

Part VI--Proposed New Industry Structure for Professional, Scientific and Technical Services

Section A--NAICS Structure

North American Industry Classification System

(NAICS)

Agreement Number 16

This Document represents the proposed agreement on the structure of the North American Industry Classification System (NAICS) for the following industries:

Professional, Scientific and Technical Services

The detailed NAICS structure along with a brief description of the structure is attached (Attachments 1 and 2). Each country agrees to release a copy of the proposed NAICS structure to interested data users. Comments received will be shared among the countries and additional discussions will be held before a final decision on the structure is made. Each country may add additional detailed industries, below the 4-digit level of NAICS, as necessary to meet national needs, so long as this additional detail aggregates to a 4-digit NAICS level in order to ensure full comparability among the three countries. This NAICS structure was presented and provisionally accepted at the NAICS Committee meeting held on September 27, 1995 - September 29, 1995 in Mexico City, Mexico.

Accepted	Signature	Date
Canada	/S/ Jacob Ryten	9/29/95
Mexico	/S/ Enrique Ordaz	9/29/95
United States	/S/ Jack E. Triplett	9/29/95

ATTACHMENT 1--NAICS STRUCTURE

XX	Professional, Scientific and Technical Services
XXX	Legal Services
XXXX	Offices of Lawyers
XXXX	Offices of Notaries
XXXX	Other Legal Services
XXX	Accounting, Tax Preparation, Bookkeeping and Payroll Services
XXXX	Offices of Accountants
XXXX	Tax Preparation, Bookkeeping and Payroll Services
XXX	Architectural, Engineering and Related Services
XXXX	Architectural Services
XXXX	Engineering Services
XXXX	Drafting Services
XXXX	Building Inspection Services

XXXX	Landscape Architecture Services
XXXX	Surveying and Mapping Services
XXXX	Geophysical Surveying Services
XXXX	Testing Laboratories
XXX	Specialized Design Services
XXXX	Interior Design Services
XXXX	Industrial Design Services
XXXX	Graphic Design Services
XXXX	Other Specialized Design Services
XXX	Computer Systems Design and Related Services
XXXX	Computer Systems Design and Related Services
XXX	Management, Scientific and Technical Consulting Services
XXXX	Management Consulting Services
XXXX	Environmental Consulting Services
XXXX	Other Scientific and Technical Consulting Services
XXX	Scientific Research and Development Services
XXXX	Research and Development in the Physical and Engineering Sciences
XXXX	Research and Development in the Life Sciences
XXXX	Research and Development in the Social Sciences and Humanities
XXX	Advertising and Related Services
XXXX	Advertising Agencies
XXXX	Public Relations Services
XXXX	Media Buying Agencies
XXXX	Media Representatives
XXXX	Display Advertising
XXXX	Direct Mail Advertising
XXXX	Advertising Material Distribution
XXXX	Other Services Related to Advertising
XXX	Other Professional, Scientific and Technical Services
XXXX	Market Research and Public Opinion Polling
XXXX	Photography Services
XXXX	Translation and Interpretation Services
XXXX	Veterinary Services
XXXX	All Other Professional, Scientific and Technical Services

Attachment 2--North American Industry Classification System

Draft Classification for:

Professional, Scientific, and Technical Services

Representatives of the statistical agencies of Canada, Mexico, and the United States agree to a draft industry classification for the Professional, Scientific, and Technical Service industries.

The subsector is further subdivided into nine industry groups and 37 industries. The placement of this subsector within the NAICS structure is not yet determined.

A General Outline

The statistical agencies of Canada, Mexico, and the United States have agreed to place major emphasis on improved services classifications in NAICS. In their July 26, 1994 statement of concept for NAICS (**Federal Register**, Vol. 59, No. 142, p.38094), they stated: "Statistical agencies of the three countries agree to give special attention to developing production-oriented classifications for (a) new and emerging industries, (b) service industries in general...."

Past industry classifications have two analytical inadequacies. First, individual services industries are too few in number, which is another way of saying that they have been defined too broadly to be useful--they have combined too many disparate activities into a single industry definition. This criticism has been heard even in the U.S., which had more services industry detail in its 1987 Standard Industrial Classification Manual than was the case for most other classification systems. As indicated later in this outline, the detail problem has been addressed in NAICS by breaking out new services industries from many of the broad and heterogeneous industries in the former systems of all three countries.

A second problem in past services industry classifications is a general lack of a coherent structure. To take the 1987 U.S. SIC system as an example, though it had what in NAICS would be called a "subsector" for "Business Services," it was difficult to discern an organizational principle in this subsector, or the relation that the industries included in it had to each other or to the subsector as a whole. Moreover, engineering and architecture were not defined as business services at all, and were located in a different part of the classification. Again, this lack of coherent structure has been criticized.

In NAICS, organizing principles have been sought that will give coherence to NAICS services sectors and subsectors. The organizing principle of the Professional, Scientific, and Technical Services subsector is human capital, the knowledge and skills of the employees in the subsector.

