. | (315) 622-1621 | |
| Welch Allyn, Inc. | Syracuse | medical instruments | Laurie A. Wheeler | (315) 685-4451 | Yes |
| Westinghouse Corporation | Pittsburgh | electronics | purchasing dept. | (412) 788-5750 | |
| Williams & Company, Inc. | Pittsburgh | welding products | Mary Majeski | (412) 237-2211 | |
| Woodings-Verona Tool Works | Pittsburgh | iron products | Michael Kosobucki | (412) 828-7000 | Yes |
| Wyeth-Ayerst Research | Plattsburgh | chemicals | Roy Garrant | (518) 297-6611 | Yes |
| Xerox Corporation | Rochester | business machines | purchasing dept. | (716) 423-5090 | |

# Appendix I

# Interviews with Exporting Canadian Printers

## APPENDIX I: INTERVIEWS WITH EXPORTING CANADIAN PRINTERS

### 1. AUTY

Auty is owned and managed by Brian Auty with whom the interview was conducted. The majority of its business is the printing of logos or promotional claims on a variety of products such as mouse pads and refrigerator magnets. In addition, Auty also produces car decals and in-store custom signage. The company is located in the Toronto area, employs 30 people, and had revenues of $2.5 million in 1992. The majority of its work is completed on 2 semi-automatic Svecia off-set screen presses. Auty purchased a Columbus, Ohio company called A.S.P. and renamed the company Auty, United States. Recently, the partnership was officially ended, but an unofficial working relationship still exists. Auty has been extremely successful in exporting to the United States. Nearly one quarter of its revenue is generated from U.S. exports.

**Why did you expand to the U.S.?**

"When the Canadian dollar was very high it was extremely hard to export Canadian goods into the U.S., so we bought into an existing company in Columbus and changed it's name to Auty Printing, United States. We experienced strong growth because of the marketing experience we contributed. The company we bought was smaller but it did the same kind of screen and offset printing."

**Do you still export?**

"Yes, about $750,000 of our $3.25 million in total revenues is export revenue from Arizona, Chicago, etcetera. We don't have the official partnership anymore because the U.S. partner didn't want to risk their equity in our expansion plans. However, we still work together and Auty saves a considerable amount of money by this unofficial partnership."

**Why can you export so far?**

"Because our product is unique. Car decals, fridge magnets, mouse pads, in store custom signage are a few of the products we print or print on. There is competition, but the marketing materials used by Auty get the prospective client interested and let them know that a reputable company is calling on them. We distribute our marketing materials at trade shows that I personally attend. We also have a 1-800 number. In addition, Auty is willing to satisfy all the customer needs that other printers are unwilling to do. For example, we have a customer who wants the final product shipped to 100 destinations instead of one. This requires special packing of the product which other suppliers wouldn't do. We could solve their problems for them so this made it (the sale) happen."

**How do you generate most of your export sales?**

"At trade shows I may generate 1000 to 1500 leads. I give them my marketing materials which consist of company newsletters (with new and future products of interest to the client) and our catalog. At the show I will explore the prospects background and whether or not it would be justified to make a personal call to the companies key decision makers. I will take their name down for my mailing list and keep in contact by sending out newsletters to keep them interested."

**Do you have an office in the U.S. currently?**

"Our unofficial partner has a space where I can base my operations when I am in the Columbus area. Other than that I have friends in U.S. cities that I will stay with."

**Have you encountered any border difficulties?**

"I have found that as volume increases it gets easier to cross the border. Customs is very cooperative with Auty because we put proper marking on every box. Because Auty is a regular exporter and always provides correct documentation, customs has provided us with a line item release form. This allows rapid expedition and virtually no delays. To do this you need to have the proper volumes, which would be about one truck a week (transport size truck). The truck doesn't have to be full, but you should have 5 to 15 thousand pounds on the truck to justify the line item release form."

**How are you making it easy for customs?**

"We have a U.S. customs broker which tells us exactly what customs will require and we follow their instructions exactly. In addition, we always use the same port and the same initial destination: Columbus, Ohio. One truck a week costs approximately $200 dollars a skid to send and the skid has approximately $25,000 in product all pre-labeled and packaged for UPS shipment. It is all very transparent and using the same border crossing cuts down delays and problems."

**How do you save shipping costs?**

"Canadian freight rates are outrageous. To ship one pound to the United States expect to pay about $35 (Canadian) dollars. However, if you ship to a United States destination by truck first, you would only pay about $3 dollars to ship the same package. It costs about $5 dollars a pound to ship from Toronto to Columbus on our own truck so the total is about $8 dollars a pound. We prepackage all our shipments for secondary shipment by UPS once it is unloaded in Columbus."

**How did you create the partnership with Advanced Screen Printing (A.S.P.) in Columbus (later Auty Printing, U.S.A.)?**

"Five years ago, the Canadian dollar was increasing rapidly and free trade had been initiated. I knew that U.S. competition was coming so I sought to expand and export. Initially, I contacted my suppliers in the United States to discuss my plans. I chose Columbus because I thought it would be an excellent U.S. base for operations: they have a large industrial base and they are close to my Canadian operations (it takes about 6 hours to ship from plant to plant). When I told my U.S. suppliers about my plans they told me about one of their clients in Columbus who did similar work. Another golf game ensued with the owner of A.S.P. and a joint venture evolved."

**What happened after the partnership was created?**

"The partnership was sort of one-sided. Most of the work was being done by Auty, Canada. In terms of size, Auty, U.S.A. had revenues of $360 thousand dollars and 5 years later their revenues were almost 2 million dollars. The partnership worked great for both firms, but my U.S. partner grew scared of further rapid expansion and equity risk, so he pulled out of the official partnership. Even though I was providing most of the capital, Auty, U.S.A.'s owner was afraid of the kinds of numbers (large orders) moving through his shop and he was unwilling to take the kind of risks necessary to become a 5 or 10 million dollar (revenue) shop. We still continue an unofficial work partnership. With the official separation we split our sales. A.S.P. currently does about 900 thousand in revenues."

**What other ways can you network to find partners?**

"Use the CPIA and the PIA. I go to trade shows or conferences and I have developed friends in nearly every major city in the United States. Canadian printers don't take advantage of these networking opportunities presented by the PIA and other local printing and business associations. For example, I went to a PIA meeting in Mexico entitled *How to Sell Printing in Canada* because I definitely wanted to know the strategies U.S. and Mexican firms were using to get into Canada. I thought other Canadian printers would be there, but I was the only one. Opportunities are there (in the United States) and Canadian firms typically under exploit them."

**What are your plans for further expansion or exporting?**

"We are currently looking to get a U.S. rep for and innovative in-store signage technique. However, I don't believe it will cost $150,000 a year to establish the rep. It would depend on the city. For example, I would expect to spend $75,000 for a rep in Columbus. It is only $.22 cents a minute for long distance phone calls using my 1-800 number (an 800 number is essential to reduce the perceived distance between the you and the customer) the sales rep would be commissioned and independent, so forget the car and large salary (I would provide some draw however). I would like to get someone with a college education and I would personally teach him our proven sales, distribution, ordering, and marketing techniques. I would pay his travel and place him in an existing market where sales were attainable."

**What do you think about general printers in Canada coming to the United States?**

"Too many printers go to the United States with pie in the sky aspirations, but they're dreaming. Auty sells unique things with definite benefits for our clients. A general printer in Ottawa for example, is dreaming if he thinks he can sell in the U.S, he is too far from his customers to sell to them. Printing is very service oriented and if you can't deliver overnight or provide the things customers need, when they need them, you won't succeed. Canadian printers must learn that there are a multitude of opportunities in the States and if you provide something that is unique, ie. not general printing, you can exploit these opportunities."

**How?**

"By getting down to the States themselves (the owners) and exploring markets, attending trade shows, networking, and finding the real reason that Americans would want to buy from Canadian printers. For example, Auty found that there was a quality difference, our quality was much better and it became a selling point. Just getting a sales rep wont do it. A good first step is to join the PIA so you can talk to U.S. printers. Auty is one of only three printers in the PIA. Why? Because other printers aren't taking advantage of the networking and information potential in trade organizations. After this, the best route is to establish a base of operations in the United States."

**Is it possible to expand your U.S. market once you have entered?**

"Yes, we are currently developing a cutting edge in-store signage system that will offer significant new benefits to signage customers."

**2. LOWE MARTIN**

Lowe Martin is a mid-sized sheetfed printer located in Ottawa. The company employs approximately 200 people and had revenues of $30 million in 1992. The company is privately owned and managed by Don Griffin. Through large investments, in "high tech" front end equipment, presses, bindery equipment and capable people, Mr. Griffin has made Lowe Martin one of the best equipped sheet fed printers in the industry. Lowe Martin performs the majority of its business in the Ottawa area, it is a well recognized sheet fed full service printer, but its niche is high tech printing. Customers in this niche need front end capabilities such as image editing, image storage, and the ability to work completely from computer diskette. In addition, Lowe Martin provides its customers with the quick high quality produced from digital image printing (DI) or Heidelberg presses. Lowe Martin has not yet expanded to the United States. They are currently planning to do so and have conducted a extensive research of potential U.S. markets. Mr. Griffin and Randy Pope, Director of Synergy, were interviewed for their U.S. expansion plans and other areas of interest to Canadian printers considering exporting.

**How big should a printer be before he attempts to expand or export?**

Pope: "If you can't service your own market, for example if you only service 2% of your market, then you can't expand. You have to offer something that isn't being offered in the States already to overcome the geographic barrier."

**Have you considered using a U.S. print broker?**

Pope: "Print brokers are not specific enough for us. We need a dedicated rep who knows specifically how to sell the value that Lowe Martin can add to the printer-client relationship."

**How much would your own rep cost?**

Pope: "Probably about 150 grand a year. That would include the office expenses, salary or draw, transportation expenses, and all the general operating expenses. If you're only doing 4 to 5 million a year (in revenues) your probably excluded from that."

**Are there other ways to get into the States?**

Pope: "Yes, if you are a very good niche printer, such as just postcards or just calendars, then you can target your market. If you are very good and low cost you can be competitive. There are too many general printers in the U.S already and being the 101st supplier on a buyers list won't work. You must specialize to do well."

**How does Lowe Martin do that?**

Pope: "We offer value added high tech like image editing, video storage and direct image (DI) printing. Our strategy is to find the cities that lack this specialty and fill the niche."

**How do you find specialties that are lacking in an area?**

Pope: "Your first focus should be on the print buyers who buy your specialty. If we find a center that isn't being serviced by big high tech printers, like Donnelly, and it has a base of customers that need our service then we will get in."

**How do you get in?**

Griffin: "Buying out a company is one way, or form a partnership. The way communications are it is easy to work between plants and build economies. Working from disk, the computer, the fax, the modem all make this possible."

**What sort of partner would you seek?**

Griffin: "You must find a partner that needs what you have. One has money, but no ideas. The other has ideas, but no money. You must offer something of value. For example, Lowe Martin offers high tech front end, DI and many other benefits."

**How would you initiate the joint venture?**

Griffin: "Effective desire for expansion is a prerequisite. Once you have that, you must find your target clients and examine their literature, do feasibility studies, investigate the competition. Talk to suppliers and see who has bought new innovative equipment in the area. Then you must answer some questions: can you get the markups you want? The ROI you want?"

**What is your target market?**

Pope: "Lowe Martin looks for high tech companies. Scientists and engineers have printed journals that need constant re-manipulation which utilizes our image editing and DI abilities. In addition, there are similar cultures: high tech engineers like high tech printers."

**What are ways to establish contacts in the United States?**

Griffin: "A company looking to expand must network. Networking with local U.S. company executives is a good place to start. Lowe Martin knows the president of Xerox, U.S.A. because he used to be in Ottawa. We reestablished those ties when he was promoted and our di-cut tab business went from Xerox, Canada to Xerox, United States."

**What will be the long term impact of NAFTA and the FTA?**

Griffin: "We lost that Xerox business I just mentioned to Mexico because it is low tech. Printers in Mexico have lower labor costs and low tech printing companies will continue to take advantage of this. Without trade barriers, you must be able to compete with high tech and if you can't compete on high tech then you must compete on service and quality."

**3. McLaren, Morris & Todd**

McLaren, Morris & Todd was founded in 1956. It currently has 240 employees and 1992 gross revenues were $45 million. All their production is completed in one plant. Its specialties are greeting cards which are printed for Hallmark. It also specializes in labels for consumer goods such as food, laundry, and soft drinks. Another area of production for MM&T is direct mail products. Its plant has very little pre-press other than plate making and the main production presses are sheet fed and half web presses. Currently, the chairman and managing partner, Mr. John Morris has been working with MM&T since 1966 and was the executive interviewed for the survey. Approximately 10% of the revenues of MM&T are generated from export of labels to the United States.

**What is your U.S. export strategy?**

"We focus mainly on our consumer goods label business. Our strategy is to focus on Canadian companies that are subsidiaries of U.S. companies or to work with Canadian companies that have subsidiaries in the United States. For example, Proctor & Gamble is a U.S. company with a Canadian subsidiary. We might get entry by working with their Canadian operations or we try to may sell directly to their U.S. parent company."

**What is the primary obstacle for you when trying to get U.S. business?**

"The 'Printed in Canada' marking requirement is a major negative. We had the opportunity to do a large volume direct mail piece, but were prevented from doing so because of the marking requirement. The reason we have been successful with labels is that U.S. law does not require country of origin marking on labels."

**Have you ever considered buying out a U.S. company?**

"At the moment we believe this will have to be our strategy. There is a significant provincial attitude among purchasers in the United States which prevents entry."

**Have you tried a dedicated sales rep in a U.S. market?**

"We tried that and it was totally ineffective. The main objection was that MM&T is a foreigner and why should I print with you when I can print down the street. We were focused on our consumer goods labels' niche in the large New York market, but we still could not gain entry. The cost of the office for one year was approximately 100,000 dollars. It was not the rep's fault either because I made many sales calls with him. We thought New York was a city where we would face less of the 'Buy American' attitude, but this was not the case. One time I made a call with the rep on a Minneapolis company who seemed very interested. We were invited to make a presentation to the key decision makers and on the day of the presentation, we were greeted by a secretary wearing a big pin that said, 'Buy American.' I turned to my rep and said, 'We're not selling anything here,' and I was right. We went into the meeting and were faced with a group of executives that were almost visibly upset."

**Have you experienced any border crossing problems?**

"We have always taken care of our paperwork so we have never experienced any problems in this area."

**What would it take for a Canadian company to be successful in the United States?**

"We have come to the conclusion that you must set up and operation in the States and we believe it would have to be a production base. This would give us credibility and entry into the market. Canadians, unlike Americans, will welcome in the world. We are the largest importer of printed goods on a per capita basis. Unfortunately, this is not the case in the States so we are trying to adjust to the market."

**If you were researching a U.S. market, what questions would you ask a local buyer?**

"We would like to know more about buyers in the paper label and direct mail industries. Any consumer goods company. The first question I would ask would be 'is there any need to have a base of operations in the United States.'"

## 4. Webcom

Webcom is a web press printer specializing in softcover books, catalogs and directories. It is privately owned and based in Toronto, where all production takes place. It has a sales volume of $25 million per year and approximately 200 employees. Approximately 30% of its business is performed in the United States where it has sales offices in Cleveland, New York City, and Boston. The interviewee representing Webcom is Mike Colinge, Vice President of Marketing and Sales.

**What are the main obstacles for a Canadian web printer when trying to enter the United States market?**

"The main obstacle is gaining credibility with U.S. publishers. Webcom was not affected by the Free Trade Agreement. Books have always been traded between the United States and Canada without duty because of each country's laws regarding freedom of information. However, there are marking difficulties requiring Canadian book printers to put 'Printed in Canada' on their products. In addition, costs to comply with U.S. tax codes can be high. We have to hire accountants to make sure we are in compliance with U.S. payroll taxes, pension requirements, and workman's compensation."

**How do you pick which U.S. market you will enter?**

"Webcom's business is set up around niches. We investigate and target specific markets, our Boston office is a good example. In Boston we only sell to colleges and universities. We chose NYC and Cleveland for our other U.S. offices because there are large concentrations of book publishers."

**How are your U.S. branch offices set up?**

"All of our U.S. offices have only one employee, the sales rep. Costs for the U.S. offices have run about 100 to 150 thousand per year and we expect it will take from 1 to 2 years before a branch starts to become profitable. Our reps are U.S. citizens which we selected for their experience in their market. We target accounts in areas other than NYC, Boston or Cleveland. We do this by contacting the target accounts by phone from our Toronto office and then following up with a visit to their location."

**What are obstacles to generating U.S. accounts?**

"U.S. buyers are not scared of doing business over long distances, so our location is not a real obstacle. The buyer's main concerns are cost, product quality, service and reliability. However, there is definitely a very strong 'Buy American' loyalty that has been building over the last couple of years. This is mainly due to the recession and the media 'Buy American' campaigns. As a result, we can not just be good, we have to be better."

**Do U.S. customers require any special treatment?**

"Absolutely, our objective from day one is to make it seem that Webcom is the printer down the street. Webcom takes care of all the issues, for example we never use any metric measurements, pricing is all in U.S. dollars, and we take care of all export required documentation. It is essential that buying from Webcom is no different than buying from anyone down the street. Included in that is discussing unpopular issues like 'Printed in Canada' marking requirements. This can be a very sensitive issue for our customers."

**Can you do anything to help these "marking sensitive" customers?**

"The most prominent marking areas are on the cover and if it is a concern to our customer we try to get the marking off the cover. We do not have to put 'Printed in Canada' on the cover unless the name and address of the publisher is there. We check with the customer and if they do not feel that is important to have their name and address there we take their name and address off and have the 'Printed in Canada' in notation on the copyright page."

**Are shipping costs a problem?**

"Our shipping cost typically run less than 5% of the total cost of the job which in most cases is less than our U.S. competition. We always inform the customer of these added shipping costs up front so there are no surprises when they receive the product. All the shipping is done through independent carriers. In some cases we prepackage the shipment for U.S. Postal secondary shipment once it is unloaded in Buffalo. We do ship directly from Toronto using major carriers, the costs can be very high, but because we ship a large amount on a regular basis we have been able to negotiate with the carriers to get the costs more competitive."

**Have you experienced any difficulties or delays at Customs?**

"In most cases U.S. customs is not a problem. We do enough shipping that is all taken care of electronically so border crossing is really a non-issue. There are Customs issues where they may question a product's classification or there may be Customs clearance fee changes so we work closely with our Customs brokers. Customs clearance fees usually run about 100 to 200 dollars per truckload."

**Is there a competitive pricing disadvantage for Canadian web printers?**

"We have found that U.S. printers' pricing is consistent with our pricing so competition has typically been on other issues."

**Are there any special abilities that allow Webcom to export to the United States?**

"There are more similarities than differences between the U.S. and Canadian markets. Doing business with a U.S. customer is not like doing business with a German or French customer. The main thing that allows Webcom to export to the United States is that we have taken the initiative and made the investment in time and effort to go down and find out what it takes to be successful. What I see with Canadian printing companies is the initial effort and follow through is not there. Just because the United States market is ten times the size of the Canadian market does not mean you can go down and get a small piece (of the market) and be successful. However, if you are good at what you do up here there is no reason to believe you can not go down and exploit that niche in the United States."

**If you were contacting buyers in a potential U.S. market who would they be? What**

**competitive information would you like to know?**

"Our competition are the larger companies, the Donnellys and Bantas. If we were moving into a U.S. market we would like to know what segments the large web presses are serving in that area."

**5. Henderson Printing**

Due to a technical failure in the recording equipment, transcripts for the interview with Lyle Henderson are unavailable. Responses are recreated from notes taken during the interview, and approved by Mr. Henderson.

**How have you overcome the "Printed in Canada" labeling requirement?"**

I print entertainment programs for a woman in the U.S.. She didn't want "Printed in Canada" on the cover of the program because she thought the marking might upset her patrons. I pointed out that the marking could be on an inconspicuous page inside the catalog. She didn't realize this was possible, but decided to buy from us when I explained it was.

**Have you run into any biases or misconceptions among U.S. print buyers?**

Yes, I currently have a buyer in a U.S. town just 50 miles from my plant. This print buyer was getting all the company's printing done in Syracuse, which is over 150 miles away. I explained to the buyer that I could supply their printing, but the first reaction I got was that my plant was too far away. For some reason, buyers think Canada is near the North Pole. The second reaction was that international trade was too hard. U.S. buyers seem to think that there is a wall at the border.

# Appendix J

# Border Crossing Documents

Admission Number

222840943 01

Immigration and
Naturalization Service

**I-94**
**Arrival Record**

Family Name

First (Given) Name

Birth Date (Day/ Mo/ Yr)

Country of Citizenship

Sex (Male or Female)

Passport Number

Airline and Flight Number

Country Where You Live

City Where You Boarded

City Where Visa Was Issued

Date Issued (Day/ Mo/ Yr)

Address While in the United States (Number and Street)

City and State

Departure Number

222840943 01

Immigration and
Naturalization Service

**I-94**
**Departure Record**

Family Name

First (Given) Name

Birth Date (Day/ Mo/ Yr)

Country of Citizenship

**See Other Side**

**STAPLE HERE**

| | |
|---|---|
| 18. Occupation | 19. Waivers |
| 20. INS File<br>A - | 21. INS FCO |
| 22. Petition Number | 23. Program Number |
| 24. ☐ Bond | 25. ☐ Prospective Student |

26. Itinerary/Comments

27. TWOV Ticket Number

A nonimmigrant who accepts unauthorized employment is subject to deportation.

**Important** - Retain this permit in your possession: ***you must surrender it when you leave the U.S.*** Failure to do so may delay your entry into the U.S. in the future.

You are authorized to stay in the U.S. only until the date written on this form. To remain past this date, without permission from immigration authorities, is a violation of the law.

- By sea or air, to the transportation line;
- Across the Canadian border, to a Canadian Official;
- Across the Mexican border, to a U.S. Official.

Students planning to reenter the U.S. within 30 days to return to the same school, see "Arrival-Departure" on page 2 of Form I-20 **prior to surrendering this permit.**

**Record of Changes**

**Departure Record**

**Port:**

**Date:**

**Carrier:**

**Flight #/Ship Name:**

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

# Appendix K

# NAFTA Chapter 16

# "Temporary Entry for Business Persons"

# Chapter Sixteen

# Temporary Entry for Business Persons

## Article 1601: General Principles

Further to Article 102 (Objectives), this Chapter reflects the preferential trading relationship between the Parties, the desirability of facilitating temporary entry on a reciprocal basis and of establishing transparent criteria and procedures for temporary entry, and the need to ensure border security and to protect the domestic labor force and permanent employment in their respective territories.

## Article 1602: General Obligations

1. Each Party shall apply its measures relating to the provisions of this Chapter in accordance with Article 1601 and, in particular, shall apply expeditiously those measures so as to avoid unduly impairing or delaying trade in goods or services or conduct of investment activities under this Agreement.

2. The Parties shall endeavor to develop and adopt common criteria, definitions and interpretations for the implementation of this Chapter.

## Article 1603: Grant of Temporary Entry

1. Each Party shall grant temporary entry to business persons who are otherwise qualified for entry under applicable measures relating to public health and safety and national security, in accordance with this Chapter, including the provisions of Annex 1603.

2. A Party may refuse to issue an immigration document authorizing employment to a business person where the temporary entry of that person might affect adversely:

(a) the settlement of any labor dispute that is in progress at the place or intended place of employment; or

(b) the employment of any person who is involved in such dispute.

3. When a Party refuses pursuant to paragraph 2 to issue an immigration document authorizing employment, it shall:

(a) inform in writing the business person of the reasons for the refusal; and

(b) promptly notify in writing the Party whose business person has been refused entry of the reasons for the refusal.

4. Each Party shall limit any fees for processing applications for temporary entry of business persons to the approximate cost of services rendered.

**Article 1604: Provision of Information**

1. Further to Article 1802 (Publication), each Party shall:

(a) provide to the other Parties such materials as will enable them to become acquainted with its measures relating to this Chapter; and

(b) no later than one year after the date of entry into force of this Agreement, prepare, publish and make available in its own territory, and in the territories of the other Parties, explanatory material in a consolidated document regarding the requirements for temporary entry under this Chapter in such a manner as will enable business persons of the other Parties to become acquainted with them.

2. Subject to Annex 1604.2, each Party shall collect and maintain, and make available to the other Parties in accordance with its domestic law, data respecting the granting of temporary entry under this Chapter to business persons of the other Parties who have been issued immigration documentation, including data specific to each occupation, profession or activity.

**Article 1605: Working Group**

1. The Parties hereby establish a Temporary Entry Working Group, comprising representatives of each Party, including immigration officials.

2. The Working Group shall meet at least once each year to consider:

(a) the implementation and administration of this Chapter;

(b) the development of measures to further facilitate temporary entry of business persons on a reciprocal basis;

(c) the waiving of labor certification tests or procedures of similar effect for spouses of business persons who have been granted temporary entry for more than one year under Section B, C or D of Annex 1603; and

(d) proposed modifications of or additions to this Chapter.

