

# Transfer-Level English and Math Completion Dashboard: Fall 2023 Updates - Interpreting the BSTEM/SLAM Dashboard



California  
Community  
Colleges



Multiple Measures  
Assessment Project

TheRPGroup

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## Introduction

The [Transfer-Level English and Math Completion Dashboard](#)<sup>1</sup> provides completion rates for transfer-level English and mathematics (or equivalent quantitative reasoning course), starting from the student's first course enrollment in the discipline (whether at or below transfer level). The RP Group's Multiple Measures Assessment Project (MMA P) team collaborates with the California Community Colleges Chancellor's Office (CCCCO) to keep this dashboard current (see sidebar).

This update provides an overview of a new dashboard view that offers completions and completion rates for transfer-level math disaggregated by two math pathways: **SLAM** (Statistics and Liberal Arts Math) or **BSTEM** (Business, Science, Technology, Engineering, and Math). This overview includes examples to aid the user in interpreting the completion rates by pathway.

## Update Overview

The SLAM/BSTEM view offers transfer-level math course completions and completion rates across the state or by individual college according to students' mathematics pathway: SLAM (Statistics and Liberal Arts Math) or BSTEM (Business, Science, Technology, Engineering, and Math). Students are assigned to a mathematics pathway based on the first transfer-level course they attempt. Students enter the cohort at any starting level, but are assigned to the pathway based on enrollment in the first transfer level course. They can be tracked to completion of one of three transfer-level outcomes: Calculus 1/Applied Calculus or higher, Calculus 2 or higher, and/or Statistics/Liberal Arts Math. Course completions

### Multiple Measures Assessment Project (MMA P) Overview

This report was produced in partnership with The RP Group's Multiple Measures Assessment Project. The RP Group launched MMA P in 2014 to help advance developmental education reform in the California Community Colleges. MMA P now supports the California Community Colleges Chancellor's Office with AB 705 and AB 1705 implementation.

Learn more about AB 705, AB 1705, and MMA P at [www.rpgroup.org/mmap](http://www.rpgroup.org/mmap).

<sup>1</sup> <https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/transfer-level-dashboard>

are defined as successful completion of the selected transfer-level math outcome, with a grade of A, B, C, or P, within the specified timeframe.

The completion rate is the percentage of students in a given cohort who successfully complete the chosen outcome (i.e., Calculus 1/Applied Calculus or higher, Calculus 2 or higher, Statistics/Liberal Arts Math) with a C or better in the specified timeframe (one, two, or three years). The cohort is defined by the student's first transfer-level math course enrollment and the academic year of the student's first math enrollment at any level. The completion rate is also referred to as the throughput rate or throughput.

When the outcome is not a course in the chosen pathway, the cohort becomes the subset of students in the chosen pathway, and associated first transfer-level course, that also take a course in the other pathway. Students who begin below the transfer level and never attempt a transfer-level course are excluded from the cohort.

Users can also disaggregate throughput rates based on different student characteristics to determine if disproportionate impact (DI) is present for the selected subgroup in a specific mathematics pathway. Student groups who significantly perform below the average rate of all other groups are identified as DI with the Percentage Point Gap (PPG) method.<sup>2</sup>

## Understanding How the Definition of the Cohort Affects Throughput in the BSTEM/SLAM View

In the BSTEM/SLAM view, users can choose a variety of variables to define a cohort of students of interest. The definition of the cohort affects the completion rates, as described below.

**When the Pathway selected is SLAM (or BSTEM) and the Outcome selected is a course in the chosen pathway,** the cohort is defined as students whose first transfer-level math course is the "First Transfer-Level Course" (FTLC) chosen in the pathway.

**When the Pathway selected is SLAM (or BSTEM) and the Outcome is *not* a course in the chosen pathway,** the cohort is a subset of the original pathway cohort. That is, for students who change pathways after their first transfer-level math course attempt, the cohort is redefined as students starting in the chosen first transfer-level course who also attempt at least one other course in the other pathway.

For instance, when selecting a SLAM cohort but a Calculus 1 outcome, the cohort is defined as students who started in a SLAM course but then attempted at least one BSTEM course. This is therefore a subset of the original SLAM cohort and is typically a much smaller cohort.

To provide more insight into what the implications of the cohort definition for throughput look like in practice, we provide the following examples and interpretation.

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<sup>2</sup> For more information on the methods and definitions for the BSTEM/SLAM view, visit <https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/transfer-level-dashboard>

## Examples for Year = 2018-2019, College = Statewide, Timeframe = 2 Years

### Example 1:

**Path = SLAM, FTLC = Statistics/LA (SLAM)**

**Outcome = Statistics/LA (SLAM):**  $70,641/106,893 = 66\%$

**Path = SLAM, FTLC = Statistics/LA (SLAM)**

**Outcome = Calculus 1/Applied Calculus:**  $3,300/12,483 = 26\%$

**Interpretation:** Of 106,893 students who attempted their first math course in 2018-2019 and have a SLAM course as their first transfer-level math course, 66% completed Statistics or Liberal Arts Math within two years. Of 12,483 students who started with their first math course in 2018-2019, had a SLAM course as their first transfer-level math course, and also attempted a BSTEM course, 26% completed Calculus 1/Applied Calculus or a higher course within that timeframe.

### Example 2:

**Path = BSTEM, FTLC = Trigonometry**

**Outcome = Calculus 1/Applied Calculus:**  $3,214/14,074 = 23\%$

**Path = BSTEM, FTLC = Trigonometry**

**Outcome = Statistics/LA:**  $2,039/4,091 = 50\%$

**Interpretation:** Of the 14,074 students who attempt their math course in 2018-2019 and have Trigonometry as their first transfer-level math course, 23% complete Calculus 1/Applied Calculus or a higher course within two years. Of the 4,091 students who attempt their first math course in 2018-2019, have Trigonometry as their first transfer-level math course, and also attempt a SLAM course, 50% complete Statistics/Liberal Arts Math within that timeframe.

**Note:** Values in the examples below were downloaded August 22, 2023, from the dashboard and may not reflect subsequent dashboard updates.