

Assessing multiple measures: How have student outcomes changed?

September 25, 2019

Introductions

- Education Northwest Team:
 - Michelle Hodara
 - Amy Arneson
- Who is here from...?
 - Clackamas CC
 - Mount Hood CC
 - Oregon Coast CC
 - Southwestern Oregon CC
 - OCCA

Moving toward multiple measures

Longstanding concerns and research call into question the use of standardized exams as the sole measure for course placement.

- Multiple studies have found that scores on placement exams are not highly correlated with success in initial college-level courses, leading to error in student placement.
- Placement errors exist because standardized exams are:
 - Too general (fail to distinguish specific student needs)
 - Too narrow (do not measure noncognitive factors that may influence college success)



Multiple measures

A system that combines two or more measures to place students into appropriate courses and/or supports.

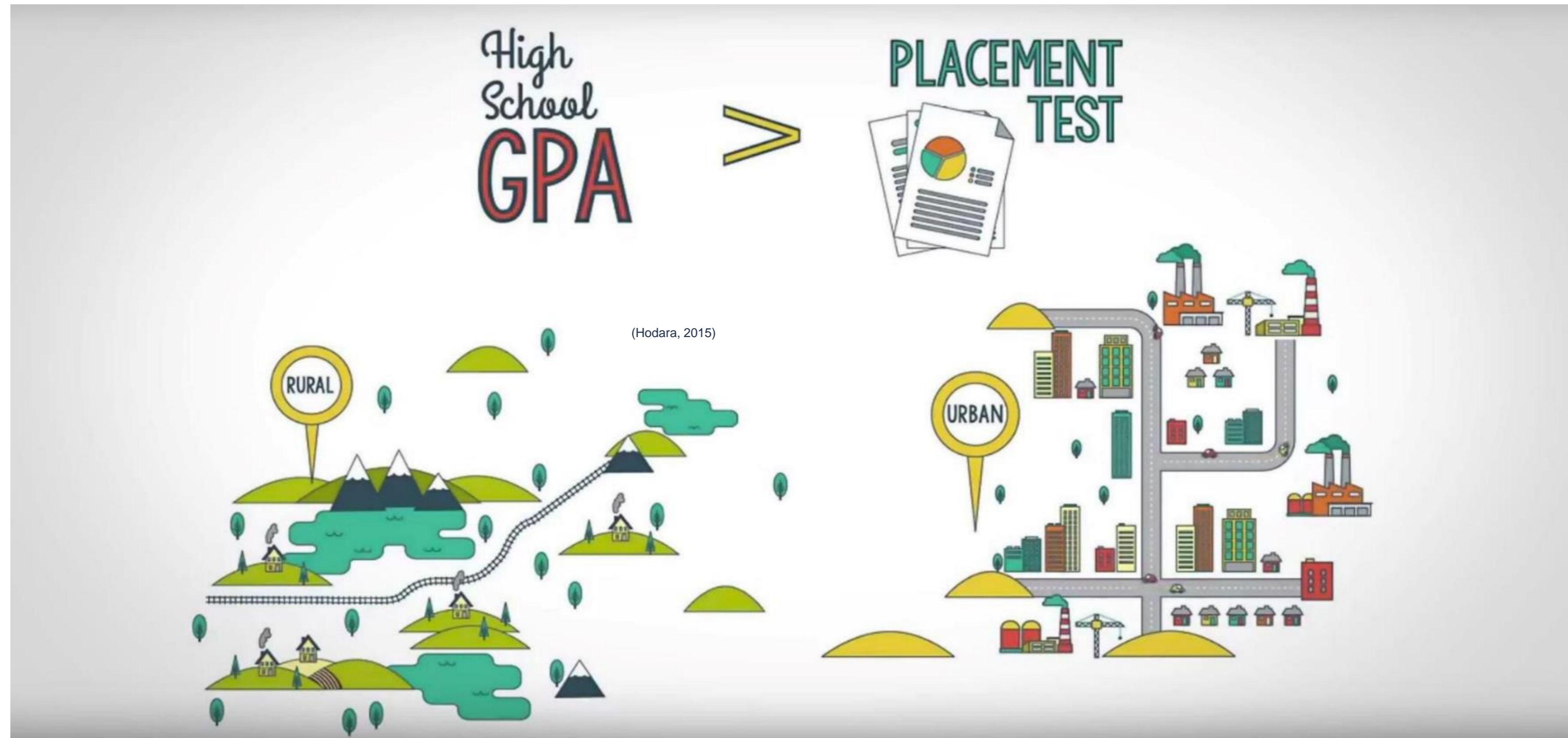
Pre-college

- High school GPA
- High school courses taken and grades
- Standardized assessments (e.g., Smarter Balanced)
- GED

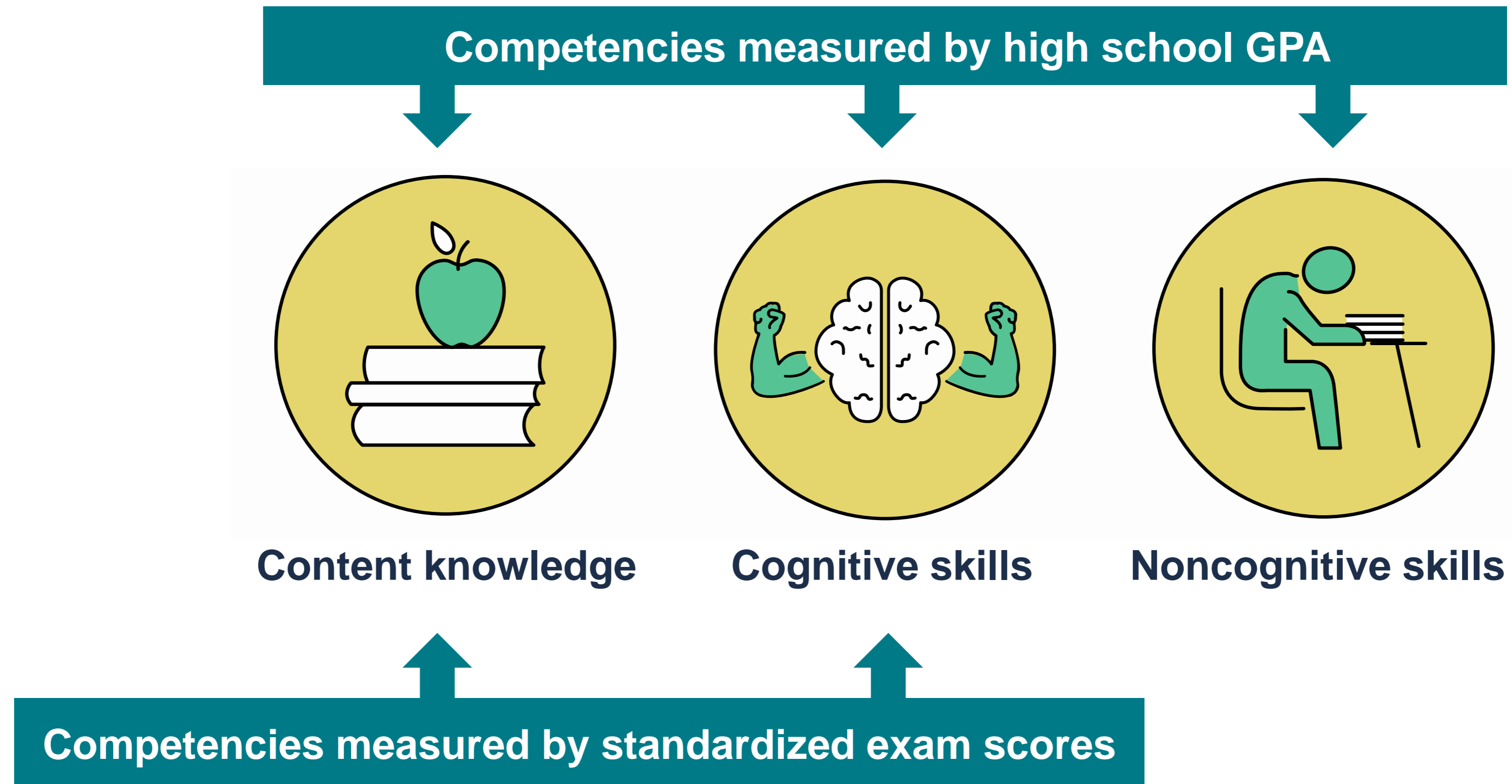
From college

- Transcripts from previous colleges
- Placement tests
- Noncognitive assessments
- Writing assessments
- Questionnaires/Intake Forms
 - Past work/academic experiences

High school GPA is a stronger predictor of college performance than standardized exam scores



Why is high school GPA such a powerful predictor of college readiness?



