

This document outlines the array of educational and occupational coding. All of those acronyms do have meaning!

CIP Codes

From <http://nces.ed.gov/pubs2002/cip2000>

Classification of Instructional Programs: 2000 Edition

The purpose of the Classification of Instructional Programs (CIP) is to provide a taxonomic scheme that will support the accurate tracking, assessment, and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring in 1985 and 1990. The 2000 edition (CIP-2000) is the third revision of the taxonomy and presents an updated taxonomy of instructional program classifications and descriptions.

CIP Codes are assigned in these broad categories:

- 01) AGRICULTURE, AGRICULTURE OPERATIONS, AND RELATED SCIENCES.
 - 03) NATURAL RESOURCES AND CONSERVATION.
 - 04) ARCHITECTURE AND RELATED SERVICES.
 - 05) AREA, ETHNIC, CULTURAL, GENDER, AND GROUP STUDIES.
 - 09) COMMUNICATION, JOURNALISM, AND RELATED PROGRAMS.
 - 10) COMMUNICATIONS TECHNOLOGIES/TECHNICIANS AND SUPPORT SERVICES.
 - 11) COMPUTER AND INFORMATION SCIENCES AND SUPPORT SERVICES.
 - 12) PERSONAL AND CULINARY SERVICES.
 - 13) EDUCATION.
 - 14) ENGINEERING.
 - 15) ENGINEERING TECHNOLOGIES AND ENGINEERING-RELATED FIELDS.
 - 16) FOREIGN LANGUAGES, LITERATURES, AND LINGUISTICS.
 - 19) FAMILY AND CONSUMER SCIENCES/HUMAN SCIENCES.
 - 22) LEGAL PROFESSIONS AND STUDIES.
 - 23) ENGLISH LANGUAGE AND LITERATURE/LETTERS.
 - 24) LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES.
 - 25) LIBRARY SCIENCE.
 - 26) BIOLOGICAL AND BIOMEDICAL SCIENCES.
 - 27) MATHEMATICS AND STATISTICS.
 - 28) MILITARY SCIENCE, LEADERSHIP AND OPERATIONAL ART.
 - 29) MILITARY TECHNOLOGIES AND APPLIED SCIENCES.
 - 30) MULTI/INTERDISCIPLINARY STUDIES.
 - 31) PARKS, RECREATION, LEISURE, AND FITNESS STUDIES.
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- 32) BASIC SKILLS AND DEVELOPMENTAL/REMEDIAL EDUCATION.
- 33) CITIZENSHIP ACTIVITIES.
- 34) HEALTH-RELATED KNOWLEDGE AND SKILLS.
- 35) INTERPERSONAL AND SOCIAL SKILLS.
- 36) LEISURE AND RECREATIONAL ACTIVITIES.
- 37) PERSONAL AWARENESS AND SELF-IMPROVEMENT.
- 38) PHILOSOPHY AND RELIGIOUS STUDIES.
- 39) THEOLOGY AND RELIGIOUS VOCATIONS.
- 40) PHYSICAL SCIENCES.
- 41) SCIENCE TECHNOLOGIES/TECHNICIANS.
- 42) PSYCHOLOGY.
- 43) HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING AND RELATED PROTECTIVE SERVICES.
- 44) PUBLIC ADMINISTRATION AND SOCIAL SERVICE PROFESSIONS.
- 45) SOCIAL SCIENCES.
- 46) CONSTRUCTION TRADES.
- 47) MECHANIC AND REPAIR TECHNOLOGIES/TECHNICIANS.
- 48) PRECISION PRODUCTION.
- 49) TRANSPORTATION AND MATERIALS MOVING.
- 50) VISUAL AND PERFORMING ARTS.
- 51) HEALTH PROFESSIONS AND RELATED PROGRAMS.
- 52) BUSINESS, MANAGEMENT, MARKETING, AND RELATED SUPPORT SERVICES.
- 53) HIGH SCHOOL/SECONDARY DIPLOMAS AND CERTIFICATES.
- 54) HISTORY.
- 60) RESIDENCY PROGRAMS.

