

Exploring CIP Codes Using IPEDS Completions Data

The purpose of this blog is (1) To demonstrate how to view CIP Codes used by a specific institution with IPEDS online data tools and (2) Explain how to interpret IPEDS Completions Data. You may recall from the [last](#) CIP Specialist blog that you can use [College Navigator](#) to view CIP Codes used by a specific institution. Some of the advantages of using College Navigator include that it's user-friendly and succinctly summarizes the total number of degrees and certificates awarded by field of study. Figure 1 shows a snippet of the completions data for Colby College, a 4-year, private non-profit, undergraduate institution. For example, for the 2019-2020 academic year, Colby College awarded 23 bachelor's degrees in Biology/Biological Sciences.

Figure 1: 2019-2020 Completions Data for Colby College

| COMPLETIONS (NUMBER OF AWARDS CONFERRED) 2019-2020 | |
|--|-----------|
| Completions are the number of awards conferred by program and award level. | |
| PROGRAM | BACHELOR |
| Area, Ethnic, Cultural, Gender, and Group Studies | |
| African-American/Black Studies | 0 |
| American/United States Studies/Civilization | 8 |
| East Asian Studies | 2 |
| Latin American Studies | 3 |
| Russian Studies | 2 |
| Women's Studies | 1 |
| Category total | 16 |
| Biological and Biomedical Sciences | |
| Biology/Biological Sciences, General | 23 |
| Computational Biology | 3 |
| Ecology and Evolutionary Biology | 7 |
| Neuroscience | 20 |
| Category total | 53 |
| Computer and Information Sciences and Support Services | |
| Computer Science | 20 |
| Category total | 20 |
| Education | |
| Education, General | 8 |
| Category total | 8 |
| English Language and Literature/Letters | |
| Creative Writing | 16 |
| English Language and Literature, General | 11 |
| Category total | 27 |
| Foreign Languages, Literatures, and Linguistics | |

While the data presented in College Navigator is easy to read, it is limited. For example, CIP Codes are limited to descriptive titles and do not include the numerical portion. They are also presented in alphabetical order by 2-digit series instead of in numerical order. For example, Computer and Informational Sciences and Support Services is the title associated with Series 11, while Computer Science is the title associated with CIP Code 11.0701. Additionally, the data are not broken out by gender, race, ethnicity or major status. However, this information can be obtained using the [Look Up An Institution](#) link on the [IPEDS Use the Data](#) webpage, which can be seen below in Figure 2.

Figure 2

IPEDS Integrated Postsecondary Education Data System

Search IPEDS

IPEDS Data Use Help Desk (866) 558-0658 or ipedstools@rti.org

Use the Data

Access IPEDS data submitted to NCES through our data tools or download the data to conduct your research

- Data Explorer**
Search for tables, charts, publications, or other products related to postsecondary education by keywords and filters.
- Compare Institutions**
Download IPEDS data files for more than 7,000 institutions and up to 250 variables. Data files are provided in comma separated value (*.csv) format.
- IPEDS Survey Components**
Learn more about the individual IPEDS survey components: view training videos, infographics, answers to frequently asked questions, survey forms, and more.
- Survey Data**
Data are available starting with the 1980-81 collection year for the *Complete data files* and *Custom data files* functions, which zip the data into comma separated value (*.csv). Beginning with the 2004-05 collection year, data for each collection year are compiled into an *Access database*.
Select download option
- Data Trends**
Use the Trend Generator to view trends on most frequently asked subject areas including: Enrollment, Completions, Graduation Rates, Employees and Staff, Institutional Revenues, and Financial Aid.
- Look Up an Institution**
Look up information for one institution at a time. Data can be viewed in two forms: institution profile (similar to College Navigator) and reported data (institution's response to each survey question).
- Data Feedback Report**
Download, print, or customize an institution's Data Feedback Report, a report that graphically summarizes selected institutional data and compares the data with peer institutions.
- Shortcuts**
Use these shortcuts to expedite the research process if you are a frequent or returning data user.
Select your shortcut
- Publications and Products**
Review publications using IPEDS data including First Looks, Web Tables, methodology reports, and Digest Tables.