**Article 1606: Dispute Settlement**

1. A Party may not initiate proceedings under Article 2007 (Commission - Good Offices, Conciliation and Mediation) regarding a refusal to grant temporary entry under this Chapter or a particular case arising under Article 1602(1) unless:

(a) the matter involves a pattern of practice; and

(b) the business person has exhausted the available administrative remedies regarding the particular matter.

2. The remedies referred to in paragraph (1)(b) shall be deemed to be exhausted if a final determination in the matter has not been issued by the competent authority within one year of the institution of an administrative proceeding, and the failure to issue a determination is not attributable to delay caused by the business person.

**Article 1607: Relation to Other Chapters**

Except for this Chapter, Chapters One (Objectives), Two (General Definitions), Twenty (Institutional Arrangements and Dispute Settlement Procedures) and Twenty-Two (Final Provisions) and Articles 1801 (Contacts Points), 1802 (Publication), 1803 (Notification and Provision of Information) and 1804 (Administrative Proceedings), no provision of this Agreement shall impose any obligation on a Party regarding its immigration measures.

**Article 1608: Definitions**

For purposes of this Chapter:

**business person** means a citizen of a Party who is engaged in trade in goods, the provision of services or the conduct of investment activities;

**citizen** means "citizen" as defined in Annex 1608 for the Parties specified in that Annex;

**existing** means "existing" as defined in Annex 1608 for the Parties specified in that Annex; and

**temporary entry** means entry into the territory of a Party by a business person of another Party without the intent to establish permanent residence.

## Annex 1603

## Temporary Entry for Business Persons

### Section A - Business Visitors

1. Each Party shall grant temporary entry to a business person seeking to engage in a business activity set out in Appendix 1603.A.1, without requiring that person to obtain an employment authorization, provided that the business person otherwise complies with existing immigration measures applicable to temporary entry, on presentation of:

(a) proof of citizenship of a Party;

(b) documentation demonstrating that the business person will be so engaged and describing the purpose of entry; and

(c) evidence demonstrating that the proposed business activity is international in scope and that the business person is not seeking to enter the local labor market.

2. Each Party shall provide that a business person may satisfy the requirements of paragraph 1(c) by demonstrating that:

(a) the primary source of remuneration for the proposed business activity is outside the territory of the Party granting temporary entry; and

(b) the business person's principal place of business and the actual place of accrual of profits, at least predominantly, remain outside such territory.

A Party shall normally accept an oral declaration as to the principal place of business and the actual place of accrual of profits. Where the Party requires further proof, it shall normally consider a letter from the employer attesting to these matters as sufficient proof.

3. Each Party shall grant temporary entry to a business person seeking to engage in a business activity other than those set out in Appendix 1603.A.1, without requiring that person to obtain an employment authorization, on a basis no less favorable than that provided under the existing provisions of the measures set out in Appendix 1603.A.3, provided that the business person otherwise complies with existing immigration measures applicable to temporary entry.

4. No Party may:

(a) as a condition for temporary entry under paragraph 1 or 3, require prior approval procedures, petitions, labor certification tests or other procedures of similar effect; or

(b) impose or maintain any numerical restriction relating to temporary entry under paragraph 1 or 3.

5. Notwithstanding paragraph 4, a Party may require a business person seeking temporary entry under this Section to obtain a visa or its equivalent prior to entry. Before imposing a visa requirement, the Party shall consult, on request, with a Party whose business persons would be affected with a view to avoiding the imposition of the requirement. With respect to an existing visa requirement, a Party shall consult, on request, with a Party whose business persons are subject to the requirement with a view to its removal.

## Section B - Traders and Investors

1. Each Party shall grant temporary entry and provide confirming documentation to a business person seeking to:

(a) carry on substantial trade in goods or services principally between the territory of the Party of which the business person is a citizen and the territory of the Party into which entry is sought, or

(b) establish, develop, administer or provide advice or key technical services to the operation of an investment to which the business person or the business person's enterprise has committed, or is in the process of committing, a substantial amount of capital, in a capacity that is supervisory, executive or involves essential skills,

provided that the business person otherwise complies with existing immigration measures applicable to temporary entry.

2. No Party may:

(a) as a condition for temporary entry under paragraph 1, require labor certification tests or other procedures of similar effect; or

(b) impose or maintain any numerical restriction relating to temporary entry under paragraph 1.

3. Notwithstanding paragraph 2, a Party may require a business person seeking temporary entry under this Section to obtain a visa or its equivalent prior to entry.

**Section C - Intra-Company Transferees**

1. Each Party shall grant temporary entry and provide confirming documentation to a business person employed by an enterprise who seeks to render services to that enterprise or a subsidiary or affiliate thereof, in a capacity that is managerial, executive or involves specialized knowledge, provided that the business person otherwise complies with existing immigration measures applicable to temporary entry. A Party may require the business person to have been employed continuously by the enterprise for one year within the three-year period immediately preceding the date of the application for admission.

2. No Party may:

(a) as a condition for temporary entry under paragraph 1, require labor certification tests or other procedures of similar effect; or

(b) impose or maintain any numerical restriction relating to temporary entry under paragraph 1.

3. Notwithstanding paragraph 2, a Party may require a business person seeking temporary entry under this Section to obtain a visa or its equivalent prior to entry. Before imposing a visa requirement, the Party shall consult with a Party whose business persons would be affected with a view to avoiding the imposition of the requirement. With respect to an existing visa requirement, a Party shall consult, on request, with a Party whose business persons are subject to the requirement with a view to its removal.

**Section D - Professionals**

1. Each Party shall grant temporary entry and provide confirming documentation to a business person seeking to engage in a business activity at a professional level in a profession set out in Appendix 1603.D.1, if the business person otherwise complies with existing immigration measures applicable to temporary entry, on presentation of:

(a) proof of citizenship of a Party; and

(b) documentation demonstrating that the business person will be so engaged and describing the purpose of entry.

2. No Party may:

(a) as a condition for temporary entry under paragraph 1, require prior approval procedures, petitions, labor certification tests or other procedures of similar effect; or

(b) impose or maintain any numerical restriction relating to temporary entry under paragraph 1.

3. Notwithstanding paragraph 2, a Party may require a business person seeking temporary entry under this Section to obtain a visa or its equivalent prior to entry. Before imposing a visa requirement, the Party shall consult with a Party whose business persons would be affected with a view to avoiding the imposition of the requirement. With respect to an existing visa requirement, a Party shall consult, on request, with a Party whose business persons are subject to the requirement with a view to its removal.

4. Notwithstanding paragraphs 1 and 2, a Party may establish an annual numerical limit, which shall be set out in Appendix 1603.D.4, regarding temporary entry of business persons of another Party seeking to engage in business activities at a professional level in a profession set out in Appendix 1603.D.1, if the Parties concerned have not agreed otherwise prior to the date of entry into force of this Agreement for those Parties. In establishing such a limit, the Party shall consult with the other Party concerned.

5. A Party establishing a numerical limit pursuant to paragraph 4, unless the Parties concerned agree otherwise:

(a) shall, for each year after the first year after the date of entry into force of this Agreement, consider increasing the numerical limit set out in Appendix 1603.D.4 by an amount to be established in consultation with the other Party concerned, taking into account the demand for temporary entry under this Section;

(b) shall not apply its procedures established pursuant to paragraph 1 to the temporary entry of a business person subject to the numerical limit, but may require the business person to comply with its other procedures applicable to the temporary entry of professionals; and

(c) may, in consultation with the other Party concerned, grant temporary entry under paragraph 1 to a business person who practices in a profession where accreditation, licensing, and certification requirements are mutually recognized by those Parties.

6. Nothing in paragraph 4 or 5 shall be construed to limit the ability of a business person to seek temporary entry under a Party's applicable immigration measures relating to the entry of professionals other than those adopted or maintained pursuant to paragraph 1.

7. Three years after a Party establishes a numerical limit pursuant to paragraph 4, it shall consult with the other Party concerned with a view to determining a date after which the limit shall cease to apply.

## Appendix 1603.A.1

## Business Visitors

**Research and Design**

- Technical, scientific and statistical researchers conducting independent research or research for an enterprise located in the territory of another Party.

**Growth, Manufacture and Production**

- Harvester owner supervising a harvesting crew admitted under applicable law.
- Purchasing and production management personnel conducting commercial transactions for an enterprise located in the territory of another Party.

**Marketing**

- Market researchers and analysts conducting independent research or analysis or research or analysis for an enterprise located in the territory of another Party.

- Trade fair and promotional personnel attending a trade convention.

**Sales**

- Sales representatives and agents taking orders or negotiating contracts for goods or services for an enterprise located in the territory of another Party but not delivering goods or providing services.

- Buyers purchasing for an enterprise located in the territory of another Party.

**Distribution**

- Transportation operators transporting goods or passengers to the territory of a Party from the territory of another Party or loading and transporting goods or passengers from the territory of a Party, with no unloading in that territory, to the territory of another Party.

- With respect to temporary entry into the territory of the United States, Canadian customs brokers performing brokerage duties relating to the export of goods from the territory of the United States to or through the territory of Canada.

- With respect to temporary entry into the territory of Canada, United States customs brokers performing brokerage duties relating to the export of goods from the territory of Canada to or through the territory of the United States.

- Customs brokers providing consulting services regarding the facilitation of the import or export of goods.

**After-Sales Service**

- Installers, repair and maintenance personnel, and supervisors, possessing specialized knowledge essential to a seller's contractual obligation, performing services or training workers to perform services, pursuant to a warranty or other service contract incidental to the sale of commercial or industrial equipment or machinery, including computer software, purchased from an enterprise located outside the territory of the Party into which temporary entry is sought, during the life of the warranty or service agreement.

**General Service**

- Professionals engaging in a business activity at a professional level in a profession set out in Appendix 1603.D.1.

- Management and supervisory personnel engaging in a commercial transaction for an enterprise located in the territory of another Party.

- Financial services personnel (insurers, bankers or investment brokers) engaging in commercial transactions for an enterprise located in the territory of another Party.

- Public relations and advertising personnel consulting with business associates, or attending or participating in conventions.

- Tourism personnel (tour and travel agents, tour guides or tour operators) attending or participating in conventions or conducting a tour that has begun in the territory of another Party.

- Tour bus operators entering the territory of a Party:

  (a) with a group of passengers on a bus tour that has begun in, and will return to, the territory of another Party;

  (b) to meet a group of passengers on a bus tour that will end, and the predominant portion of which will take place, in the territory of another Party; or

  (c) with a group of passengers on a bus tour to be unloaded in the territory of the Party into which temporary entry is sought, and returning with no passengers or reloading with the group for transportation to the territory of another Party.

- Translators or interpreters performing services as employees of an enterprise located in the territory of another Party.

**Definitions**

For purposes of this Appendix:

**territory of another Party** means the territory of a Party other than the territory of the Party into which temporary entry is sought;

**tour bus operator** means a natural person, including relief personnel accompanying or following to join, necessary for the operation of a tour bus for the duration of a trip; and

**transportation operator** means a natural person, other than a tour bus operator, including relief personnel accompanying or following to join, necessary for the operation of a vehicle for the duration of a trip.

## Appendix 1603.A.3

## Existing Immigration Measures

1. In the case of Canada, subsection 19(1) of the *Immigration Regulations, 1978*, SOR/78-172, as amended, made under the *Immigration Act*, R.S.C. 1985, c. I-2, as amended.

2. In the case of the United States, section 101(a)(15)(B) of the *Immigration and Nationality Act*, 1952, as amended.

3. In the case of Mexico, Chapter III of the *Ley General de Poblacion*, 1974, as amended.

# Appendix 1603.D.1

## Professionals

| PROFESSION[1] | MINIMUM EDUCATION REQUIREMENTS AND ALTERNATIVE CREDENTIALS |
|---|---|
| **General** | |
| Accountant | Baccalaureate or Licenciatura Degree; or C.P.A., C.A., C.G.A. or C.M.A. |
| Architect | Baccalaureate or Licenciatura Degree; or state/provincial license[2] |
| Computer Systems Analyst | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma[3] or Post-Secondary Certificate[4], and three years experience |
| Disaster Relief Insurance Claims Adjuster (claims adjuster employed by an insurance company located in the territory of a Party, or an independent claims adjuster) | Baccalaureate or Licenciatura Degree, and successful completion of training in the appropriate areas of insurance adjustment pertaining to disaster relief claims; or three years experience in claims adjustment and successful completion of training in the appropriate areas of insurance adjustment pertaining to disaster relief claims |
| Economist | Baccalaureate or Licenciatura Degree |
| Engineer | Baccalaureate or Licenciatura Degree; or state/provincial license |

---

1 A business person seeking temporary entry under this Appendix may also perform training functions relating to the profession, including conducting seminars.

2 "State/provincial license" and "state/provincial/federal license" mean any document issued by a state, provincial or federal government, as the case may be, or under its authority, but not by a local government, that permits a person to engage in a regulated activity or profession.

3 "Post-Secondary Diploma" means a credential issued, on completion of two or more years of post-secondary education, by an accredited academic institution in Canada or the United States.

4 "Post-Secondary Certificate" means a certificate issued, on completion of two or more years of post-secondary education at an academic institution, by the federal government of Mexico or a state government in Mexico, an academic institution recognized by the federal government or a state government, or an academic institution created by federal or state law.

| | |
|---|---|
| Forester | Baccalaureate or Licenciatura Degree; or state/provincial license |
| Graphic Designer | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma or Post-Secondary Certificate, and three years experience |
| Hotel Manager | Baccalaureate or Licenciatura Degree in hotel/restaurant management; or Post-Secondary Diploma or Post-Secondary Certificate in hotel/restaurant management, and three years experience in hotel/restaurant management |
| Industrial Designer | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma or Post-Secondary Certificate, and three years experience |
| Interior Designer | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma or Post-Secondary Certificate, and three years experience |
| Land Surveyor | Baccalaureate or Licenciatura Degree; or state/provincial/federal license |
| Landscape Architect | Baccalaureate or Licenciatura Degree |
| Lawyer (including Notary in the Province of Quebec) | LL.B., J.D., LL.L., B.C.L. or Licenciatura Degree (five years); or membership in a state/provincial bar |
| Librarian | M.L.S. or B.L.S. (for which another Baccalaureate or Licenciatura Degree was a prerequisite) |
| Management Consultant | Baccalaureate or Licenciatura Degree; or equivalent professional experience as established by statement or professional credential attesting to five years experience as a management consultant, or five years experience in a field of specialty related to the consulting agreement |
| Mathematician (including Statistician) | Baccalaureate or Licenciatura Degree |
| Range Manager/ Range Conservationalist | Baccalaureate or Licenciatura Degree |
| Research Assistant (working in a post-secondary educational institution) | Baccalaureate or Licenciatura Degree |

| | |
|---|---|
| Scientific Technician/Technologist[1] | Possession of (a) theoretical knowledge of any of the following disciplines: agricultural sciences, astronomy, biology, chemistry, engineering, forestry, geology, geophysics, meteorology or physics; and (b) the ability to solve practical problems in any of those disciplines, or the ability to apply principles of any of those disciplines to basic or applied research |
| Social Worker | Baccalaureate or Licenciatura Degree |
| Sylviculturist (including Forestry Specialist) | Baccalaureate or Licenciatura Degree |
| Technical Publications Writer | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma or Post-Secondary Certificate, and three years experience |
| Urban Planner (including Geographer) | Baccalaureate or Licenciatura Degree |
| Vocational Counsellor | Baccalaureate or Licenciatura Degree |
| **Medical/Allied Professional** | |
| Dentist | D.D.S., D.M.D., Doctor en Odontologia or Doctor en Cirugia Dental; or state/provincial license |
| Dietitian | Baccalaureate or Licenciatura Degree; or state/provincial license |
| Medical Laboratory Technologist (Canada)/Medical Technologist (Mexico and the United States)[2] | Baccalaureate or Licenciatura Degree; or Post-Secondary Diploma or Post-Secondary Certificate, and three years experience |
| Nutritionist | Baccalaureate or Licenciatura Degree |
| Occupational Therapist | Baccalaureate or Licenciatura Degree; or state/provincial license |
| Pharmacist | Baccalaureate or Licenciatura Degree; or state/provincial license |

---

[1] A business person in this category must be seeking temporary entry to work in direct support of professionals in agricultural sciences, astronomy, biology, chemistry, engineering, forestry, geology, geophysics, meteorology or physics.

[2] A business person in this category must be seeking temporary entry to perform in a laboratory chemical, biological, hematological, immunologic, microscopic or bacteriological tests and analyses for diagnosis, treatment or prevention of disease.

| | |
|---|---|
| Physician (teaching or research only) | M.D. or Doctor en Medicina; or state/provincial license |
| Physiotherapist/Physical Therapist | Baccalaureate or Licenciatura Degree; or state/provincial license |
| Psychologist | State/provincial license; or Licenciatura Degree |
| Recreational Therapist | Baccalaureate or Licenciatura Degree |
| Registered Nurse | State/provincial license; or Licenciatura Degree |
| Veterinarian | D.V.M., D.M.V. or Doctor en Veterinaria; or state/provincial license |

**Scientist**

| | |
|---|---|
| Agriculturist (including Agronomist) | Baccalaureate or Licenciatura Degree |
| Animal Breeder | Baccalaureate or Licenciatura Degree |
| Animal Scientist | Baccalaureate or Licenciatura Degree |
| Apiculturist | Baccalaureate or Licenciatura Degree |
| Astronomer | Baccalaureate or Licenciatura Degree |
| Biochemist | Baccalaureate or Licenciatura Degree |
| Biologist | Baccalaureate or Licenciatura Degree |
| Chemist | Baccalaureate or Licenciatura Degree |
| Dairy Scientist | Baccalaureate or Licenciatura Degree |
| Entomologist | Baccalaureate or Licenciatura Degree |
| Epidemiologist | Baccalaureate or Licenciatura Degree |
| Geneticist | Baccalaureate or Licenciatura Degree |
| Geologist | Baccalaureate or Licenciatura Degree |
| Geochemist | Baccalaureate or Licenciatura Degree |
| Geophysicist (including Oceanographer in Mexico and the United States) | Baccalaureate or Licenciatura Degree |
| Horticulturist | Baccalaureate or Licenciatura Degree |
| Meteorologist | Baccalaureate or Licenciatura Degree |

| | |
|---|---|
| Pharmacologist | Baccalaureate or Licenciatura Degree |
| Physicist (including Oceanographer in Canada) | Baccalaureate or Licenciatura Degree |
| Plant Breeder | Baccalaureate or Licenciatura Degree |
| Poultry Scientist | Baccalaureate or Licenciatura Degree |
| Soil Scientist | Baccalaureate or Licenciatura Degree |
| Zoologist | Baccalaureate or Licenciatura Degree |
| **Teacher** | |
| College | Baccalaureate or Licenciatura Degree |
| Seminary | Baccalaureate or Licenciatura Degree |
| University | Baccalaureate or Licenciatura Degree |

## Appendix 1603.D.4

## United States

1. Beginning on the date of entry into force of this Agreement as between the United States and Mexico, the United States shall annually approve as many as 5,500 initial petitions of business persons of Mexico seeking temporary entry under Section D of Annex 1603 to engage in a business activity at a professional level in a profession set out in Appendix 1603.D.1.

2. For purposes of paragraph 1, the United States shall not take into account:

(a) the renewal of a period of temporary entry;

(b) the entry of a spouse or children accompanying or following to join the principal business person;

(c) an admission under section 101(a)(15)(H)(i)(b) of the *Immigration and Nationality Act*, 1952, as may be amended, including the worldwide numerical limit established by section 214(g)(1)(A) of that Act; or

(d) an admission under any other provision of section 101(a)(15) of that Act relating to the entry of professionals.

3. Paragraphs 4 and 5 of Section D of Annex 1603 shall apply as between the United States and Mexico for no longer than:

(a) the period that such paragraphs or similar provisions may apply as between the United States and any other Party other than Canada or any non-Party; or

(b) 10 years after the date of entry into force of this Agreement as between such Parties,

whichever period is shorter.

## Annex 1604.2

## Provision of Information

The obligations under Article 1604(2) shall take effect with respect to Mexico one year after the date of entry into force of this Agreement.

## Annex 1608

## Country - Specific Definitions

For purposes of this Chapter:

**citizen** means, with respect to Mexico, a national or a citizen according to the existing provisions of Articles 30 and 34, respectively, of the Mexican Constitution; and

**existing** means, as between:

(a) Canada and Mexico, and Mexico and the United States, in effect on the date of entry into force of this Agreement; and

(b) Canada and the United States, in effect on January 1, 1989.

## Annex 1604.2

### Provision of Information

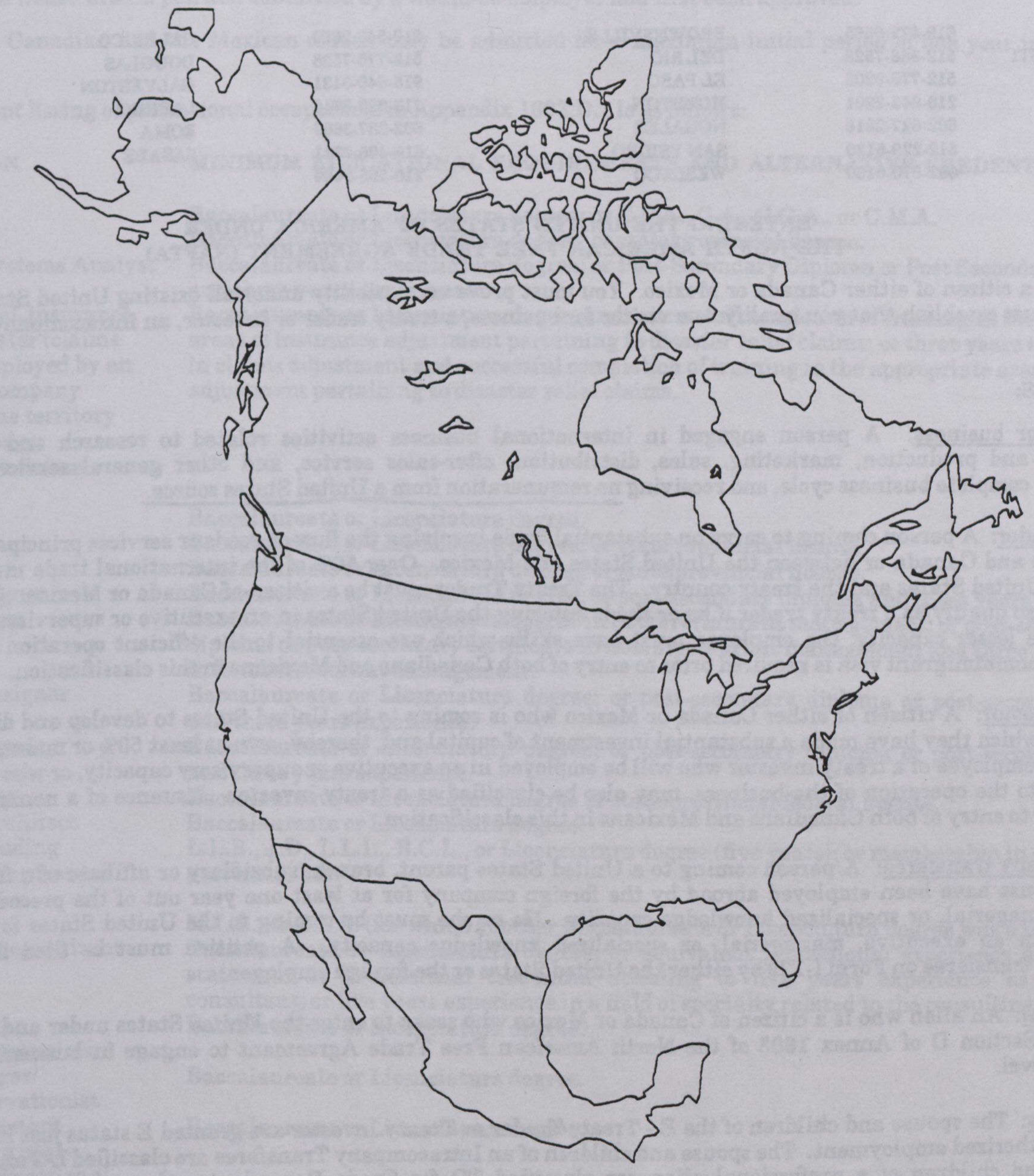
The obligations under Article 1604(2) shall take effect with respect to Mexico one year after the date of entry into force of this Agreement.

# Appendix L

# Additional Border Crossing Information

U.S. Department of Justice
Immigration and Naturalization Service

# The North American Free Trade Agreement The United States, Canada, and Mexico



## What You Should Know to Make Business Travel Easier

### Avoid Surprises at the Border - Call Immigration First

Form M-316 (Rev. 12-17-93) N

The following Ports of Entry have Free Trade Specialists who may be able to provide you with the detailed information an necessary documentation you request. The Specialists cannot guarantee the admission of any applicant.

