



**Quick Fact Summary Number 2018-2  
Office of Institutional Effectiveness**

**Number and Performance of Students with ACT Mathematics Scores Affected by  
the Board of Regents New Admissions Standards for Fall 2018**

**Placing Act Mathematics Score of 16, 17, and 18 into College Algebra with  
“Support”**

February 1, 2018

The Dean of Sciences and Mathematics requested information from the Fall 2017 semester on the math ACT score ranges affected by the Board of Regents new Admissions Standards (Academic Affairs Policies 2.18). Specifically, the Board has initiated a pilot program allowing new students with ACT mathematics scores of 16, 17, and 18 into MATH 1020/1021 (College Algebra) and MATH 1015 (Applied College Algebra) with “support”. Prior to Fall 2018, incoming students needed an ACT mathematics score of 19 to directly enter general education mathematics – either Applied College Algebra (MATH 1015) or College Algebra (MATH 1020 or MATH 1021). Louisiana’s use of the 19 ACT mathematics score is three points below the ACT’s college readiness of 22 for college level work in mathematics. The Dean requested the information to help with planning the Fall 2018 Schedule of Classes when the policy is to be implemented.

First, Table 1 details the number of students in the ACT mathematics score ranges that would typically be developmental education students attending in Fall 2017. Effective Fall 2018, students with ACT mathematics score of 16, 17, and 18 will be permitted to directly enter one of the College Algebra courses above. According to Table 1, this will affect 317 new first-time students. The remaining 395 students will continue to take their developmental courses.<sup>1</sup>

Table 1. Fall 2017 ACT Mathematics Scores.<sup>2</sup>

Math ACT Subscore	Number of First-Time Students	Total Number of Students
No Scores	88	901
0	0	2
8	0	0
11	1	2
12	2	4
13	13	24
14	40	67
15	101	212
16	148	336
17	102	218
18	67	158
Total	562	1924
Total 16 to 18	317	712

<sup>1</sup> The 395 students are from 712 (all students) – 317 (new first-time students).

<sup>2</sup> Students with the classification of “PR” (Preparatory) were excluded from the analysis since they fall under Academic Affairs Policy 2.22.

Next, the probability of success in College Algebra was examined in terms of how students with a 16, 17, and 18 ACT mathematics scores did in their Fall 2017 developmental mathematics courses. While this is not the best predictive method, it does provide some information in that students who are not successful in the developmental courses will likely not succeed in general education courses.

As Table 2 indicates, just over half (56.9%) of the students with an ACT mathematics score of 16 succeeded at the Pre-algebra course. Students with an ACT mathematics score of 17 and 18 did much better scoring 74.2% and 73.7% respectively. In all, the three score ranges had a 65.3% success rate in MATH 0001.

Table 2. Fall 2017 developmental course success statistics by ACT mathematics score for first-time students.<sup>3</sup>

ACT Score	MATH 0001			MATH 0015			MATH 0021			Overall		
	N Success	Overall N	% Success	N Success	Overall N	% Success	N Success	Overall N	% Success	N Success	Overall N	% Success
16	62	109	56.9	6	13	46.2	3	10	30.0	71	132	53.8
17	49	66	74.2	6	9	66.7	4	5	80.0	59	80	73.8
18	28	38	73.7	5	5	100.0	2	9	22.2	35	52	67.3
Total	139	213	65.3	17	27	63.0	9	24	37.5	165	264	62.5

Next, keep in mind that the data for the MATH 0015 course and the MATH 0021 course have low n's. Unfortunately, it is impossible to pull data from another semester to increase them because both courses were just implemented in Fall 2017. For the 16 ACT mathematics score group, 46.2% successfully completed MATH 0015 and 30% successfully completed MATH 0021. Students scoring a 17 and 18 seemed to do better in MATH 0015 (66.7% for 17s and 100% for the 18s). For MATH 0021, students scoring a 17 on ACT mathematics had an 80% success rate while students scoring an 18 had a 22.2% success rate.

The data presented suggests that students enter LSU Eunice with a general knowledge of Pre-Algebra; however, successful completion of the course decreases as the ACT mathematics score decreases. The results from both of the algebra courses (MATH 0015 and MATH 0021) suggests that students enter LSU Eunice with a very limited knowledge of algebra. While MATH 0015 and MATH 0021 have recently been implemented, this supposition is supported by historical data from the old MATH 0002 course (Introductory Algebra). Given the data, one might question the logic and motivation for the change in Academic Affairs Policy 2.18 in that it is probably setting up a large number of students for failure in the College Algebra courses.

Questions may directed to Dr. Paul Fowler, Director of Institutional Effectiveness at [pfowler@lsue.edu](mailto:pfowler@lsue.edu).

<sup>3</sup> MATH 0001 is Pre-Algebra; The course ends with solving linear equations involving fractions. MATH 0015 is Introductory Algebra meant for students taking MATH 1015 and MATH 0021 is Intermediate Algebra for students taking either MATH 1020 or MATH 1021. Both the MATH 0015 and MATH 0021 begin with solving linear equations (overlapping with MATH 0001) and assume the students knows operations sign numbers, fractions, decimals, percentages, and proportions.