A services firm is often in the business of selling the skills of its workers. When this is the case, the production process of a services producer depends essentially on the abilities and capabilities of its employees. Of course, human capital is important in other areas of services as well--medicine, for example. A broad interpretation of the principles of human capital could have led to the inclusion of other industries in this subsector. For example, investment advisors and real estate appraisers also make available the particular knowledge and skills of their human capital.

The distinguishing feature of the Professional, Scientific, and Technical Services subsector is the fact that most of the industries grouped in it have production processes that are almost wholly dependent on worker skills. In most of these industries, equipment and materials are not of major importance, unlike health care, for example, where “high tech” machines and materials are important collaborating inputs to labor skills in the production of health care. Thus, the establishments classified in this subsector are expertise sellers. Much of the expertise requires degrees, though not in every case. Moreover, differences in expertise and in training distinguish the industries that are classified in this subsector.

Because of the importance of services industries, and their rapid growth in North America, the three countries’ statistical agencies have created a forward looking classification for this subsector that is intended to provide a framework for measuring services as they expand throughout the entire North American economy. For this reason, many NAICS industries in this subsector have been created even when they cannot at present be supported by all three countries. This is a different rule than the one followed in most of the traditional goods producing sectors. The following paragraphs provide a brief description of the content of each industry group and observations on issues that are of particular interest.

The Legal Services industry group includes Offices of Lawyers, Offices of Notaries and Other Legal Services. Offices of Lawyers are by far the largest industry in this group. Though many law firms specialize in particular forms of law practice, no acceptable way was found to further disaggregate this industry into more detailed industries that would be collectible in all three countries, and would apply to the operations of the industry in all three countries. In Canada and Mexico, Offices of Notaries are empowered to draft, approve, and execute legal documents and contracts. Such establishments do not exist in the United States. The Other Legal Services industry actually groups legal activities that are noncomparable in the three countries. In Canada, this industry includes offices of bailiffs that are involved in a mixture of activities, including enforcing court orders, serving writs and summonses, repossession of property and providing court house security. Bailiffs in Mexico and the United States are employees of the courts and normally provide security, and serve court documents. For this reason, offices of bailiffs do not exist as establishments in the U.S. and Mexico. The Other Legal Services industry includes offices of paralegals in the United States. Though most paralegals in the U.S. are employees of other legal firms, separate establishments of paralegals are emerging, and are placed in the Other Legal Services industry. The Other Legal Services industry does not exist in Mexico, because neither bailiffs nor paralegals exist as independent establishments.

The Accounting, Tax Preparation, Bookkeeping and Payroll Services industry group includes establishments providing auditing, accounting, tax preparation, bookkeeping and billing, and payroll accounting services. The dominant expertise in this industry group is expertise in accounting. However, other activities that are sometimes done in accounting firms and sometimes in more specialized establishments (tax preparation, for example) are also located here. The United States will subdivide the Offices of Accountants industry to distinguish auditing accountants (Certified Public Accountants (CPAs)) from non-auditing accountants (non-CPAs).

The Architectural, Engineering and Related Services industry group includes establishments providing architectural, engineering, drafting, building inspection and surveying services. All of the proposed industries within this industry group are specialized

and economically significant in Canada and the United States. However, three industries (Drafting Services, Surveying and Mapping Services and Geophysical Surveying Services) do not exist in Mexico. The Testing Laboratories industry includes establishments engaged in the provision of laboratory sampling and technical testing services, such as chemical analysis and nondestructive testing. It is located in this subsector because the industries in this industry group are major users of testing laboratory services and because of the processes used in the laboratories.

The Specialized Design Services industry group includes establishments providing interior, industrial, graphic and other specialized design services. It should be noted that the Architectural and Engineering Services industries also include establishments that are engaged in providing design services.

The Computer Systems Design and Related Services industry group includes establishments providing expertise in the field of information technologies. These establishments provide services such as custom programming services, systems design services, data center management services and technical consulting services. Though custom computer programming is in this sector, the reproduction of packaged software is in the NAICS Manufacturing sector, and software publishing and on-line retrieval services are in the new NAICS Information sector, to be published separately.

The Management, Scientific and Technical Consulting Services industry group includes establishments that advise and counsel clients on virtually all aspects of corporate operations, as well as those offering technical advice and counsel on non-management issues. Many kinds of consulting exist in a modern economy. This industry group brings together those consultants who, while having specific expertise, offer a wide range of services to their prospective clients. It is not the clients' business on which the consultants in this industry group have expertise, but rather, they have specialized knowledge with potential applications in a broad range of industries. Accordingly, those establishments that provide consulting services that are closely tied to a specific industry are classified in the sector or group of industries to which they are related. For example, agricultural consultants are included in the Agriculture sector. In addition, establishments that provide consulting services in conjunction with other services as part of an integrated process, or in conjunction with other sales, are excluded. For example, the provision of advice and counsel on financial matters is often related to or incidental to the sale of financial products, and is therefore included in the Finance and Insurance sector.

