# North American Product Classification System: Concepts and Process of Identifying Service Products

by

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prepared for

# 17<sup>th</sup> Annual Meeting of the Voorburg Group on Service Statistics

Nantes, France September 23-27, 2002

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## I. Summary

This paper presents the concepts and processes used to identify final products for the North American Product Classification System (NAPCS), a new classification system initiative that the statistical agencies of Canada, Mexico, and the United States are pursuing. The process the NAPCS group followed and the challenges that they addressed are very similar to those that the price practitioner faces in determining appropriate products for price indexes. The paper includes product lists for Engineering Services and Advertising Services to complement the corresponding Producer Price Index presentations on those industries.

Since February 1999, the statistical agencies of Canada, Mexico, and the United States have engaged in an extensive research project to identify the products of service industries in the three countries. The ultimate objective is to create a comprehensive demand-based, market-oriented product classification system that will complement the supply-oriented industry classification system, the North American Industry Classification System (NAICS) that was introduced in 1997. The product classification system is currently called the North American Product Classification System (NAPCS). To date, we have identified over 1,700 provisional trilateral products for 111 services industries in the four NAICS sectors. In addition, work is underway on product development for a new group of five more NAICS sectors.

While all three countries followed a similar process, the paper is presented from the viewpoint of the United States. Product lists, progress reports and other informational materials can be found at <u>www.census.gov/napcs</u>.

## II. North American Product Classification System: An Overview

In February 1999, the statistical agencies of Canada, Mexico, and the United States launched a joint multi-phase initiative (Federal Register Notice, April 16, 1999) to develop a comprehensive demand-orientated product classification system that will complement the new supply-oriented industry classification system introduced in 1997 (North American Industry Classification System (NAICS)). The product classification will be known as the North American Product Classification System or NAPCS. The long-term objective of NAPCS is to develop a market-oriented, or demand-based, classification system for products that

- ! is not industry-of-origin based but can be linked to the NAICS industry structure,
- ! is consistent across the three NAICS countries, and
- ! promotes compatibility with products across other international classification systems, such as the Central Product Classification System of the United Nations.

The Trilateral Steering Committee for Classification incorporated these guidelines into a Statement of Principles for NAPCS that is provided in Attachment A.

In planning the NAPCS initiative, the three countries began with a consensus on the proposition that improved product data for service industries is critical to improving vital economic measures related to the measuring the growth of output, prices, productivity, and trade. In recognition of this fact, the early phases of NAPCS will be directed at identifying, defining, and classifying the products produced by service industries. Accordingly, Phase I, an exploratory phase launched in early 1999, focused on identifying and defining products produced by industries in four NAICS service sectors discussed in section III below.

Part 1 of Phase I (Phase I.1) was completed in December 2000 and produced well defined product lists that cover the final products produced by 86 NAICS service industries. The feasibility of collecting data for the products identified in these lists will be tested in the 2002 Economic Census and in subsequent annual surveys. Part 2 of Phase I (Phase I.2) is targeted for completion in 2002, and it is expected to generate ten additional product lists that will cover the final products of an additional 25 industries in these four sectors.

Phase II was launched in July 2001 and is targeted for completion in mid-2003. This Phase will extend the product development work to industries in five additional NAICS service sectors presented in section III below. During this time, the three countries will also investigate alternative prototype demand-side classification frameworks for NAPCS, based on the products compiled under Phase I, to illustrate the practical application of demand-side aggregation principles in organizing a diverse collection of products. Phase III, which is expected to be launched in mid-2003, will seek to complete product development and classification for all NAICS services industries, and it will explore extending the scope of NAPCS to goods producing industries. It is anticipated that the results from Phases I.2, II, and III will be incorporated incrementally into services annual surveys and inclusively into the 2007 Economic Census, in order to test the feasibility of data collection at levels identified in NAPCS.

## III. Progress Report on Product Development Under Phase I of NAPCS

Phase I of NAPCS was conceived as an experimental project to research, develop, and refine a process for identifying, defining, and classifying the service products to support a comprehensive data collection program for the products of service industries. The scope of work was confined to products of industries in four selected NAICS services sectors:

- ! NAICS 51 B Information
- ! NAICS 52 B Finance and Insurance
- ! NAICS 54 B Professional, Scientific, and Technical Services
- NAICS 56 B Administrative and Support and Waste Management and Remediation Services.

Subcommittees and three-country working groups were established to conduct the work in each sector, with completion targeted for the end of calendar year 2000. Initially, the intention was to develop product lists that would cover some 161 U.S. industries. As the work proceeded, however, it became apparent that the original menu of work was too much for the available

resources in the time allowed. Subsequently, the Trilateral Steering Committee for Classification modified the work plan for Phase I by reducing the industries covered and dividing the remaining menu of industries into two parts: part 1 (Phase I.1) to be completed by year-end 2000 and part 2 (Phase I.2) to be completed in 2002. With these adjustments, product development under Phase I will account for the products of 111 U.S. industries. As Phase I nears completion, the three countries are in unanimous agreement that this effort has been a major success, due in large part to the extensive participation of experts from industry.

All agreements are considered provisional rather than final, as a consequence of the need by each country to field test the feasibility of data collection for the products at levels identified in the lists. In the U.S. this testing will be done through the 2002 and 2007 Economic Censuses and, when feasible, the annual surveys of services industries.

## **A. Provisional Product Lists**

To date, work is completed or in progress for 36 provisional product lists covering 111 NAICS industries. Some product lists are for a single industry while others are for a group of industries that produce a significant number of common products. Attachment B shows a complete list of the titles of the provisional product lists developed during Phase I. The 26 provisional product lists from Phase I.1 are presented in panel A. Panel B shows the 10 product lists expected from Phase I.2. The chart below summarizes the type of information included in each product list.

Column	Item	Description
1	Industry Subject	Identifies the NAICS industry code(s) covered by the product
	Area	list.
2	Working Group	Interim product codes assigned by the three-country Working
	Code	Group to organize the product list.
3	<b>Trilateral Detail</b>	An X for a product identifies the lowest level of product
		detail that the three countries have provisionally agreed to.
4	English Title	English title for each product and product aggregate.
5	<b>English Definition</b>	English definition for each product and product aggregate.
6-7	<b>Product Exists In</b>	An X signifies that the product exists in the country
		represented by the column.
9-11	National Product	An X in any these columns signifies that product is one that
	Detail	only one or two countries want to identify separately.
12-14	NAICS Industries	Shows the NAICS codes of the industries provisionally
	Producing the	identified (by the country-subcommittee) to be producers of
	Products	that product.
15	CPC Code	Identifies the product code(s) from the United Nations
		Central Product Classification (Version 1) that concord to
		each NAPCS product or product aggregate in the list.

Two examples of provisional product lists are included. Attachment C provides the provisional product list for Engineering Services and Attachment D provides the provisional product list for Advertising Agencies.

