

## Defining Gateway Courses for Data Submission

This document was developed to assist institutions and state systems in the Postsecondary Data Partnership (PDP) adoption process by providing an overview of how gateway courses are defined by the higher education community. In an attempt to bring consensus, most data definitions for the PDP are based on the Institute for Higher Education Policy's (IHEP) Postsecondary Metrics Framework<sup>1</sup>. However, the gateway course variable is one of the few defined individually by institutions and systems. Agreement around the definition of gateway courses is an important step in the PDP adoption process and one that may be the most time-consuming task because it can involve convening senior administrators and committees to reach a consensus.

The PDP gateway course variable is called *MathOrEnglishGateway*, which is located within the Course File. The Course File includes information on all courses by student<sup>2</sup>, with each row representing a single course for a distinct student. Therefore, if a student enrolled in 10 courses over an academic year, the Course File would include 10 rows of data for that student, with each course on a separate row. The National Student Clearinghouse's allowed values for *MathOrEnglishGateway* include "M" (Math), "E" (English), and "NA" (Not Applicable - Unknown). Misidentifying or populating all gateway fields as unknown because this information is not available will have a significant impact on the PDP Tableau dashboards, impacting an institution's or state's ability to use the data visualization tool<sup>3</sup>.

In the Postsecondary Metrics Framework, IHEP suggests gateway courses should be "broadly defined as nonremedial entry-level or introductory courses in the subject area" (p. 20). The National Student Clearinghouse follows this guidance in the PDP Data Submission Guide, suggesting that a gateway course may be defined as the first college-level course for a college program. Although there is no recognized standard for identifying gateway courses within the higher education community, definitions tend to revolve around five critical components: 1) subject, 2) credit-bearing/college-level, 3) entry-level/foundational, 4) high-risk, and 5) high-enrollment. These components are explained in more detail below:

1. **Subject.** For the purposes of the PDP, gateway courses are only identified as math or English. However, that is not consistent across the field of higher education. For example, Complete College America<sup>4</sup> (CCA) looks specifically at math and English courses in their gateway definition. On the other hand, the Gateways to Completion<sup>5</sup>

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<sup>1</sup> Janice, A. & Voight, M. (2016). [Toward convergence: A technical guide for the postsecondary metrics framework](#). Institute for Higher Education Policy.

<sup>2</sup> National Student Clearinghouse (2020). [PDP course file template](#).

<sup>3</sup> National Student Clearinghouse (2019). [PDP submission guide](#).

<sup>4</sup> Complete College America (2017). [Common college completion metrics technical guide](#).

<sup>5</sup> Koch, A. (2017). It's about the gateway courses: Defining and contextualizing the issue. *New Directions for Higher Education*, 180, 11-20; Koch, A. & Drake, B. (2018). [Digging into the disciplines I: Accounting for failure – The impact of principles of accounting courses on student success and equitable outcomes](#). John N. Gardner Institute for Excellence in Undergraduate Education; Koch, A. & Drake, B. (2019). [Digging into the disciplines II: Failure in](#)

(G2C) process, a national gateway course redesigned effort lead by the John N. Gardner Institute for Excellence in Undergraduate Education (Gardner Institute), expands the consideration of gateway courses beyond just math and English to include all disciplines (accounting, chemistry, biology, economics, sociology, etc.). In addition, the Community College Research Center (CCRC) at Teachers College, Columbia University includes completion of any college-level English and math course in students' first year in their set of "Early Momentum Metrics" for community colleges<sup>6</sup> but also encourages colleges to conceptualize gateway courses more broadly to those foundational to entrance into a program of study (e.g., Anatomy and Physiology 101 for Health Sciences, Accounting 101 for Business). Nevertheless, regardless of what subjects your institution or system is using to identify gateway courses, only math and English courses are identified as gateway in the PDP.

2. **Credit-Bearing/College-Level.** Credit-bearing vs. non-credit bearing is another consideration for defining gateway courses that is not universally defined, and nuances in language help unpack this component. The definitions from CCA and the American Association of Community Colleges (AACC) are specific that only credit-bearing courses count as gateway. In addition, Strong Start to Finish recommends an even more restrictive definition that gateway courses are transferrable as general education credits and not treated simply as elective credits by transfer institutions. However, in the G2C project, the Gardner Institute allows both credit and non-credit developmental education courses, often because the developmental education courses serve as a pathway to gateway courses. The IHEP and PDP definitions use the terms nonremedial and college-level, which imply that a gateway course must result in college credit toward a postsecondary credential.
3. **Entry-Level/Foundational.** A consistent definition for gateway courses includes the idea that these courses are entry-level, introductory, foundational, or the first course taken toward the completion of a postsecondary credential. Therefore, these courses should be either the first course required or among the first courses required. While English often includes a single gateway course (English Composition), math may include multiple gateway courses depending on a student's intended major or credential (for example College Algebra, Liberal Arts Math, or Statistics). CCRC research suggests the importance of defining gateway courses based on a student's program of interest, as gateway courses outside a student's major may be irrelevant and decrease the chance of graduation<sup>7</sup>. The Gardner Institute G2C definition includes courses beyond the first course taken towards completion of a postsecondary credential, because often a student may not encounter their program-specific gateway course until their third or

