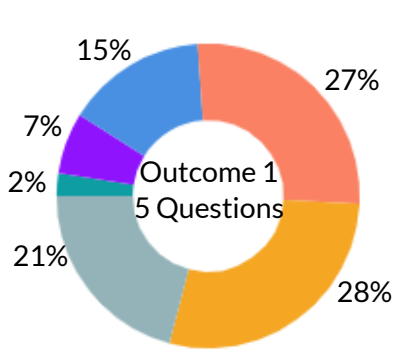# General Education Assessment 2016-2017
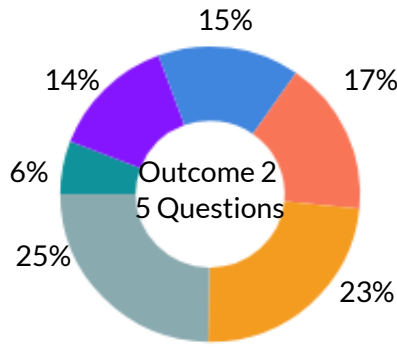
Mathematics (Quantitative Reasoning)

GE Math Learning Outcomes

i Only the scores of the 16 questions mapped to three GE Math learning outcomes were used.

Outcome 1 — 5 Questions
- 27%
- 28%
- 21%
- 2%
- 7%
- 15%

Correctly use / interpret Mathematical notation and terminology to solve problems.

Outcome 2 — 5 Questions
- 15%
- 17%
- 23%
- 25%
- 6%
- 14%

Apply general concepts and principles of Mathematics to solve various kinds of problems.

Outcome 3 — 6 Questions
- 16%
- 27%
- 35%
- 2%
- 3%
- 6%
- 9%
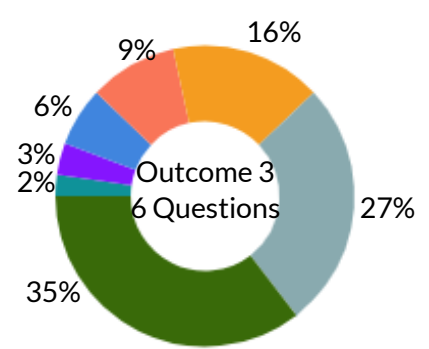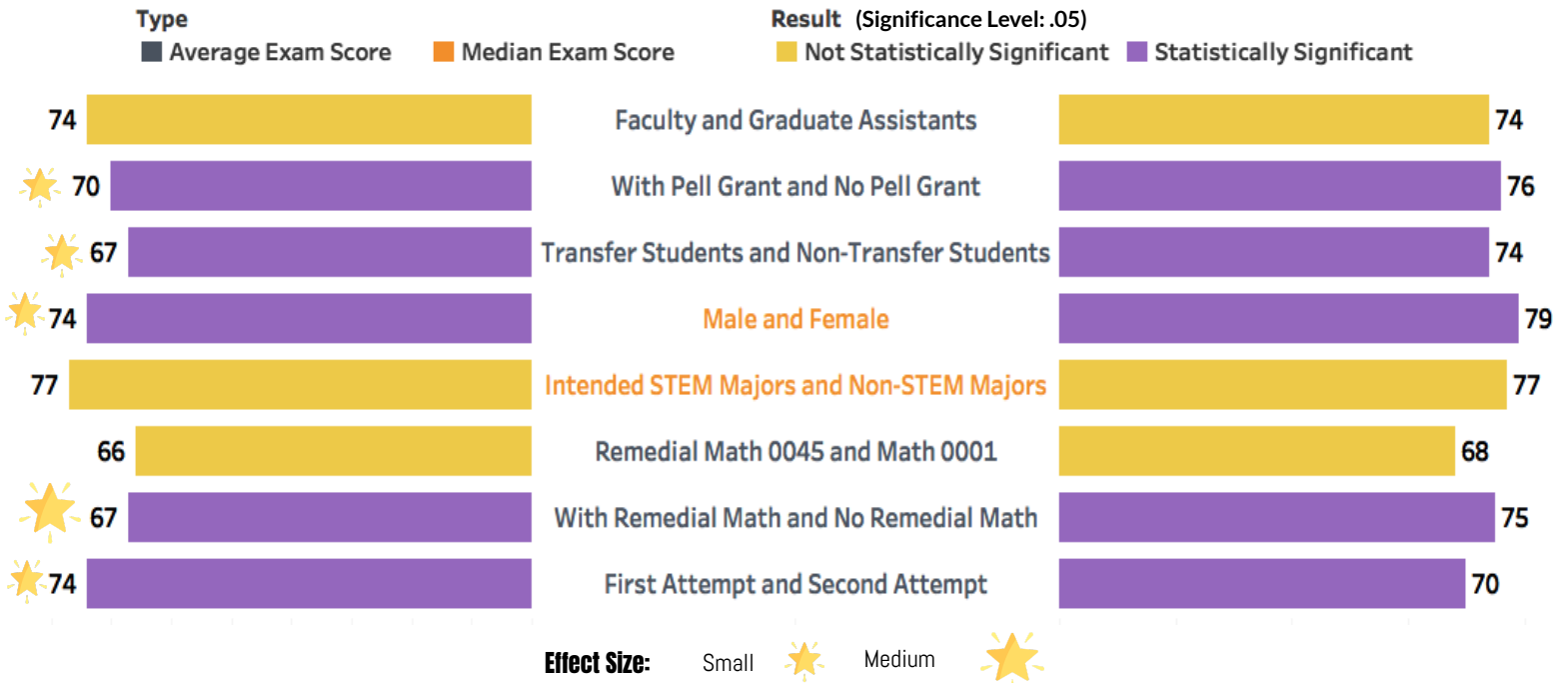
Model/solve problems related to applications that describe various phenomena in nature and society.