## **B.** Provisional Aggregation Structure in Product Lists

The products shown in each product list are presented in the context of a provisional aggregation structure agreed to by the three countries. These structures contain logical groupings of products developed through extensive research by the trilateral working groups and through expansive collaboration with industry experts from the respective countries. In contrast to the final NAPCS structure, the primary purpose of these provisional and industry-oriented aggregation structures is to organize the product list and facilitate agreement on the trilateral levels of product detail shown in each list. However, it must be emphasized that the provisional NAPCS aggregation structures and the associated working group codes shown in these product lists bear no necessary relationship to the final NAPCS structure that will be developed in subsequent phases of this initiative. There are two reasons for this. First, under the final NAPCS structure, common products will carry a common title, definition, and product code across all industries that produce it. In the provisional lists, products were identified by industry and similar products have not yet been unduplicated across industries. The detailed products displayed in the individual lists are presently being examined to identify products common to multiple lists and to establish standardized titles and definitions for those products. Second, the final aggregation structure will group products regardless of industry in a manner that reflects how products are used from a demand-side perspective that will support studies of market share, demand for goods and services, import competition, and similar studies. Over the next year, we will begin to investigate alternative prototype demand-side classification frameworks for NAPCS.

## C. NAPCS Testing in the 2002 Economic Census and Annual Surveys

The 2002 Economic Census will be used as a testing platform for the North American Product Classification System (NAPCS) products that have been developed to date. This includes selected coverage of NAICS Sectors 51, Information; 52, Finance and Insurance, 54 Professional, Scientific, and Technical Services; and 56, Administrative and Support and Waste Management and Remediation Services. The collection and publication of products in the 2002 Economic Census is focusing on the detailed products of NAPCS and not necessarily the aggregation structures that have been applied to those detailed products.

In addition to the 2002 Economic Census, where possible, NAPCS detailed products will be tested in the annual surveys beginning with products for the Information Sector and Computer Services for survey year 2001.

## IV. Work Plans for Phase II of NAPCS

At its February 2001 meeting, the Trilateral Steering Committee agreed to the provisional work plan for Phase II of NAPCS. The planned scope of work includes complete coverage of the

industries in sectors 61, 62, 71, and 72, but only partial coverage of the industries in 48-49. The U.S. subcommittees in all three countries began in July 2001. In preparation, the U.S. effort for Phase II was launched with a well attended Kickoff Conference and outreach to industry experts on May 31. In the U.S. Phase II will be accomplished by four simultaneously operating subcommittees:

Subcommittee for NAICS Sector 48 - 49B Transportation and Warehousing Subcommittee for NAICS Sector 61B Education Subcommittee for NAICS Sector 62B Health Care and Social Services Subcommittee for NAICS Sectors 71 & &72B Arts, Entertainment, and Recreation & Accommodation and Food Services

## V. NAPCS Process in the U.S.

The Economic Classification Policy Committee (ECPC) of the U.S. recognized at the outset that the process of classifying service products must entail much more than just simple enumeration of the products produced by service industries. Rather, the ECPC intended the NAPCS process to be a comprehensive effort that addresses both the conceptual and the data collection issues necessary to insure that the classification system created for services is conceptually sound, feasible to implement, and satisfies the operational objectives set for it. To help assure that the end product of the U.S. subcommittees satisfies these goals, the ECPC directed them to operate under a mandate that incorporates the following responsibilities:

- 1. Research the production process for each industry in order to distinguish between the intermediate and final products
- 2. Identify the final products produced by each industry and develope formal titles and definitions for the identified products
- 3. Assess the feasibility of measuring and collecting both output and price measures for the identified products in reference to industry record-keeping practices and reporting units
- 4. Organize the products identified for each sector into an initial grouping framework that groups and aggregate products in a manner that supports the demand-side classification principle adopted by the three countries for NAPCS.<sup>1</sup>
- 5. Identify and incorporate into NAPCS, to the extent possible, the needs of the agencies the members represent.

The ECPC adopted three general principles to guide the overall process of classifying the products produced by industries:

1. An understanding of the production process of the reporting units included in the respective industries is a required first principle for identifying and defining the

<sup>&</sup>lt;sup>1</sup>Responsibility for drafting the overall, final NAPCS hierarchy is beyond the scope of the subcommittee mandate; this task will be undertaken by a trilateral working group composed of members appointed by the ECPC, Statistics Canada, and INEGI in Mexico.

product(s) actually produced for final consumption by those industries.<sup>2</sup>

- 2. The aim of the product classification process should be to identify, define, and classify the final products produced and transacted by the reporting units within each industry. The final products of reporting units in an industry are those that are created and transacted (sold or transferred) by the reporting units to economic entities outside of the individual reporting units.
- **3.** The classification of products produced by industries should be based on a marketoriented, or demand-based, conceptual framework.<sup>3</sup>

Identifying the final products of each industry is the first step in developing a product classification system. Recognizing that this step can be difficult for many service industries, the ECPC directs the U.S. product subcommittees to formulate proposals for the products of a given service industry in the context of the following definitions and guidelines.

X **Conceptual Definition of a Service Product:** A service is a change in the condition of a person, or a good belonging to some economic entity, brought about as the result of the activity of some other economic entity, with the approval of the first person or economic entity.<sup>4</sup>

To correctly define the product(s) of a service industry it is essential to specify exactly what the producer agrees to sell and what the customer agrees to buy. That is, a determination must be made of what is implicitly or explicitly Acontracted for@ when a transaction takes place. Further, it is important to distinguish between the output the industry produces and the activities carried out by the industry to produce the output.<sup>5</sup>

- X **Final Service Product:** The final products of reporting units in an industry are the service products (simple, composite, or bundle) that are created and transacted (sold or transferred) by the reporting units to other reporting units, enterprises, institutions or persons; domestic or international.
- X **Types of Service Products:** The final service products may include one or more of the following broad types:<sup>6</sup>

<sup>4</sup>See Hill [1977, p.318].

<sup>5</sup>See Sherwood [1997, p.3].

<sup>&</sup>lt;sup>2</sup>The ECPC recognized the dual importance of this principle for classifying both service industries and the products produced by such industries early on; see Economic Classification Policy Committee [1993a], Section 6.5.

<sup>&</sup>lt;sup>3</sup>This classification principle was first established in several papers by Triplett [1990, 1994a, and 1994b]; see also Economic Classification Policy Committee [1993b]. Triplett says of a product grouping system, Alt should incorporate, and facilitate the analysis of, the relationships among products -- demand relations, substitution relations, marketing relationships, uses by consumers or by other ultimate purchasers.

<sup>&</sup>lt;sup>6</sup>These service product types were suggested by Chadeau [1997, p.2].

(a) <u>simple service</u>: a standard service whose real output can often be measured in physical units or counts; e.g., a traditional haircut or basic phone service.