Research-practice partnership to study multiple measures



- The Oregon community colleges have been implementing major changes to how they assess incoming students' college readiness, moving from relying on standardized placement exams to a multiple measures process.
- In this year-long project (September 2018 to July 2019), REL Northwest worked side-by-side with community college stakeholders to produce evidence related to the effectiveness of multiple measures.



PASS Placement Advising
for Student Success

THIS IS NOT A TEST!

What is PASS?

*Placement Advising for
Student Success*

PASS advisors work with students to guide placement into the highest-level math and writing courses in which they are likely to succeed with appropriate support. PASS placements use student input and multiple other measures, rather than a single test score, to determine their best path at Clackamas Community College.

*For more information, or
to make an appointment
with a PASS Faculty
member, email
pass@clackamas.edu.*

*Beth Wicklund
Placement Advising Coordinator
beth.wicklund@clackamas.edu
Phone: (503)-594-6294*

Multiple
Measures at
Clackamas
Community
College

College Placement Testing (CPT) and Determining Course Placement

Determining Course Placement

At Mt. Hood Community College, we are committed to your success. Appropriate course placement is an important part of that commitment. All students who wish to take courses that have a reading, writing, and/or math prerequisite must have their placement levels evaluated. Prerequisite requirements for each course can be found on the MHCC website within the College Catalog at www.mhcc.edu/catalog or in the class schedule at <https://my.mhcc.edu/ICS/schedule>.

What are the different ways that my course placement can be determined?

Multiple
Measures at
Mount Hood
Community
College

In the fall of 2016, a new process “Guided Placement” was implemented

Key characteristics of this process included:

- Intake process changed to start with advising
- Data points include HS grades (self-reported), GPA, Smarter Balanced (11th grade scores), SAT, GED scores to start process
- Instructor created materials for placement discussion
- Instructor input on placement
- Placement testing (AccuPlacer) used only with outliers

Multiple
Measures at
Oregon Coast
Community
College





Term Planning to Enroll _____

Math/Advisor Initials _____

In-District Self-Reported Placement

Last Name _____ First Name _____ DOB ____/____/____

SOCC ID _____ Email _____ Phone _____

Academic History

Answer the questions to the best of your ability. Documentation may be requested to verify the information you provide.

1. High School: _____ Graduation Year: _____
2. What is your High School GPA? Greater than 3.0 (B) Less than 3.0 (B)
3. What was your highest math course you completed? _____
4. Did you take a full year of math your senior year? Y / N
5. What grade did you receive in this course? _____
6. Have you passed (C or better) WR 121? Y / N

Academic Intentions

1. What are possible majors or careers you are considering? _____
2. Do you plan to transfer to a four-year university? Y / N

Placement by other measures:

Test / Class	Score / Grade	Placement
Calculus 1 or 2	A	MTH 251
	B	MTH 251
	C	MTH 251
	D or below	Go to Other Measures
Pre-Calculus	A	MTH 105/111/211/243
	B	MTH 105/111/211/243
	C / GPA higher than 3.0	MTH 105/111/211/243
	C / GPA lower than 3.0	MTH 95/MTH 98
Statistics/ Algebra II/ Integrated III	D or below	Go to Other Measures
	A	MTH 105/111/211/243
	B HS GPA 3.0 or higher	MTH 105/111/211/243
	B HS GPA lower than 3.0	MTH 95/MTH 98
Geometry / Financial	C or below	Go to Other Measures
	A	MTH 65 / MTH 98
	B	MTH 65 / MTH 98
	C or below	Go to Other Measures
ACT/SAT	23+ or 540+	MTH 105/111/211/243
	21-22 or 500-530	MTH 65/MTH 98
	17-20 or 400-490	MTH 60/MTH 98
	14-16 or 310-290	Go to Other Measures
Smarter Balanced	4	MTH 105/111/211/243
	3 AND took senior year math course	MTH 105/111/211/243

Writing Placement

Placement by other measures:

Test	Score	Placement
Smarter Balanced	4/3	Writing 121
HS GPA	3.0+	Writing 121
HS GPA	2.5 - 2.9	Writing 121 with WR 95
HS GPA	<2.5	Writing 90R
ACT/SAT	19+ or 470+	Writing 121
ACT/SAT	16-18 or 371-469	Writing 121 with WR 95
ACT/SAT	14-15 or 310-370	Writing 90R

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Math Placement _____

Writing Placement _____

Notes: _____

Multiple Measures at Southwestern Oregon Community College

Our research used student-level data to examine outcomes of students placed using multiple measures vs students placed using traditional methods

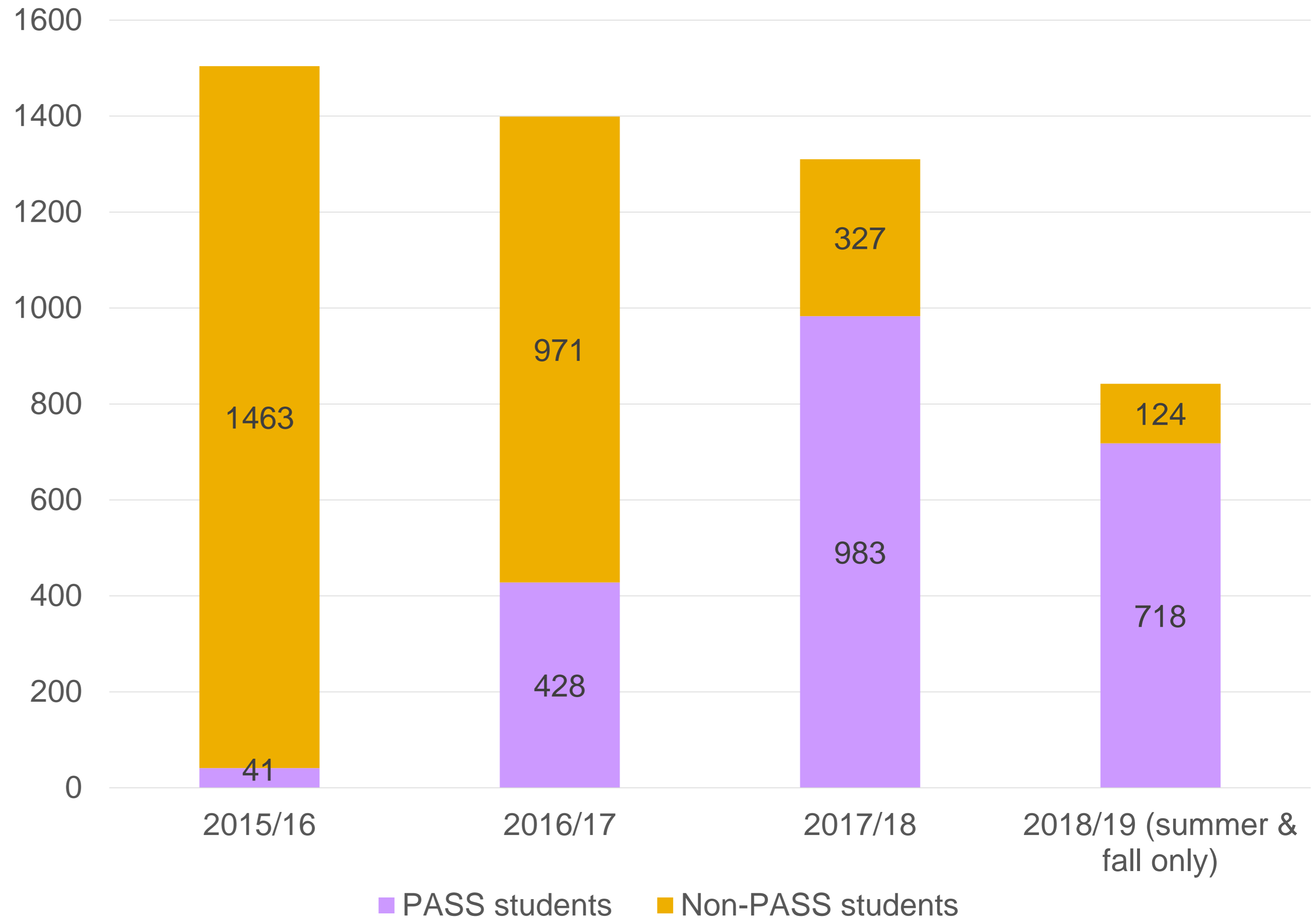
- Outcomes among all students who enrolled in English and by first English course:
 - Passed (A, B, C, or P) first English course
 - Enrolled in college English in first year
 - Passed college English in first year
- Outcomes among all students who enrolled in math and by first math course:
 - Passed (A, B, C, or P) first math course
 - Enrolled in college math in first year
 - Passed college math in first year
- Persistence to the second term
- Total student enrollment in developmental education and college courses

