National Center for Education Statistics

Introduction to the Classification of Instructional Programs: 2010 Edition (CIP-2010)

I.   What the CIP is and how it is used?

The Classification of Instructional Programs (CIP) is a taxonomic coding scheme of instructional programs. Its purpose is to facilitate the organization, collection, and reporting of fields of study and program completions. The CIP was originally developed in 1980 by the National Center for Education Statistics (NCES) in the U.S. Department of Education, with revisions occurring in 1985, 1990, and 2000. The 2010 edition of the CIP (CIP-2010) is the fourth revision of the CIP and presents an updated taxonomy of instructional program classifications and descriptions and an enhanced CIP User Website. Unlike previous editions of the CIP, which were distributed in print copy, the 2010 CIP will only be published electronically. Users, however, will be able to download a text version of the CIP from the CIP User Website.

The CIP titles and program descriptions are intended to be generic categories into which program completions data can be placed, not exact duplicates of a specific major or field of study titles used by individual institutions. CIP codes are standard statistical coding tools that reflect current practice, and are not a prescriptive list of officially recognized or permitted programs. The CIP is not intended to be a regulatory device. CIP codes, for the most part, are not intended to correspond exclusively to any specific degree or program level. In most cases, any given instructional program may be offered at various levels, and CIP codes are intended to capture all such data.

The vast majority of CIP titles correspond to academic and occupational instructional programs offered for credit at the postsecondary level. These programs result in recognized completion points and awards, including degrees, certificates, and other formal awards. The CIP also includes other types of instructional programs, such as residency programs in various dental, medical, podiatric, and veterinary specialties that may lead to advanced professional certification; personal improvement and leisure programs; and instructional programs that lead to diplomas and certificates at the secondary level only.

The CIP is the accepted federal government statistical standard on instructional program classifications and is used in a variety of education information surveys and databases. Since it was first published in 1980, the CIP has been used by NCES in the Integrated Postsecondary Education Data System (IPEDS) and its predecessor, the Higher Education General Information Survey (HEGIS) to code degree completions. It is also used by other Department of Education offices, such as the Office for Civil Rights, the Office of Vocational and Adult Education, and the Office of Special Education, and serves as the standard on instructional programs for other federal agencies, including the National Science Foundation (NSF), the Department of Commerce (Bureau of the Census), the Department of Labor (Bureau of Labor Statistics), and others. The CIP is used by state agencies, national associations, academic institutions, and employment counseling services for collecting, reporting, and analyzing instructional program data.

Based on the comprehensiveness and detail of the CIP and the potential for enhanced comparability with U.S. education data, Statistics Canada adopted the CIP as the standard field of study taxonomy in 2000, replacing previous Canadian classifications. However, due to several specific differences in the educational systems of each country, there are a few minor differences between each country's versions of the CIP.

Under this definition, instructional programs included in the CIP must meet all of the following operational criteria:

1)   An instructional program must be offered by, through, or under the auspices of an education institution or other recognized provider.

2) The program must consist of more than one isolated course or learning experience and must not be a haphazard collection of unrelated courses or experiences.

3) There must be a set of structured learning experiences, defined by an institution or other provider, leading to a completion point that is formally certified by a degree, another formal award, or some other form of recognition.

The following programs are, therefore, not included in the CIP:

o In-house, professional, or on-the-job training activities that are not recognized by an education institution or provider and that do not lead to any kind of formal award, credit, or certification.
o Subject matter specializations or individual courses within a program that are not treated as a major and are generally not recognized by the education institution as a formal program offering.

II.   Organization of the CIP

The CIP taxonomy is organized on three levels: 1) the two-digit series, 2) the four-digit series, and 3) the six-digit series. The two-digit series represent the most general groupings of related programs. The four-digit series represent intermediate groupings of programs that have comparable content and objectives. The six-digit series, also referred to as six digit CIP Codes, represent specific instructional programs. Postsecondary educational institutions use six-digit CIP codes when completing the IPEDS Completions Survey.

There are 47 two-digit series. The standard format for the two-digit series consists of a two-digit number followed by a period (##.). Codes and program titles at this level appear in bold type and in capital letters. Program descriptions at the two-digit series level begin with the standard phrase "Instructional programs" followed by a general description of the content areas and topics associated with the instructional programs within that series.

The numbering sequence for the four-digit series consists of a two-digit series code followed by a period and a second set of two digits. The standard format for four-digit CIP codes is ##.##. Codes and program titles at the four-digit level appear in bold type. Within a four-digit series, undifferentiated instructional programs with a general focus appear at the beginning of the series, while an "other" program entry appears as the final category within a series. The rest of the programs are listed in numerical order. This convention of including an "other" program code was established to provide a category for reporting on programs that fall within a four-digit series but do not have a separate program code listed. Program descriptions are not provided at the four-digit summary level, and the user is instead informed of the range of code numbers where the instructional content for the series is contained.