The Integrated Postsecondary Education Data System (IPEDS)

From <http://nces.ed.gov/ipeds/about/>

What is IPEDS?

IPEDS is the Integrated Postsecondary Education Data System. It is a system of interrelated surveys conducted annually by the U.S. Department's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. The Higher Education Act of 1965, as amended, requires that institutions that participate in federal student aid programs report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. These data are made available to students and parents through the College Navigator college search Web site and to researchers and others through the IPEDS Data Center.

IPEDS provides basic data needed to describe — and analyze trends in — postsecondary education in the United States, in terms of the numbers of students enrolled, staff employed, dollars expended, and degrees earned. Congress, federal agencies, state governments, education providers, professional associations, private businesses, media, students and parents, and others rely on IPEDS data for this basic information on postsecondary institutions.

IPEDS forms the institutional sampling frame for other NCES postsecondary surveys, such as the National Postsecondary Student Aid Study and the National Survey of Postsecondary Faculty.

Which Institutions Report to IPEDS?

The completion of all IPEDS surveys is mandatory for institutions that participate in or are applicants for participation in any federal student financial aid program (such as Pell grants and federal student loans) authorized by Title IV of the Higher Education Act of 1965, as amended (20 USC 1094, Section 487(a)(17) and 34 CFR 668.14(b)(19)).

More than 6,700 institutions complete IPEDS surveys each year. These include research universities, state colleges and universities, private religious and liberal arts colleges, for-profit institutions, community and technical colleges, non-degree-granting institutions such as beauty colleges, and others.

To find out if a particular institution reports to IPEDS, go to College Navigator and search by the institution name.

What Data Are Collected in IPEDS?

IPEDS collects data on postsecondary education in the United States in seven areas: institutional characteristics, institutional prices, enrollment, student financial aid, degrees and certificates conferred, student persistence and success, and institutional human and fiscal resources.

Institutional Characteristics

Institutional characteristics data are the foundation of the entire IPEDS system. These include basic institutional contact information, tuition and fees, room and board charges, control or affiliation, type of calendar system, levels of awards offered, types of programs, and admissions requirements.

Institutional Prices

IPEDS collects institutional pricing data from institutions for first-time, full-time, degree- or certificate-seeking undergraduate students. This includes tuition and fee data as well as information on the estimated student budgets for students based on living situations (on-campus or off-campus).

Enrollment

Because enrollment patterns differ greatly among the various types of postsecondary institutions, there is a need for both different measures of enrollment and several indicators of access. In IPEDS, the following enrollment-related data are collected:

Fall Enrollment — Fall enrollment is the traditional measure of student access to higher education. Fall enrollment data can be looked at by race/ethnicity; gender; enrollment status (part-time or full-time); and or level of study (undergraduate or graduate).

Residence of First-Time Students — Data on the number of first-time freshmen by state of residence, along with data on the number who graduated from high school the previous year, serve to monitor the flow of students across state lines and calculate college-going rates by state. These data are collected in even-numbered years.

Age Data — The age distribution of enrolled students offers insight into the relationship between the changing demographics of college-going cohorts and enrollment in different types of postsecondary institutions. They also permit detailed projections of enrollment by institutional type and by age. Because a student's dependency status is strongly related to age, the data can be used to provide estimates of the number of independent and dependent students attending postsecondary institutions. These data are collected in odd-numbered years.

Unduplicated 12-Month Head Count — Enrollment figures based on the unduplicated head count of students enrolled over a 12-month period is particularly valuable for institutions that use non-traditional calendar systems and offer short-term programs. Because this enrollment measure encompasses an entire year, it provides a more complete picture of the number of students these schools serve.

Instructional Activity — Data on instructional activity is measured in total credit and/or contact hours delivered by institutions during a 12-month period.

Total Entering Class — Data on the number of incoming students (students enrolling for the first time in a postsecondary institution versus students transferring in from another postsecondary institution) at an institution. This measure permits the calculation of the graduation rate cohort as a proportion of the total entering student body.

Definition of SOC Codes

From <http://www.bls.gov/soc/>

The 2010 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together.