Our Focus Today

- Outcomes among all students who enrolled in English and by first English course:
 - Passed (A, B, C, or P) first English course
 - Enrolled in college English in first year
 - Passed college English in first year
- Outcomes among all students who enrolled in math and by first math course:
 - Passed (A, B, C, or P) first math course
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Clackamas CC Analysis Details

Number of CCC students in analysis

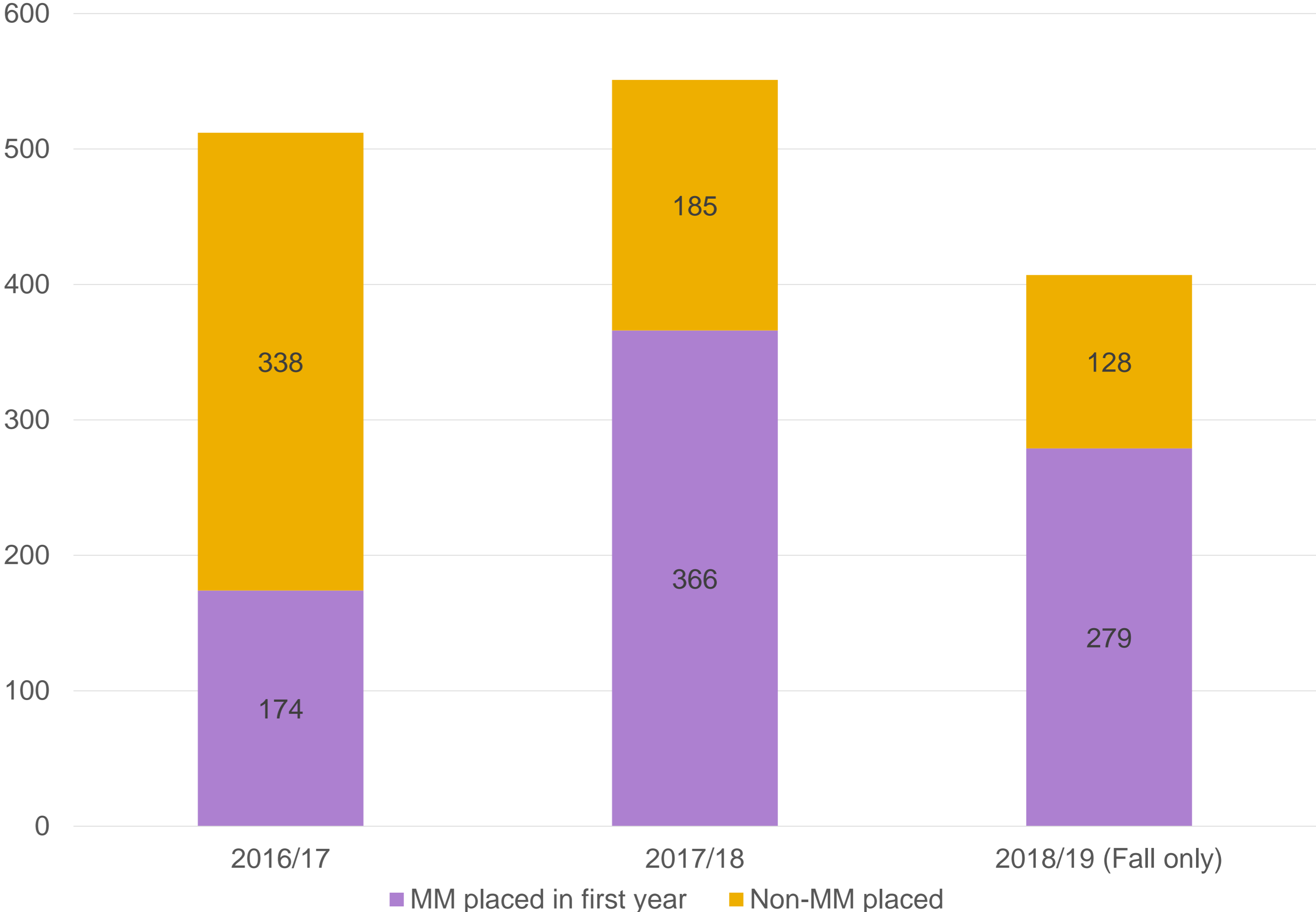


- Compares outcomes of students who entered in 2015/16-2018/19 and were PASS placed vs traditionally placed in their first term