The Scientific Research and Development Services industry group includes establishments engaged in original investigation undertaken on a systematic basis to gain new knowledge (research) and/or in the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.

The Advertising and Related Services industry group includes Advertising Agencies, Public Relations Services, Media Buying Agencies, Media Representatives, Display Advertising, Direct Mail Advertising, Advertising Material Distribution and Other Services Related to Advertising. These establishments are primarily engaged in preparing advertising campaigns, placing advertisements, or the delivery of advertising material to the general public.

The Other Professional, Scientific, and Technical Services industry group represents a residual grouping that includes Market Research and Public Opinion Polling, Photography Services, Translation and Interpretation Services, Veterinary Services and other activities that could not be placed within other industry groups.

Limitations and Constraints of the Classification

Differences in the organization of activities within establishments, and differences in the economic significance of individual industries from country to country, were the major issues faced in the development of a common classification structure for this subsector. These issues were dealt with by grouping activities in a manner that recognized the different levels of integration and diversification of establishments while allowing each country to add industries where necessary to reflect the greater level of specialization or economic significance of particular industries in its national economy. Still, in some instances, proposed NAICS industries in this subsector do not exist in all countries.

Establishments that offer services to a broad spectrum of industries, and therefore do not require particular expertise in the client's own industry, are classified in this sector. However, the narrower interpretation imposes limits on studies of a more broadly defined "professional or knowledge-based sector." Uses requiring such a broad definition will require regrouping of NAICS industries in other sectors.

The identification of new and emerging industries is one of the principal goals of the NAICS project. Many users have expressed the wish that this goal be achieved while minimizing breaks in time series. However, these two objectives are more often than not conflicting, and the degree to which proposed NAICS industries relate to existing national classification systems varies from country to country.

Relationship to ISIC

Each of the NAICS industries created in this subsector can be assigned to a division of the current International Standard Industrial Classification of all Economic Activities (ISIC, Revision 3) of the United Nations. The majority of the NAICS industries are contained within ISIC Division 74, Other Business Activities. Other NAICS industries in this sector relate to ISIC Divisions 72, Computer and Related Activities and ISIC Division 73, Research and Development.

Changes to the National Classification

For Canada, the identification of a significant number of new industries represents the most important change to the 1980 Canadian Standard Industrial Classification (CSIC). Twenty-seven of the 37 proposed NAICS industries applicable in Canada are new. The industries of this sector are, for the most part, currently classified in CSIC 77, Business Service Industries. The expansion is particularly important for legal services (CSIC 7761), computer services (CSIC 7721), advertising services (CSIC 774), scientific and technical services (CSIC 7759) and other business services (CSIC 7799).

The Legal Services industry group now contains three industries compared to one in the existing Canadian system. The Offices of Notaries and Other Legal Services industries are new.

The current Computer Services industry (CSIC 7721) is split into five industries. The computer systems design and related services component is part of this subsector. The newly created Information sector contains three industries, namely, Software Publishing, On-line

Retrieval Services and Data Transaction Processing Services, that were formerly contained in CSIC 7721, but are not placed in the NAICS Professional, Scientific and Technical Services subsector. Computer rental and leasing is now classified in the Rental and Leasing subsector of NAICS.

The Advertising Services industry group (CSIC 774) expands to eight industries from the current four. The new industries are Public Relations Services, Media Buying Agencies, Direct Mail Advertising, and Advertising Material Distribution.

Nine of the proposed NAICS industries are components of the Other Scientific and Technical Services Industry (CSIC 7759). This includes Drafting Services, Landscape Architecture Services, Surveying and Mapping Services, Geophysical Surveying Services, Environmental Consulting Services, Testing Laboratories and the three proposed Scientific Research and Development Services industries.

The proposed industries for Interior Design Services, Translation and Interpretation Services, Document Preparation Services, Telephone Call Centers and Packaging and Labeling Services are components of CSIC 7799, Other Business Services n.e.c. Various parts of this industry are reassigned to new NAICS industries.

Other significant changes include the creation of two industries from CSIC 7771, Management Consulting Services (Management Consulting and Management Services) and the splitting of a Graphic Design Services industry from CSIC 7749, Other Advertising Services.

The majority of proposed NAICS industries (22) relate to only one existing CSIC industry. In those cases, the task of linking statistics based on the old and new systems is relatively easy. For the remaining classes, this task is much more difficult since they are defined in terms of components of existing industries for which no data are available. However, many of these partial relationships are marginal in terms of economic activity.

