Tools to Collect & Analyze Data: DFW Dashboard

California State University San Marcos

In Summer 2018, California State University San Marcos (CSUSM) formed an institutional assessment workgroup charged with collecting and analyzing data to inform Executive Order (EO) 1110 implementation and continuous improvement. The assessment plan required the workgroup to monitor student performance in entry-level math and written communication, especially new courses created and launched in association with EO 1110. For this purpose, Institutional Planning & Analysis created a custom DFW dashboard that displays DFW rates and grade distributions for these courses by student placement category, and allows for further disaggregation by demographic variables such as underrepresented minority status, sex, whether the student is repeating the course, and whether the student is a STEM major. Data sources include Enrollment Reporting System (ERS) census data combined with course grade data from PeopleSoft, which is extracted nightly into the campus's Oracle database.

After Fall 2018 grades were posted, CSUSM observed that DFW rates in GEW 101A, the first semester stretch course recommended for students requiring additional support in written communication, were higher than expected (33%), even for the Category II students who opted for the stretch program. This finding prompted a review and revision of the corresponding course rubrics along with expanded support from the University Writing Center in the form of additional appointments for GEW students only and two Saturday Writing Cafes. Following those revisions, the GEW 101A DFW rate decreased to 15% in Fall 2019. Notably, the Office of Undergraduate Studies, college, and department collaborated in the spring 2020 launch of embedded tutoring for GEW.

The larger of the two new Math/QR courses is MATH 101, which is a brand-new course that is still being developed. Some developments (e.g., re-ordering the topics covered to allow more time for the support course to provide the necessary just-in-time support, and refinement of the lecture plans) were based largely on the immediate experiences of the instructors. Others, such as note-taking guides for students and annotated reading guides, reflect the natural maturing of a course that is now in its fourth offering. These changes lowered the DFW rate in MATH 101 from 50% in Fall 2018 to 40% in Fall 2019. The data have raised some intriguing questions about the connection between MATH 101, its support course (MATH 1), and the related new Early Start course ESM 104. Students who needed support but who performed well enough in ESM 104 were allowed to take MATH 101 without the support course, and they seem to have underperformed in Fall 2019. While this is being studied, similar students in Spring 2020 are allowed and encouraged to sit in on MATH 1 sections during the weeks when those sections are primarily doing review in preparation for the MATH 101 exams.

Informed by DFW data trends, the Office of Undergraduate Studies and the Faculty Center are collaborating on a spring 2020 World Café on First-Year Success. This café aims to gather approximately 25 faculty who teach first-year courses. The goal of the café is to 1) deepen our collective understanding regarding first-year academic success and struggle; 2) identify small-, medium-, and large-scale changes that could be made at the classroom, department, college, and divisional level to strengthen our support of first-year students; and 3) contribute our findings and suggestions to our campus' strategic plan.

For questions or further information, contact Regina Eisenbach (regina@csusm.edu)

Select Metric
DFW ▼

STEM+/Non-STEM+
(All) ▼

URM
(All) ▼

Sex
(All) ▼

Repeating?
- ⦿ (All)
- ○ First Attempt
- ○ Repeat

Math DFW Rates by Placement Category at Entry

			Fall 2018	Spring 2019	Fall 2019
MATH 101	Total		50% (250/497)	51% (179/351)	40% (284/702)
	I		100% (1/1)	0% (0/1)	25% (1/4)
	II		42% (27/65)	38% (24/63)	25% (29/114)
	III		45% (74/163)	49% (60/122)	43% (89/205)
	IV		51% (117/228)	55% (66/121)	43% (94/218)
	Not New FTF		78% (31/40)	66% (29/44)	44% (71/161)
MATH 1	Total		51% (200/390)	56% (141/254)	44% (230/519)
	I		100% (1/1)		0% (0/2)
	II		41% (12/29)	33% (2/6)	27% (6/22)
	III		47% (63/135)	51% (58/114)	42% (84/198)
	IV		51% (98/191)	57% (61/107)	45% (91/201)
	Not New FTF		76% (26/34)	74% (20/27)	51% (49/96)
MATH 105	Total		12% (14/120)	16% (15/93)	17% (16/93)
	II		0% (0/3)	33% (1/3)	33% (3/9)
	III		3% (2/64)	25% (8/32)	33% (12/36)
	IV		13% (4/30)	10% (5/48)	4% (1/26)
	Not New FTF		35% (8/23)	10% (1/10)	0% (0/22)
MATH 5	Total		12% (14/120)	13% (12/91)	7% (6/92)
	II		0% (0/3)	33% (1/3)	11% (1/9)
	III		3% (2/64)	19% (6/31)	11% (4/36)
	IV		13% (4/30)	9% (4/47)	4% (1/26)
	Not New FTF		35% (8/23)	10% (1/10)	0% (0/21)
MATH 100	Total		14% (61/446)	11% (15/132)	10% (21/207)
	I		0% (0/3)		0% (0/1)
	II		10% (22/217)	7% (5/68)	9% (12/135)
	III		30% (6/20)		0% (0/6)
	IV		56% (5/9)		0% (0/7)
	Not New FTF		14% (28/197)	16% (10/64)	16% (9/58)
MATH 115	Total		14% (56/404)	29% (52/177)	13% (24/179)
	I				0% (0/4)
	II		12% (19/164)	21% (20/94)	9% (8/93)
	III		31% (4/13)	33% (1/3)	33% (2/6)
	IV		13% (1/8)	29% (2/7)	25% (1/4)
	Not New FTF		15% (32/219)	40% (29/73)	18% (13/72)
MATH 125	Total		32% (184/575)	32% (100/313)	29% (109/379)
	I		0% (0/7)	0% (0/4)	30% (3/10)