Southwestern Oregon CC Analysis Details

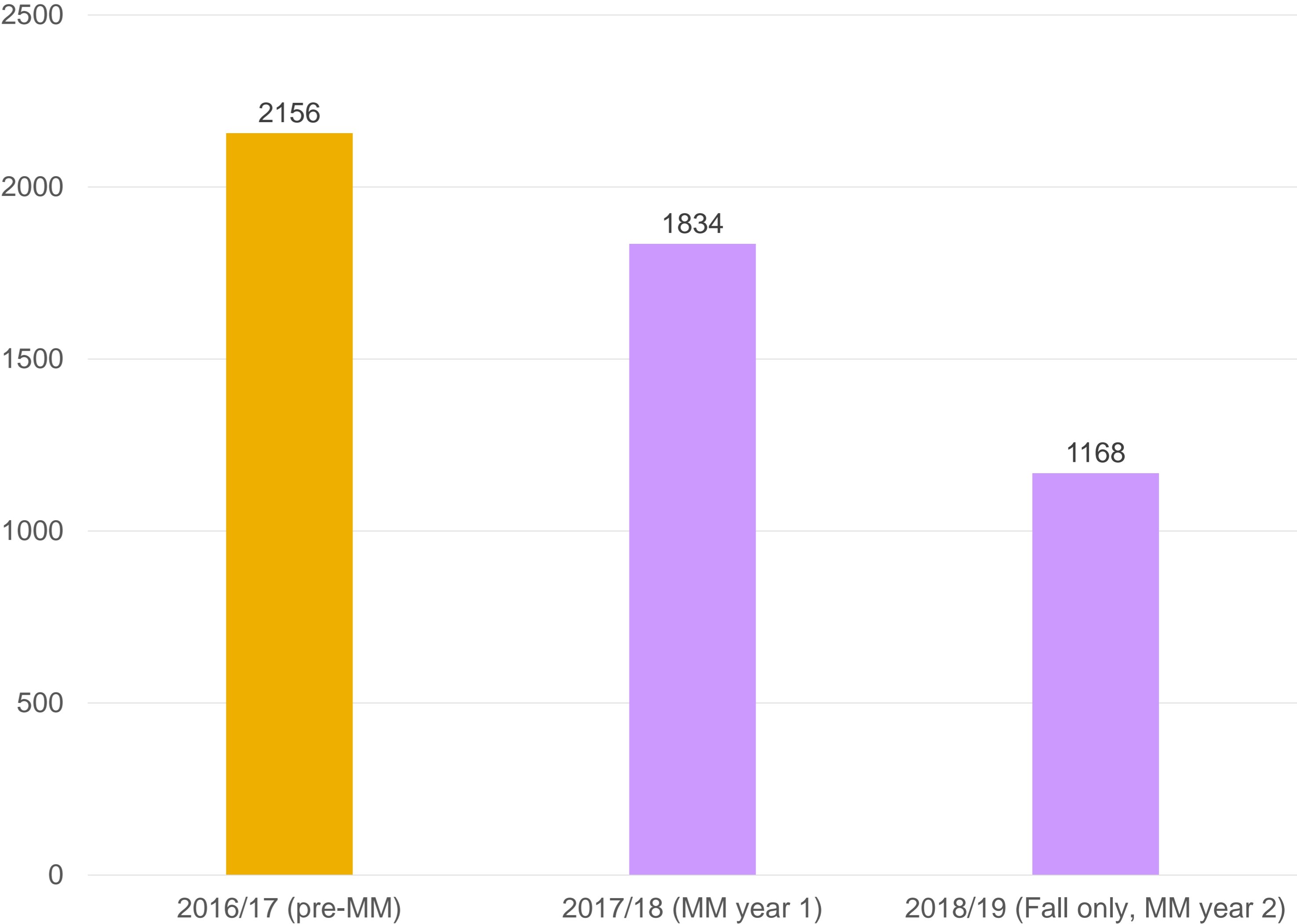
Number of SWOCC students in analysis

- Compares outcomes of students who entered in 2015/16-2018/19 who were multiple measures placed vs traditionally placed



Mount Hood CC Analysis Details

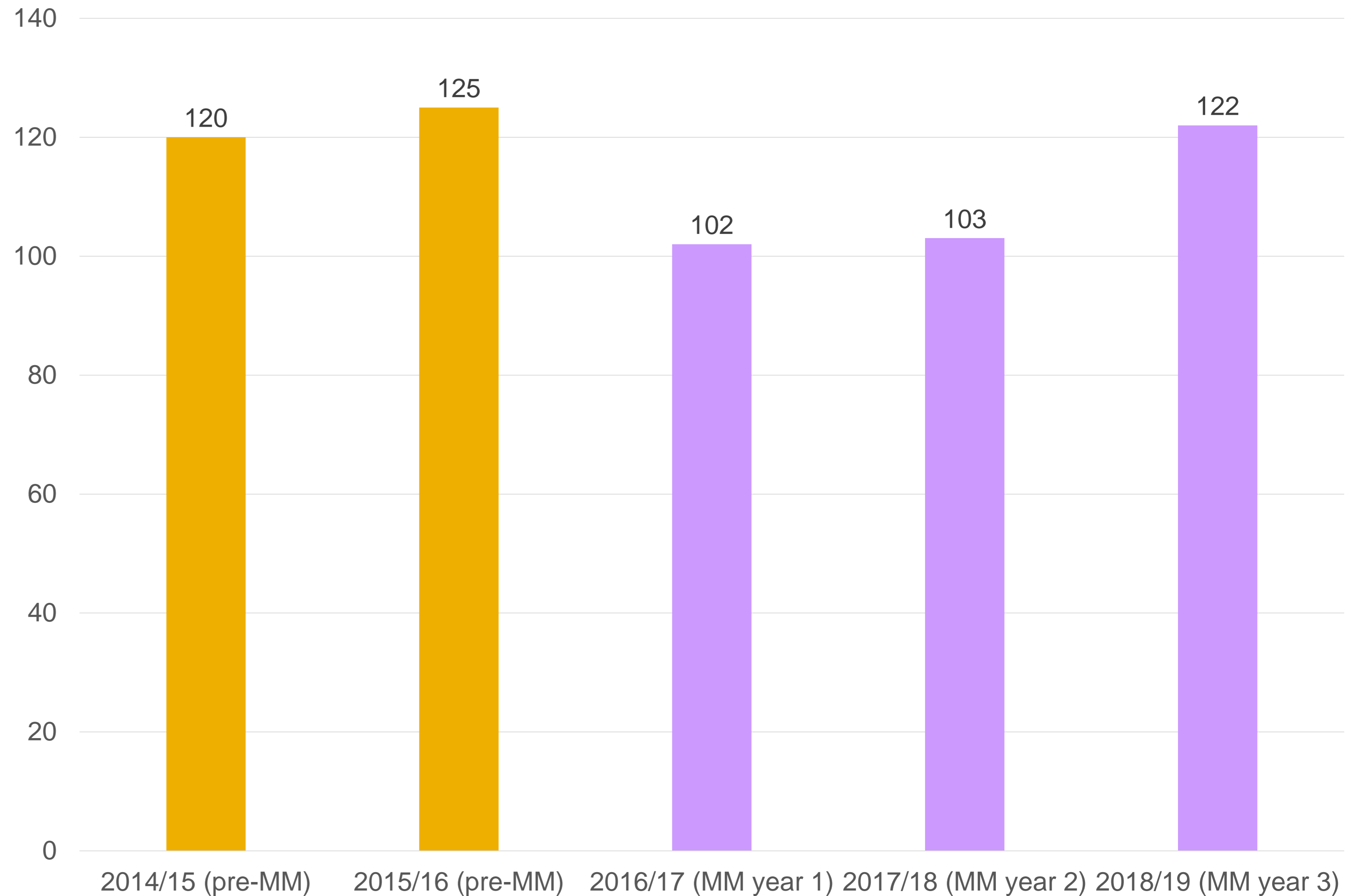
Number of MHCC students in analysis



- Compares outcomes of students who entered before multiple measures (MM) (2016/17) and during multiple measures (2017/18-2018/19)

Oregon Coast CC Analysis Details

Number of OCCC students in analysis



- Compares outcomes of students who entered before multiple measures (2014/15-2015/16) and during multiple measures (2016/17-2018/19)