Six-digit codes are the most detailed program classifications within the CIP. They are the basic unit of analysis used by NCES and institutions in tracking and reporting program completions and fields of study data. There is at least one six-digit code within every four-digit series. The numbering sequence is similar to the four-digit series sequence, with two more digits added after the four-digit series number; the standard format for the six-digit codes is ##.####.

Each six-digit program appears with a description that generally identifies the objectives and content of the instructional programs. Program descriptions for academic or general programs begin with the phrase "A program that focuses on ..." Program descriptions for programs that are designed to prepare individuals for specific occupations begin with the phrase "A program that prepares individuals for..."   The program description also indicates the instructional content of the program. These subject matter listings are intended as a general guide to the content areas addressed by the instructional program. Programs offered at different levels may cover more or fewer topics than those listed.

III. The process used to update the CIP

In order to develop the CIP-2010, NCES completed a comprehensive, multi-stage process over a two-year period. This process included extensive background (unobtrusive) research and analysis; solicitation of suggestions from IPEDS keyholders; and guidance, input, and review from a Technical Review Panel. Over the same time period, Statistics Canada completed a parallel review of CIP-2000 in light of educational changes that were occurring in Canada.

Background research

The first phase of the revision process consisted of research aimed at developing a set of preliminary recommendations for revisions to the CIP. This included a detailed examination of readily available data sources. These data sources included:

o   Scan of institutional web sites ("catalog scan"). NCES undertook lengthy and systematic web research in order to identify new and emerging instructional programs that exist at institutions but were not included in CIP-2000. The first step was selection of institutions to be studied. Using data from the IPEDS Completions Survey, NCES identified 10 institutions that produced the greatest number of completions for each two-digit series in the CIP. Then NCES researched their websites, systematically mapping every degree and certificate program related to that two-digit series onto the existing CIP taxonomy, comparing titles and, when necessary, program descriptions. Program titles that did not match were examined as to whether they might represent distinct areas of study-possible new codes--or alternate titles for existing programs.

In addition to the basic catalog scan, NCES conducted supplementary research to assure adequate exploration of programs that might not have been covered by the basic catalog scan. NCES researched 10 community college websites and over 25 liberal arts college websites to assure that the types of programs typically offered at these types of institutions were adequately examined. Further, for selected two-digit series where many four-digit series would be underrepresented in the basic catalog scan (including 13. EDUCATION and 51. HEALTH PROFESSIONS AND RELATED PROGRAMS), NCES identified the top-producing institutions by four-digit series and researched these websites. Finally, a complete review of the programs at all military institutions was conducted, and special attention was given to developing comprehensive information on programs related to military science, military technologies, and homeland security.

o   Review of "others" titles provided in 2006 and 2007 IPEDS Completions Surveys. In responding to the IPEDS Completions Survey, postsecondary education institutions have an opportunity to write in the exact titles of programs that they report under an "other" category. Titles listed here represent instructional programs at the institution for which the institution could not find a more specific CIP code. NCES reviewed all titles of "other" instructional programs reported in the 2006 and 2007 IPEDS Completions Surveys to identify which of these titles should be considered for inclusion in the CIP-2010.

o   <u>Examination of other national data sources</u>. NCES reviewed additional data from other government and private resources to search for other potential new program titles. This included analyses of emerging fields identified by the College Board's Annual Survey of Colleges and the National Science Foundation's Survey of Earned Doctorates.

Upon completion of initial investigations and identification of potential new titles for the CIP-2010, NCES conducted further detailed research on each title to determine whether it met the criteria for inclusion in the CIP (described below). Draft descriptions of new programs were written at this time.

<u>Survey of IPEDS keyholders and TRP members.</u> The second phase of the revision process consisted of a solicitation of suggestions for new codes from all IPEDS keyholders, including state IPEDS coordinators, as well as members of the CIP Technical Review Panel (described below). Survey recipients were invited to identify instructional program titles that they would like to add to the CIP, provide a rationale for inclusion, and suggest a program description. The purpose of this effort was to engage a wide range of CIP users in the process and to cast a wide net to capture additional new program titles not identified by NCES background research. This approach assured that direct stakeholders had an opportunity to make the case for adding new titles to the CIP.

To evaluate the merits of these suggestions, NCES conducted detailed research on each suggested title in order to determine whether it met the criteria for inclusion. Upon completion of this phase, NCES produced a complete draft of the revised CIP.