**NORTHERN BORDER**

| | | | | | |
|---|---|---|---|---|---|
| ALBANY | 518-472-7140 | BLAINE | 206-332-8511 | BUFFALO | 716-885-3367 |
| CALAIS | 207-454-2546 | CALGARY | 403-221-1728 | CHAMPLAIN | 518-298-8433 |
| DERBY LINE | 802-873-3316 | DETROIT | 313-568-6019 | EASTPORT | 208-267-2183 |
| EDMONTON | 403-~~890-8549~~ | GRAND PORTAGE | 218-475-2494 | HIGHGATE SPRINGS | 802-868-3349 |
| HOULTON | 207-945-0041 | INTERNATIONAL FALLS | 218-283-8611 | JACKMAN | 207-668-3151 |
| MADAWASKA | 207-728-4565 | NIAGARA | 716-282-3141 | NORTON | 802-822-5217 |
| NOYES | 218-823-6291 | OROVILLE | 509-476-3132 | PORT HURON | 810-982-0493 |
| PORTAL | 701-926-4221 | RICHFORD | 802-848-7766 | SAULT STE. MARIE | 906-632-8822 |
| SUMAS | 206-988-4781 | SWEETGRASS | 406-335-2911 | THOUSAND ISLAND | 315-482-2681 |
| TORONTO | 416-676-2563 | VAN BUREN | 207-868-2202 | VANCEBORO | 207-788-3813 |
| VANCOUVER | 604-278-2520 | WINNIPEG | 204-783-5747 | | |

**SOUTHERN BORDER**

| | | | | | |
|---|---|---|---|---|---|
| ANDRADE | 619-572-0565 | BROWNSVILLE | 210-548-2620 | CALEXICO | 619-357-114: |
| CORPUS CHRISTI | 512-888-7528 | DEL RIO | 512-775-7528 | DOUGLAS | 602-364-553: |
| EAGLE PASS | 512-773-9205 | EL PASO | 915-540-3131 | GALVESTON | 409-766-3581 |
| HIDALGO | 210-843-2201 | HOUSTON | 713-233-3710 | LAREDO | 512-722-540( |
| LUKEVILLE | 602-627-2816 | NOGALES | 602-287-3609 | ROMA | 210-849-167( |
| SAN ANTONIO | 512-229-5130 | SAN YSIDRO | 619-428-7311 | SASABE | 602-287-881( |
| TUCSON | 602-670-6130 | WESLACO | 210-565-9409 | | |

**ENTERING THE UNITED STATES OF AMERICA UNDER THE NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)**

You must be a citizen of either Canada or Mexico. You must prove admissibility under all existing United States immigı laws. You must establish that you qualify as a visitor for business, a treaty trader or investor, an intracompany transferee professional.

**DEFINITIONS:**

1. Visitor for business: A person engaged in international business activities related to research and design, gr manufacture and production, marketing, sales, distribution, after-sales service, and other general services reflectin activities in a complete business cycle, and receiving no remuneration from a United States source.

2. Treaty Trader: A person coming to carry on substantial trade involving the flow of goods or services principally betwee United States and Canada or between the United States and Mexico. Over 50% of the international trade must be cond between the United States and the treaty country. The Treaty Trader must be a citizen of Canada or Mexico. An employe trader may also qualify as a treaty trader if he or she is entering the United States in an executive or supervisory capacity; employed in a lesser capacity, the employee must have skills which are essential to the efficient operation of the bus: Issuance of a nonimmigrant visa is required prior to entry of both Canadians and Mexicans in this classification.

3. Treaty Investor: A citizen of either Canada or Mexico who is coming to the United States to develop and direct a bon: enterprise in which they have made a substantial investment of capital and, thereby, own at least 50% or maintain a contr interest. The employee of a treaty investor who will be employed in an executive or supervisory capacity, or who has skills v are essential to the operation of the business, may also be classified as a treaty investor. Issuance of a nonimmigrant v required prior to entry of both Canadians and Mexicans in this classification.

4. Intracompany transferee: A person coming to a United States parent, branch, subsidiary or affiliate of a foreign com The person must have been employed abroad by the foreign company for at least one year out of the preceding three executive, managerial, or specialized knowledge capacity. He or she must be coming to the United States for the purp employment in an executive, managerial, or specialized knowledge capacity. A petition must be filed in behalf c intracompany transferee on Form I-129 by either the United States or the foreign employer.

5. Professional: An alien who is a citizen of Canada or Mexico who seeks to enter the United States under and pursuant t provisions of Section D of Annex 1603 of the North American Free Trade Agreement to engage in business activities professional level.

6. Dependents: The spouse and children of the E - Treaty Trader or Treaty Investor are granted E status just like the prir but are not authorized employment. The spouse and children of an Intracompany Transferee are classified L-2 and may not The spouse and children of a professional alien are classified TD for Trade Dependent and are not authorized to a employment.

**DOCUMENTATION:**

1. A Canadian citizen seeking status as a visitor for business, an intracompany transferee, or a professional, may app admission at a Port of Entry without first obtaining a nonimmigrant visa.

2. A Mexican citizen seeking status as a visitor for business, an intracompany transferee, or a professional, may apply for admission at a Port of Entry after obtaining a nonimmigrant visa or Border Crossing Card when seeking status as a visitor for business, and the requisite nonimmigrant visa according classification as an intracompany transferee or a professional.

3. Both a Canadian and a Mexican citizen must proceed to a United States Consulate and have the requisite nonimmigrant visa inserted in their passport or other travel document when seeking status as a treaty trader or investor. This applies even if the Canadian citizen obtained a change of status to that of a treaty trader or investor. This is one of the few times when a Canadian citizen would need to present a visa at the time of application for admission.

**PROCEDURES FOR PROFESSIONAL STATUS**

1. A Canadian citizen seeking professional status would present evidence of citizenship, a letter of employment offering employment in professional status, evidence that he or she is in possession of said status, and appropriate evidence of compliance with state licensure requirements.

2. A Mexican citizen seeking professional status would present a nonimmigrant visa issued by a United States Consulate. This visa would be issued after a petition submitted by a would-be employer had first been approved.

3. Both the Canadian and the Mexican citizen may be admitted for a maximum initial period of one year in a professional status.

4. The current listing of professional occupations in Appendix 1603.D.1 is as follows:

| PROFESSION | MINIMUM EDUCATIONAL REQUIREMENTS AND ALTERNATIVE CREDENTIALS[1] |
|---|---|
| Accountant | Baccalaureate or Licenciatura degree; or C.P.A., C.A., C.G.A., or C.M.A. |
| Architect | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Computer Systems Analyst | Baccalaureate or Licenciatura degree; or Post-Secondary Diploma or Post Secondary Certificate and three years' experience. |
| Disaster relief insurance claims adjuster (claims adjuster employed by an insurance company located in the territory of a Party, or an independent claims adjuster) | Baccalaureate or Licenciatura degree and successful completion of training in the appropriate areas of insurance adjustment pertaining to disaster relief claims; or three years experience in claims adjustment and successful completion of training in the appropriate areas of insurance adjustment pertaining to disaster relief claims. |
| Economist | Baccalaureate or Licenciatura degree. |
| Engineer | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Forester | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Graphic designer | Baccalaureate or Licenciatura degree; or post-secondary diploma and three years experience. |
| Hotel manager | Baccalaureate or Licenciatura degree in hotel/restaurant management; or post-secondary diploma or post-secondary certificate in hotel/restaurant management and three years experience in hotel/restaurant management. |
| Industrial designer | Baccalaureate or Licenciatura degree; or post-secondary diploma or post-secondary certificate, and three years experience. |
| Interior designer | Baccalaureate or Licenciatura degree; or post-secondary diploma or post-secondary certificate, and three years experience. |
| Land surveyor | Baccalaureate or Licenciatura degree or state/provincial/federal license. |
| Landscape architect | Baccalaureate or Licenciatura degree. |
| Lawyer (including Notary in the province of Quebec) | L.L.B., J.D., L.L.L., B.C.L., or Licenciatura degree (five years); or membership in a state/ provincial bar. |
| Librarian | M.L.S., or B.L.S. (for which another Baccalaureate or Licenciatura degree was a prerequisite). |
| Management consultant | Baccalaureate or Licenciatura degree; or equivalent professional experience as established by statement or professional credential attesting to five years experience as a management consultant, or five years experience in a field of specialty related to the consulting agreement. |
| Mathematician (including statistician) | Baccalaureate or Licenciatura degree. |
| Range manager/ Range conservationist | Baccalaureate or Licenciatura degree. |
| Research assistant (working in a post-secondary educational institution) | Baccalaureate or Licenciatura degree. |

[1] For information regarding qualifications for the positions, additions or subtractions from Appendix 1603.D.1, and related information, you should contact your local Immigration and Naturalization Service office, or a Free Trade Specialist at one of the numbers listed on page 2.

| PROFESSION | MINIMUM EDUCATIONAL REQUIREMENTS AND ALTERNATIVE CREDENTIALS |
|---|---|
| Scientific technician/ technologist | Possession of (a) theoretical knowledge of any of the following disciplines: agricultural sciences, astronomy, biology, chemistry, engineering, forestry, geology, geophysics, meteorology, or physics; and (b) the ability to solve practical problems in any of those disciplines, or the ability to apply principles of any of those disciplines to basic or applied research. |
| Social worker | Baccalaureate or Licenciatura degree. |
| Sylviculturist (including forestry specialist) | Baccalaureate or Licenciatura degree. |
| Technical publications writer | Baccalaureate or Licenciatura degree, or post-secondary diploma or post-secondary certificate, and three years experience. |
| Urban planner (including geographer) | Baccalaureate or Licenciatura degree. |
| Vocational counselor | Baccalaureate or Licenciatura degree. |
| **MEDICAL/ALLIED PROFESSIONALS** | |
| Dentist | D.D.S., D.M.D., Doctor en Odontologia or Doctor en Cirugia Dental or state/provincial license. |
| Dietitian | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Medical laboratory technologist(Canada)/ medical technologist (Mexico and the United States) | Baccalaureate or Licenciatura degree; or post-secondary diploma or post secondary certificate, and three years experience. |
| Nutritionist | Baccalaureate or Licenciatura degree. |
| Occupational therapist | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Pharmacist | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Physician (teaching or research only) | M.D., Doctor en Medicina: or state/provincial license. |
| Physiotherapist/ physical therapist | Baccalaureate or Licenciatura degree; or state/provincial license. |
| Psychologist | State/provincial license; or Licenciatura degree. |
| Recreational therapist | Baccalaureate or Licenciatura degree. |
| Registered nurse | State/provincial license or Licenciatura degree. |
| Veterinarian | D.V.M., D.M.V., or Doctor en Veterinaria; or state/provincial license. |
| **SCIENTIST** | |
| Agriculturist (agronomist) | Baccalaureate or Licenciatura degree. |
| Animal breeder | Baccalaureate or Licenciatura degree. |
| Animal scientist | Baccalaureate or Licenciatura degree. |
| Apiculturist | Baccalaureate or Licenciatura degree. |
| Astronomer | Baccalaureate or Licenciatura degree. |
| Biochemist | Baccalaureate or Licenciatura degree. |
| Biologist | Baccalaureate or Licenciatura degree. |
| Chemist | Baccalaureate or Licenciatura degree. |
| Dairy scientist | Baccalaureate or Licenciatura degree. |
| Entomologist | Baccalaureate or Licenciatura degree. |
| Epidemiologist | Baccalaureate or Licenciatura degree. |
| Geneticist | Baccalaureate or Licenciatura degree. |
| Geochemist | Baccalaureate or Licenciatura degree. |
| Geologist | Baccalaureate or Licenciatura degree. |
| Geophysicist (including oceanographer in Mexico and the United States) | Baccalaureate or Licenciatura degree. |
| Horticulturist | Baccalaureate or Licenciatura degree. |
| Meteorologist | Baccalaureate or Licenciatura degree. |
| Pharmacologist | Baccalaureate or Licenciatura degree. |
| Physicist (including Oceanographer in Canada) | Baccalaureate or Licenciatura degree. |
| Plant Breeder | Baccalaureate or Licenciatura degree. |
| Poultry scientist | Baccalaureate or Licenciatura degree. |
| Soil scientist | Baccalaureate or Licenciatura degree. |
| Zoologist | Baccalaureate or Licenciatura degree. |
| **TEACHER** | |
| College | Baccalaureate or Licenciatura degree. |
| Seminary | Baccalaureate or Licenciatura degree. |
| University | Baccalaureate or Licenciatura degree. |

☆ U.S. GOVERNMENT PRINTING OFFICE 1993 - 301-164 - 415/92723

# Appendix M

# Harmonized Tariff Schedule

General Rules of Interpretation:

## GENERAL RULES OF INTERPRETATION

Classification of goods in the tariff schedule shall be governed by the following principles:

1. The table of contents, alphabetical index, and titles of sections, chapters and sub-chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative section or chapter notes and, provided such headings or notes do not otherwise require, according to the following provisions:

2. (a) Any reference in a heading to an article shall be taken to include a reference to that article incomplete or unfinished, provided that, as entered, the incomplete or unfinished article has the essential character of the complete or finished article. It shall also include a reference to that article complete or finished (or falling to be classified as complete or finished by virtue of this rule), entered unassembled or disassembled.

   (b) Any reference in a heading to a material or substance shall be taken to include a reference to mixtures or combinations of that material or substance with other materials or substances. Any reference to goods of a given material or substance shall be taken to include a reference to goods consisting wholly or partly of such material or substance. The classification of goods consisting of more than one material or substance shall be according to the principles of rule 3.

3. When, by application of rule 2(b) or for any other reason, goods are, *prima facie*, classifiable under two or more headings, classification shall be effected as follows:

   (a) The heading which provides the most specific description shall be preferred to headings providing a more general description. However, when two or more headings each refer to part only of the materials or substances contained in mixed or composite goods or to part only of the items in a set put up for retail sale, those headings are to be regarded as equally specific in relation to those goods, even if one of them gives a more complete or precise description of the goods.

   (b) Mixtures, composite goods consisting of different materials or made up of different components, and goods put up in sets for retail sale, which cannot be classified by reference to 3(a), shall be classified as if they consisted of the material or component which gives them their essential character, insofar as this criterion is applicable.

   (c) When goods cannot be classified by reference to 3(a) or 3(b), they shall be classified under the heading which occurs last in numerical order among those which equally merit consideration.

4. Goods which cannot be classified in accordance with the above rules shall be classified under the heading appropriate to the goods to which they are most akin.

5. In addition to the foregoing provisions, the following rules shall apply in respect of the goods referred to therein:

   (a) Camera cases, musical instrument cases, gun cases, drawing instrument cases, necklace cases and similar containers, specially shaped or fitted to contain a specific article or set of articles, suitable for long-term use and entered with the articles for which they are intended, shall be classified with such articles when of a kind normally sold therewith. This rule does not, however, apply to containers which give the whole its essential character;

   (b) Subject to the provisions of rule 5(a) above, packing materials and packing containers entered with the goods therein shall be classified with the goods if they are of a kind normally used for packing such goods. However, this provision is not binding when such packing materials or packing containers are clearly suitable for repetitive use.

6. For legal purposes, the classification of goods in the subheadings of a heading shall be determined according to the terms of those subheadings and any related subheading notes and, *mutatis mutandis*, to the above rules, on the understanding that only subheadings at the same level are comparable. For the purposes of this rule, the relative section, chapter and subchapter notes also apply, unless the context otherwise requires.

Additional U.S. Rules of Interpretation:

## ADDITIONAL U.S. RULES OF INTERPRETATION

1. In the absence of special language or context which otherwise requires--

   (a) a tariff classification controlled by use (other than actual use) is to be determined in accordance with the use in the United States at, or immediately prior to, the date of importation, of goods of that class or kind to which the imported goods belong, and the controlling use is the principal use;

   (b) a tariff classification controlled by the actual use to which the imported goods are put in the United States is satisfied only if such use is intended at the time of importation, the goods are so used and proof thereof is furnished within 3 years after the date the goods are entered;

   (c) a provision for parts of an article covers products solely or principally used as a part of such articles but a provision for "parts" or "parts and accessories" shall not prevail over a specific provision for such part or accessory; and

   (d) the principles of section XI regarding mixtures of two or more textile materials shall apply to the classification of goods in any provision in which a textile material is named.

## GENERAL NOTES

1. Tariff Treatment of Imported Goods. All goods provided for in this schedule and imported into the customs territory of the United States from outside thereof are subject to duty or exempt therefrom as prescribed in general notes 3 and 4.

2. Customs Territory of the United States. The term "customs territory of the United States", as used in the tariff schedule, includes only the States, the District of Columbia and Puerto Rico.

3. Rates of Duty. The rates of duty in the "Rates of Duty" columns designated 1 ("General" and "Special") and 2 of the tariff schedule apply to goods imported into the customs territory of the United States as hereinafter provided in this note:

(a) Rate of Duty Column 1.

(i) Except as provided in subparagraph (iv) of this paragraph, the rates of duty in column 1 are rates which are applicable to all products other than those of countries enumerated in paragraph (b) of this note. Column 1 is divided into two subcolumns, "General" and "Special", which are applicable as provided below.

(ii) The "General" subcolumn sets forth the general most-favored-nation (MFN) rates which are applicable to products of those countries described in subparagraph (i) above which are not entitled to special tariff treatment as set forth below.

(iii) The "Special" subcolumn reflects rates of duty under one or more special tariff treatment programs described in paragraph (c) of this note and identified in parentheses immediately following the duty rate specified in such subcolumn. These rates apply to those products which are properly classified under a provision for which a special rate is indicated and for which all of the legal requirements for eligibility for such program or programs have been met. Where a product is eligible for special treatment under more than one program, the lowest rate of duty provided for any applicable program shall be imposed. Where no special rate of duty is provided for a provision, or where the country from which a product otherwise eligible for special treatment was imported is not designated as a beneficiary country under a program appearing with the appropriate provision, the rates of duty in the "General" subcolumn of column 1 shall apply.

(iv) Products of Insular Possessions.

(A) Except as provided in additional U.S. note 5 of chapter 91 and except as provided in additional U.S. note 2 of chapter 96, and except as provided in section 423 of the Tax Reform Act of 1986, goods imported from insular possessions of the United States which are outside the customs territory of the United States are subject to the rates of duty set forth in column 1 of the tariff schedule, except that all such goods the growth or product of any such possession, or manufactured or produced in any such possession from materials the growth, product or manufacture of any such possession or of the customs territory of the United States, or of both, which do not contain foreign materials to the value of more than 70 percent of their total value (or more than 50 percent of their total value with respect to goods described in section 213(b) of the Caribbean Basin Economic Recovery Act), coming to the customs territory of the United States directly from any such possession, and all goods previously imported into the customs territory of the United States with payment of all applicable duties and taxes imposed upon or by reason of importation which were shipped from the United States, without remission, refund or drawback of such duties or taxes, directly to the possession from which they are being returned by direct shipment, are exempt from duty.

(B) In determining whether goods produced or manufactured in any such insular possession contain foreign materials to the value of more than 70 percent, no material shall be considered foreign which either--

(1) at the time such goods are entered, or

(2) at the time such material is imported into the insular possession,

may be imported into the customs territory from a foreign country, and entered free of duty; except that no goods containing material to which (2) of this subparagraph applies shall be exempt from duty under subparagraph (A) unless adequate documentation is supplied to show that the material has been incorporated into such goods during the 18-month period after the date on which such material is imported into the insular possession.

General note 3(a)(iv) (con.):

(C) Subject to the limitations imposed under sections 503(b) and 504(c) of the Trade Act of 1974, goods designated as eligible under section 503 of such Act which are imported from an insular possession of the United States shall receive duty treatment no less favorable than the treatment afforded such goods imported from a beneficiary developing country under title V of such Act.

(D) Subject to the provisions in section 213 of the Caribbean Basin Economic Recovery Act, goods which are imported from insular possessions of the United States shall receive duty treatment no less favorable than the treatment afforded such goods when they are imported from a beneficiary country under such Act.

(E) Subject to the provisions in section 204 of the Andean Trade Preference Act, goods which are imported from insular possessions of the United States shall receive duty treatment no less favorable than the treatment afforded such goods when they are imported from a beneficiary country under such Act.

(b) Rate of Duty Column 2. Notwithstanding any of the foregoing provisions of this note, the rates of duty shown in column 2 shall apply to products, whether imported directly or indirectly, of the following countries and areas pursuant to section 401 of the Tariff Classification Act of 1962, to section 231 or 257(e)(2) of the Trade Expansion Act of 1962, to section 404(a) of the Trade Act of 1974 or to any other applicable section of law, or to action taken by the President thereunder:

| | | |
|---|---|---|
| Afghanistan | Kampuchea | Tajikistan |
| Azerbaijan | Laos | Uzbekistan |
| Cuba | North Korea | Vietnam |

(c) Products Eligible for Special Tariff Treatment.

(i) Programs under which special tariff treatment may be provided, and the corresponding symbols for such programs as they are indicated in the "Special" subcolumn, are as follows:

| | |
|---|---|
| Generalized System of Preferences . . . . . . . . . . . . . . . . . | A or A* |
| Automotive Products Trade Act . . . . . . . . . . . . . . . . . . . | B |
| Agreement on Trade in Civil Aircraft . . . . . . . . . . . . . . . | C |
| North American Free Trade Agreement: | |
| Goods of Canada, under the terms of general note 12 to this schedule. . . . . . . . . . . . . . | CA |
| Goods of Mexico, under the terms of general note 12 to this schedule . . . . . . . . . . . . . . | MX |
| Caribbean Basin Economic Recovery Act . . . . . . . . . . . . . | E or E* |
| United States-Israel Free Trade Area . . . . . . . . . . . . . . . | IL |
| Andean Trade Preference Act . . . . . . . . . . . . . . . . . . . . | J or J* |

(ii) Articles which are eligible for the special tariff treatment provided for in general notes 4 through 12 and which are subject to temporary modification under any provision of subchapters I and II of chapter 99 shall be subject, for the period indicated in the "Effective Period" column in chapter 99, to rates of duty as follows:

(A) if a rate of duty for which the article may be eligible is set forth in the "Special" subcolumn in chapter 99 followed by one or more symbols described above, such rate shall apply in lieu of the rate followed by the corresponding symbol(s) set forth for such article in the "Special" subcolumn in chapters 1 to 98; or

(B) if "No change" appears in the "Special" subcolumn in chapter 99 and subdivision (c)(ii)(A) above does not apply, the rate of duty in the "General" subcolumn in chapter 99 or the applicable rate(s) of duty set forth in the "Special" subcolumn in chapters 1 to 98, whichever is lower, shall apply.

(iii) Unless the context requires otherwise, articles which are eligible for the special tariff treatment provided for in general notes 4 through 12 and which are subject to temporary modification under any provision of subchapters III or IV of chapter 99 shall be subject, for the period indicated in chapter 99, to the rates of duty in the "General" subcolumn in such chapter.

General note 3(c) (con.):

(iv) Whenever any rate of duty set forth in the "Special" subcolumn in chapters 1 to 98 is equal to or higher than, the corresponding rate of duty provided in the "General" subcolumn in such chapters, such rate of duty in the "Special" subcolumn shall be deleted; except that, if the rate of duty in the "Special" subcolumn is an intermediate stage in a series of staged rate reductions for that provision, such rate shall be treated as a suspended rate and shall be set forth in the "Special" subcolumn, followed by one or more symbols described above, and followed by an "s" in parentheses. If no rate of duty for which the article may be eligible is provided in the "Special" subcolumn for a particular provision in chapters 1 to 98, the rate of duty provided in the "General" subcolumn shall apply.

4. Products of Countries Designated Beneficiary Developing Countries for Purposes of the Generalized System of Preferences (GSP).

(a) The following countries, territories and associations of countries eligible for treatment as one country (pursuant to section 502(a)(3) of the Trade Act of 1974 (19 U.S.C. 2462(a)(3)) are designated beneficiary developing countries for the purposes of the Generalized System of Preferences, provided for in Title V of the Trade Act of 1974, as amended (19 U.S.C. 2461 *et seq.*):

Independent Countries

Albania
Angola
Antigua and Barbuda
Argentina
Bahamas, The
Bahrain
Bangladesh
Barbados
Belize
Benin
Bhutan
Bolivia
Botswana
Brazil
Bulgaria
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Chile
Colombia
Comoros
Congo
Costa Rica
Cote d'Ivoire
Cyprus
Czech Republic
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Estonia
Ethiopia
Fiji
Gambia, The
Ghana
Grenada
Guatemala
Guinea
Guinea Bissau
Guyana
Haiti
Honduras
Hungary
India
Indonesia
Israel
Jamaica
Jordan
Kenya
Kiribati
Kyrgyzstan
Latvia
Lebanon
Lesotho
Lithuania
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Mauritius
Morocco
Mozambique
Namibia
Nepal
Niger
Oman
Pakistan
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Russia
Rwanda
St. Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Slovakia
Solomon Islands
Somalia
Sri Lanka
Suriname
Swaziland
Syria 1/
Tanzania
Thailand
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Tuvalu
Uganda
Uruguay
Vanuatu
Venezuela
Western Samoa
Yemen Arab Republic (Sanaa)
Zaire
Zambia
Zimbabwe
Each of the former republics of the Socialist Federal Republic of Yugoslavia other than Serbia and Montenegro

1/ Syria deleted, effective August 16,1992.