For Mexico, 24 CMAP industries are included in this subsector: four industries have one-to-one correspondence with NAICS; four CMAP industries were combined to form one NAICS industry class; two other industries were merged with parts of other industry classes to form two new NAICS industries; and of the remaining fourteen CMAP industry classes, 27 industries were created for this subsector in the NAICS. Some of the new or revised industries reflect an increasing degree of specialization in this subsector in Mexico. Services that were offered in combination within the same establishment, even when one of these services was a secondary activity, are now provided separately by establishments that specialize in only one activity. Therefore, in this new classification system there are industries that were not even mentioned in CMAP, because they were formerly either secondary activities or included with other activities.

The activities that are incorporated into this subsector are currently classified in branch 9510 of the CMAP, Provision of Professional Services, Technical and Specialized. However, to fill out the new subsector some activities were relocated that were found in other CMAP branches or subsectors or even from other activity sectors.

From CMAP Subsector 92, Services of Education, Investigation, Medicine, Welfare and Civil and Religious Associations, the scientific investigation services performed by the private sector and the public sector (CMAP classes 922100 and 922200, respectively) were reclassified into three classes: Research and Development in the Physical and Engineering Services; Research and Development in the Life Sciences; and Research and Development in

the Social Sciences and Humanities.

CMAP Subsector 94, Cultural, Recreational, and Sports Services, included establishments that are devoted to personnel contracting for theatrical and cinematographic works (CMAP classes: 941101, Private Production of Cinematographic Movies; 941106, Private Promotion Services, Assembly and Artistic Spectacles Presentation; and in 941204, Promotion and Assembly Public Service and Artistic Spectacles Presentation). These contracting agencies are joined to the agencies of personnel placement to form a single NAICS class.

CMAP Class 952002, Various Personal Services, Photographic Services is reclassified to NAICS Photography Services.

Two classes of CMAP Branch 9510 are not included in this subsector: CMAP class 951014, News Agency Services, and CMAP 951016, Photograph and Movies Developing Services. The first is reclassified to the sector for Information and the second is included in the Arts, Entertainment and Recreation subsector.

For the rest of the classes of CMAP Branch 9510, the most important changes are the separations of the CMAP classes 951005, Services of Advising and Technical Studies of Engineering and Architecture; 951008, Services of Advertising and Related Activities; 951010, Advising Services in Administration and Organization of Businesses, and 951023, Other Professional Services, Technical and Specialized, not mentioned previously. The creation of new product classes resulting from the separation is based on two fundamental criteria: on the one hand, the specificity concerning production function and, additionally, the perspective of growth in the future.

The CMAP class 951005, Services of Engineering and Architecture Consulting and Mechanical Studies, is split into six parts; the first five are identified by their very specific production functions: Architectural Services, Engineering Services, Surveying and Mapping Services, Geophysical Surveying Services and Testing Laboratories. The sixth part (prototypes design) is combined with the services of urban planners and with the services of mode designers (located within the current CMAP class 951023), to become NAICS industry Other Specialized Design Services.

The current class Advertising and Related Activities (CMAP 951008) is split into eight NAICS industries: Advertising Agencies, Media Purchasing Agencies, Media Representation Agencies, Advertising Agencies, Direct Mail Agencies, Direct Mail Advertising Agencies, Commercial Event and Convention Organizers, and Other Services Related to Advertising.

The current CMAP class 951010, Administration and Organization Advising Services, is split into five NAICS industries: Administrative Consultants, Public Relations Services, Translation and Interpretation Services, Organizing Services, and Other Scientific and Technical Consultancy Services.

Finally, certain activities in current CMAP class 951023, Other Professional Services, Technical and Specialized Not Mentioned Previously, are now NAICS industries.

For the United States, of the 37 proposed NAICS industries, 23 are new. Of the 23 new industries in this subsector, eight were created from 1987 SIC 7389, Business Services, Not Elsewhere Classified. This former NEC industry had become a "catch-all" category that included some of the fastest growing services in the U.S. economy, in a grouping that had no natural interpretation or usefulness. Its size is significantly reduced by the creation of the new industries in this subsector. Examples of new industries that were created from 1987 SIC 7389 are: Other Legal Services, Drafting Services, Building Inspection Services, Interior

Design Services, Industrial Design Services, and Translation and Interpretation Services. In addition, other activities formerly included in SIC 7389 were redistributed among the industries to create homogeneous industries or industry groupings. The redistributions out of 1987 SIC 7389 will reduce its overall size by approximately 40% of the establishments and receipts. In addition, the remainder are redistributed into NAICS industry groups that have more logic and coherence than the 1987 SIC 73 major group.

The NAICS industry group Accounting, Tax Preparation, Bookkeeping and Payroll Services includes the services of accountants, tax preparers, bookkeepers, and payroll services. The inclusion of tax preparation services represents a significant change; these services are currently included in 1987 SIC Major Group 72, Personal Services. Accounting services were previously grouped with bookkeeping; the NAICS structure separates these two activities.

The NAICS industry group Architectural, Engineering and Related Services groups three previously existing services industries (1987 SICs 8711, 8712, 8713), one previously existing industry from Agriculture (1987 SIC 0781) and includes two new industries.