<u>Technical Review Panel (TRP) Meetings.</u> At the start of the CIP revision process, NCES identified a group of professionals to serve as overall advisors to the process as well as to provide input based on their specific expertise and their organizations' interests. This group was broadly representative of CIP users and stakeholders, including representatives of federal agencies, state agencies, and postsecondary institutions.

IV.   Guidelines for adding or deleting a CIP code

New codes were added to the CIP when certain procedural criteria and numerical guidelines were met. NCES also established provisions for making exceptions to the numerical guidelines.

Procedurally, in order for a program code to be added, it needed to meet one of the following criteria:

o   Identification by NCES research
o   Identification by a member of the Technical Review Panel
o   Request by a federal agency, including Statistics Canada
o   Request by a state agency
o   Request by an IPEDS keyholder

Additionally, any institutional representative could make a request through an IPEDS keyholder. Numerically, the general guideline was that a minimum of 10 institutions must offer a program in order to add it to the CIP. NCES researched each recommendation to assure that 10 such programs existed. However, exceptions were made in some cases where outside evidence identified an instructional area as rapidly growing; in such cases, "nearly 10" institutions was judged to be adequate evidence for inclusion.

NCES did make general exceptions to the numerical guideline if a federal agency had a policy reason to track a particular program title. For example, the numerical guideline did not need to be met in the cases of foreign language, military science and technology, and homeland security programs.

V.   Overview of changes to the CIP

The CIP-2010 contains nearly 50 new four-digit series and over 300 new six-digit codes. More than 350 codes have been revised. In addition, several significant changes characterize the revised CIP.

Enhanced electronic format. For the first time in CIP history, users will be accessing a fully-searchable electronic CIP with enhanced search capabilities and user tools and resources. These include multiple ways to browse the CIP, search for specific text, explore changes from CIP-2000, download summary reports, and export files. This stands in contrast to CIP-2000 in which the primary format was paper, and electronic features were limited.

The move to an electronic format means that the chapter format found in CIP-2000 is no longer relevant. With the electronic version, users can go directly to their topic of interest--in multiple ways-rather than follow a defined, linear format.

Users should note that a full text version of the CIP is available for download and printing from the CIP User's Website. Many users will find it advantageous to take advantage of the electronic search features and information resources as well as keep a printed version as a reference document.

Addition of examples. As CIP users are aware, there is a great deal of variability in how institutions title their instructional programs. To help minimize user uncertainty and facilitate more accurate reporting of program completions, NCES has introduced a new feature in CIP-2010: examples have been added to nearly 400 six-digit program codes. Examples should be thought of as some of the common titles that fit under a specific CIP code, and were identified as a result of NCES' extensive research and collaborative efforts. They give users more information and assistance when trying to match an instructional program title that does not exactly match the title of a CIP code. Please note that the examples are not intended to be an exact or exhaustive list. CIP users may decide to report an instructional program under a specific code, even though the exact title does not appear in the list of examples. It is ultimately up to the individual user to select the specific CIP code that best describes their instructional program.

The following illustrates the use of examples:

50.0914 Brass Instruments.
A program that prepares individuals to master a brass instrument and performing art as solo, ensemble, and/or accompanist performers. Includes instruction in playing and personal style development.
Examples:
- Trumpet
- Horn
- Trombone
- Euphonium/Baritone
- Tuba

Addition of FAQs. In order to provide additional information and guidance to CIP users, two types of Frequently Asked Questions (FAQs) have been developed. The General FAQs contain overall description of features of the CIP and general guidance for users. The Coding FAQs explain differences among specific series and are designed to help users choose among them.

Re-organization and expansion of selected two-digit series. In order to preserve time-series data, NCES did not introduce any new two-digit series, nor undertake any major re-organization across existing two-digit series. However, there were a few instances in which a two-digit series underwent some degree of re-organization for a particular purpose. These include:

   o **Series 23. ENGLISH LANGUAGE AND LITERATURE/LETTERS**: In CIP-2000, all but one four-digit series in series 23 contained a single six-digit code of the same title. This

represents a departure from other series in which the four-digit series typically groups related six-digit codes. In CIP-2010, NCES brought series 23 more in line with other series by introducing two new four-digit series, **23.13 Rhetoric and Composition/Writing Studies** and **23.14 Literature**, and placing all related six-digit program codes into the appropriate new four-digit series.

- o **Series 42. PSYCHOLOGY**: In CIP-2000, series 42 contained 23 separate four-digit series, each containing exactly one six-digit code of the same title. Again, this is atypical of the CIP overall, so NCES adjusted this in CIP-2010 by grouping all of the six-digit CIP codes into one of the following four-digit series: **42.01 Psychology General**, **42.27 Research and Experimental Psychology**, 42.**28 Clinical, Counseling, and Applied Psychology**, and **42.99 Psychology**, Other. All six-digit codes were moved into the appropriate four-digit series, and obsolete four-digit titles were deleted.