After clicking on the “Look Up an Institution” link, the user can specify the institution by name or IPEDS ID. In this example, we will be examining the completions for Colby College in Waterville, Maine.

Figure 3

IPEDS Integrated Postsecondary Education Data System

Data Tools | Help Desk 1 866-558-0658

Start over Save session Help MAIN MENU

Look up an institution

Data Release Info

1. Select Institutions

My Comparison Institution - None Selected

ADD

How would you like to select institutions to include in your data file/report?

By Names or UnitIDs By Groups By Variables By Uploading a File

Institution Name

Colby

Select

161086: Colby College, Waterville, ME
154934: Colby Community College, Colby, KS
182634: Colby-Sawyer College, New London, NH

Type enough text in the search box so that the list of found options is short enough to be viewed, but long enough to include the correct Colby College. (Figure 3)

On the resulting page, click on the link for Colby College, which in Figure 4 (below) is surrounded by an orange rectangle.

Figure 4

The screenshot shows the IPEDS 'Look up an institution' page. At the top, there is a navigation bar with 'IPEDS Integrated Postsecondary Education Data System' on the left, and 'Data Tools | Help Desk 1 866-558-0658' on the right. Below the navigation bar, there are links for 'Start over', 'Save session', 'Help', and a 'MAIN MENU' button. The main heading is 'Look up an institution' with a 'Data Release Info' link on the right. The page is divided into sections: '1. Select Institutions', 'My Comparison Institution - None Selected', and 'Select Institutions - You have selected 1 institution(s)'. Below these sections, there is a question: 'How would you like to select institutions to include in your data file/report?' with four options: 'By Names or UnitIDs', 'By Groups', 'By Variables', and 'By Uploading a File'. Below the question, there is a table with the following data:

| UnitID | Name | City | State |
|--------|---------------|------------|-------|
| 161086 | Colby College | Waterville | ME |

Click on an institution to view its data.

After clicking on the link for Colby College, the user will be taken to the data home page for the institution, where they will be able to view any of the data collected from the various IPEDS surveys from 2002-2019. To view the Completions data, click on the link for Reported data (see orange text box), make sure the correct year is selected in the left hand column, and then click on the link for Completions (see orange text box in Figure 5).

In terms of the IPEDS completions survey, data are available from 2002-2019 because 2002 was the first year in which schools were required to utilize the 2000 Classification of Instructional Programs (CIP) to code their programs by field of study. The 2000 CIP was significantly different than previous versions of the CIP because the programs of study were expanded from just academic programs to also include vocational and professional training. The significant change in the focus of the CIP reflected the expansion of the IPEDS universe from institutions of higher education to postsecondary institutions.

Figure 5

After clicking on the Completions Data link, a pop up window appears with the Completions Data. The user can either view the data by scrolling through it or they can download the data as a pdf file. (See Figure 6)