Note on plans for the next SOC revision

The next major review and revision of the SOC is expected to begin in 2013 in preparation for the 2018 SOC. The intent of this revision schedule is to minimize disruption to data providers, producers, and users by promoting simultaneous adoption of revised occupational and industry classification systems for those data series that use both. Given the multiple interdependent programs that rely on the SOC, this is best accomplished by timing revisions of the SOC for the years following North American Industry Classification System (NAICS) revisions, which occur for years ending in 2 and 7. The next such year is 2018, which has the additional benefit of coinciding with the beginning year of the American Community Survey 5-year set of surveys that bracket the 2020 Decennial Census. Thus, OMB intends to consider revisions of the SOC for 2018 and every 10 years thereafter.

2010 SOC Major Groups

Each occupation in the SOC is placed within one of these 23 major groups:

- 11-0000 Management Occupations
- 13-0000 Business and Financial Operations Occupations
- 15-0000 Computer and Mathematical Occupations
- 17-0000 Architecture and Engineering Occupations
- 19-0000 Life, Physical, and Social Science Occupations
- 21-0000 Community and Social Services Occupations
- 23-0000 Legal Occupations
- 25-0000 Education, Training, and Library Occupations
- 27-0000 Arts, Design, Entertainment, Sports, and Media Occupations
- 29-0000 Healthcare Practitioners and Technical Occupations
- 31-0000 Healthcare Support Occupations
- 33-0000 Protective Service Occupations
- 35-0000 Food Preparation and Serving Related Occupations
- 37-0000 Building and Grounds Cleaning and Maintenance Occupations
- 39-0000 Personal Care and Service Occupations
- 41-0000 Sales and Related Occupations

43-0000 Office and Administrative Support Occupations
45-0000 Farming, Fishing, and Forestry Occupations
47-0000 Construction and Extraction Occupations
49-0000 Installation, Maintenance, and Repair Occupations
51-0000 Production Occupations
53-0000 Transportation and Material Moving Occupations
55-0000 Military Specific Occupations

Definition of NAICS Codes

From <http://www.census.gov/eos/www/naics>

The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

The North American Industry Classification System (NAICS, pronounced Nakes) was developed under the direction and guidance of the Office of Management and Budget (OMB) as the standard for use by Federal statistical agencies in classifying business establishments for the collection, tabulation, presentation, and analysis of statistical data describing the U.S. economy. Use of the standard provides uniformity and comparability in the presentation of these statistical data. NAICS is based on a production-oriented concept, meaning that it groups establishments into industries according to similarity in the processes used to produce goods or services. NAICS replaced the Standard Industrial Classification (SIC) system in 1997.

NAICS is a two- through six-digit hierarchical classification system, offering five levels of detail. Each digit in the code is part of a series of progressively narrower categories, and the more digits in the code signify greater classification detail. The first two digits designate the economic sector, the third digit designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industry, and the sixth digit designates the national industry. The five-digit NAICS code is the level at which there is comparability in code and definitions for most of the NAICS sectors across the three countries participating in NAICS (the United States, Canada, and Mexico). The six-digit level allows for the United States, Canada, and Mexico each to have country-specific detail. A complete and valid NAICS code contains six digits.

NAICS Codes for the Utility Sector

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| 22 | Utilities |
| 221 | Utilities |
| 2211 | Electric Power Generation, Transmission and Distribution |
| 22111 | Electric Power Generation |
| 221111 | Hydroelectric Power Generation |
| 221112 | Fossil Fuel Electric Power Generation |
| 221113 | Nuclear Electric Power Generation |
| 221119 | Other Electric Power Generation |
| 22112 | Electric Power Transmission, Control, and Distribution |
| 221121 | Electric Bulk Power Transmission and Control |
| 221122 | Electric Power Distribution |
| 2212 | Natural Gas Distribution |
| 22121 | Natural Gas Distribution |

221210 Natural Gas Distribution

Quarterly Census of Employment and Wages Program

From <http://www.bls.gov/cew/>

Overview

The Quarterly Census of Employment and Wages Program is a cooperative program involving the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor and the State Employment Security Agencies (SESAs). The QCEW program produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Publicly available files include data on the number of establishments, monthly employment, and quarterly wages, by NAICS industry, by county, by ownership sector, for the entire United States. These data are aggregated to annual levels, to higher industry levels (NAICS industry groups, sectors, and supersectors), and to higher geographic levels (national, State, and Metropolitan Statistical Area (MSA)).

