INDIANA COMMISSION *for* HIGHER EDUCATION

PMS III: STEM Degree Completion

Instructions

2019-2021

PMS III – STEM Degree Completion

Overview:

Collects data necessary for the performance funding formula STEM metric.

Who Reports:

All institutions.

What To Report:

For the last six fiscal years, report total number of distinct STEM completions by highest degree level within a six-digit Classification of Instructional Programs (CIP) code and fiscal year to Indiana residents. Note: this is a completer count within the six-digit CIP code classification; a student is only counted once at the highest degree level within each six-digit CIP code.

- Fiscal year is defined as July 1st through June 30th. E.g., 2016-17 data should include all degrees conferred to resident students between July 1, 2016 and June 30, 2017.
- Residency status should be based on the residency at the time of degree conferment. This should include resident students only, and not students attending through reciprocity agreements.
- CHE and the institutions work together to determine which programs in an institution's API are considered "STEM" in regards to this data collection. The list of "STEM" programs can be viewed/downloaded by viewing the PMS III schedule.
  - Note: Institutions are permitted to submit suggested additional CIP codes to the list through March 16, 2018. Schedules for PMS III will be visible for the institutions in late March (tentative).
- Ivy Tech Community College and Vincennes University should report data for 18-29 Credit Hour Certificates, 1 Year Certificates, and Associate Degrees only.
- All other institutions should report data for Bachelor's Degrees, Master's Degrees, and Doctoral Degrees.

Form Validation:

Data entered must be a non-negative whole number.

ICHE Prepopulation Logic:

The metric rules were changed for the 2019-2021 biennium to only include the distinct highest credential awarded to a student within each six digit CIP code. In addition, the rules for identifying STEM programs changed for the 2019-2021 biennium. As such, the full six years of data were prepopulated using the degrees conferred files using the fields and the logic below.

Source: Degrees Conferred File (DE)

Field ID	Data Element	Use
DE01	Reporting Year	Used to link reported degree data to institution's API
DE03	Student Identifier	Used to calculate the highest degree conferred to a single student by CIP code
DE04	Student Residency Status	Only records with a code value of 1 ("Indiana resident paying resident tuition") are included
DE05	First Degree Conferred CIP Code	Used to link reported degree data to institution's API; Used to calculate the highest degree conferred to a single student by CIP code
DE06	First Degree Conferred Degree Type	Used to link reported degree data to institution's API; Used to determine degree level 01 = "18-29 Credit Hour Certificates" (see notes for certain exclusions) 02 = "1 Year Certificates" 03 = "Associate Degrees" 05 = "Bachelor Degrees" 07 = "Master's Degrees" 17 and 18 = "Doctoral Degrees"
DE07	First Degree Conferred Date	Used to determine which fiscal year a degree was conferred in. NOTE: it is possible that data for a single fiscal year spans multiple reporting years (i.e. multiple DE file submissions) as the degree conferred file has a time span requirement that does not align with the fiscal year (September 1st through August 31st for DE file vs. July 1st through June 30th for fiscal year).
DE08	Second Degree Conferred CIP Code	See DE05 use notes.
DE09	Second Degree Conferred Degree Type	See DE06 use notes.
DE10	Second Degree Conferred Date	See DE07 use notes.
DE11	Third Degree Conferred CIP Code	See DE05 use notes.
DE12	Third Degree Conferred Degree Type	See DE06 use notes.

Field ID	Data Element	Use
DE13	Third Degree Conferred Date	See DE07 use notes.
DE14	Fourth Degree Conferred CIP Code	See DE05 use notes.
DE15	Fourth Degree Conferred Degree Type	See DE06 use notes.
DE16	Fourth Degree Conferred Date	See DE07 use notes.

Source: CHE API & CHEDSS data to CHE API Mapping

ICHE maintains an academic program inventory (API) of institutional academic programs that have historically been approved by the Commission. CHE also maintains a mapping for each reporting year that it collects student level data. The mapping keeps track, by institution, of what program a reported CIP code and degree level map to in a given reporting year.

Note: If a program has been approved as a "STEM" degree in regards to the PMS III schedule, it will be flagged as such in ICHE's API. A list of currently approved "STEM" degrees is available from the PMS III web form page. Prepopulated data will be reflective of institutional Academic Program Inventory changes through the date the data are prepopulated.

Business Logic

1) Create a stacked data set based on submitted degree data (DE). A single student's data will appear as multiple cases based on the first, second, third, and fourth degrees conferred.

	Reporting Year	Student Identifier	Residency Status	Degree Conferred CIP Code	Degree Conferred Degree Type	Degree Conferred Date
First Degree Conferred	DE01	DE03	DE04	DE05	DE06	DE07
…	…	…	…	…	…	…
Second Degree Conferred	DE01	DE03	DE04	DE08	DE09	DE10
…	…	…	…	…	…	…
Third Degree Conferred	DE01	DE03	DE04	DE11	DE12	DE13
…	…	…	…	…	…	…
Fourth Degree Conferred	DE01	DE03	DE04	DE14	DE15	DE16

2) Link stacked degree data (DE) from step 1 to the API using the API mapping. Data are linked using the Reporting Year, CIP, and degree level fields. This is used to obtain the CIP code and degree type information most recently* reported by institutions for their programs.
3) Filter degree data (DE) from step 2 using the following (this applies to first, second, third, and fourth degrees conferred)
   a. Use conferred date fields (DE07/DE10/DE13/DE16) to include only degrees conferred in the latest six fiscal years

  b. Use residency status field (DE04) to include only degrees conferred to Indiana residents

  c. Use degree level fields obtained by the API mapping to include only appropriate degree levels

  d. Use the linked API data to include only degrees from programs that have been flagged as "STEM"

4) Sort the filtered data from step 3 by fiscal year, student identifier, CIP code, degree level (descending)

5) Select the first record within fiscal year, student identifier, and CIP code

6) Sum the total number of degrees conferred through step 4 for each degree level for the six fiscal years

*Note: Prepopulated data will be reflective of institutional Academic Program Inventory changes through the date the data are prepopulated.

Data Audit Requirements:

A reason must be provided for every ICHE prepopulated value that is updated.

Document Change History:

2018	Data not prepopulated from 2017-2019 PMS III schedule as list of approved programs changed in the 2019-2021 biennium, and the rules of the metric changed in 2019-2021 biennium
	Start of 2019-2021 biennium data collection
2016	Data not prepopulated from 2015-2017 PMS III schedule as list of approved programs changed in the 2017-2019 biennium
	Start of 2017-2019 biennium data collection
2014	Created layout
	Start of 2015-2017 biennium data collection