# of Correct Responses: 0 | 1 | 2 | 3 | 4 | 5 | 6

Percentage of Correct Responses for Each GE Math Learning Outcome (N = 1,659)

Group Comparisons

i The total final exam scores were used to compare the performance of various groups of students. A statistically significant difference means the difference is not likely to have happened by chance.

Type: Average Exam Score | Median Exam Score
Result (Significance Level: .05): Not Statistically Significant | Statistically Significant

	Group	
74	Faculty and Graduate Assistants	74
70	With Pell Grant and No Pell Grant	76
67	Transfer Students and Non-Transfer Students	74
74	Male and Female	79
77	Intended STEM Majors and Non-STEM Majors	77
66	Remedial Math 0045 and Math 0001	68
67	With Remedial Math and No Remedial Math	75
74	First Attempt and Second Attempt	70

Effect Size: Small | Medium

East Carolina University / http://www.ecu.edu/cs-acad/ipar/

Mathematics (Quantitative Reasoning) 2016-2017

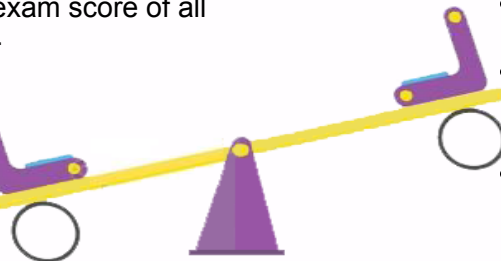## Multiple Regression Results

The total final exam scores were used.

Comparisons were made in reference to the weighted average exam score of all students in the sample.

Students scored higher if they

- were taught by instructor 5
- had not taken remedial Math
- were not Pell Grant recipients
- came from out of state or urban areas
- had waited one semester up to one year to take the course for the first time
- had higher unweighted HS GPAs

Students scored lower if they

- were taught by instructor 4 or 7
- took remedial Math 0045
- were Pell Grant recipients
- came from rural areas
- were sophomores
- or had waited more than one year to take Math 1065 for the first time

Over one-third of the students taking the final exam did not pass the final exam.

(70 out of 100 = Passing)

Rural students were defined as students who came from Tier 1 and Tier 2 counties in NC. The Tier designations data we used were from 2016: https://www.nccommerce.com/research-publications/incentive-reports/2016-county-tier-designations

Sample Profile

In total, 1,659 students took the final exam in Math 1065 in the 2016-17 academic year.

1340
49
270

- Math0045 (16.27%)
- Math0001 (2.95%)
- No remedial Math (80.77%)

638
1019

- Male (38.50%)
- Female (61.50%)

Number of Students

642
768
249

- Rural
- Urban
- Out-of-State