General note 4(a) (con.):

Non-Independent Countries and Territories

Anguilla
Aruba
British Indian Ocean Territory
Cayman Islands
Christmas Island (Australia)
Cocos (Keeling) Islands
Cook Islands
Falkland Islands (Islas Malvinas)
French Polynesia
Gibraltar
Greenland
Heard Island and McDonald Islands
Macau
Montserrat
Netherlands Antilles
New Caledonia
Niue
Norfolk Island
Pitcairn Islands
Saint Helena
Tokelau
Trust Territory of the Pacific Islands (Palau)
Turks and Caicos Islands
Virgin Islands, British
Wallis and Futuna
Western Sahara

Associations of Countries (treated as one country)

Member Countries of the Cartagena Agreement (Andean Group)

Consisting of:

Bolivia
Colombia
Ecuador
Peru
Venezuela

Members of the Association of South East Asian Nations (ASEAN) Eligible for GSP except Brunei Darussalam and Singapore

Consisting of:

Indonesia
Malaysia
Philippines
Thailand

Member Countries of the Caribbean Common Market (CARICOM)

Consisting of:

Antigua and Barbuda
Bahamas, The
Barbados
Belize
Dominica
Grenada
Guyana
Jamaica
Montserrat
St. Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Trinidad and Tobago

CHAPTER 37

PHOTOGRAPHIC OR CINEMATOGRAPHIC GOODS



Notes

1. This chapter does not cover waste or scrap materials.

2. In this chapter the word "photographic" relates to a process which permits the formation of visible images directly or indirectly by the action of light or other forms of radiation on sensitive surfaces.

| Heading/ Subheading | Stat. Suffix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 3701 | | Photographic plates and film in the flat, sensitized, unexposed, of any material other than paper, paperboard or textiles; instant print film in the flat, sensitized, unexposed, whether or not in packs: | | | | |
| 3701.10.00 | | For X-ray | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Medical, other than dental | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |
| 3701.20.00 | | Instant print film | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | For color photography (polychrome) | No. | | | |
| | 60 | Other | No. | | | |
| 3701.30.00 | 00 | Other plates and film, with any side exceeding 255 mm | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | | Other: | | | | |
| 3701.91.00 | | For color photography (polychrome) | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Disc film | No. | | | |
| | 60 | Other | X | | | |
| 3701.99 | | Other: | | | | |
| 3701.99.30 | 00 | Dry plates | $m^2$...... | 4.9% | Free (A*,CA,E,IL, J,MX) | 20% |
| 3701.99.60 | | Other | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Graphic arts film | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |
| 3702 | | Photographic film in rolls, sensitized, unexposed, of any material other than paper, paperboard or textiles; instant print film in rolls, sensitized, unexposed: | | | | |
| 3702.10.00 | | For X-ray | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Medical, other than dental | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |
| 3702.20.00 | 00 | Instant print film | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | | Other film, without sprocket holes, of a width not exceeding 105 mm: | | | | |
| 3702.31.00 | 00 | For color photography (polychrome) | No...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.32.00 | | Other, with silver halide emulsion | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Microfilm | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |
| 3702.39.00 | 00 | Other | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | | Other film, without sprocket holes, of a width exceeding 105 mm: | | | | |
| 3702.41.00 | 00 | Of a width exceeding 610 mm and of a length exceeding 200 m, for color photography (polychrome) | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.42.00 | 00 | Of a width exceeding 610 mm and of a length exceeding 200 m, other than for color photography | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.43.00 | 00 | Of a width exceeding 610 mm and of a length not exceeding 200 m | $m^2$...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.44.00 | | Of a width exceeding 105 mm but not exceeding 610 mm | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Graphic arts film | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 3702 (con.) | | Photographic film in rolls, sensitized, unexposed, of any material other than paper, paperboard or textiles; instant print film in rolls, sensitized, unexposed (con.): | | | | |
| | | Other film, for color photography (polychrome): | | | | |
| 3702.51.00 | 00 | Of a width not exceeding 16 mm and of a length not exceeding 14 m. | No.....v $m^2$ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.52.00 | | Of a width not exceeding 16 mm and of a length exceeding 14 m. | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | Reversal color film. | $m^2$ | | | |
| | 60 | Other. | $m^2$ | | | |
| 3702.53.00 | | Of a width exceeding 16 mm but not exceeding 35 mm and of a length not exceeding 30 m, for slides. | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | 35 mm. | No. | | | |
| | 60 | Other. | No. | | | |
| 3702.54.00 | | Of a width exceeding 16 mm but not exceeding 35 mm and of a length not exceeding 30 m, other than for slides. | | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| | 30 | 35 mm. | No. | | | |
| | 60 | Other. | No. | | | |
| 3702.55.00 | | Of a width exceeding 16 mm but not exceeding 35 mm and of a length exceeding 30 m. | ........ | Free | | 38¢/$m^2$ |
| | 30 | Reversal color film. | $m^2$ | | | |
| | 60 | Other. | $m^2$ | | | |
| 3702.56.00 | | Of a width exceeding 35 mm. | ........ | Free | | 38¢/$m^2$ |
| | 30 | Motion-picture film. | m $m^2$ v | | | |
| | 60 | Other. | $m^2$ | | | |
| | | Other: | | | | |
| 3702.91.00 | 00 | Of a width not exceeding 16 mm and of a length not exceeding 14 m. | No...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.92.00 | 00 | Of a width not exceeding 16 mm and of a length exceeding 14 m. | $m^2$ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.93.00 | 00 | Of a width exceeding 16 mm but not exceeding 35 mm and of a length not exceeding 30 m. | No...... | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3702.94.00 | 00 | Of a width exceeding 16 mm but not exceeding 35 mm and of a length exceeding 30 m. | $m^2$...... | Free | | 38¢/$m^2$ |
| 3702.95.00 | 00 | Of a width exceeding 35 mm. | $m^2$ | 3.7% | Free (A*,CA,E,IL, J,MX) | 25% |
| 3703 | | Photographic paper, paperboard and textiles, sensitized, unexposed: | | | | |
| 3703.10 | | In rolls of a width exceeding 610 mm: | | | | |
| 3703.10.30 | | Silver halide papers. | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 30% |
| | | For pictorial use (continuous tone): | | | | |
| | 30 | For color photography (polychrome). | $m^2$ | | | |
| | 60 | Other. | $m^2$ | | | |
| | 90 | Other (line reproduction). | $m^2$ | | | |
| 3703.10.60 | 00 | Other. | $m^2$...... | 3.1% | Free (A*,CA,E,IL, J,MX) | 30% |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 3703 (con.) | | Photographic paper, paperboard and textiles, sensitized, unexposed (con.): | | | | |
| 3703.20 | | Other, for color photography (polychrome): | | | | |
| 3703.20.30 | | Silver halide papers | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 30% |
| | 30 | For pictorial use (continuous tone) | $m^2$ | | | |
| | 60 | Other (line reproduction) | $m^2$ | | | |
| 3703.20.60 | 00 | Other | $m^2$ | 3.1% | Free (A*,CA,E,IL, J,MX) | 30% |
| 3703.90 | | Other: | | | | |
| 3703.90.30 | | Silver halide papers | ........ | 3.7% | Free (A*,CA,E,IL, J,MX) | 30% |
| | | For pictorial use (continuous tone): | | | | |
| | 30 | In sheets | $m^2$ | | | |
| | 60 | Other | $m^2$ | | | |
| | 90 | Other (line reproduction) | $m^2$ | | | |
| 3703.90.60 | 00 | Other | $m^2$ | 2.8% | Free (A*,CA,E,IL, J,MX) | 35% |
| 3704.00.00 | 00 | Photographic plates, film, paper, paperboard and textiles, exposed but not developed | $m^2$ | Free | | $3.88/$m^2$ |
| 3705 | | Photographic plates and film, exposed and developed, other than motion-picture film: | | | | |
| 3705.10.00 | 00 | For offset reproduction | No. | Free | | 25% |
| 3705.20 | | Microfilms: | | | | |
| 3705.20.10 | 00 | Of articles of subheading 4901.91.00, 4901.99.00, 4902.10.00, 4902.90, 4903.00.00, 4906.00.00, 4911.10.00 or 9503.60.10 | X | Free | | Free |
| 3705.20.50 | 00 | Other | X | Free | | 25% |
| 3705.90.00 | 00 | Other | X | Free | | Free |
| 3706 | | Motion-picture film, exposed and developed, whether or not incorporating sound track or consisting only of sound track: | | | | |
| 3706.10 | | Of a width of 35 mm or more: | | | | |
| 3706.10.30 | 00 | Sound recordings on motion-picture film suitable for use in connection with motion-picture exhibits | m | 0.66¢/m | Free (A*,CA,E,IL, J,MX) | 3.3¢/m |
| 3706.10.60 | | Other | ........ | Free | | 10¢/m |
| | | Feature films: | | | | |
| | 30 | Positive release prints | m | | | |
| | 60 | Other | m | | | |
| | 90 | Other | m | | | |
| 3706.90.00 | | Other | ........ | Free | | 10¢/m |
| | 30 | Positive release prints | m | | | |
| | 60 | Other | m | | | |
| 3707 | | Chemical preparations for photographic uses (other than varnishes, glues, adhesives and similar preparations); unmixed products for photographic uses, put up in measured portions or put up for retail sale in a form ready for use: | | | | |
| 3707.10.00 | 00 | Sensitizing emulsions | X | 3% | Free (A*,CA,E,IL, J,MX) | 20% |
| 3707.90 | | Other: | | | | |
| 3707.90.30 | 00 | Chemical preparations for photographic uses | kg | 8.5% 1/ | Free (A*,CA,E,IL, J,MX) | 15.4¢/kg + 50% |
| 3707.90.60 | 00 | Unmixed products for photographic uses, put up in measured portions or put up for retail sale in a form ready for use | kg | 1.5% 1/ | Free (A*,CA,E,IL, J,MX) | 4.5% |

1/ See heading 9902.37.07.

CHAPTER 39

PLASTICS AND ARTICLES THEREOF



Notes

1. Throughout the tariff schedule the expression "plastics" means those materials of headings 3901 to 3914 which are or have been capable, either at the moment of polymerization or at some subsequent stage, of being formed under external influence (usually heat and pressure, if necessary with a solvent or plasticizer) by molding, casting, extruding, rolling or other process into shapes which are retained on the removal of the external influence.

   Throughout the tariff schedule, any reference to "plastics" also includes vulcanized fiber. The expression, however, does not apply to materials regarded as textile materials of section XI.

2. This chapter does not cover:

   (a) Waxes of heading 2712 or 3404;

   (b) Separate chemically defined organic compounds (chapter 29);

   (c) Heparin or its salts (heading 3001);

   (d) Stamping foils of heading 3212;

   (e) Organic surface-active agents or preparations of heading 3402;

   (f) Run gums or ester gums (heading 3806);

   (g) Synthetic rubber, as defined for the purposes of chapter 40, or articles thereof;

   (h) Saddlery or harness (heading 4201) or trunks, suitcases, handbags or other containers of heading 4202;

   (ij) Plaits, wickerwork or other articles of chapter 46;

   (k) Wall coverings of heading 4814;

   (l) Goods of section XI (textiles and textile articles);

   (m) Articles of section XII (for example, footwear, headgear, umbrellas, sun umbrellas, walking-sticks, whips, riding-crops or parts thereof);

   (n) Imitation jewelry of heading 7117;

   (o) Articles of section XVI (machines and mechanical or electrical appliances);

   (p) Parts of aircraft or vehicles of section XVII;

   (q) Articles of chapter 90 (for example, optical elements, spectacle frames, drawing instruments);

   (r) Articles of chapter 91 (for example, clock or watch cases);

   (s) Articles of chapter 92 (for example, musical instruments or parts thereof);

   (t) Articles of chapter 94 (for example, furniture, lamps and lighting fittings, illuminated signs, prefabricated buildings);

   (u) Articles of chapter 95 (for example, toys, games, sports equipment); or

   (v) Articles of chapter 96 (for example, brushes, buttons, slide fasteners, combs, mouthpieces or stems for smoking pipes, cigarette holders or the like, parts of vacuum flasks or the like, pens, mechanical pencils).

3. Headings 3901 to 3911 apply only to goods of a kind produced by chemical synthesis, falling in the following categories:

   (a) Liquid synthetic polyolefins of which less than 60 percent by volume distills at 300°C, after conversion to 1,013 millibars when a reduced-pressure distillation method is used (headings 3901 and 3902);

   (b) Resins, not highly polymerized, of the coumarone-indene type (heading 3911);

   (c) Other synthetic polymers with an average of at least five monomer units;

   (d) Silicones (heading 3910);

   (e) Resols (heading 3909) and other prepolymers.

4. For the purposes of this chapter, except where the context otherwise requires, copolymers (including co-polycondensates, co-polyaddition products, block copolymers and graft copolymers) and polymer blends are to be classified in the heading covering polymers of that comonomer which predominates by weight over every other single comonomer, comonomers whose polymers fall in the same heading being regarded as constituting a single comonomer.

   If no single comonomer predominates, copolymers or polymer blends, as the case may be, are to be classified in the heading which occurs last in numerical order among those which equally merit consideration.

   The expression "copolymers" covers all polymers in which no single monomer contributes 95 percent or more by weight to the total polymer content.

5. Chemically modified polymers, that is, those in which only appendages to the main polymer chain have been changed by chemical reaction, are to be classified in the heading appropriate to the unmodified polymer. This provision does not apply to graft copolymers.

6. In headings 3901 to 3914, the expression "primary forms" applies only to the following forms:

   (a) Liquids and pastes, including dispersions (emulsions and suspensions) and solutions;

   (b) Blocks of irregular shape, lumps, powders (including molding powders), granules, flakes and similar bulk forms.

7. Heading 3915 does not apply to waste, parings and scrap of a single thermoplastic material, transformed into primary forms (headings 3901 to 3914).

8. For the purposes of heading 3917, the expression "tubes, pipes and hoses" means hollow products, whether semimanufactures or finished products, of a kind generally used for conveying, conducting or distributing gases or liquids (for example, ribbed garden hose, perforated tubes). This expression also includes sausage casings and other lay-flat tubing. However, except for the last mentioned, those having an internal cross section other than round, oval, rectangular (in which the length does not exceed 1.5 times the width) or in the shape of a regular polygon are not to be regarded as tubes, pipes and hoses, but as profile shapes.

9. For the purposes of heading 3918, the expression "wall or ceiling coverings of plastics" applies to products in rolls, of a width not less than 45 cm, suitable for wall or ceiling decoration, consisting of plastics fixed permanently on a backing of any material other than paper, the layer of plastics (on the face side) being grained, embossed, colored, design-printed or otherwise decorated.

10. In headings 3920 and 3921, the expression "plates, sheets, film, foil and strip" applies only to plates, sheets, film, foil and strip (other than those of chapter 54) and to blocks of regular geometric shape, whether or not printed or otherwise surface-worked, uncut or cut into rectangles (including squares) but not further worked (even if when so cut they become articles ready for use).

11. Heading 3925 applies only to the following articles, not being products covered by any of the earlier headings of subchapter II:

    (a) Reservoirs, tanks (including septic tanks), vats and similar containers, of a capacity exceeding 300 liters;

    (b) Structural elements used, for example, in floors, walls or partitions, ceilings or roofs;

    (c) Gutters and fittings therefor;

    (d) Doors, windows and their frames and thresholds for doors;

    (e) Balconies, balustrades, fencing, gates and similar barriers;

    (f) Shutters, blinds (including venetian blinds) and similar articles and parts and fittings thereof;

    (g) Large-scale shelving for assembly and permanent installation, for example, in shops, workshops, warehouses;

    (h) Ornamental architectural features, for example, flutings, cupolas, dovecotes; and

    (ij) Fittings and mountings intended for permanent installation in or on doors, windows, staircases, walls or other parts of buildings, for example, knobs, handles, hooks, brackets, towel rails, switch plates and other protective plates.

Subheading Note

1. Within any one heading of this chapter, copolymers (including co-polycondensates, co-polyaddition products, block copolymers and graft copolymers) are to be classified in the same subheading as homopolymers of the predominant comonomer and chemically modified polymers of the kind specified in note 5 are to be classified in the same subheading as the unmodified polymer, provided that such copolymers or chemically modified polymers are not more specifically covered by any other subheading and that there is no residual subheading named "Other" in the series of subheadings concerned. Polymer blends are to be classified in the same subheading as copolymers (or homopolymers, as the case may be) of the same monomers in the same proportions.

Additional U.S. Notes

1. For the purposes of this chapter, the term "elastomeric" means a plastics material which after cross-linking can be stretched at 20°C to at least three times its original length and that, after having been stretched to twice its original length and the stress removed, returns within five minutes to less than 150 percent of its original length. Elastomeric plastics may also contain fillers, extenders, pigments or rubber-processing chemicals, whether or not such plastics material, after the addition of such fillers, extenders, pigments or chemicals, can meet the tests specified in the first part of this note.

2. For the purposes of heading 3916, the rate of duty "Free (B)" appearing in the "Special" subcolumn applies only to articles measuring not more than 38.1 cm in length.

3. For the purposes of heading 3917, with repect to tubes, pipes and hoses, the rate of duty "Free (C)" appearing in the "Special" subcolumn applies only to tubes, pipes and hoses having attached fittings.

4. For the purposes of heading 3921, the rate of duty "Free (B)" appearing in the "Special" subcolumn applies only to articles measuring not more than 38.1 cm in width and not more than 45.7 cm in length.

Statistical Note

1. For the purposes of statistical reporting number 3907.60.0010 the term "bottle-grade resins" refers to uncompounded resins having an intrinsic viscosity of at least 0.68 but not more than 0.86 deciliters per gram, as determined by ASTM D2857-70.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| | | I. PRIMARY FORMS | | | | |
| 3901 | | Polymers of ethylene, in primary forms: | | | | |
| 3901.10.00 | 00 | Polyethylene having a specific gravity of less than 0.94 | kg | 12.5% | Free (A,CA,E,IL, J,MX) | 43% |
| | 10 | Linear low density polyethylene | kg | | | |
| | 20 | Low density polyethylene, except linear low density polyethylene | kg | | | |
| | 30 | Medium density polyethylene | kg | | | |
| 3901.20.00 | 00 | Polyethylene having a specific gravity of 0.94 or more | kg | 12.5% | Free (A,CA,E,IL, J,MX) | 43% |
| 3901.30.00 | 00 | Ethylene-vinyl acetate copolymers | kg | 5.3% | Free (A,CA,E,IL, J,MX) | 43.5% |
| 3901.90 | | Other: | | | | |
| 3901.90.10 | 00 | Elastomeric | kg | Free | | 20% |
| 3901.90.50 | 00 | Other | kg | 2.2¢/kg + 7.7% | Free (A,CA,E,IL, J,MX) | 2.2¢/kg + 33.5% |
| 3902 | | Polymers of propylene or of other olefins, in primary forms: | | | | |
| 3902.10.00 | 00 | Polypropylene | kg | 12.5% | Free (A,CA,E, IL,J) 4% (MX) | 33.5% |
| 3902.20 | | Polyisobutylene: | | | | |
| 3902.20.10 | 00 | Elastomeric | kg | Free | | 20% |
| 3902.20.50 | 00 | Other | kg | 2.2¢/kg + 7.7% | Free (A,CA,E,IL, J,MX) | 2.2¢/kg + 33.5% |
| 3902.30.00 | 00 | Propylene copolymers | kg | 2.2¢/kg + 7.7% | Free (A,CA,E,IL, J,MX) | 2.2¢/kg + 33.5% |
| 3902.90.00 | | Other | | 2.2¢/kg + 7.7% | Free (A,CA,E,IL, J,MX) | 2.2¢/kg + 33.5% |
| | 10 | Polybutylene | kg | | | |
| | 50 | Other | kg | | | |
| 3903 | | Polymers of styrene, in primary forms: | | | | |
| | | Polystyrene: | | | | |
| 3903.11.00 | 00 | Expandable | kg | 0.9¢/kg + 9.2% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 46% |
| 3903.19.00 | 00 | Other | kg | 0.9¢/kg + 9.2% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 46% |
| 3903.20.00 | 00 | Styrene-acrylonitrile (SAN) copolymers | kg | 1.1¢/kg + 9.1% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 45.5% |
| 3903.30.00 | 00 | Acrylonitrile-butadiene-styrene (ABS) copolymers | kg | 0.7¢/kg + 9.4% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 47% |
| 3903.90 | | Other: | | | | |
| 3903.90.10 | 00 | Methyl methacrylate-butadiene-styrene (MBS) copolymers | kg | 7.6% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 67.5% |
| 3903.90.50 | 00 | Other | kg | 0.9¢/kg + 9.2% | Free (A,CA,E,IL, J,MX) | 15.4¢/kg + 46% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| 3924 | | Tableware, kitchenware, other household articles and toilet articles, of plastics: | | | | |
| 3924.10 | | Tableware and kitchenware: | | | | |
| 3924.10.10 | 00 | Salt, pepper, mustard and ketchup dispensers and similar dispensers | X | 3.4% | Free (A,E,IL, J,MX) 1.3% (CA) | 80% |
| 3924.10.20 | 00 | Plates, cups, saucers, soup bowls, cereal bowls, sugar bowls, creamers, gravy boats, serving dishes and platters | kg | 7% | Free (A,E,IL, J,MX) 2.8% (CA) | 84.5% |
| 3924.10.30 | 00 | Trays | No. | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) | 40% |
| 3924.10.50 | 00 | Other | X | 3.4% | Free (A,E,IL, J,MX) 1.3% (CA) | 80% |
| 3924.90 | | Other: | | | | |
| 3924.90.10 | | Curtains and drapes, including panels and valances; napkins, table covers, mats, scarves, runners, doilies, centerpieces, antimacassars and furniture slipcovers; and like furnishings | ........ | 3.36% | Free (A,E,J,MX) 0.3% (IL) 1.3% (CA) | 25% |
| | 10 | Curtains and drapes | kg | | | |
| | 50 | Other | X | | | |
| 3924.90.20 | 00 | Picture frames | X | 3.4% | Free (A,E,IL, J,MX) 1.3% (CA) | 80% |
| 3924.90.55 | 00 | Other | X | 3.4% | Free (A,E,IL, J,MX) 1.3% (CA) | 80% |
| 3925 | | Builders' ware of plastics, not elsewhere specified or included: | | | | |
| 3925.10.00 | 00 | Reservoirs, tanks, vats and similar containers, of a capacity exceeding 300 liters | X | 6.3% | Free (A,E,IL, J,MX) 2.5% (CA) | 56% |
| 3925.20.00 | 00 | Doors, windows and their frames and thresholds for doors | X | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) | 80% |
| 3925.30 | | Shutters, blinds (including venetian blinds) and similar articles and parts thereof: | | | | |
| 3925.30.10 | 00 | Blinds (including venetian blinds) | No. | 3.36% | Free (A,E,J,MX) 0.3% (IL) 1.3% (CA) | 25% |
| 3925.30.50 | 00 | Other | X | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) | 80% |
| 3925.90.00 | 00 | Other | X | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) 1/ | 80% |

1/ See subheading 9905.39.27.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | 1 Special | 2 |
|---|---|---|---|---|---|---|
| 3926 | | Other articles of plastics and articles of other materials of headings 3901 to 3914: | | | | |
| 3926.10.00 | 00 | Office or school supplies | X | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) | 80% |
| 3926.20 | | Articles of apparel and clothing accessories (including gloves): | | | | |
| | | Gloves: | | | | |
| 3926.20.10 | | Seamless | | 3.7% | Free (A,E,IL, J,MX) 1.4% (CA) | 25% |
| | 10 | Surgical and medical | doz.prs. | | | |
| | | Other: | | | | |
| | 20 | Disposable | doz.prs. | | | |
| | 50 | Other | doz.prs. | | | |
| | | Other: | | | | |
| | | Specially designed for use in sports: | | | | |
| 3926.20.20 | 00 | Baseball and softball gloves and mitts | No. | 6% | Free (A,E,IL, J,MX) 2.4% (CA) | 30% |
| 3926.20.30 | 00 | Other | No. | 3% | Free (A,E,IL, J,MX) 1.2% (CA) | 30% |
| 3926.20.40 | | Other | | 14% | Free (E,J) 1.4% (IL) 5.6% (CA) 11.2% (MX) | 25% |
| | 10 | Disposable | doz.prs. | | | |
| | 50 | Other | doz.prs. | | | |
| 3926.20.50 | | Other | | 5% | Free (A,E,J,MX) 0.5% (IL) 2% (CA) | 25% |
| | 10 | Aprons | doz. | | | |
| | 50 | Other | doz. | | | |
| 3926.30 | | Fittings for furniture, coachwork or the like: | | | | |
| 3926.30.10 | 00 | Handles and knobs | kg. | 6.5% | Free (A,B,E,IL, J,MX) 2.6% (CA) 1/ | 57.5% |
| 3926.30.50 | 00 | Other | kg. | 5.3% | Free (B,E,IL,J) 2.1% (CA) 1/ 4.2% (MX) | 80% |
| 3926.40.00 | 00 | Statuettes and other ornamental articles | X | 5.3% | Free (A,E,IL, J,MX) 2.1% (CA) | 80% |
| 3926.90 | | Other: | | | | |
| 3926.90.10 | 00 | Buckets and pails | No. | 3.4% | Free (A,E,IL, J,MX) 1.3% (CA) | 80% |
| 3926.90.15 | 00 | Nursing nipples and pacifiers | Gross | 3.1% | Free (A,CA,E,IL, J,MX) | 25% |
| 3926.90.20 | 00 | Ice bags; douche bags, enema bags, colostomy bags, hot water bottles, and fittings therefor; invalid and similar nursing cushions; crutch tips and grips; dress shields; finger cots; pessaries; prophylactics; sanitary belts; bulbs for syringes; syringes (other than hypodermic syringes) and fittings therefor, not in part of glass or metal | X | 4.2% | Free (A,E,IL, J,MX) 1.6% (CA) | 25% |

1/ See subheadings 9905.00.00, 9905.39.13 and 9905.39.14.