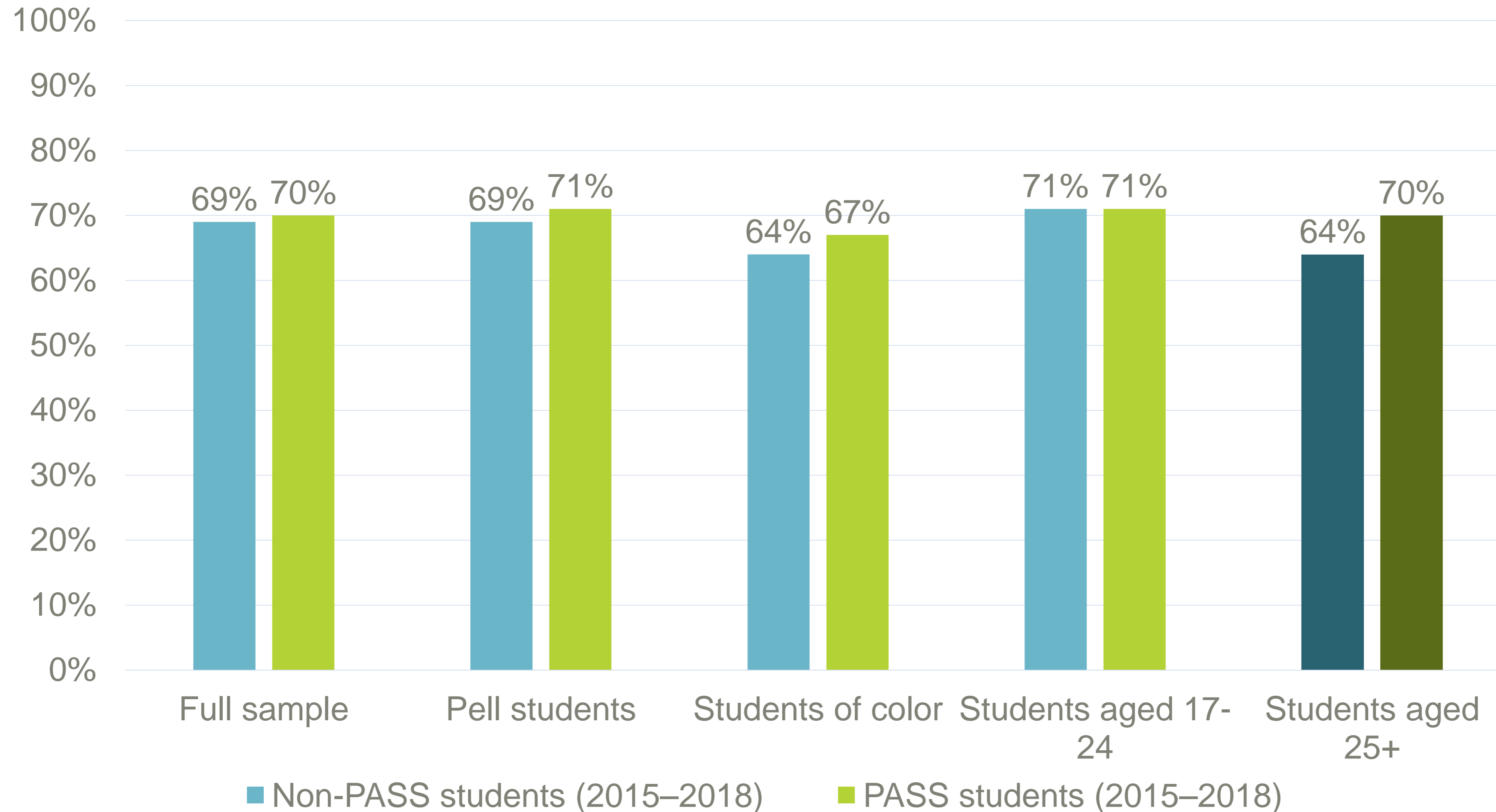


In English, students placed using multiple measures are doing the same or better than their traditionally placed peers across all colleges

- Across all four colleges, compared to their traditionally placed peers:
 - A similar proportion of multiple measures placed students passed their first English course
 - A similar (3 colleges) or higher (1 college) proportion of multiple measures placed students enrolled in college English in their first year
 - A similar (2 colleges) or higher (2 colleges) proportion of multiple measures placed students passed college English in their first year