The NAICS industry group Other Specialized Design Services includes new industries for Interior Design Services, Industrial Design Services and Graphic Design Services.

The NAICS industry group Management, Scientific and Technical Consulting includes one significant change. It includes a separate industry for Environmental Consulting Services. This service is included in 1987 SIC 8999, Services Not Elsewhere Classified.

The NAICS industry group for Scientific Research and Development Services changes the focus from the source of funding (commercial versus non commercial) to the domain of research, that is, physical sciences, life sciences, and social sciences.

The NAICS industry group Other Professional, Scientific and Technical Services includes Photography Services that are in 1987 SIC's 7221, Photographic Studios, Professional, and 7335, Commercial Photography. The U.S. will continue to separate these industries in its 5-digit industry detail.

Achievement of Objectives

The proposed classification meets the objectives for the North American Industry Classification System. It is comprised of industries that group establishments with similar production processes, that is, it applies the production-oriented economic concept. The hierarchical structure of the classification also follows the production concept.

The classification achieves comparability for the three participating countries. Based on existing data, all three countries expect to be able to publish data regularly at most industry levels of the NAICS structure, though a number of exceptions exist, as noted in the "Limitations and Constraints of Classification" above. The proposed NAICS structure also introduces a number of new and emerging industries by expanding the current classification systems of each country for business and professional service industries. All countries agree on the detailed definitions of the industries.

Section B-Annex: United States National Industry Detail

As explained in the *Structure* presentation of this notice, for a number of reasons 4-digit

industries in the NAICS industry subsector presented in *Part VI, Section A--Attachment 1*, contain less detail than is currently in the U.S. SIC system, and less detail than is required to meet important analytical requirements in the U.S. The three country agreement on NAICS envisions that each country may develop national detailed industries below the NAICS industry level, so long as the national detail can be aggregated to the NAICS classification, thus assuring full North American comparability.

The ECPC is proposing U.S. 5-digit industry detail for the NAICS industry subsector covered in Part VI of this notice. For cases where no 5-digit detail is shown, the ECPC is proposing that the NAICS 4-digit industries will also represent the most detailed U.S. industries.

TABLE 1

The definitions of status codes are as follows: E-existing industry; L-null industry for the U.S.; N-new industry; R-revised industry; and * means “part of”. The abbreviation NEC is used for Not Elsewhere Classified.

1997 NAICS and U.S. description	Status code	1987 SIC code	1987 SIC descriptions
XX Professional, Scientific and Technical Services			
XXX Legal Services			
XXXX Offices of Lawyers	E	8111	Legal Services
XXXX Offices of Notaries	L		Null Set for U.S.
XXXX Other Legal Services	N	*7389	Business Services, NEC (process services, patent agents, notaries public, paralegal services)
XXX Accounting, Tax Preparation, Bookkeeping and Payroll Services			
XXXX Offices of Accountants			
XXXXX Offices of Certified Public Accountants	N	*8721	Accounting, Auditing, and Bookkeeping Services (certified public accountants)
XXXXX Offices of Accountants, Except Certified	N	*8721	Accounting, Auditing, and Bookkeeping Services (accountants, except certified public accountants)
XXXX Tax Preparation, Bookkeeping and Payroll Services			
XXXXX Tax Preparation Services	E	7291	Tax Return Preparation Services
XXXXX Bookkeeping and Billing Services	N	*8721	Accounting, Auditing, and Bookkeeping Services (bookkeeping and billing)
XXXXX Payroll Services	N	*7819	Services Allied to Motion Picture Production (talent payment services)
		*8721	Accounting, Auditing, and Bookkeeping Services (payroll services)
XXX Architectural, Engineering and Related Services			
XXXX Architectural Services	E	8712	Architectural Services
XXXX Engineering Services	E	8711	Engineering Services
XXXX Drafting Services	N	*7389	Business Services, NEC (drafting service)
XXXX Building Inspection Services	N	*7389	Business Services, NEC (home and building inspection services)
XXXX Landscape Architecture Services	E	0781	Landscape Counseling and Planning
XXXX Surveying and Mapping Services	N	*7389	Business Services, NEC (map making services)
		*8713	Surveying Services (except geophysical surveying)
XXXX Geophysical Surveying Services	N	*8713	Surveying Services (geophysical surveying)