CHAPTER 48

PAPER AND PAPERBOARD; ARTICLES OF PAPER PULP, OF PAPER OR OF PAPERBOARD



**Notes**

1. This chapter does not cover:

   (a) Articles of chapter 30;

   (b) Stamping foils of heading 3212;

   (c) Perfumed papers or papers impregnated or coated with cosmetics (chapter 33);

   (d) Paper or cellulose wadding impregnated, coated or covered with soap or detergent (heading 3401), or with polishes, creams or similar preparations (heading 3405);

   (e) Sensitized paper or paperboard of headings 3701 to 3704;

   (f) Paper-reinforced stratified sheeting of plastics, or one layer of paper or paperboard coated or covered with a layer of plastics, the latter constituting more than half the total thickness, or articles of such materials, other than wallcoverings of heading 4814 (chapter 39);

   (g) Articles of heading 4202 (for example, travel goods);

   (h) Articles of chapter 46 (manufactures of plaiting material);

   (ij) Paper yarn or textile articles of paper yarn (section XI);

   (k) Articles of chapter 64 or chapter 65;

   (l) Abrasive paper or paperboard (heading 6805) or paper- or paperboard-backed mica (heading 6814) (paper and paperboard coated with mica powder are, however, to be classified in this chapter);

   (m) Metal foil backed with paper or paperboard (section XV);

   (n) Articles of heading 9209; or

   (o) Articles of chapter 95 (for example, toys, games, sports equipment) or chapter 96 (for example, buttons).

2. Subject to the provisions of note 6, headings 4801 to 4805 include paper and paperboard which have been subjected to calendering, super-calendering, glazing or similar finishing, false water-marking or surface sizing, and also paper, paperboard, cellulose wadding and webs of cellulose fibers, colored or marbled throughout the mass by any method. Except where heading 4803 otherwise requires, these headings do not apply to paper, paperboard, cellulose wadding or webs of cellulose fibers which have been otherwise processed, for example, by coating or impregnation.

3. In this chapter the expression "newsprint" means uncoated paper of a kind used for the printing of newspapers, of which not less than 65 percent by weight of the total fiber content consists of wood fibers obtained by a mechanical process, unsized or very lightly sized, having a smoothness on each side not exceeding 200 seconds Bekk, weighing not less than 40 g per square meter and not more than 57 g per square meter and having an ash content by weight not exceeding 8 percent.

4. In addition to hand-made paper and paperboard, heading 4802 covers only paper and paperboard made mainly from bleached pulp or from pulp obtained by a mechanical process and satisfying any of the following criteria:

   For paper or paperboard weighing not more than 150 $g/m^2$:

   (a) Containing 10 percent or more of fibers obtained by a mechanical process, and

      1. weighing not more than 80 $g/m^2$, or

      2. colored throughout the mass; or

   (b) Containing more than 8 percent ash, and

      1. weighing not more than 80 $g/m^2$, or

      2. colored throughout the mass; or

   (c) Containing more than 3 percent ash and having a brightness of 60 percent or more*; or

   (d) Containing more than 3 percent but not more than 8 percent ash, having a brightness under 60 percent* and a burst index equal to or less than 2.5 $kPa/g/m^2$; or

   (e) Containing 3 percent ash or less, having a brightness of 60 percent or more* and a burst index equal to or less than 2.5 $kPa/g/m^2$.

For paper or paperboard weighing more than 150 g/m² :

(a) Colored throughout the mass; or

(b) Having a brightness of 60 percent or more*, and

1. a caliper of 225 micrometers (microns) or less, or

2. a caliper of more than 225 micrometers but not more than 508 micrometers (microns) and an ash content of more than 3 percent; or

(c) Having a brightness of less than 60 percent*, a caliper of 254 micrometers (microns) or less and an ash content of more than 8 percent.

*Brightness is to be measured by the Elrepho, GE or any equivalent internationally recognized brightness testing method.

Heading 4802 does not, however, cover filter paper or paperboard (including teabag paper) or felt paper or paperboard.

5. In this chapter "kraft paper and paperboard" means paper and paperboard of which not less than 80 percent by weight of the total fiber content consists of fibers obtained by the chemical sulfate or soda processes.

6. Paper, paperboard, cellulose wadding and webs of cellulose fibers answering to a description in two or more of the headings 4801 to 4811 are to be classified under that one of such headings which occurs last in numerical order in the tariff schedule.

7. Headings 4801, 4802, 4804 to 4808, 4810 and 4811 apply only to paper, paperboard, cellulose wadding and webs of cellulose fibers:

(a) In strips or rolls of a width exceeding 15 cm; or

(b) In rectangular (including square) sheets with one side exceeding 36 cm and the other side exceeding 15 cm in unfolded state.

Except that hand-made paper and paperboard in any size or shape as made directly and having all its edges deckled remains classified, subject to the provisions of note 6, in heading 4802.

8. For the purposes of heading 4814, the expression "wallpaper and similar wall coverings" applies only to:

(a) Paper in rolls, of a width of not less than 45 cm and not more than 160 cm, suitable for wall or ceiling decoration:

(i) Grained, embossed, surface-colored, design-printed or otherwise surface-decorated (e.g., with textile flock), whether or not coated or covered with transparent protective plastics;

(ii) With an uneven surface resulting from the incorporation of particles of wood, straw, etc.;

(iii) Coated or covered on the face side with plastics, the layer of plastics being grained, embossed, colored, design-printed or otherwise decorated; or

(iv) Covered on the face side with plaiting material, whether or not bound together in parallel strands or woven;

(b) Borders and friezes of paper, treated as above, whether or not in rolls, suitable for wall or ceiling decoration;

(c) Wall coverings of paper made up of several panels, in rolls or sheets, printed so as to make up a scene, design or motif when applied to a wall.

Products on a base of paper or paperboard, suitable for use both as floor coverings and as wall coverings are to be classified in heading 4815.

9. Heading 4820 does not cover loose sheets or cards, cut to size, whether or not printed, embossed or perforated.

10. Heading 4823 applies, *inter alia*, to perforated paper or paperboard cards for Jacquard or similar machines and paper lace.

11. Except for the articles of heading 4814 or 4821, paper, paperboard, cellulose wadding and articles thereof, printed with motifs, characters or pictorial representations, which are not merely incidental to the primary use of the goods, fall in chapter 49.

Subheading Notes

1. For the purposes of subheading 4804.11 and 4804.19, "kraftliner" means machine-finished or machine-glazed paper and paperboard, of which not less than 80 percent by weight of the total fiber content consists of wood fibers obtained by the chemical sulfate or soda processes, in rolls, weighing more than 115 g/m² and having a minimum Mullen bursting strength, as indicated in the following table, or the linearly interpolated or extrapolated equivalent for any other weight:

| Weight (g/m²) | Minimum Mullen bursting strength (kPa) |
|---|---|
| 115 | 393 |
| 125 | 417 |
| 200 | 637 |
| 300 | 824 |
| 400 | 961 |

2. For the purposes of subheadings 4804.21 and 4804.29, "sack kraft paper" means machine-finished paper, of which not less than 80 percent by weight of the total fiber content consists of fibers obtained by the chemical sulfate or soda processes, in rolls, weighing not less than 60 g/m² but not more than 115 g/m² and meeting one of the following sets of specifications:

   (a) Having a Mullen burst index of not less than 38 and a stretch factor of more than 4.5 percent in the cross direction and of more than 2 percent in the machine direction.

   (b) Having minima for tear and tensile as indicated in the following table, or the linearly interpolated equivalent for any other weight:

| Weight | Minimum tear | | Minimum tensile | |
|---|---|---|---|---|
| | Machine direction | Machine direction plus cross direction | Cross direction | Machine direction plus cross direction |
| (grams per square meter) | (millinewtons) | | (kilonewtons per meter) | |
| 60 | 700 | 1,510 | 1.9 | 6 |
| 70 | 830 | 1,790 | 2.3 | 7.2 |
| 80 | 965 | 2,070 | 2.8 | 8.3 |
| 100 | 1,230 | 2,635 | 3.7 | 10.6 |
| 115 | 1,425 | 3,060 | 4.4 | 12.3 |

3. For the purposes of subheading 4805.10, "semichemical fluting paper" means paper, in rolls, of which not less than 65 percent by weight of the total fiber content consists of unbleached hardwood fibers obtained by a semichemical pulping process, and having a CMT 60 (Concora Medium Test with 60 minutes of conditioning) crush resistance exceeding 20 kgf at 50 percent relative humidity, at 23°C.

4. For the purposes of subheading 4805.30, "sulfite wrapping paper" means machine-glazed paper, of which more than 40 percent by weight of the total fiber content consists of wood fibers obtained by the chemical sulfite process, having an ash content not exceeding 8 percent and having a Mullen burst index of not less than 15.

5. For the purposes of subheading 4810.21, "light-weight coated paper" means paper, coated on both sides, of a total weight not exceeding 72 g/m², with a coating weight not exceeding 15 g/m² per side, on a base of which not less than 50 percent by weight of the total fiber content consists of wood fibers obtained by a mechanical process.

Additional U.S. Notes

1. For the purposes of this chapter the provisions for cellulose wadding and webs of cellulose fibers cover only products obtained from the pulp of chapter 47.

2. Samples used in determining the weight of paper or paperboard classifiable in this chapter according to weight shall be conditioned in an atmosphere at 50 percent (± 2 percent) relative humidity and at a temperature of 23°C (± 2°C).

Statistical Note

1. **The term "standard newsprint paper" covers printing papers of heading 4801 which conform to the following specifications:**

| | |
|---|---|
| Weight: | **Not less than 46.3 $g/m^2$ nor more than 57 $g/m^2$.** |
| Size: | **Rolls not less than 33 cm wide and not less than 71 cm in diameter; sheets not less than 51 cm by 76 cm.** |
| Thickness: | **Not more than 0.11 mm.** |
| Sizing: | **Time of transudation of water shall be not more than 10 seconds by the ground glass method.** |
| Ash Content: | **Not more than 6.5 percent.** |
| Color and Finish: | **White; or tinted shades of pink, peach or green in rolls; not more than 50 percent gloss when tested with the Ingersoll glarimeter.** |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4801.00.00 | | Newsprint, in rolls or sheets | | Free | | Free |
| | 20 | Standard newsprint paper | t | | | |
| | 40 | Other | t | | | |
| 4802 | | Uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and punch card stock and punch tape paper, in rolls or sheets, other than paper of heading 4801 or 4803; handmade paper and paperboard: | | | | |
| 4802.10.00 | 00 | Handmade paper and paperboard | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 17.5% |
| 4802.20.00 | 00 | Paper and paperboard of a kind used as a base for photo-sensitive, heat-sensitive or electro-sensitive paper or paperboard | $m^2$ | Free | | 20% |
| 4802.30 | | Carbonizing base paper: | | | | |
| 4802.30.20 | 00 | Weighing not over 15 $g/m^2$ | kg | 2.6% | Free (A,CA,E,IL,J, MX) | 38% |
| 4802.30.40 | 00 | Weighing over 15 $g/m^2$ | kg | 2% | Free (A,CA,E,IL,J, MX) | 30.5% |
| 4802.40.00 | 00 | Wallpaper base (hanging paper) | kg | Free | | 10% |
| | | Other paper and paperboard, not containing fibers obtained by a mechanical process or of which not more than 10 percent by weight of the total fiber content consists of such fibers: | | | | |
| 4802.51 | | Weighing less than 40 $g/m^2$: | | | | |
| 4802.51.10 | 00 | Writing paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 28% |
| 4802.51.40 | 00 | India and bible paper | kg | 1.8% | Free (A,CA,E,IL,J, MX) | 18% |
| 4802.51.90 | 00 | Other | kg | Free | | 11.5% |
| 4802.52 | | Weighing 40 $g/m^2$ or more but not more than 150 $g/m^2$: | | | | |
| 4802.52.10 | 00 | Writing paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 28% |
| 4802.52.15 | 00 | Cover paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 30% |
| 4802.52.20 | 00 | Drawing paper | kg | 1.6% | Free (A,CA,E,IL,J, MX) | 15.5% |
| 4802.52.40 | 00 | India and bible paper | kg | 1.8% | Free (A,CA,E,IL,J, MX) | 18% |
| 4802.52.90 | 00 | Other | kg | Free | | 11.5% |
| 4802.53 | | Weighing more than 150 $g/m^2$: | | | | |
| 4802.53.10 | 00 | Writing paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 28% |
| 4802.53.15 | 00 | Cover paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 30% |
| 4802.53.20 | 00 | Drawing paper | kg | 1.6% | Free (A,CA,E,IL,J, MX) | 15.5% |
| 4802.53.90 | | Other | | 1.6% | Free (A,CA,E,IL,J, MX) | 24.5% |
| | 40 | Bristols | kg | | | |
| | 80 | Other | kg | | | |
| 4802.60 | | Other paper and paperboard, of which more than 10 percent by weight of the total fiber content consists of fibers obtained by a mechanical process: | | | | |
| 4802.60.10 | 00 | Writing paper and cover paper | kg | 2.4% | Free (A,CA,E,IL,J, MX) | 28% |
| 4802.60.20 | 00 | Drawing paper | kg | 1.6% | Free (A,CA,E,IL,J, MX) | 15.5% |
| 4802.60.90 | 00 | Other | kg | Free | | 11.5% |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| 4803.00 | | Toilet or facial tissue stock, towel or napkin stock and similar paper of a kind used for household or sanitary purposes, cellulose wadding and webs of cellulose fibers, whether or not creped, crinkled, embossed, perforated, surface-colored, surface-decorated or printed, in rolls of a width exceeding 36 cm or in rectangular (including square) sheets with at least one side exceeding 36 cm in unfolded state: | | | | |
| 4803.00.20 | 00 | Cellulose wadding | kg | 3.5% | Free (A,CA,E,IL,J, MX) | 24% |
| 4803.00.40 | 00 | Other | kg | Free | | 36% |
| 4804 | | Uncoated kraft paper and paperboard, in rolls or sheets, other than that of heading 4802 or 4803: | | | | |
| | | Kraftliner: | | | | |
| 4804.11.00 | 00 | Unbleached | kg | Free | | 20% |
| 4804.19.00 | 00 | Other | kg | Free | | 20% |
| | | Sack kraft paper: | | | | |
| 4804.21.00 | 00 | Unbleached | kg | Free | | 30% |
| 4804.29.00 | 00 | Other | kg | Free | | 30% |
| | | Other kraft paper and paperboard weighing 150 $g/m^2$ or less: | | | | |
| 4804.31 | | Unbleached: | | | | |
| | | Condenser paper: | | | | |
| 4804.31.10 | 00 | Weighing over 15 $g/m^2$ but not over 30 $g/m^2$ | kg | 2% | Free (A,CA,E,IL,J, MX) | 20.5% |
| 4804.31.20 | 00 | Other | kg | 4.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 4804.31.40 | | Wrapping paper | | Free | | 30% |
| | 20 | Bag or sack paper | kg | | | |
| | 40 | Other | kg | | | |
| 4804.31.60 | 00 | Other | kg | 4% | Free (A,CA,E,IL,J, MX) | 30% |
| 4804.39 | | Other: | | | | |
| 4804.39.20 | 00 | Condenser paper | kg | 4.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 4804.39.40 | | Wrapping paper | | Free | | 30% |
| | 20 | Bag or sack paper | kg | | | |
| | 40 | Other | kg | | | |
| 4804.39.60 | | Other | | 4% | Free (A,CA,E,IL,J, MX) | 30% |
| | 20 | Base stock for trays, dishes, plates, cups and the like | kg | | | |
| | 40 | Other | kg | | | |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4804 (con.) | | Uncoated kraft paper and paperboard, in rolls or sheets, other than that of heading 4802 or 4803 (con.): | | | | |
| | | Other kraft paper and paperboard weighing more than 150 g/m² but less than 225 g/m²: | | | | |
| 4804.41 | | Unbleached: | | | | |
| 4804.41.20 | 00 | Wrapping paper | kg | Free | | 30% |
| 4804.41.40 | 00 | Other | kg | 4% | Free (A,CA,E,IL,J, MX) | 30% |
| 4804.42.00 | | Bleached uniformly throughout the mass and of which more than 95 percent by weight of the total fiber content consists of wood fibers obtained by a chemical process | | Free | | 30% |
| | 10 | Base stock for milk cartons and other beverage containers | kg | | | |
| | | Other: | | | | |
| | 20 | Folding carton stock | kg | | | |
| | 30 | Base stock for trays, dishes, plates, cups and the like | kg | | | |
| | | Other: | | | | |
| | 40 | Base stock for packaging | kg | | | |
| | 50 | Other | kg | | | |
| 4804.49.00 | 00 | Other | kg | 4% | Free (A,CA,E,IL,J, MX) | 30% |
| | | Other kraft paper and paperboard weighing 225 g/m² or more: | | | | |
| 4804.51.00 | 00 | Unbleached | kg | Free | | 30% |
| 4804.52.00 | | Bleached uniformly throughout the mass and of which more than 95 percent by weight of the total fiber content consists of wood fibers obtained by a chemical process | | Free | | 30% |
| | 10 | Base stock for milk cartons and other beverage containers | kg | | | |
| | | Other: | | | | |
| | 20 | Folding carton stock | kg | | | |
| | 30 | Base stock for trays, dishes, plates, cups and the like | kg | | | |
| | | Other: | | | | |
| | 40 | Base stock for packaging | kg | | | |
| | 50 | Other | kg | | | |
| 4804.59.00 | 00 | Other | kg | 4% | Free (A,CA,E,IL,J, MX) | 30% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| 4805 | | Other uncoated paper and paperboard, in rolls or sheets: | | | | |
| 4805.10.00 | 00 | Semichemical fluting paper (corrugating medium)........ | kg...... | 4% | Free (A,CA,E,IL,J,MX) | 30% |
| | | Multi-ply paper and paperboard: | | | | |
| 4805.21.00 | | Each layer bleached........ | ........ | Free | | 30% |
| | 20 | Folding carton board........ | kg | | | |
| | 40 | Other........ | kg | | | |
| 4805.22.00 | | With only one outer layer bleached........ | ........ | Free | | 30% |
| | 20 | Folding carton board........ | kg | | | |
| | 40 | Other........ | kg | | | |
| 4805.23.00 | | Having three or more layers of which only the two outer layers are bleached........ | ........ | Free | | 30% |
| | 20 | Folding carton board........ | kg | | | |
| | 40 | Other........ | kg | | | |
| 4805.29.00 | | Other........ | ........ | Free | | 30% |
| | 20 | Folding carton board........ | kg | | | |
| | 40 | Other........ | kg | | | |
| 4805.30.00 | 00 | Sulfite wrapping paper........ | kg...... | 2.4% | Free (A,CA,E,IL,J,MX) | 30% |
| 4805.40.00 | 00 | Filter paper and paperboard........ | kg...... | 4.2% | Free (A,CA,E,IL,J,MX) | 11¢/k, + 15% |
| 4805.50.00 | 00 | Felt paper and paperboard........ | kg...... | Free | | 10% |
| 4805.60 | | Other paper and paperboard, weighing 150 g/m² or less: | | | | |
| 4805.60.20 | 00 | Condenser paper........ | kg...... | 4.3% | Free (A,CA,E,IL,J,MX) | 25% |
| 4805.60.30 | 00 | Bibulous paper........ | kg...... | Free | | 30% |
| 4805.60.40 | 00 | Wrapping paper........ | kg...... | Free | | 30% |
| | | Other: | | | | |
| 4805.60.50 | 00 | Weighing not over 15 g/m²........ | kg...... | 1.5% | Free (A,CA,E,IL,J,MX) | 30% |
| 4805.60.70 | 00 | Weighing over 15 g/m² but not over 30 g/m²........ | kg...... | Free | | 11¢/kg + 15% |
| 4805.60.90 | | Weighing over 30 g/m²........ | ........ | 4% | Free (A,CA,E,IL,J,MX) | 30% |
| | 20 | Corrugating medium........ | kg | | | |
| | 40 | Other........ | kg | | | |
| 4805.70 | | Other paper and paperboard, weighing more than 150 g/m² but less than 225 g/m²: | | | | |
| 4805.70.20 | 00 | Pressboard........ | kg...... | 4.9% | Free (A,CA,E,IL,J,MX) | 30% |
| 4805.70.40 | | Other........ | ........ | Free | | 30% |
| | 20 | Construction paper........ | kg | | | |
| | 40 | Linerboard containing by weight less than 80 percent chemical sulfate wood pulp........ | kg | | | |
| | 60 | Other........ | kg | | | |
| 4805.80 | | Other paper and paperboard, weighing 225 g/m² or more: | | | | |
| 4805.80.20 | 00 | Pressboard........ | kg...... | 4.9% | Free (A,CA,E,IL,J,MX) | 30% |
| 4805.80.40 | | Other........ | ........ | Free | | 30% |
| | 20 | Wet machine board........ | kg | | | |
| | 40 | Construction paper........ | kg | | | |
| | 60 | Linerboard containing by weight less than 80 percent chemical sulfate wood pulp........ | kg | | | |
| | 90 | Other........ | kg | | | |
| 4806 | | Vegetable parchment, greaseproof papers, tracing papers and glassine and other glazed transparent or translucent papers, in rolls or sheets: | | | | |
| 4806.10.00 | 00 | Vegetable parchment........ | kg...... | Free | | 19% |
| 4806.20.00 | 00 | Greaseproof papers........ | kg...... | Free | | 7¢/kg + 15% |
| 4806.30.00 | 00 | Tracing papers........ | kg...... | Free | | 7¢/kg + 15% |
| 4806.40.00 | 00 | Glassine and other glazed transparent or translucent papers........ | kg...... | Free | | 7¢/kg + 15% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| 4807 | | Composite paper and paperboard (made by sticking flat layers of paper or paperboard together with an adhesive), not surface-coated or impregnated, whether or not internally reinforced, in rolls or sheets: | | | | |
| 4807.10.00 | 00 | Paper and paperboard, laminated internally with bitumen, tar or asphalt | kg. | Free | | 30% |
| | | Other: | | | | |
| 4807.91.00 | 00 | Straw paper and paperboard, whether or not covered with paper other than straw paper | kg. | 2.8% | Free (A,CA,E,IL,J,MX) | 30% |
| 4807.99 | | Other: | | | | |
| 4807.99.20 | 00 | Cloth-lined or reinforced paper | kg. | 2.4% | Free (A,CA,E,IL,J,MX) | 22.5% |
| 4807.99.40 | 00 | Other | kg. | Free | | 30% |
| 4808 | | Paper and paperboard, corrugated (with or without glued flat surface sheets), creped, crinkled, embossed or perforated, in rolls or sheets, other than that of heading 4803 or 4818: | | | | |
| 4808.10.00 | 00 | Corrugated paper and paperboard, whether or not perforated | kg. | 4% | Free (A,CA,E,IL,J,MX) | 30% |
| 4808.20.00 | 00 | Sack kraft paper, creped or crinkled, whether or not embossed or perforated | kg. | Free | | 36% |
| 4808.30.00 | 00 | Other kraft paper, creped or crinkled, whether or not embossed or perforated | kg. | Free | | 36% |
| 4808.90 | | Other: | | | | |
| 4808.90.20 | 00 | Creped or crinkled | kg. | 3.4% | Free (A,CA,E,IL,J,MX) | 36% |
| 4808.90.40 | 00 | Embossed | kg. | 2% | Free (A,CA,E,IL,J,MX) | 18.5% |
| 4808.90.60 | 00 | Other | kg. | 5.3% | Free (A,CA,E,IL,J,MX) | 35% |
| 4809 | | Carbon paper, self-copy paper and other coated or impregnated copying or transfer papers (including coated or impregnated paper for duplicator stencils or offset plates) whether or not printed, in rolls of a width exceeding 36 cm or in rectangular (including square) sheets with at least one side exceeding 36 cm in unfolded state: | | | | |
| 4809.10 | | Carbon or similar copying papers: | | | | |
| 4809.10.20 | 00 | Weighing not over 15 g/m² | kg. | 2.8% | Free (A,CA,E,IL,J,MX) | 38% |
| 4809.10.40 | 00 | Weighing over 15 g/m² | kg. | Free | | 30.5% |
| 4809.20 | | Self-copy paper: | | | | |
| 4809.20.20 | 00 | Writing paper | kg. | 4.4% | Free (A,CA,E,IL,J,MX) | 35% |
| 4809.20.40 | 00 | Other | kg. | Free | | 25% |
| 4809.90 | | Other: | | | | |
| 4809.90.20 | 00 | Stereotype-matrix board and mat | kg. | 5.8% | Free (A,CA,E,IL,J,MX) | 35% |
| | | Decalcomania paper: | | | | |
| 4809.90.40 | 00 | Simplex | kg. | 2.8% | Free (A,CA,E,IL,J,MX) | 15% |
| 4809.90.60 | 00 | Duplex | kg. | Free | | Free |
| | | Other: | | | | |
| 4809.90.70 | 00 | Impregnated, coated or both, but not otherwise treated | kg. | Free | | 25% |
| 4809.90.80 | 00 | Other | kg. | 1.9% | Free (A,CA,E,IL,J,MX) | 20% |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4810 | | Paper and paperboard, coated on one or both sides with kaolin (China clay) or other inorganic substances, with or without a binder, and with no other coating, whether or not surface-colored, surface-decorated or printed, in rolls or sheets: | | | | |
| | | Paper and paperboard of a kind used for writing, printing or other graphic purposes, not containing fibers obtained by a mechanical process or of which not more than 10 percent by weight of the total fiber content consists of such fibers: | | | | |
| 4810.11 | | Weighing not more than 150 g/m²: | | | | |
| 4810.11.20 | | Basic paper to be sensitized for use in photography........................ | ........ | 0.9% | Free (A,CA,E,IL,J, MX) | 5% |
| | 20 | Baryta coated.................... | m² | | | |
| | 40 | Other.................... | m² | | | |
| 4810.11.30 | 00 | India or bible paper.................. | kg...... | 1.7% | Free (A,CA,E,IL,J, MX) | 24% |
| 4810.11.90 | 00 | Other.................................. | kg...... | 2.5% | Free (A,CA,E,IL,J, MX) | 37% |
| 4810.12.00 | 00 | Weighing more than 150 g/m²............. | kg...... | 2.6% | Free (A,CA,E,IL,J, MX) | 42% |
| | | Paper and paperboard of a kind used for writing, printing or other graphic purposes, of which more than 10 percent by weight of the total fiber content consists of fibers obtained by a mechanical process: | | | | |
| 4810.21.00 | 00 | Light-weight coated paper.................. | kg...... | 2.5% | Free (A,CA,E,IL,J, MX) | 37% |
| 4810.29.00 | 00 | Other........................................ | kg...... | 2.5% | Free (A,CA,E,IL,J, MX) | 37% |
| | | Kraft paper and paperboard, other than that of a kind used for writing, printing or other graphic purposes: | | | | |
| 4810.31.00 | | Bleached uniformly throughout the mass and of which more than 95 percent by weight of the total fiber content consists of wood fibers obtained by a chemical process and weighing 150 g/m² or less............................ | ........ | Free | | 25% |
| | 20 | Folding carton board.................. | kg | | | |
| | 40 | Base stock for trays, dishes, plates, cups and the like........... | kg | | | |
| | 60 | Other.................................. | kg | | | |
| 4810.32.00 | | Bleached uniformly throughout the mass and of which more than 95 percent by weight of the total fiber content consists of wood fibers obtained by a chemical process and weighing more than 150 g/m²............................ | ........ | Free | | 25% |
| | 20 | Folding carton board.................. | kg | | | |
| | 40 | Base stock for trays, dishes, plates, cups and the like........... | kg | | | |
| | 60 | Other.................................. | kg | | | |
| 4810.39 | | Other: | | | | |
| 4810.39.20 | 00 | Whether or not impregnated, but not otherwise treated.............. | kg...... | Free | | 25% |
| 4810.39.40 | 00 | Other.................................. | kg...... | 1.9% | Free (A,CA,E,IL,J, MX) | 20% |
| | | Other paper and paperboard: | | | | |
| 4810.91 | | Multi-ply: | | | | |
| 4810.91.20 | 00 | Weighing more than 150 g/m²......... | kg...... | Free | | 30% |
| 4810.91.40 | 00 | Other.................................. | kg...... | 1.9% | Free (A,CA,E,IL,J, MX) | 20% |
| 4810.99.00 | 00 | Other........................................ | kg...... | 1.9% | Free (A,CA,E,IL,J, MX) | 20% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 4811 | | Paper, paperboard, cellulose wadding and webs of cellulose fibers, coated, impregnated, covered, surface-colored, surface-decorated or printed, in rolls or sheets, other than goods of heading 4803, 4809, 4810 or 4818: | | | | |
| 4811.10.00 | 00 | Tarred, bituminized or asphalted paper and paperboard | kg | Free | | 10% |
| | | Gummed or adhesive paper and paperboard: | | | | |
| 4811.21.00 | 00 | Pressure-sensitive | kg | 5.8% | Free (A,CA,E,IL,J, MX) | 40% |
| 4811.29.00 | 00 | Other | kg | Free | | 14% |
| | | Paper and paperboard, coated, impregnated or covered with plastics (excluding adhesives): | | | | |
| 4811.31 | | Bleached, weighing more than 150 g/m²: | | | | |
| 4811.31.20 | | 0.3 mm or more in thickness | | Free | | 30% |
| | 10 | Base stock for milk cartons and other beverage containers | kg | | | |
| | | Other: | | | | |
| | 20 | Folding carton stock | kg | | | |
| | 30 | Base stock for trays, dishes, plates, cups and the like | kg | | | |
| | | Other: | | | | |
| | 40 | Base stock for packaging | kg | | | |
| | 50 | Other | kg | | | |
| 4811.31.40 | 00 | Other | kg | 2.6% | Free (A,CA,E,IL,J, MX) | 42% |
| 4811.39 | | Other: | | | | |
| 4811.39.20 | 00 | Printing paper | kg | 2.5% | Free (A,CA,E,IL,J, MX) | 37% |
| 4811.39.40 | | Other | | Free | | 25% |
| | 20 | Folding carton stock | kg | | | |
| | 40 | Other | kg | | | |
| 4811.40.00 | 00 | Paper and paperboard, coated, impregnated or covered with wax, paraffin, stearin, oil or glycerol | kg | 3.4% | Free (A,CA,E,IL,J, MX) | 17.5% |
| 4811.90 | | Other paper, paperboard, cellulose wadding and webs of cellulose fibers: | | | | |
| 4811.90.10 | 00 | Handmade paper | kg | 3.9% | Free (A,CA,E,IL,J, MX) | 27% |
| | | Other: | | | | |
| 4811.90.20 | 00 | Wholly or partly covered with flock, gelatin, metal or metal solutions | kg | 3.3% | Free (A,CA,E,IL,J, MX) | 22.5% |
| | | Other: | | | | |
| 4811.90.30 | 00 | Impregnated with latex | kg | Free | | 25% |
| | | Other: | | | | |
| 4811.90.40 | 00 | Weighing not over 15 g/m² | kg | 2.9% | Free (A,CA,E,IL,J, MX) | 30% |
| 4811.90.60 | 00 | Weighing over 15 g/m² but not over 30 g/m² | kg | Free | | 20% |
| 4811.90.80 | 00 | Weighing over 30 g/m² | kg | 2% | Free (A,CA,E,IL,J, MX) | 18.5% |
| 4812.00.00 | 00 | Filter blocks, slabs and plates, of paper pulp | kg | 3.7% | Free (A,CA,E,IL,J, MX) | 20% |
| 4813 | | Cigarette paper, whether or not cut to size or in the form of booklets or tubes: | | | | |
| 4813.10.00 | 00 | In the form of booklets or tubes | kg | 4.9% 1/ | Free (A,CA,E,IL,J, MX) 1/ | 60% 1/ |
| 4813.20.00 | 00 | In rolls of a width not exceeding 5 cm | kg | 4.9% | Free (A,CA,E,IL,J, MX) | 60% |
| 4813.90.00 | 00 | Other | kg | 4.9% | Free (A,CA,E,IL,J, MX) | 60% |