The QCEW program serves as a near census of monthly employment and quarterly wage information by 6-digit NAICS industry at the national, State, and county levels. At the national level, the QCEW program publishes employment and wage data for nearly every NAICS industry. At the State and area level, the QCEW program publishes employment and wage data down to the 6-digit NAICS industry level, if disclosure restrictions are met. In accordance with BLS policy, data provided to the Bureau in confidence are not published and are used only for specified statistical purposes. BLS withholds publication of UI-covered employment and wage data for any industry level when necessary to protect the identity of cooperating employers. Totals at the industry level for the States and the Nation include the nondisclosable data suppressed within the detailed tables. However, these totals cannot be used to reveal the suppressed data.

Employment data under the QCEW program represent the number of covered workers who worked during, or received pay for, the pay period including the 12th of the month. Excluded are members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Wages represent total compensation paid during the calendar quarter, regardless of when services were performed. Included in wages are pay for vacation and other paid leave, bonuses, stock options, tips, the cash value of meals and lodging, and in some States, contributions to deferred compensation plans (such as 401(k) plans). The QCEW program does provide partial information on agricultural industries and employees in private households.

Data from the QCEW program serve as an important input to many BLS programs. The QCEW data are used as the benchmark source for employment by the Current Employment Statistics program and the Occupational Employment Statistics program. The UI administrative records collected under the QCEW program serve as a sampling frame for BLS establishment surveys.

In addition, data from the QCEW program serve as an input to other Federal and State programs. The Bureau of Economic Analysis (BEA) of the Department of Commerce uses QCEW data as the base for developing the wage and salary component of personal income. The Employment and Training Administration (ETA) of the Department of Labor and the SESAs use QCEW data to

administer the employment security program. The QCEW data accurately reflect the extent of coverage of the State UI laws and are used to measure UI revenues; national, State and local area employment; and total and UI taxable wage trends.

BLS publishes data from the QCEW program every quarter in the County Employment and Wages press release. This is usually released 6 to 7 months after the end of the quarter. The QCEW program also publishes a subset of its quarterly data through the Create Customized Tables system, and full quarterly industry detail data at all geographic levels in ASCII files through our FTP server.

In addition, QCEW publishes the annual bulletin Employment and Wages, Annual Averages about 10 months after the end of the year. The 2002 edition is the first to appear on the internet in its entirety. For more information about this, please see the Publications section of our home page. Also, the cooperating SESAs issue quarterly and/or annual reports of QCEW data.

Center for Energy Workforce Development Crosswalk of SOC / CIP Codes

| SOC Code | SOC Code Name | CIP Code | CIP Code Name |
|----------|--|----------|--|
| 11-9041 | Engineering managers | 14.0101 | Engineering, General |
| 11-9041 | Engineering managers | 14.0701 | Chemical Engineering |
| 11-9041 | Engineering managers | 14.0801 | Civil Engineering, General |
| 11-9041 | Engineering managers | 14.0899 | Civil Engineering, Other |
| 11-9041 | Engineering managers | 14.1001 | Electrical, Electronics and Communications Engineering |
| 11-9041 | Engineering managers | 14.1401 | Environmental/Environmental Health Engineering |
| 11-9041 | Engineering managers | 14.1901 | Mechanical Engineering |
| 11-9041 | Engineering managers | 14.2301 | Nuclear Engineering |
| 11-9041 | Engineering managers | 14.3301 | Construction Engineering |
| 11-9041 | Engineering managers | 14.3501 | Industrial Engineering |
| 11-9041 | Engineering managers | 14.9999 | Engineering, Other |
| 17-2041 | Chemical engineers | 14.0701 | Chemical Engineering |
| 17-2051 | Civil engineers | 14.0801 | Civil Engineering, General |
| 17-2051 | Civil engineers | 14.0899 | Civil Engineering, Other |
| 17-2071 | Electrical engineers | 14.1001 | Electrical, Electronics and Communications Engineering |
| 17-2081 | Environmental engineers | 14.1401 | Environmental/Environmental Health Engineering |
| 17-2111 | Health and safety engineers, except mining safety engineers and inspectors | 14.1401 | Environmental/Environmental Health Engineering |
| 17-2112 | Industrial | 14.3501 | Industrial Engineering |