(b) <u>composite service</u>: a product that embodies several distinct services that are produced together (by virtue of regulations, production process, safety or hygiene requirements, or industry practice). The customer is not free to pick and choose among the several services in the composite -- the consumer buys all or none; e.g., a conventional hotel room rental includes maid service, salon haircuts include shampooing, or the final product (diagnosis or course of treatment) created by a doctor=s office visit may embody a variety of required diagnostic services.

(c) <u>service bundle</u>: a product containing a collection of services negotiated between the service provider and the customer and whose composition may vary by customer; e.g., traditional phone service plus call waiting and/or caller ID, etc., a bundle of information services that can be transmitted through a common medium (cable, satellite) and that may include voice, data and/or visual services, etc., or different bundles of janitorial services, or legal services, or accounting services, etc.

X **Product Detail:** Identify and define products for your selected industry at a level of detail that accords with prevailing marketing practices and record keeping practices in the industry.

**Outreach Program:** The ECPC realized that the NAPCS subcommittees will have to undertake a considerable learning process in many industries in order to address and resolve the conceptual issues related to: (1) identifying and defining the final service products produced and (2) determining the most appropriate/feasible unit for measuring/collecting the output and price data for those service products. Accordingly, the ECPC strongly requires that the subcommittees implement their mandate in consultation with industry experts from business and academia. The ECPC has adopted this strategy because it believes that the unique perspective and insights so obtained will serve to expedite the learning process of the committees and to improve the quality and usefulness of the final product obtained from the process. In support of this intention, the subcommittees are directed to research and recruit industry experts from the business community and/or academia.

The remainder of this section describes the specifics of the process under which the U.S. subcommittees operate. This material is a slightly edited version of the **Operational Guidelines** for NAPCS Subcommittees that has been recently provided to all U.S. product subcommittees.

#### A. Process Overview

- 1. <u>Industry Expert Outreach Efforts</u> Subcommittee identifies experts for given NAICS industry and conducts outreach to obtain their input.
- <u>Industry Research</u> Subcommittee researches industry and prepares industry product report to inform and guide the product development work for the industry. Research objectives are to identify and define the <u>final products</u> of an industry as well as issues related to the measurement and collection of data for those products. Intermediate products of industry

reporting units are not included in NAPCS.

- 3. <u>Formal Product Proposal</u> Subcommittee develops draft product proposal covering the NAICS industry (or other agreed-upon NAICS subject area: sector, subsector, or industry group) in preparation for scheduled three-country working group meeting.
- 4. <u>ECPC Review</u> ECPC reviews (whenever possible) draft product proposals and establishes official U.S. positions for 3-country working group meetings/negotiations. The ECPC position may subsequently be revised pursuant to negotiations at the 3-country working group meeting.
- 5. <u>Trilateral Working Group Meeting</u> The 3-country working group meeting is held and areas of agreement and disagreement are carefully documented in a meeting report.
- 6. <u>Trilateral Steering Committee Meeting</u> After the trilateral working group meeting, the subcommittee prepares a progress report for the ECPC that defines areas of agreement and disagreement. The ECPC and/or Steering Committee discuss and attempt to resolve issues highlighted in the report and provide guidance for further discussions at the working group level.
- 7. <u>Final Trilateral Agreement</u> Steps 3 through 6 are repeated until a Trilateral Agreement is achieved. A Final Trilateral Product List is developed by the trilateral working group and submitted to the NAPCS database.

## **B.** Process Stages

## 1. Industry Expert Outreach Efforts

Outreach efforts include establishing contact with and seeking the participation of relevant industry trade associations and industry experts at firms, academia, and other government agencies. A standard AOutreach Package@ is to be circulated to all new contacts.

This package includes a cover letter and an AIndustry Expert Guide@ document. The Industry Expert Guide document discusses the role of the industry expert in the NAPCS process, the importance of a Aworking knowledge@ of the industries producing the products for our work, and the value of the information provided by industry experts. It also contains a series of questions designed to direct the industry expert toward providing the most useful information to the subcommittee for the purpose of identifying and defining the significant, collectible final products of the industry.

Industry experts may be willing to work closely with the subcommittee, including meeting with the subcommittee to provide industry and product discussions and, if useful, attending a threecountry working group meeting. Alternatively, an industry expert may be unable or unwilling to meet in person with the subcommittee, but willing to assist in other ways. Other forms of assistance may include: providing a written response to the questions articulated in the Industry Expert Guide document; reviewing and commenting on draft product proposals; providing industry or firm materials such as product descriptions or price lists; providing specific information on selected questions or issues; and providing additional industry contacts.

#### **Identifying Industry Experts**

Trade associations are a particularly fertile source of information and assistance. During our experience in Phase I, these institutions assisted the subcommittees in a variety of ways: (1) contacting their members to review and comment on draft product lists; (2) conducting special surveys of products produced by industry/association members; (3) providing product information from existing surveys of members; and (4) providing industry materials to aid product identification and definition.

All of these methods of participation may be of great assistance to the subcommittee and should be encouraged and valued. In addition, developing a variety of industry experts for each area of work is useful. For example, you may want to get comments on a product list from both small and large firms, requiring collaboration with industry experts from various backgrounds.

Resources for locating industry experts include:

- Contacts mailing list compiled by Census for launching Phase II of NAPCS and available from the NAPCS Coordinator.
- S The National Trade and Professional Associations of the United States (NTPA) volume contains contact information for trade associations.
- S Trade Association contacts may provide industry expert names and in some instances contact the industry expert for you and request their support of NAPCS.
- \$ Member lists of trade associations can be used to locate industry experts at firms.
- Web searches for firms in a particular industry can provide firm names and contact information (Census Bureau staff have access to a very useful Web site, Hoover=s Online database at <u>www.HOOVERS.com</u>). A firm may have a Agovernment liaison@ office willing to meet with the subcommittee or to further direct you to an appropriate individual within the firm.
- S Government agencies may have staff with expertise on particular industries that are willing to work with the subcommittee. In some instances, these individuals may also have private market experience, or provide valuable technical expertise in understanding and defining products.
- \$ Universities, community colleges, and trade schools may have staff who are willing and

able to provide assistance in understanding products for a particular industry.

S The local Yellow Pages can provide a list of local firms that can be contacted by phone for additional information, or asked to provide expertise by meeting with the subcommittee.

## **Industry Expert Discussions**

- Subcommittee should strive to arrange for an in-person meeting with industry experts (preferably with subcommittee; otherwise a lead member). Where in-person exchange is not possible, other methods of collaboration (phone conferencing, personal phone contacts, written correspondence by mail or E-mail) should be used.
- Subcommittee/industry lead member meets with and discusses with experts the following topics:
  - 1) Industry production process,
  - 2) Identities and definitions of final products,
  - 3) Feasibility of collecting nominal output and price measures for identified final products,
  - 4) Appropriate unit for measuring nominal output of final products (if relevant), and
  - 5) Appropriate reporting unit for collection product data.
- Meetings with industry experts should be recorded and, where possible, include teleconference arrangements with Canada and Mexico.
- Subcommittee reviews proposals/responses received in writing from experts.
- Subcommittee updates the industry product list to reflect input received from experts and is responsible for following-up with experts on remaining issues.
- The subcommittee will continue to work in an iterative process with industry experts to clarify issues and obtain further information as needed.