1/ Imports under this provision are subject to a Federal Excise Tax (26 U.S.C. 5701) of:
(1) 0.625¢ per 50 papers;
(2) 1.25¢ per 50 tubes.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Special | 2 |
|---|---|---|---|---|---|---|
| 4814 | | Wallpaper and similar wallcoverings; window transparencies of paper: | | | | |
| 4814.10.00 | 00 | "Ingrain" paper | kg. | Free | | 3.3¢/kg + 20% |
| 4814.20.00 | 00 | Wallpaper and similar wallcoverings, consisting of paper coated or covered, on the face side, with a grained, embossed, colored, design-printed or otherwise decorated layer of plastics | kg. | Free | | 3.3¢/kg + 20% |
| 4814.30.00 | 00 | Wallpaper and similar wallcoverings, consisting of paper covered, on the face side, with plaiting material, whether or not bound together in parallel strands or woven | kg. | Free | | 3.3¢/kg + 20% |
| 4814.90.00 | 00 | Other | kg. | Free | | 3.3¢/kg + 20% |
| 4815.00.00 | 00 | Floor coverings on a base of paper or of paperboard, whether or not cut to size | kg. | 3.7% | Free (A,CA,E,IL,J, MX) | 40% |
| 4816 | | Carbon paper, self-copy paper and other copying or transfer papers (other than those of heading 4809), duplicator stencils and offset plates, of paper, whether or not put up in boxes: | | | | |
| 4816.10.00 | 00 | Carbon or similar copying papers | kg. | 3% | Free (A,CA,E,IL,J, MX) | 30% |
| 4816.20.00 | 00 | Self-copy paper | kg. | 3% | Free (A,CA,E,IL,J, MX) | 30% |
| 4816.30.00 | 00 | Duplicator stencils | kg. | 3% | Free (A,CA,E,IL,J, MX) | 30% |
| 4816.90.00 | 00 | Other | kg. | 2.8% | Free (A,CA,E,IL,J, MX) | 35% |
| 4817 | | Envelopes, letter cards, plain postcards and correspondence cards, of paper or paperboard; boxes, pouches, wallets and writing compendiums, of paper or paperboard, containing an assortment of paper stationery: | | | | |
| 4817.10.00 | 00 | Envelopes | thousands | 4% | Free (A,CA,E,IL,J, MX) | 35% |
| 4817.20 | | Letter cards, plain postcards and correspondence cards: | | | | |
| 4817.20.20 | 00 | Sheets of writing paper, with border gummed or perforated, with or without inserts, prepared for use as combination sheets and envelopes | kg. | 5.1% | Free (A,CA,E,IL,J, MX) | 40% |
| 4817.20.40 | 00 | Other | kg. | 3.2% | Free (A,CA,E,IL,J, MX) | 33% |
| 4817.30.00 | 00 | Boxes, pouches, wallets and writing compendiums, of paper or paperboard, containing an assortment of paper stationery | kg. | 4.2% | Free (A,CA,E,IL,J, MX) | 40% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4820 | | Registers, account books, notebooks, order books, receipt books, letter pads, memorandum pads, diaries and similar articles, exercise books, blotting pads, binders (looseleaf or other), folders, file covers, manifold business forms, interleaved carbon sets and other articles of stationery, of paper or paperboard; albums for samples or for collections and book covers (including cover boards and book jackets) of paper or paperboard: | | | | |
| 4820.10 | | Registers, account books, notebooks, order books, receipt books, letter pads, memorandum pads, diaries and similar articles: | | | | |
| 4820.10.20 | | Diaries, notebooks and address books, bound; memorandum pads, letter pads and similar articles........................... | | 4% | Free (A,CA,E,IL,J, MX) | 25% |
| | 10 | Diaries and address books........... | No. | | | |
| | 20 | Memorandum pads, letter pads and similar articles................ | No. | | | |
| | 50 | Other.............................. | No. | | | |
| 4820.10.40 | 00 | Other.............................. | No...... | Free | | 25% |
| 4820.20.00 | 00 | Exercise books.............................. | No...... | Free | | 25% |
| 4820.30.00 | | Binders (other than book covers), folders and file covers........................... | | 5.3% | Free (A,CA,E,IL,J, MX) | 35% |
| | 20 | Looseleaf binders.......................... | kg | | | |
| | 40 | Other.............................. | kg | | | |
| 4820.40.00 | 00 | Manifold business forms and interleaved carbon sets........................... | kg...... | 5.3% | Free (A,CA,E,IL,J, MX) | 28.5% |
| 4820.50.00 | 00 | Albums for samples or for collections......... | No...... | 4% | Free (A,CA,E,IL,J, MX) | 30% |
| 4820.90.00 | 00 | Other.............................. | kg...... | 5.3% | Free (A,CA,E,IL,J, MX) | 35% |
| 4821 | | Paper and paperboard labels of all kinds, whether or not printed: | | | | |
| 4821.10 | | Printed: | | | | |
| 4821.10.20 | 00 | Printed in whole or in part by a lithographic process.................... | kg...... | 8.8¢/kg | Free (A,CA,E,IL,J, MX) | 88¢/kg |
| 4821.10.40 | 00 | Other.............................. | kg...... | 4.2% | Free (A,CA,E,IL,J, MX) | 35% |
| 4821.90 | | Other: | | | | |
| 4821.90.20 | 00 | Pressure-sensitive.......................... | kg...... | 5.8% | Free (A,CA,E,IL,J, MX) | 40% |
| 4821.90.40 | 00 | Other.............................. | kg...... | 3% | Free (A,CA,E,IL,J, MX) | 30% |
| 4822 | | Bobbins, spools, cops and similar supports of paper pulp, paper or paperboard (whether or not perforated or hardened): | | | | |
| 4822.10.00 | 00 | Of a kind used for winding textile yarn....... | kg...... | 4.4% | Free (A,CA,E,IL,J, MX) | 43% |
| 4822.90.00 | 00 | Other.............................. | kg...... | 4.5% | Free (A,CA,E,IL,J, MX) | 35% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4823 | | Other paper, paperboard, cellulose wadding and webs of cellulose fibers, cut to size or shape; other articles of paper pulp, paper, paperboard, cellulose wadding or webs of cellulose fibers: | | | | |
| | | Gummed or adhesive paper, in strips or rolls: | | | | |
| 4823.11.00 | 00 | Pressure-sensitive | kg | 5.8% | Free (A,CA,E,IL,J,MX) | 40% |
| 4823.19.00 | 00 | Other | kg | 3% | Free (A,CA,E,IL,J,MX) | 30% |
| 4823.20 | | Filter paper and paperboard: | | | | |
| 4823.20.10 | 00 | Paint filters and strainers | kg | 5.3% | Free (A*,CA,E,IL,J,MX) | 35% |
| 4823.20.90 | 00 | Other | kg | 3.7% | Free (A,CA,E,IL,J,MX) | 30% |
| 4823.30.00 | 00 | Cards, not punched, for punchcard machines, whether or not in strips | kg | 3.9% 1/ 2/ | Free (A,CA,E,IL,J,MX) | 30% |
| 4823.40.00 | 00 | Rolls, sheets and dials, printed for self-recording apparatus | kg | 5.3% | Free (A,CA,E,IL,J,MX) | 35% |
| | | Other paper and paperboard, of a kind used for writing, printing or other graphic purposes: | | | | |
| 4823.51.00 | | Printed, embossed or perforated | ........ | 3% | Free (A,CA,E,IL,J,MX) | 30% |
| | 44 | Hole-punched looseleaf paper | kg | | | |
| | 80 | Other | kg | | | |
| 4823.59 | | Other: | | | | |
| 4823.59.20 | 00 | Basic paper to be sensitized for use in photography | kg.....v<br>$m^2$ | 0.9% | Free (A,CA,E,IL,J,MX) | 5% |
| 4823.59.40 | | Other | ........ | 3% | Free (A,CA,E,IL,J,MX) | 30% |
| | 20 | Containing by weight 25 percent or more cotton fiber | kg | | | |
| | 40 | Other | kg | | | |
| 4823.60.00 | | Trays, dishes, plates, cups and the like, of paper or paperboard | ........ | 4.3% | Free (A,CA,E,IL,J,MX) | 35% |
| | 20 | Cups and round nested food containers | kg | | | |
| | 40 | Other | kg | | | |
| 4823.70.00 | 00 | Molded or pressed articles of paper pulp | kg | Free | | 30% |
| 4823.90 | | Other: | | | | |
| 4823.90.10 | 00 | Of paper pulp | kg | Free | | 30% |
| 4823.90.20 | 00 | Of papier-mâché | kg | 3.1% | Free (A,CA,E,IL,J,MX) | 25% |
| | | Other: | | | | |
| 4823.90.40 | 00 | Frames or mounts for photographic slides | kg | 3.8% | Free (A,CA,E,IL,J,MX) | 45% |
| 4823.90.50 | 00 | Hand fans | kg.....v<br>No. | 17% | Free (A,CA,E,IL,J,MX) | 50% |
| | | Other: | | | | |
| | | Of coated paper or paperboard: | | | | |
| 4823.90.60 | 00 | Gaskets, washers and other seals | kg | 5.6% | Free (A,B,C,CA,E,IL,J,MX) | 26.5% |
| 4823.90.65 | 00 | Other | kg | 5.6% | Free (A,CA,E,IL,J,MX) | 26.5% |
| 4823.90.70 | 00 | Of cellulose wadding | kg | 3.6% | Free (A,CA,E,IL,J,MX) | 19.5% |
| | | Other: | | | | |
| 4823.90.80 | 00 | Gaskets, washers and other seals | kg | 5.3% | Free (A,B,C,CA,E,IL,J,MX) | 35% |
| 4823.90.85 | 00 | Other | kg | 5.3% 1/ 2/ | Free (A,CA,E,IL,J,MX) | 35% |

1/ See heading 9902.39.27.
2/ See heading 9902.48.23

CHAPTER 49

# PRINTED BOOKS, NEWSPAPERS, PICTURES AND OTHER PRODUCTS OF THE PRINTING INDUSTRY; MANUSCRIPTS, TYPESCRIPTS AND PLANS



## Notes

1. This chapter does not cover:

   (a) Photographic negatives or positives on transparent bases (chapter 37);

   (b) Maps, plans or globes, in relief, whether or not printed (heading 9023);

   (c) Playing cards or other goods of chapter 95; or

   (d) Original engravings, prints or lithographs (heading 9702), postage or revenue stamps, stamp-postmarks, first-day covers, postal stationery or the like of heading 9704, antiques of an age exceeding one hundred years or other articles of chapter 97.

2. For the purposes of chapter 49 the term "printed" also means reproduced by means of a duplicating machine, produced under the control of a computer, embossed, photographed, photocopied, thermocopied or typewritten.

3. Newspapers, journals and periodicals which are bound otherwise than in paper, and sets of newspapers, journals or periodicals comprising more than one issue under a single cover are to be classified in heading 4901, whether or not containing advertising material.

4. Heading 4901 also covers:

   (a) A collection of printed reproductions of, for example, works of art or drawings, with a relative text, put up with numbered pages in a form suitable for binding into one or more volumes;

   (b) A pictorial supplement accompanying and subsidiary to, a bound volume; and

   (c) Printed parts of books or booklets, in the form of assembled or separate sheets or signatures, constituting the whole or a part of a complete work and designed for binding.

   However, printed pictures or illustrations not bearing a text, whether in the form of signatures or separate sheets, fall in heading 4911.

5. Subject to note 3 of this chapter, heading 4901 does not cover publications which are essentially devoted to advertising (for example, brochures, pamphlets, leaflets, trade catalogs, yearbooks published by trade associations and tourist promotional literature). Such publications are to be classified in heading 4911.

6. For the purposes of heading 4903, the expression "children's picture books" means books for children in which the pictures form the principal interest and the text is subsidiary.

## Additional U.S. Notes

1. For the purposes of determining the classification of printed matter produced in whole or in part by a lithographic process, the thickness of such printed matter is that of the thinnest paper contained therein, except that the thickness of a permanently mounted lithograph is the combined thickness of the lithograph and its mounting.

2. Currency in current circulation in any country imported for monetary purposes and securities and similar evidences of value provided for in heading 4907 shall be admitted without formal customs consumption entry or the payment of duty. This does not affect any requirement under other provisions of law to the effect that transfers of monetary instruments into or through the United States, in an amount exceeding $10,000 on any one occasion, shall be reported as prescribed therein.