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| | engineers | | |
| 17-2141 | Mechanical engineers | 14.1901 | Mechanical Engineering |
| 17-2161 | Nuclear engineers | 14.2301 | Nuclear Engineering |
| 17-2199 | Engineers, all other | 14.0101 | Engineering, General |
| 17-2199 | Engineers, all other | 14.3301 | Construction Engineering |
| 17-2199 | Engineers, all other | 14.9999 | Engineering, Other |
| Lineworkers | | | |
| 49-9051 | Electrical power-line installers and repairers | 46.0301 | Electrical and Power Transmission Installation/Installer, General |
| 49-9051 | Electrical power-line installers and repairers | 46.0303 | Lineworker |
| 49-9051 | Electrical power-line installers and repairers | 46.0399 | Electrical and Power Transmission Installers, Other |
| Pipefitter / Pipelayers | | | |
| 47-2151 | Pipelayers | 46.0503 | Plumbing Technology/Plumber |
| 47-2152 | Plumbers, pipefitters, and steamfitters | 46.0502 | Pipefitting/Pipefitter and Sprinkler Fitter |
| 47-2152 | Plumbers, pipefitters, and steamfitters | 46.0503 | Plumbing Technology/Plumber |
| 47-3015 | Helpers, pipelayers, plumbers, pipefitters, and steamfitters | 46.0503 | Plumbing Technology/Plumber |
| 51-4121 | Welders, cutters, solderers, and brazers | 48.0508 | Welding Technology/Welder |
| Plant / Field Operators | | | |
| 51-8011 | Nuclear power reactor operators | 41.0205 | Nuclear/Nuclear Power Technology/Technician |
| 51-8092 | Gas plant operators | 15.0903 | Petroleum Technology/Technician |

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| 51-8092 | Gas plant operators | 41.0301 | Chemical Technology/Technician |
| 51-8013 | Power Plant Operator | 15-0303 | Electrical, electronic & communications engineering technology/technicians |
| Technicians | | | |
| 19-4031 | Chemical technicians | 41.0301 | Chemical Technology/Technician |
| 19-4051 | Nuclear technicians | 15.1401 | Nuclear Engineering Technology/Technician |
| 19-4051 | Nuclear technicians | 41.0204 | Industrial Radiologic Technology/Technician |
| 19-4051 | Nuclear technicians | 41.0205 | Nuclear/Nuclear Power Technology/Technician |
| 19-4051 | Nuclear technicians | 41.0299 | Nuclear and Industrial Radiologic Technologies/Technicians, Other |
| 19-4051 | Nuclear technicians | 51.0916 | Radiation Protection/Health Physics Technician |
| 47-2073 | Operating engineers and other construction equipment operators | 49.0202 | Construction/Heavy Equipment/Earthmoving Equipment Operation |
| 47-2073 | Operating engineers and other construction equipment operators | 49.0206 | Mobil Crane Operation/Operator |
| 47-2111 | Electricians | 46.0302 | Electrician |
| 49-2095 | Electrical and electronics repairers, powerhouse, substation, and relay | 46.0301 | Electrical and Power Transmission Installation/Installer, General |
| 49-2095 | Electrical and electronics repairers, powerhouse, substation, and relay | 46.0302 | Electrician |

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| 49-2095 | Electrical and electronics repairers, powerhouse, substation, and relay | 46.0399 | Electrical and Power Transmission Installers, Other |
| 49-2095 | Electrical and electronics repairers, powerhouse, substation, and relay | 47.0105 | Industrial Electronics Technology/Technician |
| 49-9041 | Industrial machinery mechanics | 47-0303 | Industrial mechanics and maintenance technology |