## 2. Industry Research

- S The subcommittee researches the industry and drafts (whenever time permits) an initial *Industry Product Report* to inform and direct the initial research activities of the subcommittee. It is suggested that an industry lead-person be designated to expedite/coordinate this research.
- \$ Topics covered in the industry product report should include the following:
  - (1) industry production process,

- (2) titles and definitions of final products (a first draft),
- (3) feasibility of collecting nominal output and price measures for identified final products, and identify other measurement issues,
- (4) appropriate unit (gross output or gross margin) for measuring nominal output of final products (if relevant), and/or
- (5) appropriate reporting unit for collecting product data.
- This report is circulated to all subcommittee members **prior to meeting with industry experts for discussions.** Subsequently, the lead member will, if possible, update the report to include additional informational gathered from experts and research findings.
- When complete, the industry product report is shared with Canada and Mexico.

#### 3. Preparing Formal Product Proposal

The subcommittee meets to review updated industry product list and formulate a position regarding:

- 1) Final products produced by the industry, and
- 2) Final formal titles and definitions for identified final products.

Provisional subcommittee decisions on products and product definitions are subject to a vote by Avoting committee members@ only in a closed, voting members meeting. In some instances, decisions may be unanimous and not require a vote count. Voting committee members on the committee from U.S. government agencies.

Provisional subcommittee decisions are incorporated into the U.S. draft product list. This revised list is then added to the Working Draft section of the Master Template in preparation for an upcoming 3-country working group meeting.

The Master Template includes a Working Draft section, which shows each country=s proposed products for a particular industry placed in consecutive columns, and a Trilateral Product Agreement section. Within the Working Draft section, similar products across the three countries may be matched up within the same row of the Master Template, and different but related products placed in preceding or following rows. This preliminary matching of similar and related products saves time during the working group meeting and aids in the discussion of the products.

If time permits, the provisional US product list (or, if useful, the full Working Draft section of the Master Template) is re-circulated for additional comment by industry experts. The subcommittee reviews the comments of the experts and, where appropriate, incorporates them into the U.S. product list and definitions.

The resulting U.S. product list, including product titles and formal definitions, is then

forwarded to the ECPC for review and approval, if requested. The ECPC-approved proposal is the U.S. position that will be discussed and negotiated in the subsequent 3-country working-group meeting.

#### 4. ECPC Review

The ECPC reviews draft product proposals and monitors work of sub-committees on an ongoing basis. The ECPC establishes the official U.S. positions for 3-country working group meetings and negotiations.

#### 5. Trilateral Working Group Meeting

Following the three-country agreed upon schedule, Trilateral Working Group meetings are held to share research, discuss draft product list for each industry or higher-level NAICS aggregate (depending on the selected working level).

Preparation for a trilateral working group meeting includes, at a minimum, development of a U.S. draft product list that includes proposed product titles and formal definitions.

When it becomes possible, logical groupings of related products should be incorporated into the draft product list. The appropriate time for introducing this activity into the process may vary according to circumstances related to the level of knowledge and the body of information the subcommittee has in a particular industry area. However, it is generally anticipated that a bottom-up approach (first identify products and then the aggregation structure) rather than a top-down approach (first identify major aggregates and then the products within each aggregate) will be the best initial strategy in most situations. Thereafter, a combination of the two approaches may be useful in developing the final 3-country product grouping structure for the industry area.

Preferably, if time permits, lead industry members from all three countries should collaborate to update the working draft section of the master template prior to the meeting of the Trilateral Steering Committee.

As agreement is reached on the trilateral products, these products are documented in the appropriate columns of the Trilateral Product Agreement section of the Master Template. When negotiations are completed, the Working Draft section is deleted from the spreadsheet, and the additional columns of information are completed for each final product in the Trilateral Product Agreement section of the spreadsheet.

The Acomment@ columns of the Master Template are very useful and care should be taken to document all decisions, outstanding issues, agreements, and requests for guidance from the ECPC and Trilateral Steering Committee.

## 6. Trilateral Steering Committee Meeting

After the 3-country working-group meeting, the subcommittee prepares a progress report for the ECPC that defines the areas of agreement and disagreement with Canada and Mexico. This document will be used to prepare for and guide any discussion and negotiation that occurs at the next scheduled 3-country Steering Committee meeting.

## 7. Final Trilateral Agreement

Achieving final agreement on a product list for a given industry area will likely require multiple working group/steering committee meetings. To expedite the process and minimize its cost, the 3-country subcommittees should strive to settle issues and unfinished business via E-mail and phone correspondence prior to and after working group meetings.

Final Trilateral Agreement occurs once the working group and/or Trilateral Steering Committee reach agreement on the product titles and definitions (in English and Spanish), and product grouping structure for a given NAICS industry (or higher-level NAICS aggregate). At this time, the three-country working group members will jointly amend/augment the Trilateral Agreement section of the Master Template to fully document the agreement.

## C. Subcommittee Reference List

The documents listed below are support documents provide to U.S. product subcommittees.

- Mohr M.F. [1998], ADeveloping a Classification System for Products Produced by Service Industries: Issues and Insights,@ Discussion Paper, NAPCS Web Page, December. (Background and concept paper for U.S. initiative to identify and classify products of service industries)
- Economic Classification Policy Committee [1999], AInitiative to Create a Product Classification System, Phase I: Exploratory Effort to Classify Service Products,@ Federal Register, 64(73), April 16, pp. 18984-89. (Federal Register notice announcing NAPCS)
- 3. Guidelines for Preparing Industry Product Report
- 4. Sample Industry Product Report
- 5. Master Template for Recording and Documenting 3-Country Product Development Work and Trilateral Product Agreements.
- 6. Instructions for Completing Master Template
- 7. Outreach Package for Recruiting Industry Experts
- 8. Guidelines for Grouping Products in Industry Product List
- 9. Sample Trilateral Product Agreement Table

#### References

- Chadeau A. [1997], APrices of Services to Enterprises,@ paper presented in Twelfth Meeting of Voorburg Group on Service Statistics, Copenhagen: Denmark, September 15-19, 1997.
- Economic Classification Policy Committee [1999], Alnitiative to Create a Product Classification System, Phase I: Exploratory Effort to Classify Service Products,@ Federal Register, 64(73), April 16, pp. 18984-89.

[1994], AStandard Industrial Classification Replacement,@ Federal Register, July 26, pp. 38092-96.

[1993a], AIssue Paper No. 6, Services Classifications,@ Bureau of Economic Analysis (BE-42), U.S. Department of Commerce, Washington: D.C., September.