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[\*historical context – The impact of introductory U.S. history courses on student success and equitable outcomes.\*](#)  
John N. Gardner Institute for Excellence in Undergraduate Education.

<sup>6</sup> Belfield, C., Jenkins, D., & Fink, J. (2019). [\*Early momentum metrics: Leading indicators for community college improvement.\*](#) Community College Research Center, Research Brief.

<sup>7</sup> Zeidenberg, M., Jenkins, D., & Scott, M. (2012). [\*Not just math and English: Courses that pose obstacles to community college completion.\*](#) Community College Research Center, Working Paper No. 52.

fourth term of college credit-bearing study — such as nursing students who take anatomy and physiology during their fourth semester or many business students who take principles of accounting in their second year of study.

4. **High-Risk.** The last two components for defining gateway courses are utilized by some national organizations and are major components of the G2C definition. First, gateway courses may be defined as those that are high-risk, which have low success rates, defined by a high rate of D, F, W (Withdrawal), or I (Incomplete) grades. In other words, grades that do not lead to successful completion of the course.
5. **High-Enrollment.** Finally, high-enrollment includes large student enrollments both within and/or across different sections of a course. For example, this might include a large Psychology 101 course taught in a lecture hall, or multiple Sociology 101 courses taught in smaller sections. The Gardner Institute chooses not to set specific limits or thresholds for the high-risk or high-enrollment rates, instead deferring to the individuality of each institution to define these for themselves.

In October 2019, American Institutes for Research (AIR) surveyed members of the Frontier Set<sup>8</sup>, a group of 29 institutions, and two state systems to understand better how their members were defining gateway courses in their PDP submission files. The Frontier Set served as the pilot group for the PDP project. All but three institutions responded. Results indicate a variety of methods for defining gateway courses among Frontier Set institutions. Some respondents indicated that the gateway courses were determined by a specific campus department (seven out of 28), satisfied a specific graduation requirement (five of 28), are the first college-level course a student completes (five of 28), and may differ based on the student's program of study (four of 28). One Frontier Set institution indicated that gateway courses were high-risk, high-enrollment courses.

Although the survey was conducted during a busy time in the academic year and not intended to capture detailed information from each respondent, it provides solid evidence of the need for greater consensus and direction when submitting gateway courses data to the PDP. The following recommendations are provided to assist institutions and state systems as they define gateway courses for PDP data submission. As the field converges on a standard definition, the ability to benchmark this variable across institutions and systems will increase.

Recommendations for defining gateway courses for PDP data submission:

- **Credit-Bearing and College-Level.** Gateway courses should only be defined as credit-bearing and college-level. Because developmental education courses are also included in the PDP, these courses should be mutually exclusive from gateway courses.

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<sup>8</sup> Bill and Melinda Gates Foundation (2020). [Frontier Set fact sheet](#).

- **Entry-Level, Introductory, or Foundational.** Gateway courses should be defined as entry-level, introductory, or foundational. These criteria may vary by institution, but gateway courses should be identified as one of the first courses in a student's course sequence. For institutions utilizing the additional components of high-risk and high-enrollment, these items should be considered as secondary criteria to the foundational component. In other words, only a high-risk and high-enrollment course that is also foundational should be included.
- **Institution-Wide Consensus.** Institutions should have the same gateway definitions across the entire campus. Senior leaders can assist with this effort by creating a campus-wide committee with representatives from relevant departments, such as academic affairs, advising, and student success. For departments that want to define their own gateway courses, consider utilizing a two-level gateway course model. The first level would identify college-level gateway courses that are useful for institutional benchmarking and statewide analysis. The second level would identify program-level gateway courses for internal program-level analysis and only be located within the institution's own data system for internal reporting.
- **State-Level Consensus.** The PDP has great value at the state level, providing state leaders with an opportunity to evaluate state policies that impact educational attainment, equity, and college costs. Colleges can assist in these efforts by unifying behind common data definitions that allow state-level data analysis. State leaders should convene a working group made up of campus representatives. For greater buy-in, states should consider utilizing these data within state strategic plans.