Figure 6

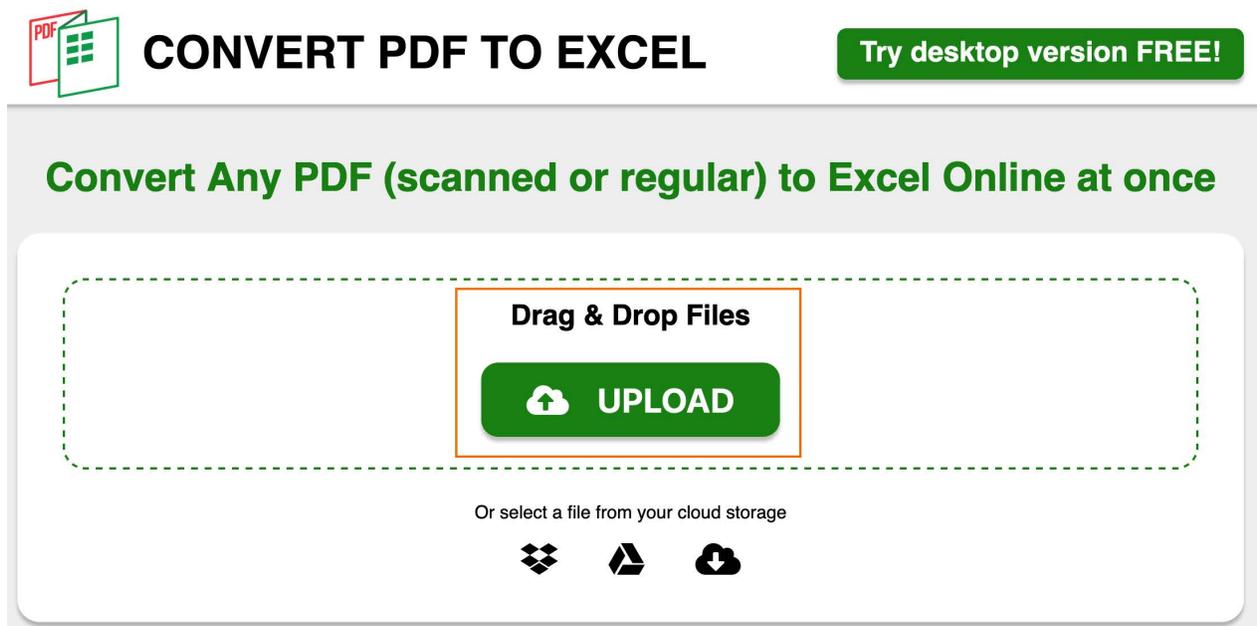
| Number of degrees and certificates awarded, by level and race/ethnicity and gender: July 1, 2019 - June 30, 2020 | | | | | | | | |
|--|-------------------------------|-------------------------------|-------------|------------|----------|-------------------------------|--------------------------------|----------------|
| Total | | | | | | | | |
| Race/ethnicity and Gender | Certificates Below Bachelor's | Certificates Above Bachelor's | Associate's | Bachelor's | Master's | Doctor's research/scholarship | Doctor's professional practice | Doctor's other |
| Grand total | 0 | 0 | 0 | 487 | 0 | 0 | 0 | 0 |
| American Indian or Alaska Native | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| Asian | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 |
| Black or African American | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 |

Interpreting Completions Data

For the Completions Survey, institutions are required to report the total number of completions by field of study and award level for first and second majors. Completions are further broken down by gender, race and ethnicity. As a result, completions data files tend to be very long files and can be intimidating to work until the user gains experience working with them.

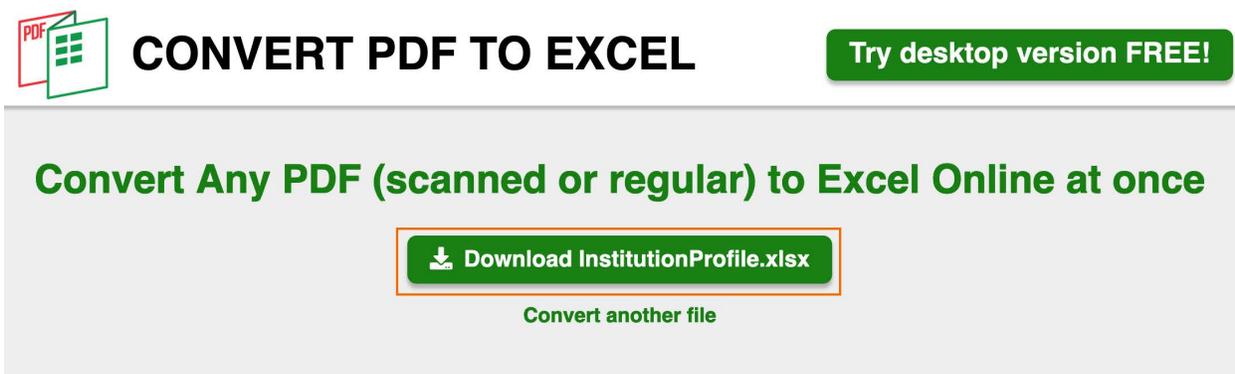
Figure 8, shows Completions data for Colby College for the 2019-2020 academic year as Excel file even though the data file downloaded from the IPEDS website was initially an Adobe pdf file. The pdf file was converted to an Excel file using the [Convert PDF to Excel website](#). The user uploads their PDF file to the website, where it is automatically converted to an Excel file, which the user can download to their computer (see Figures 7a and 7b).