[1993b], AIssue Paper No. 1, Conceptual Issues,@ Federal Register, March 31, pp.16991-17000.

- Hill, T. P. [1977], AOn Goods and Services,@ Review of Income and Wealth, vol. 123 (4), pp. 315-38.
- Mohr M.F. [1998], ADeveloping a Classification System for Products Produced by Service Industries: Issues and Insights,@ Discussion Paper, NAPCS Web Page, December.
- Office of Management and Budget [1998], North American Industry Classification System, United States, 1997, Bernan Press: Lanham, Maryland.

[1997], A1997 North American Industry Classification SystemB1987 Standard Industrial Classification Replacement,@ Federal Register, April 9, pp. 17287-17337.

- Sherwood, M. J. [1997], AOutput of the Property and Casualty Insurance Industry,@ paper (revised February 1998), presented at the Centre for the Study of Living Standards Conference on Service Sector Productivity and the Productivity Paradox, Ottawa, April 11-12, 1997.
- Triplett, J. E. [1994a], AEconomic Concepts for Economic Classifications, **Survey of Current Business**, November, pp. 45-49.

[1994b], AEconomic Classification in the New North American Industry Classification System (NAICS),@ paper presented at Seminar on New Directions in Statistical Methodology, Washington, DC, May 25, 1994.

[1990], AThe Theory of Industrial and Occupational Classifications and Related Phenomena,@ in **1990 Annual Research Conference**, Proceedings in Arlington, Virginia, March 18-21, 1990, by the Bureau of the Census, Washington, DC: U.S. Government Printing Office), pp. 9-25.

United Nations [1998], **Central Product Classification (CPC)**, **Version 1.0**, Statistical Papers, Series M, No. 77, Very 1.0, Department of Economics and Social Affairs, Statistics Division, New York.

## Three-Country Statement of Principles for the North American Product Classification System (NAPCS) (Adopted May 4, 1999)

Statistics Canada, Mexico's Instituto Nacional de Estadística, Geografía e Informática (INEGI), and the Economic Classification Policy Committee (ECPC) of the United States, acting on behalf of the Office of Management and Budget, have agreed that a common product classification system for the three North American countries is needed and should be put in place. They have further agreed that the new North American Product Classification System (NAPCS) should conform to the following principles:

- 1. The statistical agencies of the three countries acknowledge that market-oriented, or demand-based, economic data are required for many purposes, including studies of market shares and the demand for goods and services domestically consumed and internationally traded. Therefore, the three countries agree that the new North American Product Classification System should be based on a demand-based conceptual framework. A product classification system erected on a market-oriented or demand-based conceptual framework will assure maximum usefulness of product statistics for these and similar purposes.
- 2. The NAPCS will be a system for classifying all products produced by NAICS industries. However, the NAPCS structure will be independent of the NAICS structure since each of these classification systems provides different perspectives and jointly enhance the analytical potential of the resulting data.
- 3. The statistical agencies of the three countries agree to give special attention to identifying products and developing demand-based classifications that encompass: (a) service products in general; (b) new products; and (c) advanced technology products. For all products, statistical agencies will actively seek out industry expertise in all three countries, in order to generate the information required to identify products that can be defined, measured and for which prices can be established in accordance with the agreed upon demand-based economic concept.
- 4. In the interest of a wider range of international comparisons, the three countries agree to strive for compatibility between the detailed products of the North American Product Classification System and the most detailed level of the Central Product Classification (CPC), version 1.0, to the extent appropriate within a demand-based conceptual framework.
- 5. Phase I of the development initiative will result in a detailed list of products derived from four NAICS areas: Information (Sector 51); Finance (Subsectors 521, 522, 523, and 525); Professional, Scientific and Technical Services (Sector 54); and Administrative and Support and Waste Management and Remediation Services (Sector 56). The statistical agencies agree to complete Phase I during 2000. Subsequently, if Phase I is successful, it is expected that the three countries will commit to extending NAPCS to the full range of products classified within a demand-based framework by 2007.

## **Product List Development Under Phase I of NAPCS**

## A. Provisional Product Lists Developed Under Phase I.1

- 1. Provisional Product List for NAICS 511110: Newspaper Publishers
- 2. Provisional Product List for NAICS 511120: Periodical Publishers
- 3. Provisional Product List for NAICS 511130: Book Publishers
- 4. Provisional Product List for NAICS 511140: Directory and Mailing List Publishers
- Provisional Product List for NAICS 511210, 518111, 518112, 518210, and 54151: Software Publishers, ISPSs, Web Search Portals, Data Processing, Hosting, and Related Services, and Computer Design and Related Services
- 6. Provisional Product List for NAICS 515 & 5175: Broadcasting (ex. Internet) & Cable and Other Program Distribution
- 7. Provisional Product List for NAICS 517 ex. 5175: Telecommunications ex. Cable and Other Program Distribution
- 8. Provisional Product List for NAICS 52: Finance and Insurance
- 9. Provisional Product List for NAICS 5412: Accounting, Tax Preparation, Bookkeeping, and Payroll Services
- 10. Provisional Product List for NAICS 541310 & 541320: Architectural Services & Landscape Architectural Services
- 11. Provisional Product List for NAICS 541330: Engineering Services
- 12. Provisional Product List for NAICS 541340: Drafting Services
- 13. Provisional Product List for NAICS 541350: Building Inspection Services
- 14. Provisional Product List for NAICS 541360: Geophysical Surveying and Mapping Services
- 15. Provisional Product List for NAICS 541370: Surveying and Mapping (except Geophysical) Services
- 16. Provisional Product List for NAICS 541810: Advertising Agencies
- 17. Provisional Product List for NAICS 541820: Public Relations Agencies
- 18. Provisional Product List for NAICS 541830: Media Buying Agencies
- 19. Provisional Product List for NAICS 541840: Media Representatives
- 20. Provisional Product List for NAICS 541850: Display Advertising
- 21. Provisional Product List for NAICS 541860: Direct Mail Advertising
- 22. Provisional Product List for NAICS 541870: Advertising Material Distribution
- 23. Provisional Product List for NAICS 541890: Other Services Related to Advertising
- 24. Provisional Product List for NAICS 5613: Employment Services
- 25. Provisional Product List for NAICS 5615: Travel Arrangement and Reservation Services
- 26. Provisional Product List for NAICS 562: Waste Management and Remediation Services

#### Attachment B – continued

## **B.** Provisional Product Lists Under Development from Phase I.2

- 1. Provisional Product List for NAICS 512110 and 512120: Motion Picture and Video Production and Motion Picture and Video Distribution
- 2. Provisional Product List for NAICS 51213: Motion Picture and Video Exibition
- 3. Provisional Product List for NAICS 51219: Postproduction Services and Other Motion Picture and Video Industries
- 4. Provisional Product List for NAICS 512210, 512220, and 512230: Record Production, Integrated Record Production/Distribution, and Music Publishers.
- 5. Provisional Product List for NAICS 512240 and 512290: Sound Recording Studios and Other Sound Recording Industries
- 6. Provisional Product List for NAICS 516110: Internet Publishing and Broadcasting
- 7. Provisional Product List for NAICS 541380: Testing Laboratories
- 8. Provisional Product List for NAICS 54161: Management Consulting Services
- 9. Provisional Product List for NAICS 541620: Environmental Consulting Services
- 10. Provisional Product List for NAICS 5417: Scientific Research and Development Services