XXXX	Testing Laboratories	R	*8734	Testing Laboratories (except veterinary testing laboratories)
XXX	Specialized Design Services			
XXXX	Interior Design Services	N	*7389	Business Services, NEC (interior design)
XXXX	Industrial Design Services	N	*7389	Business Services, NEC (industrial design)
XXXX	Graphic Design Services	R	7336	Commercial Art and Graphic Design
			*8099	Health and Allied Services, NEC (medical artists)
XXXX	Other Specialized Design Services			
XXXXX	Land Use Planners Services	N	*8748	Business Consulting Services, NEC (planners of land use)
XXXXX	All Other Design Services	N	*7389	Business Services, NEC (fashion, furniture, and other design services)
XXX	Computer Systems Design and Related Services			
XXXX	Computer Systems Design and Related Services			
XXXXX	Custom Computer Programming Services	E	7371	Computer Programming Services
XXXXX	Systems Design Services	N	7373	Computer Integrated Systems Design
			*7379	Computer Related Services, NEC (computer systems consultants)
XXXXX	Computer Facilities Management Services	E	7376	Computer Facilities Management Services
XXXXX	Other Computer Systems Design and Related Services	R	*7379	Computer Related Services, NEC (except computer systems consultants)
XXX	Management, Scientific and Technical Consulting Services			
XXXX	Management Consulting Services			
XXXXX	Administrative and General Management Consulting	N	*8742	Management Consulting Services (administrative management and general management consulting)
XXXXX	Human Resources Consulting	N	*8742	Management Consulting Services (human resources and personnel management consulting)
			*7361	Employment Agencies (executive placement services)
XXXXX	Marketing Consulting	N	*8742	Management Consulting Services (marketing consulting)
XXXXX	Process, Physical, Distribution and Logistics Consulting	N	*8742	Management Consulting Services (manufacturing management, physical distribution, and site location consulting)
XXXXX	Other Management Consulting Services	N	*4731	Arrangement of Transportation of Freight and Cargo (tariff consulting)
			*8748	Business Consulting Services, NEC (safety consulting)
XXXX	Environmental Consulting Services	N	*8999	Services, NEC (environmental consultants)
XXXX	Other Scientific and Technical Consulting Services	N	*8748	Business Consulting Services, NEC (economic, radio, and traffic consultants)
			*8999	Services, NEC (nuclear consultants, geologists, physicists and actuarial consulting)

XXX	Scientific Research and Development Services				
XXXX	Research and Development in the Physical and Engineering Sciences	N	*8731	Commercial Physical and Biological Research (physical and engineering sciences)	
			*8733	Noncommercial Research Organizations (physical and engineering services)	
XXXX	Research and Development in the Life Sciences	N	*8731	Commercial Physical and Biological Research (life sciences)	
			*8733	Noncommercial Research Organizations (life sciences)	
XXXX	Research and Development in the Social Sciences and Humanities	N	*8732	Commercial Economic, Sociological, and Educational Research (social sciences and humanities)	
			*8733	Noncommercial Research Organizations (social sciences and humanities)	
XXX	Advertising and Related Services				
XXXX	Advertising Agencies	E	7311	Advertising Agencies	
XXXX	Public Relations Services	E	8743	Public Relations Services	
XXXX	Media Buying Agencies	N	*7319	Advertising, NEC (media buying services)	
XXXX	Media Representatives	E	7313	Radio, Television, and Publishers' Advertising Representatives	
XXXX	Display Advertising	N	7312	Outdoor Advertising Services	
			*7319	Advertising, NEC (display advertising, except outdoor)	
XXXX	Direct Mail Advertising	E	7331	Direct Mail Advertising Services	
XXXX	Advertising Material Distributors	N	*7319	Advertising, NEC (advertising materials distributor)	
XXXX	Other Services Related to Advertising	N	*7319	Advertising, NEC (except media buying, display advertising, except outdoor; and advertising material distributors)	
			*5199	Nondurable Goods, NEC (advertising specialties goods distributors)	
XXX	Other Professional, Scientific and Technical Services				
XXXX	Market Research and Public Opinion Polling	N	*8732	Commercial Economic, Sociological, and Educational Research (market research and opinion research)	
XXXX	Photography Services				
XXXXXX	Photography Studios, Portrait	E	7221	Photographic Studios, Portrait	
XXXXXX	Commercial Photography	R	7335	Commercial Photography	
			*8099	Health and Allied Services, NEC (medical photography)	
XXXX	Translation and Interpretation Services	N	*7389	Business Services, NEC (translation and interpretation services)	
XXXX	Veterinary Services	E	0741	Veterinary Services for Livestock	
			0742	Veterinary Services for Animal Specialties	
XXXX	All Other Professional, Scientific and Technical Services	N	*7389	Business Services, NEC (appraisers, except insurance and real estate, and miscellaneous professional, scientific, and technical services)	

TABLE 2

The abbreviation "pt" means "part of". @ means time series break has been created that is greater than 3% of the 1992 revenues for the 1987 SIC Industry. The abbreviation NEC is used for Not Elsewhere Classified.