- o **Series 50. VISUAL AND PERFORMING ARTS**: CIP-2000 contained three related visual and performing arts management programs that were located in three different four-digit series. At the same time, there was no code that captured general programs in visual and performing arts management. CIP-2010 added a new four-digit series: **50.10 Arts, Entertainment, and Media Management**. The three existing programs were moved here, and both "general" and "other" codes were created so that all of these programs can be reported and counted under a single heading.

- o **Series 51. HEALTH PROFESSIONS AND RELATED PROGRAMS**: Prior to the current revision, all nursing programs were contained in a single four-digit series: **51.16 Nursing**. The CIP-2010 divided this series into two separate four-digit series: **51.38 Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing** and 51.**39 Practical Nursing, Vocational Nursing and Nursing Assistants**. This revision will allow more meaningful reporting of completions in nursing.

- o **Series 60. RESIDENCY PROGRAMS**: Prior to the current revision, all medical residencies were contained in a single four-digit series: **60.02 Medical Residency Programs**. This included both General Certificates for first residency programs and Subspecialty Certificates for advanced residency programs that require completion of a general residency program. The CIP-2010 divided series 60.02 into two separate four-digit series: **60.04 Medical Residency Programs - General Certificates** and **60.05 Medical Residency Programs - Subspecialty Certificates**. Again, this revision will allow more meaningful analysis of medical residencies data.

In addition, three series underwent significant expansion:

- o **Series 28. MILITARY SCIENCE, LEADERSHIP AND OPERATIONAL ART**. This series was expanded from the prior series **28. RESERVE OFFICER TRAINING CORPS PROGRAMS** to include all programs that provide professional education and training of military officers in leadership, military science and operational studies, in addition to pre-officer training.

- o **Series 29. MILITARY TECHNOLOGIES AND APPLIED SCIENCES**. This series was expanded from the prior series **29. MILITARY TECHNOLOGIES**, which contained just one four-digit series with one six-digit code. The new series includes several four-digit series and many six-digit codes that differentiate programs in intelligence operations, military applied sciences, and military technologies.

- o **Series 43. HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, AND RELATED PROTECTIVE SERVICES**. This series was expanded from the prior series **43. SECURITY AND PROTECTIVE SERVICES**. To capture changes that have occurred since

CIP-2000, this series contains a new four-digit series, **43.03 Homeland Security**, as well as an expansion of six-digit programs under other four-digit series.

VI.   CIP Code Groups

CIP codes belong to one of five general groups based on two-digit series. CIP code groups are not used for reporting, but are helpful for determining the type of program described by the CIP codes. The five groups are:

1. **Academic and Occupational/Vocational Programs** *(All series not specifically named below)*
   These CIP codes are academic and occupational or vocational instructional programs offered for credit at one or more postsecondary educational levels. These programs usually result in recognized completion points and awards such as degrees, diplomas, certificates, or some other formal award. **This is the only group of CIP code that is valid for IPEDS reporting.**

2. **Residency Programs (Series 60)**
   Programs that prepare medical doctors (MD), osteopaths (DO), dentists (DDS, DMD), veterinarians (DVM), and podiatrists (DPM) for certification as practitioners of recognized specialties in their respective professions. These programs are approved and accredited by designated professional associations and require from one to five years to complete, depending on the program. Residency programs that also result in an academic degree completion, such as an MS or PhD, should be reported under one of the clinical sciences codes located in Series 26, 51.05, or 51.25, rather than in a residency code located in Series 60. **The CIP codes in this group are not valid for IPEDS reporting.**

3. **Military Science, Leadership, and Operational Art (Series 28)**
   Instructional programs that provide professional education and training of military officers in leadership, military science and operational studies, security policy and strategy, military economics and management, and pre-officer training. **The CIP codes in this group are not valid for IPEDS reporting.**

4. **Personal Improvement and Leisure (Avocational) Programs (Series 32, 33, 34, 35, 36, & 37)**
   These CIP codes should be used for programs that equip individuals with knowledge and skills related to personal growth and leisure-time pursuits. Most of the programs are designed for adult learners. They are not formal academic or occupationally-specific programs and do not result in transferable credit or formal awards. **The CIP codes in this group are not valid for IPEDS reporting.**

5. **High School/Secondary Diplomas and Certificates (Series 53)**
   This CIP code should be used for instructional programs that define the prescribed requirements for high school/secondary school graduation. **The CIP codes in this group are not valid for IPEDS reporting.**