Figure 7a



The screenshot shows the homepage of a website for converting PDFs to Excel. At the top left, there is a logo with a red 'PDF' label and a green Excel grid icon. To the right of the logo is the text 'CONVERT PDF TO EXCEL' in bold black letters. Further right is a green button with white text that says 'Try desktop version FREE!'. Below this header is a large grey box containing the main content. At the top of this box is the text 'Convert Any PDF (scanned or regular) to Excel Online at once' in green. In the center is a dashed green rounded rectangle representing a drop zone. Inside this zone is an orange-bordered box with the text 'Drag & Drop Files' and a green 'UPLOAD' button with a white cloud icon. Below the drop zone is the text 'Or select a file from your cloud storage' followed by three icons: a blue and white Dropbox icon, a black and white OneDrive icon, and a black and white Google Drive icon.

Figure 7b



CONVERT PDF TO EXCEL Try desktop version **FREE!**

Convert Any PDF (scanned or regular) to Excel Online at once

[Download InstitutionProfile.xlsx](#)

[Convert another file](#)

In Figure 8, the data highlighted in yellow represent the number of bachelor's degrees completed in Environmental Studies as a first major, while the data highlighted in green represents the number of bachelor's degrees completed in Environmental Studies as a second major. To calculate the total number of bachelor's degrees awarded in Environmental Studies (**31**), the user needs to add the number of first (**28**) and second majors (**3**).

The total number degrees completed by field of study is further disaggregated by gender, race and ethnicity, however the IPEDS Completions data were not always collected in such details. Since 1869-70 completions data were reported by level of degree and gender. Starting in 1949-50 this was expanded to include field of study and in 1976-77 race and ethnicity were added.

At Colby College, more women than men completed a bachelor's degree in Environmental Studies (17 vs. 14), while more men than women (3 vs. 0) majored in Environmental Studies as a second major. The largest number of degrees in Environmental were awarded to white students (21 in total). Since Colby College is strictly an undergraduate institution, it awards only bachelor's degrees, which makes their data file shorter and a bit easier to work with since there is only 1 award level associated with each CIP Code.

Figure 8

AutoSave On Colby College Completions Data - Saved Search Coon, Michelle CM

File Home Insert Page Layout Formulas Data Review View Help Acrobat Share Comments

A9 03.0103 Environmental Studies

Completions 2018-019

Institution: Colby College (161086)
Completions CIP Data

| CIPCODE | Award Level | Major | Gender | Non Resident Alien | Hispanic / Latino | American Indian or Alaska Native | Asian | Black or African American | Native Hawaiian or Other Pacific Islander | White | Two or more Races | Race/ ethnicity unknown | Total |
|---------|-----------------------|-------|--------|--------------------|-------------------|----------------------------------|-------|---------------------------|---|-------|-------------------|-------------------------|-------|
| 03.0103 | 5 - Bachelor's degree | 1 | Men | 1 | 0 | 0 | 0 | 1 | 0 | 7 | 2 | 0 | 11 |
| | | | Women | 3 | 1 | 0 | 0 | 0 | 0 | 11 | 1 | 1 | 17 |
| | | | Total | 4 | 1 | 0 | 0 | 1 | 0 | 18 | 3 | 1 | 28 |
| 03.0103 | 5 - Bachelor's degree | 2 | Men | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| | | | Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | Total | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 03.0104 | 5 - Bachelor's degree | 1 | Men | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 5 |
| | | | Women | 0 | 1 | 0 | 3 | 0 | 0 | 9 | 0 | 0 | 13 |
| | | | Total | 0 | 1 | 0 | 5 | 0 | 0 | 12 | 0 | 0 | 18 |
| 03.0104 | 5 - Bachelor's degree | 2 | Men | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 4 |
| | | | Women | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | | | Total | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 | 1 | 6 |
| 03.0199 | 5 - Bachelor's degree | | Men | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 1

Ready Average: 0.451612903 Count: 36 Sum: 14 120%