# Provisional Product List for NAICS 541330: Engineering Services

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.0		Engineering Services	The application of physical laws and principles in the design, development, and utilization of machines, materials, instruments, structures, processes, and systems. The services included in this group include the provision of designs, plans, and studies related to engineering projects. Engineering advisory services that are related to a specific project are classified in product groups 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, and 1.9. Those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a design-build project are provided on a sub-contract basis, the sub-contract is included under the appropriate engineering project group.
54133	1.1	X	Residential Building Engineering Projects	All engineering services related to new and existing using, apartments, etc., and mixed-used buildings that are predominantly used for residential housing. The services included in this group include the provision of designs, plans, and studies related to residential building projects. Engineering advisory services that are related to a specific residential building project are classified in product group 1.1, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a residential building design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.1.1		New residential building projects	All engineering services related to new residential buildings, including mixed-use buildings that are predominantly used for residential housing.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.1.2		Residential building renovation projects	All engineering services related to the renovation, historical restoration, or retrofitting of existing residential buildings, including mixed-use buildings that are predominantly used for residential housing.
54133	1.2	X	Commercial, Public and Institutional Building Engineering Projects	All engineering services related to new and existing commercial, public, and institutional buildings, including mixed-use buildings that are predominantly used for commercial, public, or institutional purposes. Examples include office buildings, shopping centers, hotels, restaurants, service stations, warehouses, bus and truck terminals, hospitals, schools, churches, prisons, stadiums and arenas, libraries, and museums. The services included in this group include the provision of designs, plans, and studies related to commercial, public, and institutional building projects. Engineering advisory services that are related to a specific commercial, public, or institutional building project are classified in product group 1.2, whereas those that are not related to a specific project are classified in product group 1.10: Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a commercial, public, or institutional building design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.2.1.		New commercial, public, and institutional building projects	All engineering services related to new commercial, public, and institutional buildings, including mixed- used buildings that are used predominantly for commercial, public, or institutional purposes.
54133	1.2.2		Commercial, public, and institutional building renovation projects	All engineering services related to the renovation, historical restoration, or retrofitting of existing commercial, public, and institutional buildings, including mixed-used buildings that are used predominantly for commercial, public, or institutional purposes.

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Industry Subject	Working Group	Tri- lateral	English Title	English Definition
<u>Area</u> 54133	Code 1.3	Detail	Industrial and Manufacturing Engineering Projects	All engineering services related to industrial and manufacturing facilities, processes, and products. The services included in this group include the provision of designs, plans, and studies related to industrial and manufacturing projects. Engineering advisory services that are related to a specific industrial or manufacturing project are classified in product group 1.3, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for an industrial or manufacturing design- build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.3.1		Industrial and Manufacturing Plant and Process Engineering Projects	All engineering services related to industrial and manufacturing facilities and processes.
54133	1.3.1.1	Х	Mining and metallurgical plant and process engineering projects	All engineering services related to mining and metallurgical facilities and processes.
54133	1.3.1.1.1		Mining and metallurgical plant engineering projects	All engineering services related to mining and metallurgical facilities, such as mines, smelters, mills, and mineral refineries. Includes integrated facility and process engineering projects.
54133	1.3.1.1.2		Mining and metallurgical process engineering projects	All engineering services related to mining and metallurgical processes, such as mineral extraction, smelting, refining, and metal forming.
54133	1.3.1.2		Petroleum and petrochemical plant and process engineering projects	All engineering services related to petroleum and petrochemical facilities and processes.
54133	1.3.1.2.1		Petroleum and petrochemical plant engineering projects	All engineering services related to petroleum and petrochemical facilities, such as oil and gas platforms, refineries, pipelines, and petrochemical plants. Includes integrated facility and process engineering projects.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.3.1.2.2		Petroleum and petrochemical process engineering projects	All engineering services related to processes for the production of petroleum and petrochemicals, such as extraction, refining, formulation, and mixing.
54133	1.3.1.3		Microelectronics plant and process engineering projects	All engineering services related to microelectronics facilities and processes, such as those that produce microprocessors, silicon chips and wafers, microcircuits, and semi-conductors.
54133	1.3.1.3.1		Microelectronics plant engineering projects	All engineering services related to microelectronics facilities, such as those that produce microprocessors, silicon chips and wafers, microcircuits, and semi-conductors. Includes integrated facility and process engineering projects.
54133	1.3.1.3.2		Microelectronics process engineering projects	All engineering services related to processes for the production of microelectronics components.
54133	1.3.1.4	Х		All engineering services related to textile and clothing facilities and processes.
54133	1.3.1.5	Х	Iron and Steel plant and process engineering projects	All engineering services related to iron and steel facilities and processes.
54133	1.3.1.9	X	Other industrial and manufacturing plant and process engineering projects	All engineering services related to other industrial and manufacturing facilities and processes, n.e.c. Excludes engineering services related to mining and metallurgical plants and processes, petroleum and petrochemical plants and processes, microelectronics plants and processes, textile and clothing plants and processes, and iron and steel plants and processes. These services are covered under products 1.3.1.1, 1.3.1.2, 1.3.1.3, 1.3.1.4, and 1.3.1.5.
54133	1.3.1.9.1		Pharmaceutical plant and process engineering projects	All engineering services related to pharmaceutical facilities and processes, including bio-engineering.
54133	1.3.1.9.1.1		Pharmaceutical plant engineering projects	All engineering services related to pharmaceutical facilities, such as clean rooms and research and testing laboratories. Includes integrated facility and process engineering projects.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.3.1.9.1.2		Pharmaceutical process engineering projects	All engineering services related to processes for the production of pharmaceuticals, such as centrifugation, purification, and fermentation.
54133	1.3.1.9.2		Pulp and paper plant and process engineering projects	All engineering services related to pulp and paper facilities and processes.
54133	1.3.1.9.2.1		Pulp and paper plant engineering projects	All engineering services related to pulp and paper facilities, such as pulp and paper mills. Includes integrated facility and process engineering projects.
54133	1.3.1.9.2.2		Pulp and paper process engineering projects	All engineering services related to processes for the production of pulp and paper, such as pulp washing, screening, bleaching, and drying.
54133	1.3.2		Industrial and Manufacturing Product Engineering Design Projects	All engineering services related to the design of industrial and manufactured products. Does not include research or industrial design services.
54133	1.3.2.1		Industrial machinery engineering design projects	All engineering services related to the design of industrial machinery. Examples include agricultural, construction, mining, metalworking, commercial and service industry, heating, ventilating and air-conditioning, and power transmission machinery.
54133	1.3.2.2		Electronic equipment engineering design projects	All engineering services related to the design of electronic equipment. Examples include computers and peripheral equipment, communications equipment, audio and video equipment, and semi- conductors and other electronic components.
54133	1.3.2.3		Electrical equipment engineering design projects	All engineering services related to the design of electrical equipment. Examples include lighting, major and minor appliances, and components thereof.
54133	1.3.2.4		Transportation equipment engineering design projects	All engineering services related to the design of transportation equipment. Examples include motor vehicles, aircraft, trains, marine vessels, and space vehicles.
54133	1.3.2.9		Other industrial and manufacturing product engineering design projects.	All engineering services related to the design of industrial and manufactured products not elsewhere classified.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.4		Transportation Engineering Projects	All engineering services related to highways, roads, streets, bridges, tunnels, railways, subways, airports, harbors, canals and locks, and other transportation infrastructure. The services included in this group include the provision of designs, plans, and studies related to transportation projects. Engineering advisory services that are related to a specific transportation project are classified in product group 1.4, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a transportation design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.4.1	Х	Highway and Roadway Engineering Projects	All engineering services related to highways, roads, and streets, including elevated highways, bridges, and tunnels used for motor vehicle traffic. Also includes ancillary facilities such as rest stops, weigh stations, and toll booths.
54133	1.4.2		Aviation Facility Engineering Projects	All engineering services related to airports, runways, hangars, and other aviation facilities.
54133	1.4.3		Marine Facility Engineering Projects	All engineering services related to marine ports, harbors, locks, canals, and dams primarily used for transportation purposes.
54133	1.4.4		Railway Engineering Projects	All engineering services related to railways and related structures, including railway bridges and tunnels.
54133	1.4.5		Mass Transit Engineering Projects	All engineering services related to mass transit systems, such as light rail or subway systems, including all related bridges and tunnels.