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | 1 Special | 2 |
|---|---|---|---|---|---|---|
| 4901 | | Printed books, brochures, leaflets and similar printed matter, whether or not in single sheets: | | | | |
| 4901.10.00 | | In single sheets, whether or not folded | ........ | Free | | Free |
| | 20 | Reproduction proofs | X | | | |
| | 40 | Other | X | | | |
| | | Other: | | | | |
| 4901.91.00 | | Dictionaries and encyclopedias, and serial installments thereof | ........ | Free | | Free |
| | 20 | Dictionaries (including thesauruses) | No. | | | |
| | 40 | Encyclopedias | No. | | | |
| 4901.99.00 | | Other | ........ | Free | | Free |
| | 10 | Textbooks | No. | | | |
| | 20 | Bound newspapers, journals and periodicals provided for in Legal Note 3 to this chapter | No. | | | |
| | 30 | Directories | No. | | | |
| | | Other: | | | | |
| | 40 | Bibles, testaments, prayer books and other religious books | No. | | | |
| | 50 | Technical, scientific and professional books | No. | | | |
| | | Art and pictorial books: | | | | |
| | 60 | Valued under $5 each | No. | | | |
| | 65 | Valued $5 or more each | No. | | | |
| | | Other: | | | | |
| | 70 | Hardbound books | No. | | | |
| | 75 | Rack size paperbound books | No. | | | |
| | | Other: | | | | |
| | 91 | Containing not more than 4 pages each (excluding covers) | No. | | | |
| | 92 | Containing 5 or more pages each, but not more than 48 pages each (excluding covers) | No. | | | |
| | 93 | Containing 49 or more pages each (excluding covers) | No. | | | |
| 4902 | | Newspapers, journals and periodicals, whether or not illustrated or containing advertising material: | | | | |
| 4902.10.00 | 00 | Appearing at least four times a week | kg...... | Free | | Free |
| 4902.90 | | Other: | | | | |
| 4902.90.10 | 00 | Newspaper supplements printed by a gravure process | No...... | 1.8% | Free (A,CA,E,IL,J, MX) | 25% |
| 4902.90.20 | | Other | ........ | Free | | Free |
| | 20 | Newspapers appearing less than four times per week | kg | | | |
| | 40 | Other business and professional journals and periodicals (including single issues tied together for shipping purposes) | No. | | | |
| | 60 | Other (including single issues tied together for shipping purposes) | No. | | | |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 4903.00.00 | 00 | Children's picture, drawing or coloring books...... | No...... | Free | | Free |
| 4904.00.00 | | Music, printed or in manuscript, whether or not bound or illustrated............................................. | ......... | Free | | Free |
| | 20 | Sheet music, whether or not stapled or folded, but not otherwise bound.................. | X | | | |
| | 40 | Other......................................................... | No. | | | |
| 4905 | | Maps and hydrographic or similar charts of all kinds, including atlases, wall maps, topographical plans and globes, printed: | | | | |
| 4905.10.00 | 00 | Globes............................................................. | X......... | 5.3% | Free (A,CA,E,IL,J, MX) | 35% |
| | | Other: | | | | |
| 4905.91.00 | 00 | In book form........................................... | No...... | Free | | Free |
| 4905.99.00 | 00 | Other............................................... | X......... | Free | | Free |
| 4906.00.00 | 00 | Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand-written texts; photographic reproductions on sensitized paper and carbon copies of the fore-going................................................. | X......... | Free | | 25% |
| 4907.00.00 | 00 | Unused postage, revenue or similar stamps of current or new issue in the country to which they are destined; stamp-impressed paper; banknotes; check forms; stock, share or bond certificates and similar documents of title.................................... | kg...... | Free | | 66¢/kg |
| 4908 | | Transfers (decalcomanias): | | | | |
| 4908.10.00 | 00 | Transfers (decalcomanias), vitrifiable......... | kg...... | 13.2¢/kg + 3.5% | Free (A,CA,E,IL,J, MX) | 66¢/k, + 15% |
| 4908.90.00 | 00 | Other............................................................ | kg...... | 15.4¢/kg | Free (A,CA,E,IL,J, MX) | 88¢/kg |
| 4909.00 | | Printed or illustrated postcards; printed cards bearing personal greetings, messages or announce-ments, whether or not illustrated, with or without envelopes or trimmings: | | | | |
| 4909.00.20 | 00 | Postcards................................................... | thousands | 4% | Free (A,CA,E,IL,J, MX) | 25% |
| 4909.00.40 | | Other............................................................. | ......... | 4.9% | Free (A,CA,E,IL,J, MX) | 45% |
| | 20 | Greeting cards........................................ | thousands | | | |
| | 40 | Other............................................... | thousands | | | |
| 4910.00 | | Calendars of any kind, printed, including calendar blocks: | | | | |
| | | Printed on paper or paperboard in whole or in part by a lithographic process: | | | | |
| 4910.00.20 | 00 | Not over 0.51 mm in thickness............ | kg...... | Free | | 66¢/kg |
| 4910.00.40 | 00 | Over 0.51 mm in thickness.................. | kg...... | 4.4¢/kg | Free (A,CA,E,IL,J, MX) | 19¢/kg |
| 4910.00.60 | 00 | Other............................................................. | kg...... | 3% | Free (A,CA,E,IL,J, MX) | 35% |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 4911 | | Other printed matter, including printed pictures and photographs: | | | | |
| 4911.10.00 | | Trade advertising material, commercial catalogs and the like.................... | ........ | Free | | Free |
| | 20 | Printed catalogs relating principally to current offers for the sale of United States products.............................. | No. | | | |
| | 40 | Printed catalogs, price lists or trade notices, relating to offers, by a person whose principal place of business or bona fide residence is in a foreign country, to sell or rent products of a foreign country or to furnish foreign or international transportation or commercial insurance services............................ | No. | | | |
| | 60 | Tourist and other literature (including posters), containing geographic, historical, hotel, institutional, timetable, travel or similar information, principally with respect to places, travel facilities or educational opportunities outside the customs territory of the United States............................. | X | | | |
| | 80 | Other.................................. | X | | | |
| | | Other: | | | | |
| 4911.91 | | Pictures, designs and photographs: | | | | |
| 4911.91.10 | 00 | Printed over 20 years at time of importation............................. | X....... | Free | | Free |
| | | Printed not over 20 years at time of importation: | | | | |
| 4911.91.15 | 00 | Suitable for use in the production of articles of heading 4901......................... | X....... | Free | | Free |
| | | Other: | | | | |
| | | Lithographs on paper or paperboard: | | | | |
| 4911.91.20 | | Not over 0.51 mm in thickness............ | ........ | 13.2¢/kg | Free (A,CA,E,IL,J, MX) | 66¢/kg |
| | 20 | Posters......... | kg | | | |
| | 40 | Other........... | kg | | | |
| 4911.91.30 | 00 | Over 0.51 mm in thickness............ | kg...... | Free | | 19.3¢/kg |
| 4911.91.40 | | Other........................ | ........ | 3.1% | Free (A,CA,E,IL,J, MX) | 25% |
| | 20 | Posters............. | kg | | | |
| | 40 | Other............... | kg | | | |
| 4911.99 | | Other: | | | | |
| 4911.99.20 | 00 | International customs forms (carnets) and parts thereof, in English or French (whether or not in additional languages)............ | X....... | Free | | Free |
| | | Other: | | | | |
| 4911.99.60 | 00 | Printed on paper in whole or in part by a lithographic process.............................. | kg...... | 0.4% | Free (A,CA,E,IL,J, MX) | 66¢/k, + 0.4% |
| 4911.99.80 | 00 | Other............................. | X....... | 4.9% | Free (A,CA,E,IL,J, MX) | 35% |

SECTION XVI

MACHINERY AND MECHANICAL APPLIANCES;
ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND
RECORDERS AND REPRODUCERS, TELEVISION IMAGE
AND SOUND RECORDERS AND REPRODUCERS, AND PARTS
AND ACCESSORIES OF SUCH ARTICLES



Notes

1. This section does not cover:

(a) Transmission, conveyor or elevator belts or belting, of plastics of chapter 39, or of vulcanized rubber,(heading 4010); or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanized rubber other than hard rubber (heading 4016);

(b) Articles of leather or of composition leather (heading 4204) or of furskin (heading 4303), of a kind used in machinery or mechanical appliances or for other technical uses;

(c) Bobbins, spools, cops, cones, cores, reels or similar supports, of any material (for example, chapter 39, 40, 44 or 48 or section XV);

(d) Perforated cards for Jacquard or similar machines (for example, chapter 39 or 48 or section XV);

(e) Transmission or conveyor belts of textile material (heading 5910) or other articles of textile material for technical uses (heading 5911);

(f) Precious or semiprecious stones (natural, synthetic or reconstructed) of headings 7102 to 7104, or articles wholly of such stones of heading 7116, except unmounted worked sapphires and diamonds for styli (heading 8522);

(g) Parts of general use, as defined in note 2 to section XV, of base metal (section XV), or similar goods of plastics (chapter 39);

(h) Drill pipe (heading 7304);

(ij) Endless belts of metal wire or strip (section XV);

(k) Articles of chapter 82 or 83;

(l) Articles of section XVII;

(m) Articles of chapter 90;

(n) Clocks, watches or other articles of chapter 91;

(o) Interchangeable tools of heading 8207 or brushes of a kind used as parts of machines of heading 9603; similar interchangeable tools are to be classified according to the constituent material of their working part (for example, in chapter 40, 42, 43, 45 or 59 or heading 6804 or 6909); or

(p) Articles of chapter 95.

2. Subject to note 1 to this section, note 1 to chapter 84 and to note 1 to chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

(a) Parts which are goods included in any of the headings of chapters 84 and 85 (other than headings 8485 and 8548) are in all cases to be classified in their respective headings;

(b) Other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517;

(c) All other parts are to be classified in heading 8485 or 8548.

3. Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines adapted for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

4. Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

5. For the purposes of these notes, the expression "<u>machine</u>" means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapter 84 or 85.

Additional U.S. Note

1. For the purposes of this section, the term "printed circuit assembly" means goods consisting of one or more printed circuits of heading 8534 with one or more active elements assembled thereon, with or without passive elements. For the purposes of this note, "active elements" means diodes, transistors and similar semiconductor devices, whether or not photosensitive, of heading 8541, and integrated circuits and microassemblies of heading 8542.

Statistical Note

1. Provisions for semiconductor manufacturing and testing machines and apparatus cover products for the growth and processing of semiconductor materials, such as silicon and gallium arsenide, the processing of such materials into semiconductor devices and the testing of such devices (in general the testing equipment, as well as some of the processing equipment, is classified in chapter 90). More specifically the goods include the following:

   (a) Wafer manufacturing equipment:

      (i) Crystal growers & pullers. - used to produce extremely pure monocrystalline semiconductor boules from which wafers can be sliced. Most common methods employed in these crystal growers and pullers are the Czochralski and float zone methods.

      (ii) Wafer preparation equipment:

         (A) Crystal grinders - used to grind the crystal boule to precise diameter required for wafers and to grind the flats on the boule to indicate the conductivity type and resistivity of the crystal.

         (B) Wafer slicing saws - used to slice wafers from a boule of monocrystalline semiconductor material.

         (C) Wafer grinders, lappers and polishers - used to prepare the semiconductor wafer for the fabrication process. This involves bringing the wafer within dimensional tolerances. Especially critical is the flatness of its surface.

   (b) Mask fabrication and repair equipment -

      (i) Fabrication equipment - used to transfer design patterns to a mask or reticle, this equipment generally utilizes optical, electron beam or X-rays to write circuit patterns on photoresist coated substrates. After development, these substrates become the mask or reticle for wafer fabrication.

      (ii) Repair equipment - this equipment generally utilizes focused ion beams or laser beams. They are used directly on the mask or reticle to remove chrome.

   (c) Wafer fabrication equipment:

      (i) Film formation equipment - used to apply or produce various films on the surface of the wafer during the fabrication process. These films serve as conductors, insulators and semiconductors on the finished device. They may include oxides and nitrides of the substrate surface, metals, and epitaxial layers. The processes and equipments listed below are not necessarily limited to the generation of a particular type of film.

         (A) Oxidation furnaces - used to form a "film" of oxide on the wafer. The oxide is formed by the chemical reaction of the top molecular layers of the wafer with the applied oxygen or steam under heat.

         (B) Chemical Vapor Deposition (CVD) equipment - used to deposit various types of films which are obtained by combining the appropriate gases in a reactant chamber at elevated temperatures. This constitutes a thermochemical vapor-phase reaction. Operations may take place at atmospheric or low pressure (LPCVD) and may use plasma enhancement (PECVD).

         (C) Physical Vapor Deposition (PVD) equipment - used to deposit various types of films which are obtained by vaporizing a solid.

            (1) Evaporation equipment - in which the film is generated by heating the source material.

            (2) Sputtering equipment - in which the film is generated by bombarding the source material (target) with ions.

         (D) Molecular Beam Epitaxy (MBE) equipment - used to grow epitaxial layers on a heated monocrystalline substrate in an ultrahigh vacuum using beams of molecules. The process is similar to PVD.

      (ii) Doping equipment - which is used to introduce dopants into the wafer surface in order to modify the conductivity or other characteristics of a semiconductor layer:

         (A) Thermal diffusion equipment - in which the dopants introduced into the surface of the wafer by the application of gases under high temperatures.

         (B) Ion Implantation - in which the dopants are "driven" into the crystal lattice structure of the surface of the wafer in the form a beam of accelerated ions.

         (C) Annealing furnaces - which are used to repair the crystal lattice structures of the wafer damaged by ion implantation.

(iii) Etching and stripping equipment - used for etching or cleaning surfaces of the wafers.

(A) Wet etching equipment - in which chemical etching materials are applied by spraying or immersion. Spray etchers provide more uniform results than bath etchers, since they perform the operation on one wafer at a time.

(B) Dry plasma etching - in which etching materials are presented as gases within a plasma energy field, providing an anisotropic etch profile.

(C) Ion beam milling equipment - in which ionized gas atoms are accelerated toward the wafer surface. The impact results in the top layer being physically removed from the surface.

(D) Strippers or ashers - using techniques similar to etching this apparatus removes the spent photoresist from the surface of the wafer after it has served its purpose as a "stencil". This equipment is also used for removal of nitrides, oxides, and polysilicon, with an isotropic etch profile.

(iv) Lithography equipment - used to transfer the circuit designs to the photoresist coated surface of the semiconductor wafer.

(A) Equipment for coating wafers with photoresist - these include the photoresist spinners which are used to apply liquid photoresist evenly over the surface of the wafer.

(B) Equipment for exposing the photoresist coated wafer with the circuit design (or a part thereof):

(1) Using a mask or reticle and exposing the photoresist to light (generally ultraviolet) or, in some instances, X-rays:

(a) Contact printers - where the mask or reticle is in contact with the wafer during exposure.

(b) Proximity aligners - similar to contact aligners except actual contact doesn't take place between the mask or reticle and the wafer.

(c) Scanning aligners - which use projection techniques to expose a continuously moving slit across the mask and wafer.

(d) Step and repeat aligners - which use projection techniques to expose the wafer a portion at a time. Exposure can be by reduction from the mask to the wafer or 1:1. Enhancements include the use of an excimer laser.

(2) Direct write on wafer equipment - these apparatus operate with no mask or reticle. They use a computer controlled "writing beam" (such as, an electron beam (E-beam), ion beam or laser) to "draw" the circuit design directly on the photoresist coated wafer.

(C) Equipment for developing exposed wafers - these include chemical baths similar to those used in photographic laboratory applications

(d) Assembly equipment

(i) Dicing equipment - these include sawing machines and scribing machines (including laser scribers) and dicing accessories such as wafer breaking equipment.

(ii) Die bonding equipment - which installs the die to the package by soldering or gluing

(iii) Wire bonding equipment - used for attaching thin wires or tapes (usually of gold, aluminum or copper) from the die bonding pads to the corresponding pads on the package.

(iv) Packaging equipment - which are used to encapsulate or package a semiconductor device. They include sealing furnaces, lid welders, plastic encapsulation presses, lead trim and form equipment, package deflashers, and tin dip and solder plate equipment.

(e) Testing and inspection equipment

(i) Optical inspection equipment - These include equipment that "examines" portions of the wafer surface and compares them either to a standard pattern or to other portions of the wafer surface.

(ii) Electrical testing equipment - These include computer controlled systems that test the functions and electrical specifications of semiconductor devices through the application and detection of electrical signals or patterns. Testing is performed on both unencapsulated dice and packaged integrated circuits.

CHAPTER 84

NUCLEAR REACTORS, BOILERS, MACHINERY AND
MECHANICAL APPLIANCES; PARTS THEREOF



Notes

1. This chapter does not cover:

(a) Millstones, grindstones or other articles of chapter 68;

(b) Appliances or machinery (for example, pumps) or parts thereof, of ceramic material (chapter 69);

(c) Laboratory glassware (heading 7017); machinery, appliances or other articles for technical uses or parts thereof, of glass (heading 7019 or 7020);

(d) Articles of heading 7321 or 7322 or similar articles of other base metals (chapters 74 to 76 or 78 to 81);

(e) Electromechanical tools for working in the hand, of heading 8508, or electromechanical domestic appliances of heading 8509; or

(f) Hand-operated mechanical floor sweepers, not motorized (heading 9603).

2. Subject to the operation of note 3 to section XVI, a machine or appliance which answers to a description in one or more of the headings 8401 to 8424 and at the same time to a description in one or more of the headings 8425 to 8480 is to be classified under the appropriate heading of the former group and not the latter.

Heading 8419 does not, however, cover:

(a) Germination plant, incubators or brooders (heading 8436);

(b) Grain-dampening machines (heading 8437);

(c) Diffusing apparatus for sugar juice extraction (heading 8438);

(d) Machinery for the heat treatment of textile yarns, fabrics or made up textile articles (heading 8451); or

(e) Machinery or plant, designed for mechanical operation, in which a change of temperature, even if necessary, is subsidiary.

Heading 8422 does not cover:

(a) Sewing machines for closing bags or similar containers (heading 8452); or

(b) Office machinery of heading 8472.

3. A machine tool for working any material which answers to a description in heading 8456 and at the same time to a description in heading 8457, 8458, 8459, 8460, 8461, 8464 or 8465 is to be classified in heading 8456.

4. Heading 8457 applies only to machine tools for working metal (other than lathes) which can carry out different types of machining operations either:

(a) By automatic tool change from a magazine or the like in conformity with a machining program (machining centers);

(b) By the automatic use, simultaneously or sequentially, of different unit heads working on a fixed-position workpiece (unit construction machines, single station); or

(c) By the automatic transfer of the workpiece to different unit heads (multistation transfer machines).

5. (A) For purposes of heading 8471, the expression "automatic data processing machines" means:

   (a) Digital machines, capable of (1) storing the processing program or programs and at least the data immediately necessary for execution of the program; (2) being freely programmed in accordance with the requirements of the user; (3) performing arithmetical computations specified by the user; and, (4) executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run;

   (b) Analog machines capable of simulating mathematical models and comprising at least: analog elements, control elements and programming elements;

   (c) Hybrid machines consisting of either a digital machine with analog elements or an analog machine with digital elements.

   (B) Automatic data processing machines may be in the form of systems consisting of a variable number of separately housed units. A unit is to be regarded as being a part of the complete system if it meets all of the following conditions:

   (a) It is connectable to the central processing unit either directly or through one or more other units; and

   (b) It is specifically designed as part of such a system (it must, in particular, unless it is a power supply unit, be able to accept or deliver data in a form (code or signals) which can be used by the system).

   Such units entered separately are also to be classified in heading 8471.

   Heading 8471 does not cover machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function. Such machines are classified in the headings appropriate to their respective functions or, failing that, in residual headings.

6. Heading 8482 applies, inter alia, to polished steel balls, the maximum and minimum diameters of which do not differ from the nominal diameter by more than 1 percent or by more than 0.05 mm, whichever is less. Other steel balls are to be classified under heading 7326.

7. A machine which is used for more than one purpose is, for the purposes of classification, to be treated as if its principal purpose were its sole purpose.

   Subject to note 2 to this chapter and note 3 to section XVI, a machine the principal purpose of which is not described in any heading or for which no one purpose is the principal purpose is, unless the context otherwise requires, to be classified in heading 8479. Heading 8479 also covers machines for making rope or cable (for example, stranding, twisting or cabling machines) from metal wire, textile yarn or any other material or from a combination of such materials.

Subheading Note

1. Subheading 8482.40 applies only to bearings with cylindrical rollers of a uniform diameter not exceeding 5 mm and having a length which is at least three times the diameter. The ends of the rollers may be rounded.

Additional U.S. Note

1. For the purposes of subheadings 8479.89.10, 8479.89.65, 8479.89.90, 8479.90.40 and 8479.90.95, the rate of duty "Free (C)" appearing in the column entitled "1-Special" applies only to the following articles and their parts: nonelectric starter motors; propeller regulators, nonelectric; servo-mechanisms, nonelectric; windshield wipers, nonelectric; hydropneumatic accumulators; pneumatic starters for turbojets, turbopropellers, or other gas turbines; toilet units specially designed for aircraft; mechanical actuators for thrust reversers; air humidifiers and dehumidifiers.

2. Subheadings 8473.30.30 and 8473.30.60 cover the following parts of printers of subheading 8471.92:

(a) Control or command assemblies, incorporating more than one of the following: printed circuit assembly, hard or flexible (floppy) disk drive, keyboard, user interface;

(b) Light source assemblies, incorporating more than one of the following: light emitting diode assembly, gas laser, mirror polygon assembly, base casting;

(c) Laser imaging assemblies, incorporating more than one of the following: photoreceptor belt or cylinder, toner receptacle unit, toner developing unit, charge/discharge units, cleaning unit;

(d) Image fixing assemblies, incorporating more than one of the following: fuser, pressure roller, heating element, release oil dispenser, cleaning unit, electrical control;

(e) Ink jet marking assemblies, incorporating more than one of the following: thermal print head, ink dispensing unit, nozzle and reservoir unit, ink heater;

(f) Maintenance/sealing assemblies, incorporating more than one of the following: vacuum unit, ink jet covering unit, sealing unit, purging unit;

(g) Paper handling assemblies, incorporating more than one of the following: paper transport belt, roller, print bar, carriage, gripper roller, paper storage unit, exit tray;

(h) Thermal transfer imaging assemblies, incorporating more than one of the following: thermal print head, cleaning unit, supply or take-up roller;

(ij) Ionographic imaging assemblies, incorporating more than one of the following: ion generation and emitting unit, air assist unit, printed circuit assembly, charge receptor belt or cylinder, toner receptacle unit, toner distribution unit, developer receptacle and distribution unit, developing unit, charge/discharge unit, cleaning unit; or

(k) Combinations of the above specified assemblies.

<u>Statistical Note</u>:

1. For the purposes of subheading 8465.93.00, the term <u>wide belt sanders</u> refers to those belt sanders which use a belt with a width of 30 cm or wider.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 8401 | | Nuclear reactors; fuel elements (cartridges), non-irradiated, for nuclear reactors; machinery and apparatus for isotopic separation; parts thereof: | | | | |
| 8401.10.00 | 00 | Nuclear reactors | t. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8401.20.00 | 00 | Machinery and apparatus for isotopic separation, and parts thereof | t. | 3.9% | Free (A,CA,E,IL,J, MX) | 35% |
| 8401.30.00 | 00 | Fuel elements (cartridges), non-irradiated, and parts thereof | X. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8401.40.00 | 00 | Parts of nuclear reactors | t. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8402 | | Steam or other vapor generating boilers (other than central heating hot water boilers capable also of producing low pressure steam); super-heated water boilers; parts thereof: | | | | |
| | | Steam or other vapor generating boilers: | | | | |
| 8402.11.00 | 00 | Watertube boilers with a steam production exceeding 45 t per hour | t. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8402.12.00 | 00 | Watertube boilers with a steam production not exceeding 45 t per hour | t. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8402.19.00 | 00 | Other vapor generating boilers, including hybrid boilers | t. | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| 8402.20.00 | 00 | Super-heated water boilers | t. | 6.5% | Free (A*,CA,E,IL, J,MX) | 45% |
| 8402.90.00 | | Parts | | 6.5% | Free (A,CA,E,IL,J, MX) | 45% |
| | 10 | Heat exchangers | t | | | |
| | 90 | Other | X | | | |
| 8403 | | Central heating boilers (other than those of heading 8402) and parts thereof: | | | | |
| 8403.10.00 | 00 | Boilers | No. | 4.2% | Free (A,CA,E,IL,J, MX) | 45% |
| 8403.90.00 | 00 | Parts | X. | 4.2% | Free (A,CA,E,IL,J, MX) | 45% |
| 8404 | | Auxiliary plant for use with boilers of heading 8402 or 8403 (for example, economizers, super-heaters, soot removers, gas recoverers); condensers for steam or other vapor power units; parts thereof: | | | | |
| 8404.10.00 | | Auxiliary plant for use with boilers of heading 8402 or 8403 | | 7% | Free (A,CA,E,IL,J, MX) | 45% |
| | 10 | Economizers | t | | | |
| | 50 | Other | t | | | |
| 8404.20.00 | 00 | Condensers for steam or other vapor power units | t. | 7% | Free (A,CA,E,IL,J, MX) | 45% |
| 8404.90.00 | 00 | Parts | X. | 7% | Free (A,CA,E,IL,J, MX) | 45% |
| 8405 | | Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers; parts thereof: | | | | |
| 8405.10.00 | 00 | Producer gas or water gas generators, with or without their purifiers; acetylene gas generators and similar water process gas generators, with or without their purifiers | X. | 2.8% | Free (A,CA,E,IL,J, MX) | 45% |
| 8405.90.00 | 00 | Parts | X. | 2.8% | Free (A,CA,E,IL,J, MX) | 45% |

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 8442 | | Machinery, apparatus and equipment (other than the machine tools of headings 8456 to 8465), for type-founding or typesetting, for preparing or making printing blocks, plates, cylinders or other printing components; printing type, blocks, plates, cylinders and other printing components; blocks, plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished); parts thereof: | | | | |
| 8442.10.00 | 00 | Phototypesetting and composing machines........ | No...... | Free | | Free |
| 8442.20.00 | 00 | Machinery, apparatus and equipment for typesetting or composing by other processes, with or without founding device.... | No...... | Free | | Free |
| 8442.30.00 | 00 | Other machinery, apparatus and equipment...... | No...... | Free | | Free |
| 8442.40.00 | 00 | Parts of the foregoing machinery, apparatus or equipment........................................ | X....... | Free | | Free |
| 8442.50 | | Printing type, blocks, plates, cylinders and other printing components; blocks, plates, cylinders and lithographic stones, prepared for printing purposes (for example, planed, grained or polished): | | | | |
| 8442.50.10 | | Plates........................................ | ........ | Free | | 25% |
| | 10 | Planed, grained, polished or otherwise prepared for engraving or impressing............ | No. | | | |
| | 90 | Other.................................. | No. | | | |
| 8442.50.90 | | Other.......................................... | ........ | 8% | Free (A,CA,E,IL,J, MX) | 60% |
| | 10 | Planed, grained, polished or otherwise prepared for engraving or impressing............ | No. | | | |
| | 90 | Other.................................. | No. | | | |

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 8443 | | Printing machinery; machines for uses ancillary to printing; parts thereof: | | | | |
| | | Offset printing machinery: | | | | |
| 8443.11.00 | 00 | Reel-fed | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.12.00 | 00 | Sheet-fed, office type (sheet size not exceeding 22 x 36 cm) | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.19 | | Other: | | | | |
| 8443.19.10 | 00 | Weighing 900 kg or less | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.19.50 | 00 | Weighing more than 900 kg but less than 1,600 kg | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.19.90 | 00 | Weighing 1,600 kg or more | No. | 2.4% | Free (A,CA,E,IL,J, MX) | 25% |
| | | Letterpress printing machinery, excluding flexographic printing: | | | | |
| 8443.21.00 | 00 | Reel-fed | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.29.00 | 00 | Other | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.30.00 | 00 | Flexographic printing machinery | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.40.00 | 00 | Gravure printing machinery | No. | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.50 | | Other printing machinery: | | | | |
| 8443.50.10 | 00 | Textile printing machinery | X | 5.1% | Free (A,CA,E,IL,J, MX) | 40% |
| 8443.50.50 | 00 | Other | X | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.60.00 | 00 | Machines for uses ancillary to printing | X | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |
| 8443.90 | | Parts: | | | | |
| 8443.90.10 | 00 | Of textile printing machinery | X | 5.1% | Free (A,CA,E,IL,J, MX) | 40% |
| 8443.90.50 | 00 | Other | X | 3.3% | Free (A,CA,E,IL,J, MX) | 25% |

# CHAPTER 95

## TOYS, GAMES AND SPORTS EQUIPMENT; PARTS AND ACCESSORIES THEREOF

Notes

1. This chapter does not cover:

(a) Christmas tree candles (heading 3406);

(b) Fireworks or other pyrotechnic articles of heading 3604;

(c) Yarns, monofilament, cords or gut or the like for fishing, cut to length but not made up into fishing lines, of chapter 39, heading 4206 or section XI;

(d) Sports bags or other containers of heading 4202, 4303 or 4304;

(e) Sports clothing or fancy dress, of textiles, of chapter 61 or 62;

(f) Textile flags or bunting, or sails for boats, sailboards or land craft, of chapter 63;

(g) Sports footwear (other than skating boots with ice or roller skates attached) of chapter 64, or sports headgear of chapter 65;

(h) Walking-sticks, whips, riding-crops or the like (heading 6602), or parts thereof (heading 6603);

(ij) Unmounted glass eyes for dolls or other toys, of heading 7018;

(k) Parts of general use, as defined in note 2 to section XV, of base metal (section XV), or similar goods of plastics (chapter 39);

(l) Bells, gongs or the like of heading 8306;

(m) Electric motors (heading 8501), electric transformers (heading 8504) or radio remote control apparatus (heading 8526);

(n) Sports vehicles (other than sleds, bobsleds, toboggans and the like) of section XVII;

(o) Children's bicycles (heading 8712);

(p) Sports craft such as canoes and skiffs (chapter 89), or their means of propulsion (chapter 44 for such articles made of wood);

(q) Spectacles, goggles or the like, for sports or outdoor games (heading 9004);

(r) Decoy calls or whistles (heading 9208);

(s) Arms or other articles of chapter 93;

(t) Electric garlands of all kinds (heading 9405); or

(u) Racket strings, tents or other camping goods, or gloves (classified according to their constituent material).