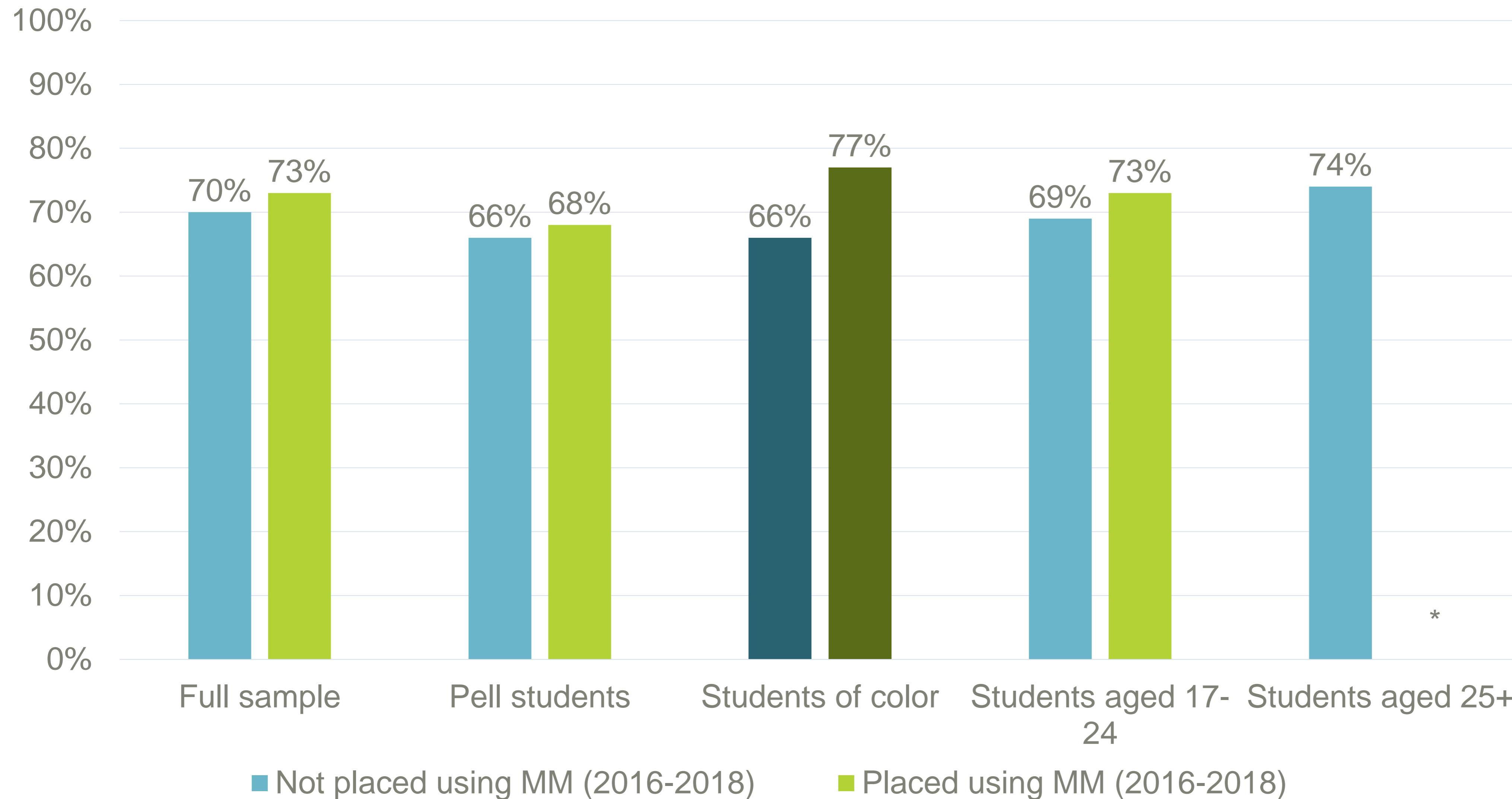
Clackamas Community College

Percentage of students who passed college-level English in first year in college



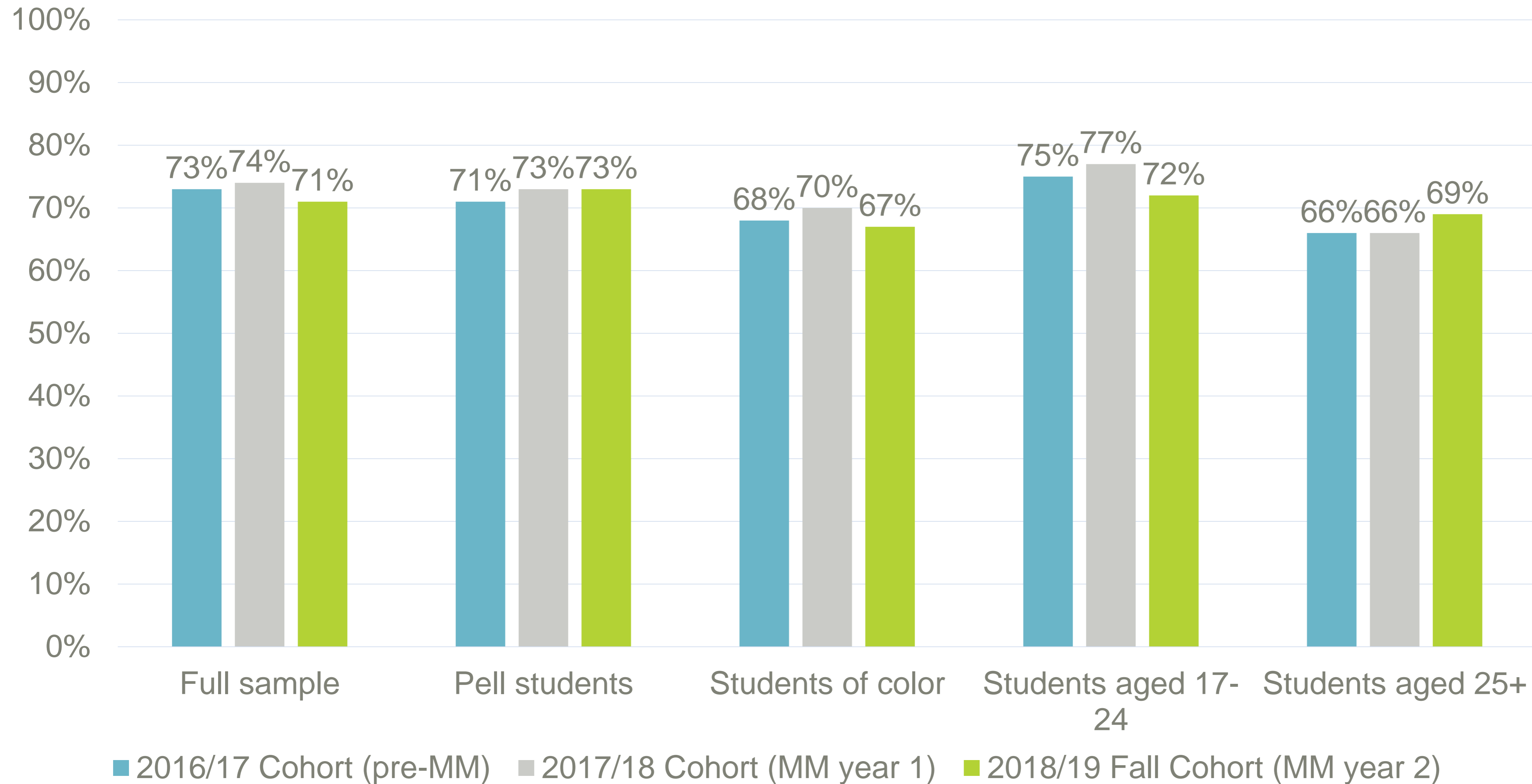
Southwestern Oregon Community College

Percentage of students who passed college-level English in first year in college



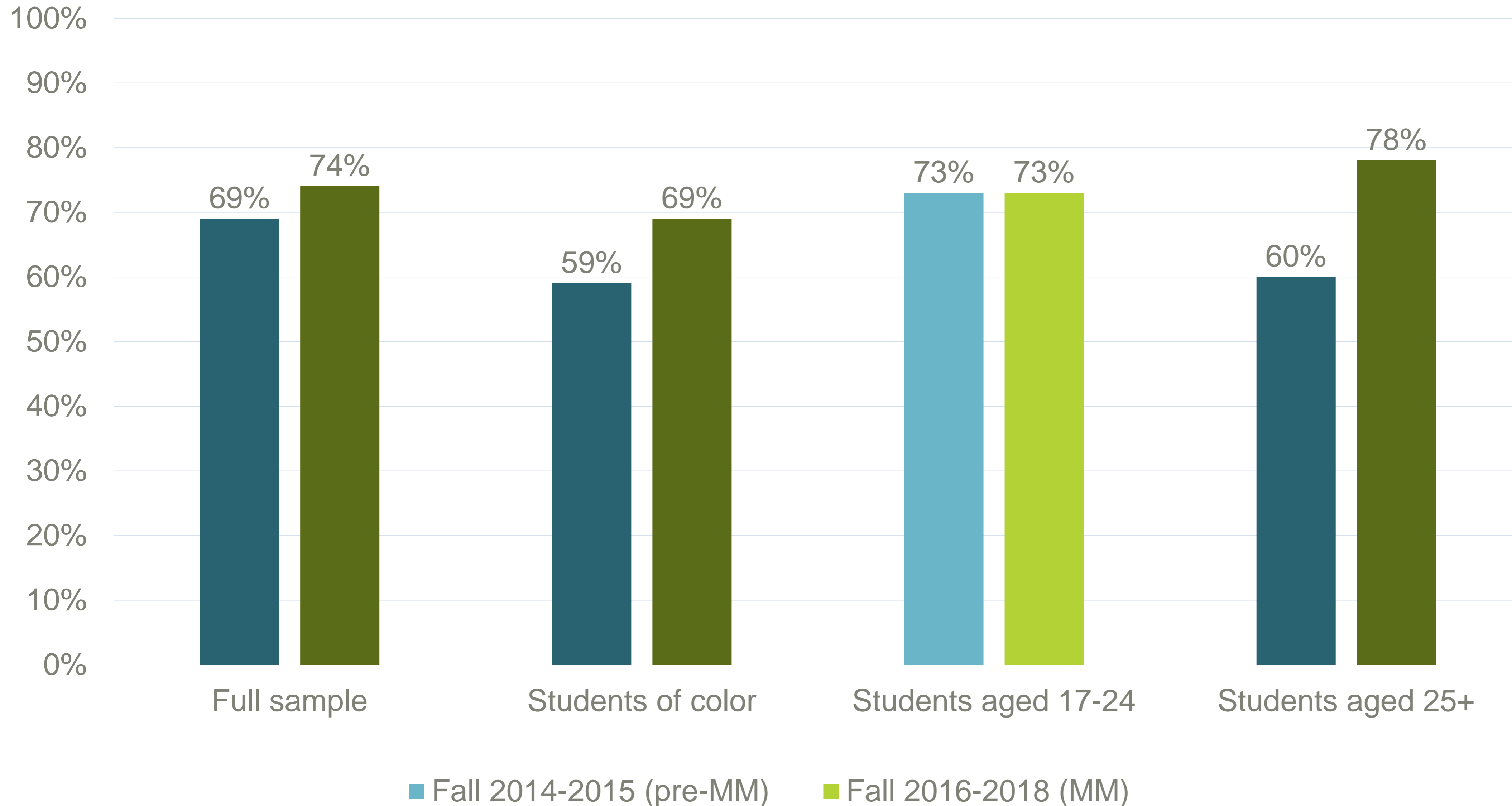
Mount Hood Community College

Percentage of students who passed college-level English in first year in college



Oregon Coast Community College

Percentage of students who passed college-level English in first year in college





Reflection Questions

What questions do you have?

What findings stood out?