1987 SIC code	1987 SIC description	1997 U.S. description
0741	Veterinary Services for Livestock	Veterinary Services (pt.)
0742	Veterinary Services for Animal Specialties	Veterinary Services (pt.)
0781	Landscape Counseling and Planning	Landscape Architecture Services
4731	Arrangement of Transportation of Freight and Cargo Tariff Consulting	Other Management Consulting Services (pt.)
5199	Nondurable Goods, NEC Advertising Specialties Goods Distributors	Other Services Related to Advertising (pt.)
7221	Photographic Studios, Portrait	Photographic Studios, Portrait
7291	Tax Return Preparation Services	Tax Preparation Services
7311	Advertising Agencies	Advertising Agencies
7312	Outdoor Advertising Services	Display Advertising (pt.)
7313	Radio, Television, and Publishers' Advertising Representatives	Media Representatives
7319@	Advertising, NEC Media Buying Services Display Advertising, Except Outdoor Advertising Materials Distributor Other	Media Buying Agencies Display Advertising (pt.) Advertising Material Distributors Other Services Related to Advertising (pt.)
7331	Direct Mail Advertising Services	Direct Mail Advertising
7335	Commercial Photography	Commercial Photography (pt.)
7336	Commercial Art and Graphic Design	Graphic Design Services (pt.)
7361	Employment Agencies Executive Placement Services	Human Resources Consulting (pt.)
7371	Computer Programming Services	Custom Computer Programming Services
7373	Computer Integrated Systems Design	Systems Design Services (pt.)
7376	Computer Facilities Management Services	Computer Facilities Management Services
7379	Computer Related Services, NEC Computer Systems Consultants Except Computer Systems Consultants	Systems Design Services (pt.) Other Computer Systems Design and Related Services
7389@	Business Services, Not Elsewhere Classified	

	Process Services, Patent Agents, Notaries Public and Paralegal Services	Other Legal Services
	Mapmaking Services	Surveying and Mapping Services (pt.)
	Interior Design	Interior Design Services
	Industrial Design	Industrial Design Services
	Drafting Service	Drafting Services
	Fashion, Furniture and Other Design Services	All Other Design Services
	Translation and Interpretation Services	Translation and Interpretation Services
	Home and Building Inspection Services	Building Inspection Services
	Appraisers, Except Insurance and Real Estate, Miscellaneous Professional, Scientific, and Technical Services	All Other Professional, Scientific and Technical Services
7819	Services Allied to Motion Picture Production	
	Talent Payment Services	Payroll Services (pt.)
8099	Health and Allied Services, NEC	
	Medical Artists	Graphic Design Services (pt.)
	Medical Photography	Commercial Photography (pt.)
8111	Legal Services	Offices of Lawyers
8711	Engineering Services	Engineering Services
8712	Architectural Services	Architectural Services
8713	Surveying Services	
	Except Geophysical Surveying	Surveying and Mapping Services (pt.)
	Geophysical Surveying Services	Geophysical Surveying Services
8721@	Accounting, Auditing, and Bookkeeping Services	
	Certified Public Accountants	Offices of Certified Public Accountants
	Accountants, Except Certified Public Accountants	Offices of Accountants, except Certified
	Payroll Services	Payroll Services
8731@	Commercial Physical and Biological Research	
	Physical and Engineering Sciences	Research and Development in the Physical and Engineering Sciences (pt.)
	Life Sciences	Research and Development in the Life Sciences (pt.)
8732@	Commercial Economic, Sociological, and Educational Research	
	Social Sciences and Humanities	Research and Development in the Social Sciences and Humanities (pt.)
	Market Research and Opinion Research	Market Research and Public Opinion Polling
8733@	Noncommercial Research Organizations	
	Physical and Engineering Services	Research and Development in the Physical and Engineering Sciences (pt.)
	Life Sciences	Research and Development in the Life Sciences (pt.)
	Social Sciences and Humanities	Research and Development in the Social Sciences and Humanities (pt.)
8734	Testing Laboratories	Testing Laboratories
8742@	Management Consulting Services	
	Administrative Management and General Management Consulting	Administrative and General Management Consulting

	Human Resources and Personnel Management Consulting	Human Resources Consulting (pt.)
	Marketing Consulting	Marketing Consulting
	Manufacturing Management, Physical Distribution, and Site Location Consulting	Process, Physical, Distribution, and Logistics Consulting
8743	Public Relations Services	Public Relations Services
8748@	Business Consulting Services, Not Elsewhere Classified	
	Planners of Land Use	Land Use Planners Services
	Safety Consulting	Other Management Consulting Services
	Economic Consultants, Radio Consultants, Traffic Consultants	Other Scientific and Technical Consulting Services (pt.)
8999@	Services, NEC	
	Nuclear Consultants, Consulting Geologists, Consulting Physicists, and Actuarial Consulting	Other Scientific and Technical Consulting Services (pt.)
	Environmental Consultants	Environmental Consulting

Description of Changes to the U.S. System

Forty-eight U.S. industries are included in the NAICS Professional, Scientific, and Technical Services subsector. Thirty-one of these are new industries (Offices of Notaries, as defined, do not exist in the U.S.); four are revised 1987 SIC industries; and 13 are industries that existed in 1987. The primary focus of this subsector is to group together establishments that make available the particular knowledge, expertise or skills of their employees to a wide range of business and individual clients. The activities included here can be utilized throughout all sectors of the economy. Other activities that do not meet this criteria are generally included in the particular subsector they serve. The industries within this subsector have similar production processes. The changes also help to better achieve comparability with Mexico and Canada. The following new industries were added for 1997:

Other Legal Services from part of 1987 SIC 7389, Business Services, NEC.