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Industry	Working	Tri-		
Subject	Group	lateral Detail	English Title	English Definition
<u>Area</u> 54133	Code 1.5			All engineering services related to municipal utilities. The services included in this group include the provision of designs, plans, and studies related to municipal utility projects. Engineering advisory services that are related to a specific municipal utility project are classified in product group 1.5, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a municipal utility design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.5.1		Distribution, Treatment,	All engineering services related to systems for the collection, distribution, treatment, and disposal of water.
54133	1.5.1.1		Wastewater collection and treatment projects	All engineering services related to systems for the collection, treatment, and disposal of wastewater.
54133	1.5.1.2		Stormwater management projects	All engineering services related to systems for stormwater management, including drainage and detention systems. Also includes dams used primarily for flood control.
54133	1.5.1.3		Local drinking water distribution system projects	All engineering services related to drinking water distribution systems, including pumping stations, reservoirs, water storage facilities, and water transmission and distribution mains. Also includes dams used primarily for local drinking water distribution.
54133	1.5.1.4		Irrigation system and water pipeline projects	All engineering services related to irrigation systems and water pipelines. Also includes dams primarily used for irrigation.
54133	1.5.2		Municipal Garbage Collection and Disposal Projects	All engineering services related to municipal garbage disposal systems, including recycling facilities, composting facilities, transfer stations, resource recovery facilities, and landfill sites.
54133	1.5.9	X	Engineering Projects	All engineering services related to municipal utilities not elsewhere classified, such as natural gas and steam distribution systems.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.6		Power Engineering Projects	All engineering services related to power generating units, power transmission and distribution lines, and related infrastructure. The services included in this group include the provision of designs, plans, and studies related to power projects. Engineering advisory services that are related to a specific power project are classified in product group 1.6, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a power design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.6.1		Power Generating Unit Engineering Projects	All engineering services related to facilities that generate electrical power from hydro, nuclear, fossil-fuel, or other sources of energy.
54133	1.6.1.1		Power generating unit engineering projects, fossil-fuel	All engineering services related to facilities that generate electrical power from fossil-fuel energy.
54133	1.6.1.2		Power generating unit engineering projects, nuclear	All engineering services related to facilities that generate electrical power from nuclear energy.
54133	1.6.1.3		Power generating unit engineering projects, hydro-electric	All engineering services related to facilities that generate electrical power from the energy in falling water.
54133	1.6.1.9		Power generating unit engineering projects, other	All engineering services related to facilities that generate electrical power from sources of energy not elsewhere classified, such as solar power, wind power, and geothermal power. Includes cogeneration facilities.
54133	1.6.2		Power Transmission and Distribution Engineering Projects	All engineering services related to overhead or underground electrical power transmission and distribution lines.

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Industry	Working	Tri-		
Subject	Group	lateral	English Title	English Definition
Area	Code	Detail		
54133	1.7			All engineering services related to systems for the transmission or distribution of voice, data, and programming. The services included in this group include the provision of designs, plans, and studies related to telecommunications and broadcasting projects. Engineering advisory services that are related to a specific telecommunications or broadcasting project are classified in product group 1.7, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a telecommunications or broadcasting design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.7.1		Wireless Network Engineering Projects	All engineering services related to systems for the transmission of voice, data, and programming between network termination points by short-wave or microwave. Includes wireless telephony, satellite radio, and direct-broadcast satellite systems.
54133	1.7.2		Wireline Network Engineering Projects	All engineering services related to systems for the transmission of voice and data between network termination points by copper wire, fiber-optic cable, co-axial cable, and hybrid fiber-coax cable.
54133	1.7.2.1		Telephone system engineering projects	All engineering services related to landline telephone systems, including the deployment of broad-band technologies involving these systems.
54133	1.7.2.2		engineering projects	All engineering services related to local cable television systems, including the deployment of broad-band technologies involving these systems.
54133	1.7.3			All engineering services related to systems for the transmission of radio and television signals. Excludes direct broadcast satellite and satellite radio systems
54133	1.7.9		Telecommunications and	All engineering services related to systems for the transmission or distribution of voice, data, or programming, not elsewhere classified.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	1.8		Hazardous and Industrial Waste Engineering Projects	All engineering services related to systems for the collection, treatment, and disposal of hazardous and industrial waste and the control of pollution. The services included in this group include the provision of designs, plans, and studies related to hazardous and industrial waste projects. Engineering advisory services that are related to a specific hazardous or industrial waste project are classified in product group 1.8, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a hazardous or industrial waste design-build project are provided on a sub-contract basis, the sub-contract is included under this project group.
54133	1.8.1		Hazardous Waste Remediation Projects	All engineering services related to programs for hazardous waste remediation. Examples include management of nuclear waste, chemical agent destruction, brownfield redevelopment, groundwater modeling, and contaminated site remediation.
54133	1.8.2	X	Industrial Waste Collection, Treatment, and Disposal Projects	All engineering services related to programs for the collection, treatment, recycling, and disposal of industrial air, water and solid wastes, generally to a level such that the remaining waste stream can be safely released to the natural environment or ordinary municipal systems.
54133	1.9	X	Other Engineering Projects	All engineering services related to systems, processes, facilities, or products not elsewhere classified. The services included in this group include the provision of designs, plans, and studies related to other engineering projects. Engineering advisory services that are related to a specific other engineering project are classified in product group 1.9, whereas those that are not related to a specific project are classified in product group 1.10. Design-build contracts, in which the respondent takes on the construction risk as well as the engineering design risk, are classified in product 2.2.2. However, if engineering design services for a design-build project are provided on a sub- contract basis, the sub-contract is included under this project group.