*What are the implications for
policy and practice?*

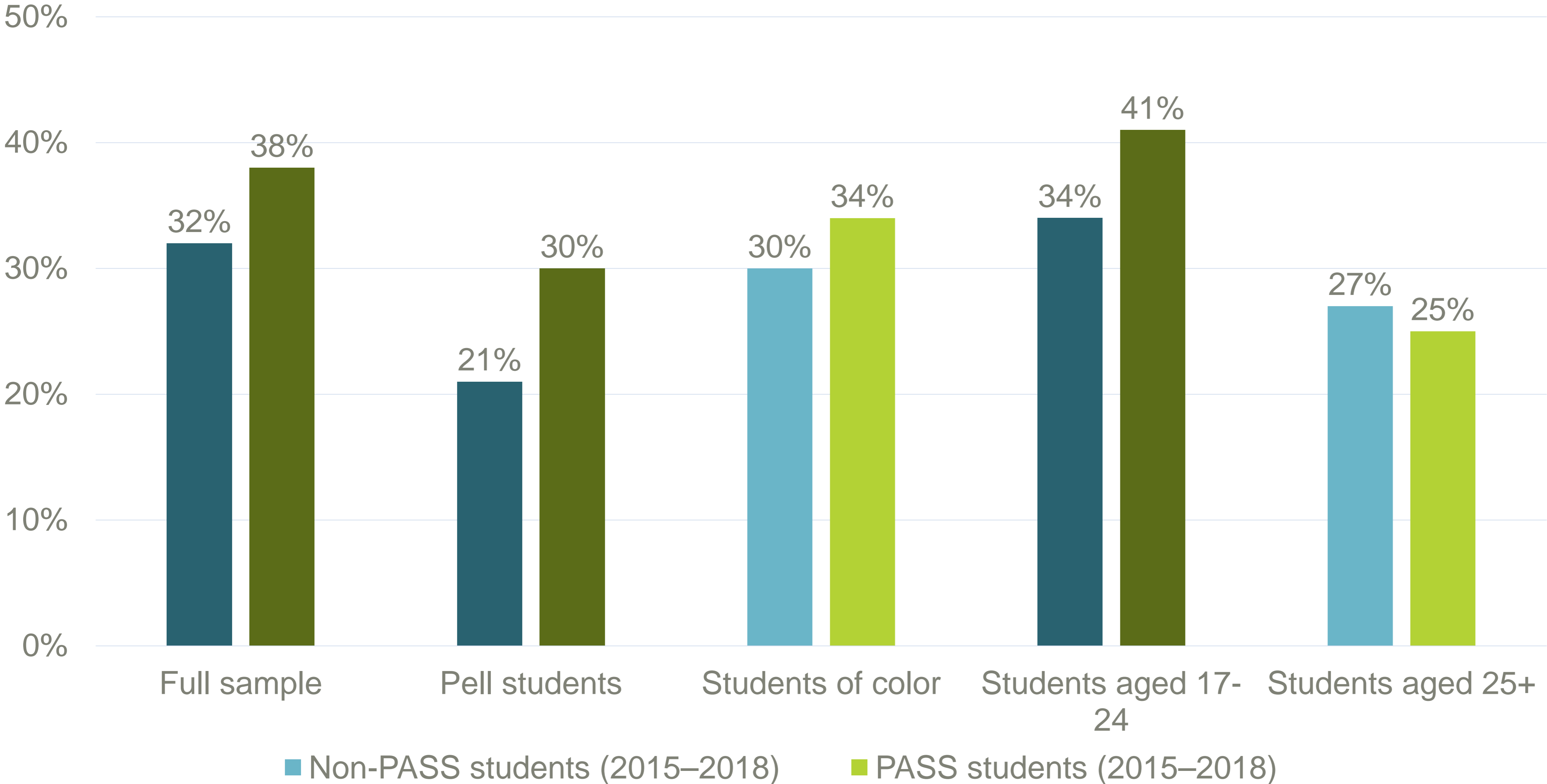


In math, while students placed using multiple measures may not be doing as well in their first math courses, a similar or higher proportion are passing college math

- Across all four colleges, compared to their traditionally placed peers:
 - A similar (1 college) or lower (3 colleges) proportion of multiple measures placed students passed their first math course
 - A similar (2 colleges) or higher (2 colleges) proportion of multiple measures placed students enrolled in college math in their first year
 - A similar (2 colleges) or higher (2 colleges) proportion of multiple measures placed students passed college math in their first year