2. This chapter includes articles in which natural or cultured pearls, precious or semiprecious stones (natural, synthetic or reconstructed), precious metal or metal clad with precious metal constitute only minor constituents.

3. Subject to note 1 above, parts and accessories which are suitable for use solely or principally with articles of this chapter are to be classified with those articles.

| Heading/ Subheading | Stat. Suf- fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | 2 |
|---|---|---|---|---|---|---|
| 9501.00.00 | | Wheeled toys designed to be ridden by children (for example, tricycles, scooters, pedal cars); dolls' carriages and dolls' strollers; parts and accessories thereof: | | | | |
| | | Wheeled toys designed to be ridden by children and parts and accessories thereof: | | | | |
| 9501.00.20 | 00 | Chain-driven wheeled toys.............. | X....... | Free | | 27.5% |
| 9501.00.40 | 00 | Other................................ | X....... | 3.6% | Free (A,E,IL,J,MX) 1.4% (CA) | 45% |
| 9501.00.60 | 00 | Dolls' carriages, dolls' strollers and parts and accessories thereof.............. | X....... | 7.8% | Free (A,E,IL,J,MX) 3.1% (CA) | 70% |
| 9502 | | Dolls representing only human beings and parts and accessories thereof: | | | | |
| 9502.10 | | Dolls, whether or not dressed: | | | | |
| 9502.10.20 | 00 | Stuffed.................................. | No...... | 12% 1/ 2/ | Free (A,E,IL,J,MX) 4.8% (CA) | 70% |
| | | Other: | | | | |
| 9502.10.40 | 00 | Not over 33 cm in height........... | No...... | 12% 1/ | Free (A,E,IL,J,MX) 4.8% (CA) | 70% |
| | | Other: | | | | |
| 9502.10.60 | 00 | Capable of electromechanical movement of body parts activated by, and synchronized with, an integral or accompanying cassette tape player or microprocessor............................ | No...... | 12% | Free (A,E,IL,J,MX) 4.8% (CA) | 70% |
| 9502.10.80 | 00 | Other........................... | No...... | 12% | Free (A,E,IL,J,MX) 4.8% (CA) | 70% |
| | | Parts and accessories: | | | | |
| 9502.91.00 | 00 | Garments and accessories thereof, footwear and headgear........................ | X....... | 8% 1/ | Free (A,E,J,MX) 0.8% (IL) 3.2% (CA) | 70% |
| 9502.99 | | Other: | | | | |
| 9502.99.10 | 00 | Skins for stuffed dolls............... | X....... | 12% 1/ 2/ | Free (A,E,IL,J,MX) 4.8% (CA) | 70% |
| 9502.99.20 | 00 | Artificial eyes, except prosthetic articles............................ | X....... | 6.4% 1/ | Free (A,E,IL,J,MX) 2.5% (CA) | 70% |
| 9502.99.30 | 00 | Other................................ | X....... | 12% 1/ | Free (E,IL,J) 4.8% (CA) 9.6% (MX) 3/ | 70% |
| 9503 | | Other toys; reduced-size ("scale") models and similar recreational models, working or not; puzzles of all kinds; parts and accessories thereof: | | | | |
| 9503.10.00 | | Electric trains, including tracks, signals and other accessories thereof; parts thereof................................... | ....... | 6.8% 1/ | Free (A,E,IL,J,MX) 2.7% (CA) | 70% |
| | 10 | Assembly kits with construction units prefabricated to an essentially uniform scale of the actual article...... | X | | | |
| | | Other, except parts: | | | | |
| | 20 | Made to a scale of the actual article at the ratio of 1 to 85 or smaller............................ | X | | | |
| | | Other: | | | | |
| | 30 | Made to a scale of the actual article at a ratio larger than 1 to 85.................. | X | | | |
| | 40 | Other........................... | X | | | |
| | 50 | Parts...................................... | X | | | |

1/ See subheading 9902.71.13.
2/ See subheading 9902.95.01.
3/ See subheading 9906.95.01.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 9504 (con.) | | Articles for arcade, table or parlor games, including pinball machines, bagatelle, billiards and special tables for casino games; automatic bowling alley equipment; parts and accessories thereof (con.): | | | | |
| 9504.30.00 | | Other games, coin- or token-operated, other than bowling alley equipment; parts and accessories thereof | ........ | 3.9% | Free (A,E,IL,J,MX) 1.5% (CA) | 35% |
| | 10 | Video | X | | | |
| | | Other: | | | | |
| | | Games: | | | | |
| | 20 | Pinball machines and bell-type machines and consoles | X | | | |
| | 40 | Other | X | | | |
| | 60 | Parts and accessories | X | | | |
| 9504.40.00 | 00 | Playing cards | pack.... | 0.8¢/pack + 0.8% | Free (A,E,IL,J,MX) 0.3¢/pack + 0.3% (CA) | 10¢/pack + 20% |
| 9504.90 | | Other: | | | | |
| 9504.90.40 | 00 | Game machines, other than coin- or token-operated; parts and accessories thereof | X....... | 3.9% 1/ | Free (A,CA,E,IL,J,MX) | 35% |
| | | Other: | | | | |
| 9504.90.60 | 00 | Chess, checkers, parchisi, backgammon, darts and other games played on boards of a special design, all the foregoing games and parts thereof (including their boards); mah-jong and dominoes; any of the foregoing games in combination with each other, or with other games, packaged together as a unit in immediate containers of a type used in retail sales; poker chips and dice | X....... | 4.64% 1/ | Free (A,E,IL,J,MX) 1.8% (CA) | 40% |
| 9504.90.90 | | Other | ....... | 4.64% 1/ | Free (A,E,IL,J,MX) 1.8% (CA) | 40% |
| | 40 | Bowling balls | No. | | | |
| | 60 | Bowling equipment and parts and accessories thereof | X | | | |
| | 80 | Other | X | | | |
| 9505 | | Festive, carnival or other entertainment articles, including magic tricks and practical joke articles; parts and accessories thereof: | | | | |
| 9505.10 | | Articles for Christmas festivities and parts and accessories thereof: | | | | |
| | | Christmas ornaments: | | | | |
| 9505.10.10 | 00 | Of glass | X....... | 6.6% | Free (A,E,IL,J,MX) 2.6% (CA) | 60% |
| | | Other: | | | | |
| 9505.10.15 | 00 | Of wood | X....... | 5.1% | Free (A,E,IL,J,MX) 2% (CA) | 20% |
| 9505.10.25 | 00 | Other | X....... | 5% 2/ | Free (A,E,IL,J,MX) 2% (CA) | 20% |
| 9505.10.30 | 00 | Nativity scenes and figures thereof | X....... | 5.3% | Free (A,E,IL,J,MX) 2.1% (CA) | 80% |
| | | Other: | | | | |
| 9505.10.40 | | Of plastics | ........ | 8.4% | Free (A,E,IL,J,MX) 3.3% (CA) | 60% |
| | 10 | Artificial Christmas trees | No. | | | |
| | 20 | Other | X | | | |
| 9505.10.50 | | Other | X....... | 5.8% | Free (A,E,IL,J,MX) 2.3% (CA) | 90% |
| | 10 | Artificial Christmas trees | No. | | | |
| | 20 | Other | X | | | |

1/ See subheading 9902.71.13.
2/ See subheading 9902.95.05.

| Heading/ Subheading | Stat. Suf-fix | Article Description | Units of Quantity | Rates of Duty 1 General | Rates of Duty 1 Special | Rates of Duty 2 |
|---|---|---|---|---|---|---|
| 9505 (con.) | | Festive, carnival or other entertainment articles, including magic tricks and practical joke articles; parts and accessories thereof (con.): | | | | |
| 9505.90 | | Other: | | | | |
| 9505.90.20 | 00 | Magic tricks and practical joke articles; parts and accessories thereof | X | 5.8% 1/ | Free (A,E,IL,J,MX) 2.3% (CA) | 70% |
| 9505.90.40 | 00 | Confetti, paper spirals or streamers, party favors and noisemakers; parts and accessories thereof | X | 4% 1/ | Free (A,E,IL,J,MX) 1.6% (CA) | 45% |
| 9505.90.60 | | Other | | 3.1% 1/ | Free (A,E,IL,J,MX) 1.2% (CA) | 25% |
| | | Hats: | | | | |
| | 10 | Of paper, foil or plastics | doz. | | | |
| | 20 | Other | doz. | | | |
| | 90 | Other | X | | | |
| 9506 | | Articles and equipment for general physical excercise, gymnastics, athletics, other sports (including table-tennis) or outdoor games, not specified or included elsewhere in this chapter; swimming pools and wading pools; parts and accessories thereof: | | | | |
| | | Snow-skis and other snow-ski equipment; parts and accessories thereof: | | | | |
| 9506.11 | | Skis and parts and accessories thereof, except ski poles: | | | | |
| 9506.11.20 | 00 | Cross-country skis | prs. | 3.5% | Free (A,CA,E,IL,J,MX) | 33 1/3% |
| 9506.11.40 | 00 | Other skis | prs. | 5.1% | Free (A,CA,E,IL,J,MX) | 33 1/3% |
| 9506.11.60 | 00 | Parts and accessories | X | 3.5% | Free (A,CA,E,IL,J,MX) | 45% |
| 9506.12 | | Ski bindings and parts and accessories thereof: | | | | |
| 9506.12.40 | 00 | Cross-country | X | 3.5% | Free (A,CA,E,IL,J,MX) | 45% |
| 9506.12.80 | 00 | Other | X | 5.5% | Free (A,CA,E,IL,J,MX) | 45% |
| 9506.19 | | Other: | | | | |
| 9506.19.40 | 00 | Cross-country | X | 3.5% | Free (A,CA,E,IL,J,MX) | 45% |
| 9506.19.80 | | Other | | 5.5% | Free (A,CA,E,IL,J,MX) | 45% |
| | 40 | Ski poles and parts and accessories thereof | X | | | |
| | 80 | Other | X | | | |
| | | Water skis, surf boards, sailboards and other water-sport equipment; parts and accessories thereof: | | | | |
| 9506.21 | | Sailboards and parts and accessories thereof: | | | | |
| 9506.21.40 | 00 | Sailboards | No. | 1.5% | Free (A,CA,E,IL,J,MX) | 30% |
| 9506.21.80 | 00 | Parts and accessories | X | 4.2% | Free (A,CA,E,J,MX) 0.4% (IL) | 30% |
| 9506.29.00 | | Other | | 4.64% | Free (A,E,IL,J,MX) 1.8% (CA) | 40% |
| | 20 | Water skis | prs. | | | |
| | 40 | Other | X | | | |
| | | Golf clubs and other golf equipment; parts and accessories thereof: | | | | |
| 9506.31.00 | 00 | Golf clubs, complete | No. | 4.9% | Free (A,E,IL,J,MX) 1.9% (CA) | 30% |
| 9506.32.00 | 00 | Balls | doz. | 2.4% | Free (A,E,IL,J,MX) 0.9% (CA) 2/ | 30% |
| 9506.39.00 | | Other | | 4.9% | Free (A,E,IL,J,MX) 1.9% (CA) 2/ | 30% |
| | 60 | Parts of golf clubs | X | | | |
| | 80 | Other | X | | | |
| 9506.40.00 | 00 | Articles and equipment for table-tennis, and parts and accessories thereof | X | 5.1% | Free (A,E,IL,J,MX) 2% (CA) | 30% |

1/ See subheading 9902.71.13.
2/ See subheading 9905.95.01 and 9905.95.03.

# Section 7

# Additional Resources

## PIA Tradeshow/Meeting Calendar

| DATE | MEETING | CONTACT |
|---|---|---|
| **1994** April 6-9 | Master Printers of America<br>Leadership Conference<br>Scottsdale Plaza Resort<br>Scottsdale, Arizona | Brenda Steele<br>(703) 519-8132 |
| April 7-9 | Graphic Arts Show Company<br>MidWest Graphics<br>Cobo Conference/Exhibition Center<br>Detroit, Michigan | Jody Werner<br>(703) 264-7208 |
| April 10-15 | Graphic Communications Association<br>SGML Tutorial Series<br>Santa Clara, California | Joy Blake<br>(703) 519-8177 |
| April 12-15 | Marketing: PIA Financial<br>Executives Spring Meeting<br>Silverado Hotel<br>Napa Valley, California | Wendy Shapiro<br>(703) 519-8137 |
| April 12-15 | Graphic Communications Association<br>Addressing/Distribution<br>Spring Forum<br>Intercontinental Hotel<br>New Orleans, Louisiana | Alex Shamoff<br>(703) 519-8199 |
| April 13-14 | Graphic Communications Association<br>From Imagination to Press<br>The Westin O'Hare<br>Rosemont, Illinois | Jim Harvey<br>(703) 519-8166 |
| April 19-20 | Graphic Communications Association<br>From Imagination to Press<br>Wyndham Garden Hotel<br>Commerce, California | Jim Harvey<br>(703) 519-8166 |
| April 25-26 | Graphic Communications Association<br>Metrology Workshop<br>Rochester, New York | Jim Harvey<br>(703) 519-8166 |
| April 30-May 4 | PIA Spring Administrative Meetings<br>& Legislative Conference<br>Loews L'Enfant Plaza<br>Washington, D.C. | Terry Harris<br>(703) 519-8110 |

| DATE | Meeting | Contact |
|---|---|---|
| May 1-3 | LPIA Label Printing<br>Technical Seminar<br>St. Paul Hotel<br>St. Paul, Minnesota | Lois Eck<br>(703) 519-8122 |
| May 9-11 | Web Offset Association<br>42nd Annual Conference<br>Loews Anatole Hotel<br>Dallas, Texas | Ursula Chavez<br>(703) 519-8142 |
| May 15-19 | Graphic Communications Association<br>SGML Europe<br>Montreux, Switzerland | Tanya Bosse<br>(703) 519-8174 |
| May 19-20 | Graphic Communications Association<br>Control of Paper (ConPap) '94<br>Zurich, Switzerland | Alan Kotok<br>(703) 519-8173 |
| May 23-24 | Graphic Communications Association<br>From Imagination to Press<br>Roosevelt Hotel<br>New York, New York | Jim Harvey<br>(703) 519-8166 |
| May 23-27 | Graphic Communications Association<br>Color Connections<br>New York, New York | Jim Harvey<br>(703) 519-8166 |
| June 1-2 | Graphic Communications Association<br>From Imagination to Press<br>The Park Inn<br>Minneapolis, Minnesota | Jim Harvey<br>(703) 519-8166 |
| June 9-10 | Web Offset Association<br>Magazine Printers Section Mtg.<br>Daytona Hilton<br>Daytona, Florida | Beth Parrott<br>(703) 519-8141 |
| June 13-16 | Graphics Communications Association<br>OnLine Publishing '94<br>New York, New York | Tanya Bosse<br>(703) 519-8174 |

| DATE | MEETING | CONTACT |
| --- | --- | --- |
| June 19-22 | Marketing: Print Sales & Marketing '94 Conference<br>Williamsburg Lodge<br>Williamsburg, Virginia | Wendy Shapiro<br>(703) 519-8137 |
| June 19-22 | Graphic Arts Marketing Information Service Annual Meeting<br>The Hospitality House<br>Williamsburg, Virginia | Trisha Hurlburt<br>(703) 519-8176 |
| July 18-22 | Graphic Communications Association<br>SGML Tutorial Series<br>Boston, Massachusetts | Joy Blake<br>(703) 519-8177 |
| July 21 | PIA Executive Committee<br>PIA Headquarters<br>Alexandria, Virginia | Terry Harris<br>(703) 519-8110 |
| July 25-28 | Graphic Communications Association<br>International Conference on the Application of HyTime<br>Vancouver, British Columbia | Joy Blake<br>(703) 519-8177 |
| July 26-28 | Graphic Communications Association<br>Addressing/Distribution Summer Forum<br>Hyatt Regency<br>Baltimore, Maryland | Alex Shamoff<br>(703) 519-8199 |
| Aug 29-30 | Finance & Administration Committee Meeting<br>Embassy Suites<br>Alexandria, Virginia | Karen Smith<br>(703) 519-8112 |
| Sept 18-21 | Graphics Communication Association<br>Spectrum '94<br>The Arizona Biltmore<br>Scottsdale, Arizona | Jim Harvey<br>(703) 519-8166 |
| Sept 19-23 | Graphic Communications Association<br>SGNL Tutorial Series<br>Ft. Lauderdale, Florida | Joy Blake<br>(703) 519-8177 |

| DATE | MEETING | CONTACT |
|---|---|---|
| Sept 21-23 | Graphic Arts Marketing Information Service<br>GAMIS Quarterlt Meeting<br>Loews Annapolis Hotel<br>Annapolis, Maryland | Trisha Hurlburt<br>(703) 519-8176 |
| Sept 25-28 | Graphic Arts Show Company<br>Graph Expo East<br>Pennsylvania Convention Center<br>Philadelphia, Pennsylvania | Jody Werner<br>(703) 264-7208 |
| Sept 29-Oct 7 | Executive Development Program<br>Airlie Conference Center<br>Airlie, Virginia | Diane Swanson<br>(703) 519-8183 |
| Oct 1-2 | Master Printers of America<br>Board of Directors Meeting<br>Royal Sonesta Hotel<br>New Orleans, Louisiana | Brenda Steele<br>(703) 519-8132 |
| Oct 2-5 | LPIA Fall Management Conference<br>Sonests Key Biscayne<br>Key Biscayne, Florida | Lois Eck<br>(703) -519-8122 |
| Oct 7-12 | Graphic Communications Association<br>SGML Asia-Pacific<br>Singapore | Joy Blake<br>(703) 519-8177 |
| Oct 9-11 | PIA National Leadership Meeting<br>Boca Raton Resort<br>Boca Raton, Florida | Terry Harris<br>(703) 519-8110 |
| Oct 16-19 | Master Printers of America<br>Management Development Seminar<br>El Dorado Hotel<br>Sante Fe, New Mexico | Negin Shakibi<br>(703) 519-8135 |
| Oct 19-20 | Binding Industries of America<br>Mid-Management Seminar<br>Woodfield Hilton & Towers<br>Arlington Heights, Illinois | James Niesen<br>(312) 372-7606 |

| DATE | MEETING | CONTACT |
|---|---|---|
| Oct 19-21 | Marketing:<br>Printing industry Financial Executive<br>Fall '94 Meeting<br>Westin Canal Place<br>New Orleans, Louisiana | Wendy Shapiro<br>(703) 519-8137 |
| Oct 23-26 | ITA Annual Convention<br>The Point at Tapatio Cliffs<br>Phoenix, Arizona | Lois Eck<br>(703) 519-8122 |
| Nov 14-15 | Governmental Affairs<br>Govt. Affairs Planning Meeting<br>Sandestin Beach Hilton<br>Destin, Florida | Alex Graham<br>(703) 519-8180 |
| Dec 4-8 | Graphic Communications Association<br>SGML '94<br>Boston, Massachusetts | Joy Blake<br>(703) 519-8177 |
| Dec 6-9 | Graphics Arts Marketing<br>Information Service<br>GAMIS Quarterly Meeting<br>Stouffer Concourse Hotel<br>Arlington, Virginia | Trisha Hulburt<br>(703) 519- 8176 |
| **1995** | | |
| Jan 16-18 | Non-Heatset Web Section<br>17th Annual Conference<br>The Arizona Biltmore<br>Phoenix, Arizona | Ursula Chavez<br>(703) 519-8142 |
| Jan 26 | PIA Executive Committee<br>PIA Headquarters<br>Alexandria, Virginia | Terry Harris<br>(703) 519-8110 |
| Feb TBA | Graphic Communications Association<br>Printer, Publisher, Paper<br>Symposlum | Alex Shamoff<br>(703) 519-8199 |

| DATE | MEETING | CONTACT |
|---|---|---|
| Feb TBA | Human Relations-Education Presidents Conference St. Thomas, Virgin Islands | Mary Garnett (703) 519-8189 |
| Feb 8-11 | Graphic Arts Show Company Concepts Orlando, Florida | Jody Werner (703) 264-7208 |
| Mar 7-11 | Graphic Communications Association Documentation '95 Long Beach, California | Joy Blake (703) 519-8177 |
| Mar 12-15 | PIA Human Relations Conference Red Lion's La Posada Scottsdale, Arizona | Jim Kyger (703) 519-8133 |
| Mar 14-15 | Graphic Communications Association Addressing/Distribution Spring Conference '95 Ft. Lauderdale, Florida | Alex Shamoff (703) 519-8199 |
| Mar 16-19 | Graphic Arts Show Company Graphic Arts '95/The Charlotte Show New Charlotte Convention Center Charlotte, North Carolina | Jody Werner (703) 264-7208 |
| Apr 1-6 | Binding Industries of America Annual BIA Convention Desert Springs Palm Springs, California | James Niesen (312) 372-7606 |
| Apr 5-8 | Master Printers of America Leadership Conference Sonesta Key Biscayne Key Biscayne, Florida | Brensa Steele (703) 519-8132 |
| Apr 6-8 | Graphic Arts Show Company MidWest Graphics '95 Minneapolis Convention Center Minneapolis, Minnesota | Jody Werner (703) 264-7208 |

| DATE | MEETING | CONTACT |
|---|---|---|
| Apr 30-May 3 | Web Offest Association<br>43rd Annual Conference<br>Sheraton Hotel & Towers<br>Chicago, Illinois | Ursula Chavez<br>(703) 519-8142 |
| May 7-10 | PIA Spring Administrative<br>Meetings & Legislative Conference<br>Washington, D.C. | Terry Harris<br>(703) 519-8110 |
| Jun 18-21 | Marketing<br>Print Sales & Marketing Meeting<br>Tamarron Resort<br>Durango, Colorado | Wendy Shapiro<br>(703) 519- 8137 |
| Jul 20 | PIA Executive Committee<br>PIA Headquarters<br>Alexandria, Virginia | Terry Harris<br>(703) 519-8110 |
| Jul 25-27 | Graphic Communication Association<br>Addressing/Distribution<br>Summer Forum<br>Philadelphia, Pennsylvania | Alex Shamoff<br>(703) 519-8199 |
| Oct 5-13 | Executive Development Program<br>Airlie Conference Center<br>Airlie, Virginia | Diane Swanson<br>(703) 519-8183 |
| Oct 6-8 | Master Printers of America<br>Fall Board Meeting<br>TBA | Brenda Steele<br>(703) 519-8132 |
| Oct 8-11 | Graphic Arts Show Company<br>Graph Expo '95<br>McCormick Place East<br>Chicago, Illinois | Jody Werner<br>(703) 264-7208 |
| Oct 22-25 | Master Printers of America<br>Management Development Seminar<br>TBA | Negin Shakibi<br>(703) 519-8135 |