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Industry Subject Area	Working Group Code	Tri- lateral Detail		English Definition
54133	1.10	X	Engineering Advisory Services	The provision of advice, studies, and reports on engineering matters, except when the advice relates to a specific project. Advice, studies, and reports performed in conjunction with a project are classified based on the project type, in product groups 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, and 1.9. Services classified under this group include policy analysis, regulatory studies, audits, forensic investigations, and expert witness services.
54133	1.10.1		Engineering Expert Witness Services	The provision of testimony by a witness who, by virtue of experience, training, skill or knowledge of engineering, is recognized as being qualified to render an informed opinion on such matters.
54133	1.10.2		Engineering Forensic Investigation Services	Engineering investigation of a failed engineered system or structure to determine causal factors.
54133	1.10.3		Engineering Advisory Services, Other	Providing advice to clients concerning engineering principles and methods, when performed independently of an engineering project. Includes policy analysis, regulatory studies and audits.
54133	1.11	Х	Engineering Training Services	Engineering training services, such as safety, operational, and technical training services.
54133	2.0		Related services	Services, related to the field of engineering, that are provided by engineering firms.
54133	2.1	X	Project Management Services	Planning, supervising, and coordinating the activities involved in carrying out a project, with regard to time, cost, performance requirements, and other constraints. May also include the arranging of financing for a project, and procurement of equipment and subcontractors. This product refers only to those situations in which project management is offered as a stand-alone service.
54133 54133	2.2 2.2.1	X	Construction Services Construction management services	(As defined in the services of NAICS 23) Planning, supervising, and coordinating the work of tradesmen, laborers, and contractors on a construction site. May include assistance with the procurement of materials and subcontractors.

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Industry Subject Area	Working Group Code	Tri- lateral Detail	English Title	English Definition
54133	2.2.2			Integrated services performed for a project in which the contract covers both the engineering design and construction elements. This service may extend to the operation of the completed facility in some cases.
54133	2.2.3		Construction Projects	Services performed for a project in which the engineering firm is responsible solely for the construction of the project.
54133	2.3		Facility Management Services	(As to be defined in the services of NAICS 56121)
54133	2.4	Х	Architecture Services	(As defined in the services of NAICS 54131)
54133	2.5		Urban Planning Services	Urban planning services develop plans for the use of land, in order to achieve a community's objectives for a built and natural environment that is esthetically pleasing, efficient, and functional. Urban plans express public policies related to land use and development, as expressed by municipalities or other levels of governments. They provide a framework within which the plans for actual projects can be developed. (As defined in the services of NAICS 54131-2)
54133	2.6	Х	Building Inspection Services	(As defined in the services of NAICS 54135)
	2.7		Surveying and Mapping Services	(As defined in the services of NAICS 54137)
	2.8	Х	Testing Laboratory Services	(As defined in the services of NAICS 54138)
	2.9		Industrial Design Services	(As defined in the services of NAICS 54142)
54133	2.10		Research and Development Services	(As defined in the services of NAICS 54171)
	2.11	Х	Custom Software	(As defined in the Computer Services industries, including NAICS 54151)
54133	2.12		Drafting Services	(As defined in the services of NAICS 54134)
54133	3.0	Х	Other services	Other services provided by engineering firms, not elsewhere classified.
54133	3.1		Information technology (IT) Support Services	Computer hardware and software set-up, installation and configuration, upgrading, maintenance, and trouble-shooting services.

# Provisional Product List for NAICS 541810: Advertising Agencies

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Industry Subject Area		Tri- lateral Detail	<u> </u>	English Definition
54181	1	X	Integrated marketing communication	Providing a full range of advertising services (including any combination of creative and production services; and media planning, buying, and research) plus marketing services (including any combination of public relations, market research, and sales promotion).
54181	2	Х	Multiple advertising services	Providing any combination of advertising services such as creative and productive services; and media planning, buying, and research.
54181	3	Х	Advertising creative services, including graphic design services	Creating the basic idea for an advertisement, which includes drafting the words or copy that will appear in the ad or be spoken by an actor; designing the layout for a print ad or the filming sequence of a television commercial.
54181	4	Х	Media buying	Buying space or time from the media on behalf of the advertisers or advertising agencies.
54181	5	Х	Full public relations services	Developing and implementing a communications strategy with various target sectors of the public to influence their attitudes and opinions in the interest of promoting a person, product, place or idea. Various sectors of the public includes community groups, constituents, minority groups, employees, investors, etc.
54181	6	Х	Sales Promotion	Developing plans for specific promotional activities or campaigns that stimulate consumer purchasing and improve distribution efficiency for a specific product. This may also include providing support services for implementing the campaign, such as coordinating the logistical and personnel requirements.
54181	6.1		Large-scale sales promotions	Developing and organizing large-scale promotions of products or services, generally at the national level and utilizing mass media, such as raffles and contests.
54181	6.2		Ambulatory sales promotions	Developing and organizing sales promotions of products or services through use of personnel stationed at points of sale, in other public places, or going door to door.

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Industry	Working	Tri-		
Subject Area		lateral Detail	English Title	English Definition
54181	7	X	Direct Marketing	Developing a strategy to send promotional messages directly to consumers, rather than via mass media. Includes methods such as direct mail and telemarketing.
54181	8	Х	Marketing Research	Investigating all elements of the marketing mix, which includes product, place, price, and promotion.
54181	9		Other advertising services	Other services related to advertising, such as developing ad campaigns that use interactive media, conducting media verification, preparing competitive advertising reports, and producing advertisements for print, radio or television.
54181	9.1		Interactive Services	Creating interactive media such as CD-ROMs, kiosks, and websites for advertising clients. This includes preparing the design and layout of Webpages, and the development, production, and distribution of CD-ROMs that contain information specified by the advertising client.
54181	9.2		Media Advertising Verification	Conducting followup of the various media to ensure that advertisements are placed in accordance with the terms of the media contract.
54181	9.3		Competitive Advertising Reports	Preparing reports on the advertising that the competition is placing in the media, in terms of investment, rating, and strategy.
54181	9.4		Advertising Production Services	Producing an advertisementt for print, radio, or television ,which may be reproduced and distributed, such as producing a radio or television advertising spot.