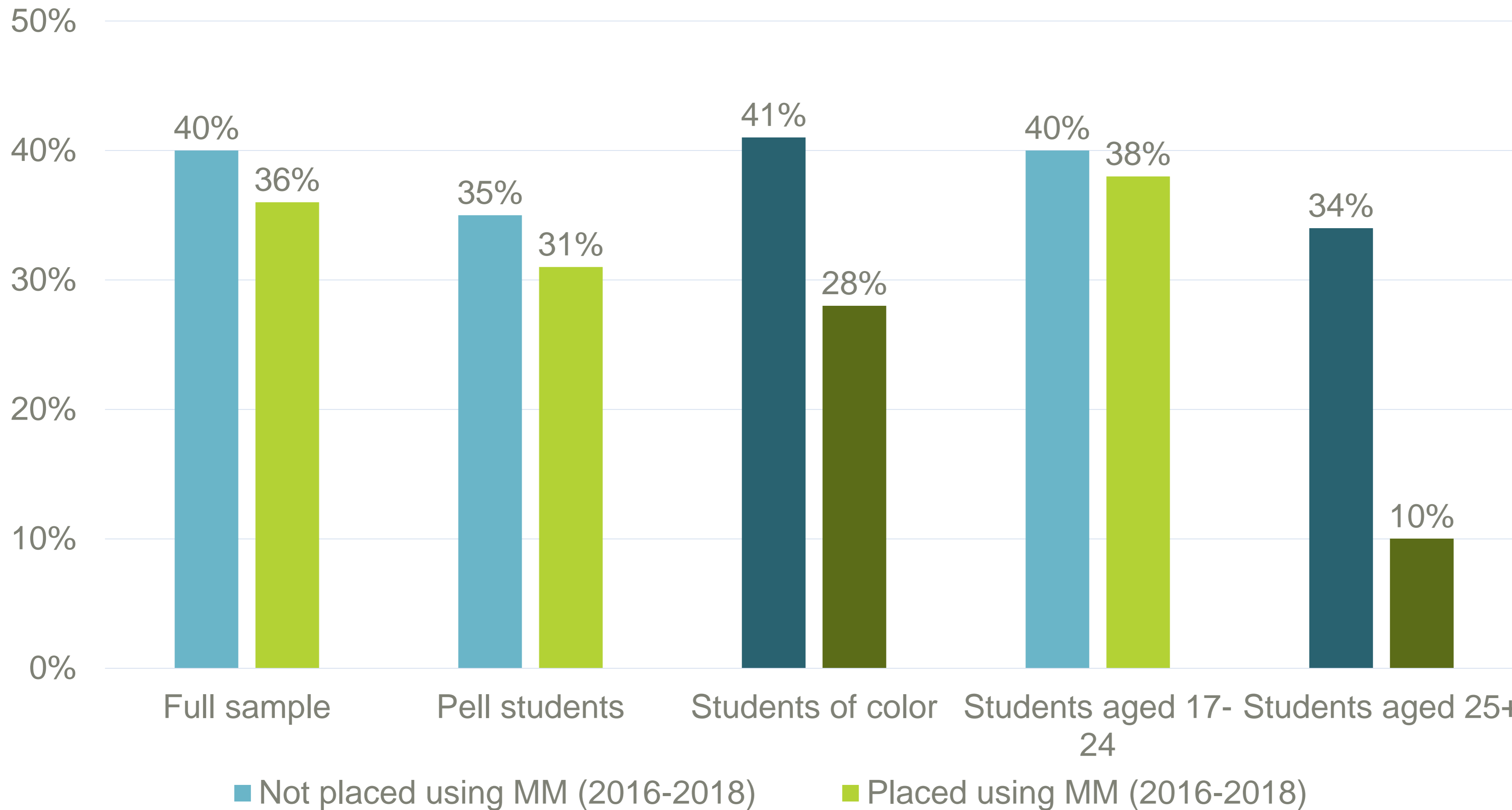
Clackamas Community College

Percentage of students who passed college-level math in first year in college



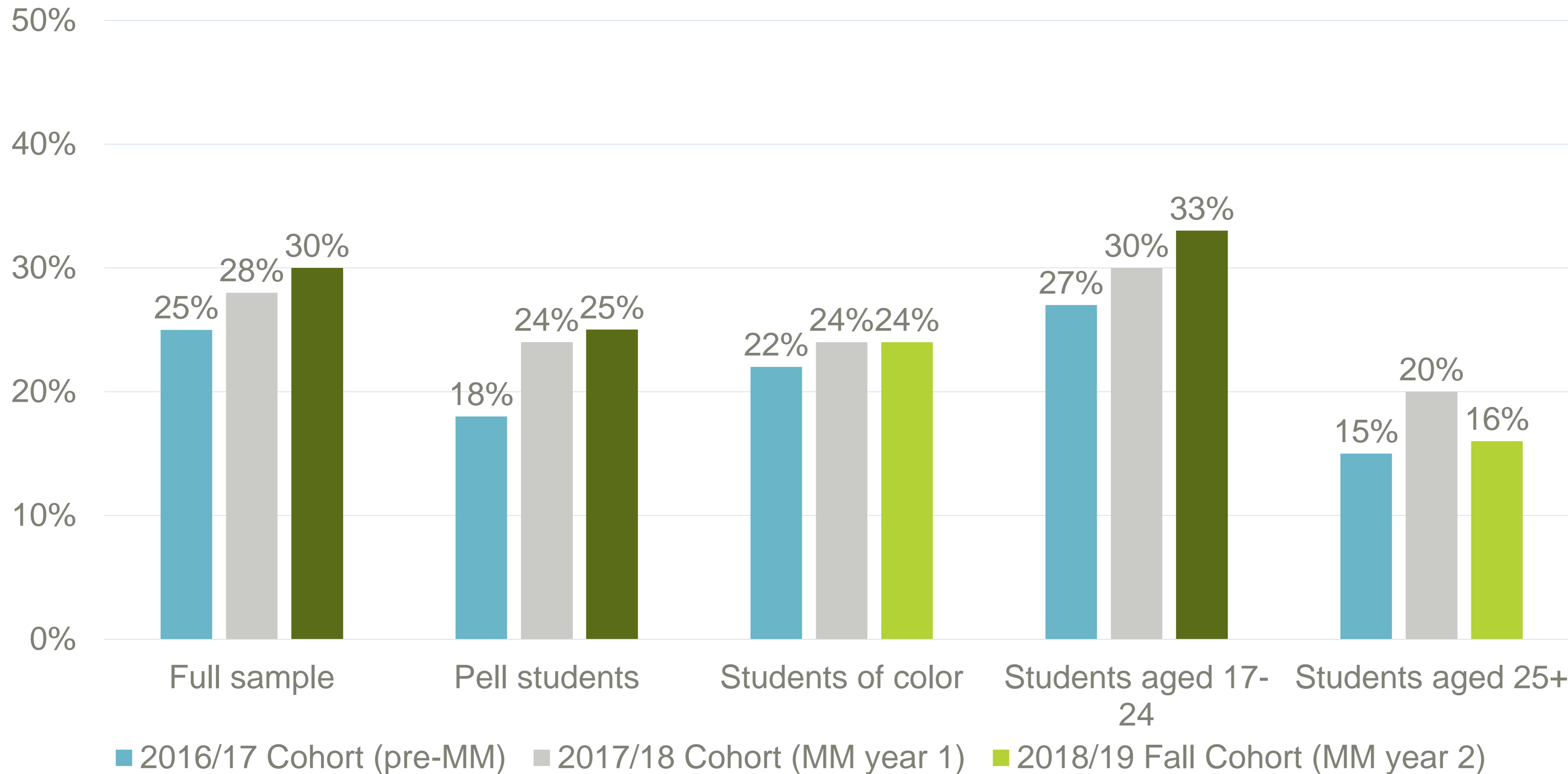
Southwestern Oregon Community College

Percentage of students who passed college-level math in first year in college



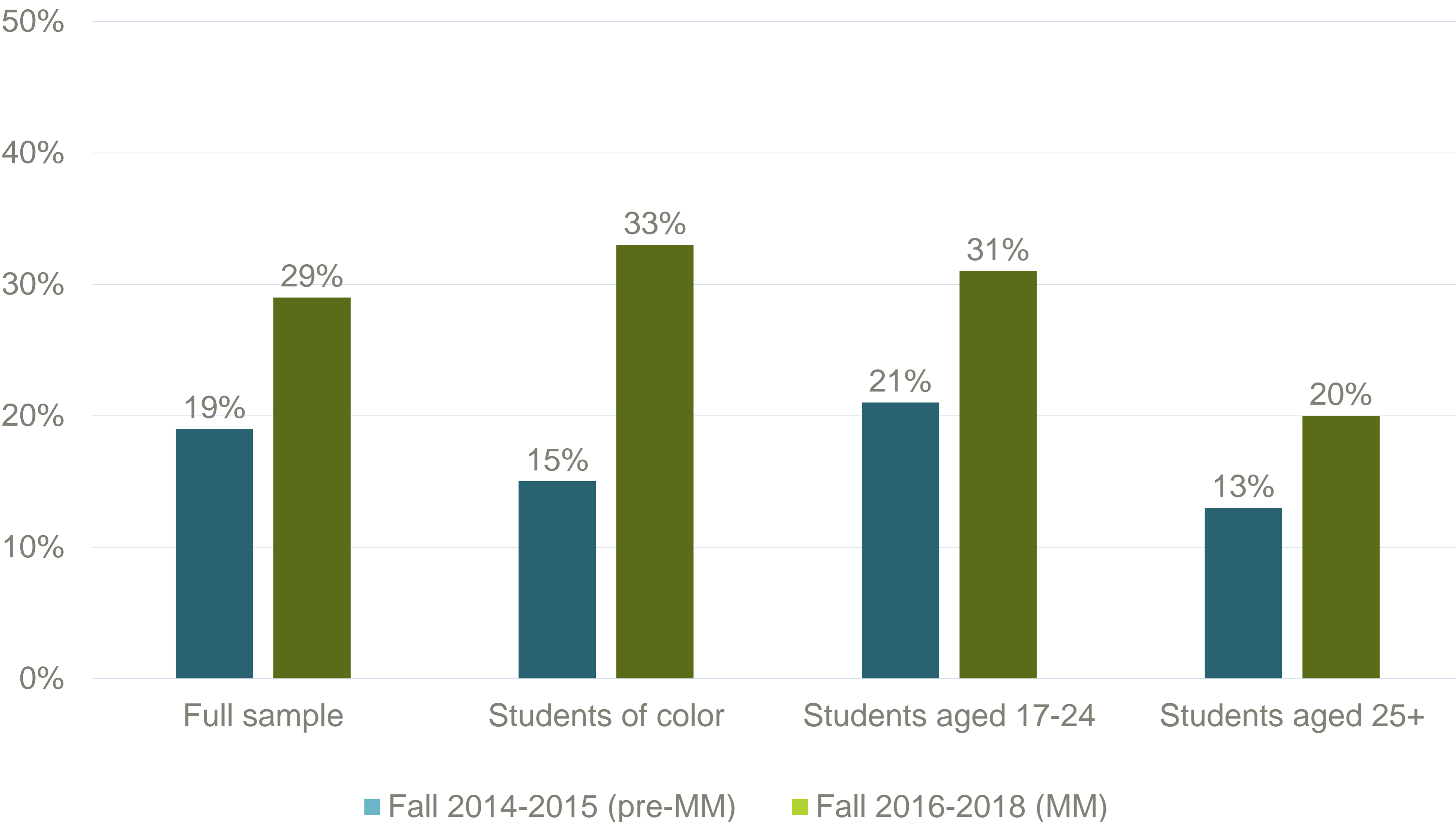
Mount Hood Community College

Percentage of students who passed college-level math in first year in college



Oregon Coast Community College

Percentage of students who passed college-level math in first year in college





Reflection Questions

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Implications

- In most cases, a higher proportion of students placed using multiple measures or in years that multiple measures have been in use **are passing college-level math and English**
- In some cases, results are also positive for low-income students and students of color and suggest improvements in closing equity gaps
- At some colleges, early persistence is also improving
- Positive outcomes suggest students are being more accurately placed and saving time and money as they make progress toward their degree

Does multiple measures directly cause differences in outcomes?

- Differences in outcomes could be due to difference in students and/or cohorts
- At two colleges, we used propensity score matching and regression analysis to compare outcomes of multiple measures placed students and **similar** students not placed using multiple measures
 - For some outcomes, we found significant positive results, suggesting a more direct link between multiple measures and outcomes



Reflection Questions

What are the next steps for research?

How do you want to continue to work together?

References

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