Offices of Certified Public Accountants from part of 1987 SIC 8721, Accounting, Auditing, and Bookkeeping Services.

Offices of Accountants, Except Certified from part of 1987 SIC 8721, Accounting, Auditing, and Bookkeeping Services.

Bookkeeping and Billing Services from part of 1987 SIC 8721, Accounting, Auditing, and Bookkeeping Services.

Payroll Services from part of 1987 SIC 7819, Service Allied to Motion Picture Production, and part of 1987 SIC 8721, Accounting, Auditing, and Bookkeeping Services.

Drafting Services from part of 1987 SIC 7389, Business Services, NEC.

Building Inspection Services from part of 1987 SIC 7389, Business Services, NEC.

Surveying and Mapping Services from part of 1987 SIC 8713, Surveying Services, and part of 1987 SIC 7389, Business Services, NEC.

Geophysical Surveying Services from part of 1987 SIC 8713, Surveying Services.

Interior Design Services from part of 1987 SIC 7389, Business Services, NEC.

Industrial Design Services from part of 1987 SIC 7389, Business Services, NEC.

Land Use Planners Services from part of 1987 SIC 8748, Business Consulting Services, NEC.

All Other Design Services from part of 1987 SIC 7389, Business Services, NEC.

Systems Design Services from 1987 SIC 7373, Computer Integrated Systems Design, and part of 1987 SIC 7379, Computer Related Services, NEC.

Administrative and General Management Consulting from part of 1987 SIC 8742, Management Consulting Services.

Human Resources Consulting from part of 1987 SIC 8742, Management Consulting Services, and part of 1987 SIC 7361, Employment Agencies.

Marketing Consulting from part of 1987 SIC 8742, Management Consulting Services.

Process, Physical Distribution, and Logistics Consulting from part of 1987 SIC 8742, Management Consulting Services.

Other Management Consulting Services from part of 1987 SIC 4731, Arrangement of Transportation of Freight and Cargo, and part of 1987 SIC 8748, Business Consulting Services, NEC.

Environmental Consulting from part of 1987 SIC 8999, Services NEC.

Other Scientific and Technical Consulting Services from part of 1987 SIC 8748, Business Consulting Services, NEC, and part of 1987 SIC 8999, Services, NEC.

Research and Development in the Physical and Engineering Sciences from part of 1987 SIC 8731, Commercial Physical and Biological Research, and part of 1987 SIC 8733, Noncommercial Research Organizations.

Research and Development in the Life Sciences from part of 1987 SIC 8731, Commercial Physical and Biological Research, and part of 1987 SIC 8733, Noncommercial Research Organizations.

Research and Development in the Social Sciences and Humanities from part of 1987 SIC 8732, Commercial Economic, Sociological, and Educational Research, and part of 1987 SIC 8733, Noncommercial Research Organizations.

Media Buying Agencies from part of 1987 SIC 7319, Advertising, NEC.

Display Advertising from 1987 SIC 7312, Outdoor Advertising Services, and part of 1987 SIC 7319, Advertising, NEC.

Advertising Material Distributors from part of 1987 SIC 7319, Advertising, NEC.

Other Services Related to Advertising from part of 1987 SIC 5199, Nondurable Goods, NEC, and part of 1987 SIC 7319, Advertising, NEC.

Market Research and Public Opinion Polling from part of 1987 SIC 8732, Commercial Economic, Sociological, and Educational Research.

Translation and Interpretation Services from part of 1987 SIC 7389, Business Services, NEC.

All Other Professional, Scientific and Technical Services from part of 1987 SIC 7389, Miscellaneous Business Services.

The following four NAICS industries were modified from their 1987 definitions:

Testing Laboratories from 1987 SIC 8734, Testing Laboratories. This industry was modified by moving veterinary laboratories to the Support Services for Agriculture subsector. This move was made to improve comparability with Canada and Mexico and because the production process of this type of laboratory was so different from the others that are included.

Graphic Design Services from 1987 SIC 7336, Commercial Art and Graphic Design, and part of 1987 SIC 8099, Health and Allied Services, NEC. Medical artists of 1987 SIC 8099 were combined here because of the similarity of the production process with graphic designers and to improve comparability with Mexico and Canada.

Other Computer Systems Design and Related Services from part of 1987 SIC 7379, Computer Related Services, NEC. This industry was modified by moving computer systems consultants to NAICS industry Systems Design Services to improve

comparability with Mexico and Canada.

Commercial Photography from 1987 SIC 7335, Commercial Photography, and from part of 1987 SIC 8099, Health and Allied Services, NEC. Medical photography from 1987 SIC 8099 was combined with commercial photography because of the similarity of their production processes.