



UNIVERSITY OF WISCONSIN SYSTEM

# Improving Success in Math for Incoming Freshmen

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# Three Key Goals for Student Success in Math Courses

- 1) Reduce the number of incoming freshman needing a remedial math course:
  - Increases cost of higher education
  - Increases time to graduation
- 2) Expand the first year completion rate for students who need remedial math courses
- 3) Expand student success in first year credit-bearing math courses

# Strategies to Improve Math Success

- Common score for Math Placement at UW Institutions
- Multiple Measures for Math Placement
- Co-requisite Remediation

# Strategies to Improve Math Success

- Math Pathways Tailored to Majors
  - Use of Meta Majors
  - Focus on alternatives to College Algebra
- New Models for Teaching Math Remediation

# How is the UW System Improving Student Success In Math?

- Partner with K-12 institutions
  - Recommend a 4<sup>th</sup> year of high school math
- Increase use of free Early Math Placement Tool in high schools statewide
- Advisory Steering Committee headed by Provosts
- Partner with National Association of System Heads (NASHE) in taking student success to scale initiative

# Improve Mathematics Preparation in K-12

## High School Graduation Requirements

- Wisconsin—3
- Minnesota—3
- Maryland—4

## College Admission Requirements

- UW System—3 (UW-Madison—4)
- Minnesota System—4
- Maryland System—4

# Improve Mathematics Preparation in K-12

	Did Not Complete Math Senior Year	Completed Math Senior Year
Math Placement Test Score: Placement in Remedial or Developmental Education	20.7%	7.5%

# Early Math Placement Tool

- Provided for free to Wisconsin high schools
- Gauges student readiness for college-level math courses
- Identifies areas that require more student work while in high school



# Increased Use of Early Math Placement Tool (EMPT)

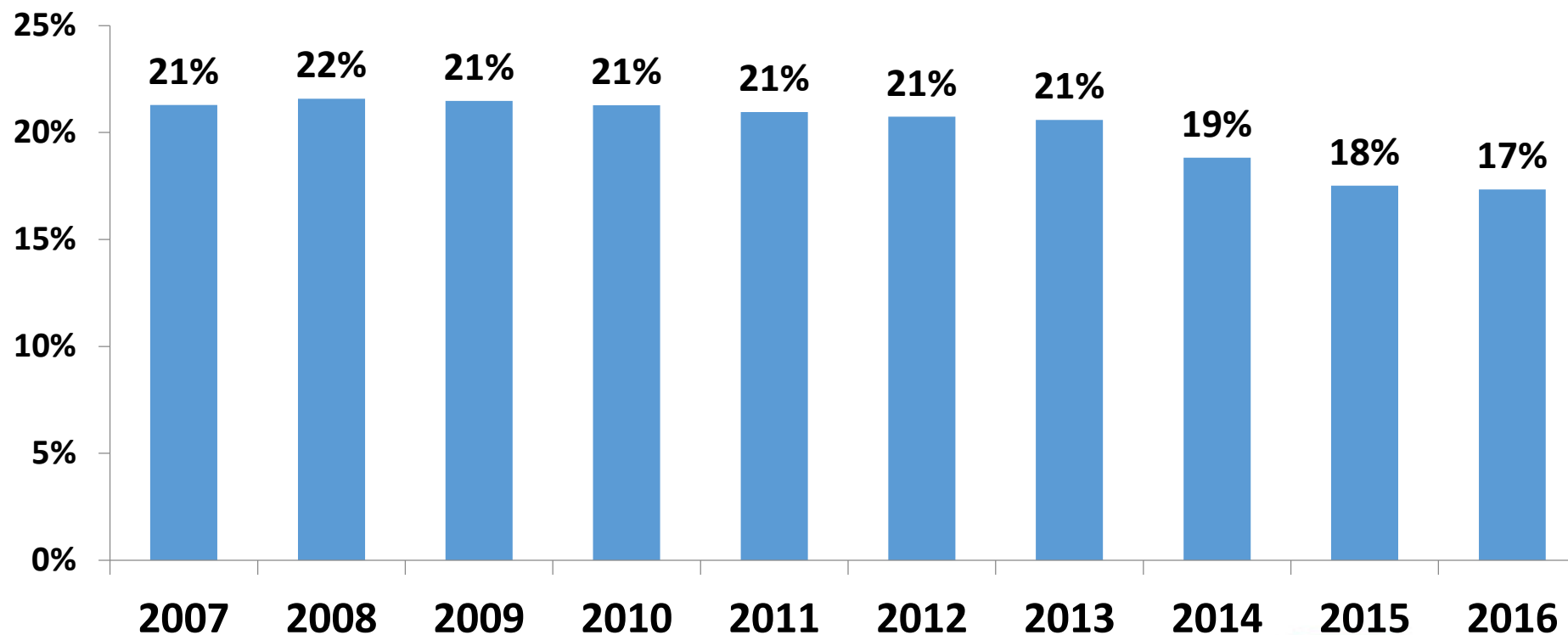
Increased Usage of EMPT				
	2013-14	2014-15	2015-16	2016-17
Schools	112	127	136	156
Teachers	169	192	209	236
Classrooms	494	628	670	695
Students	10,725	12,030	13,285	13,715

# Results:

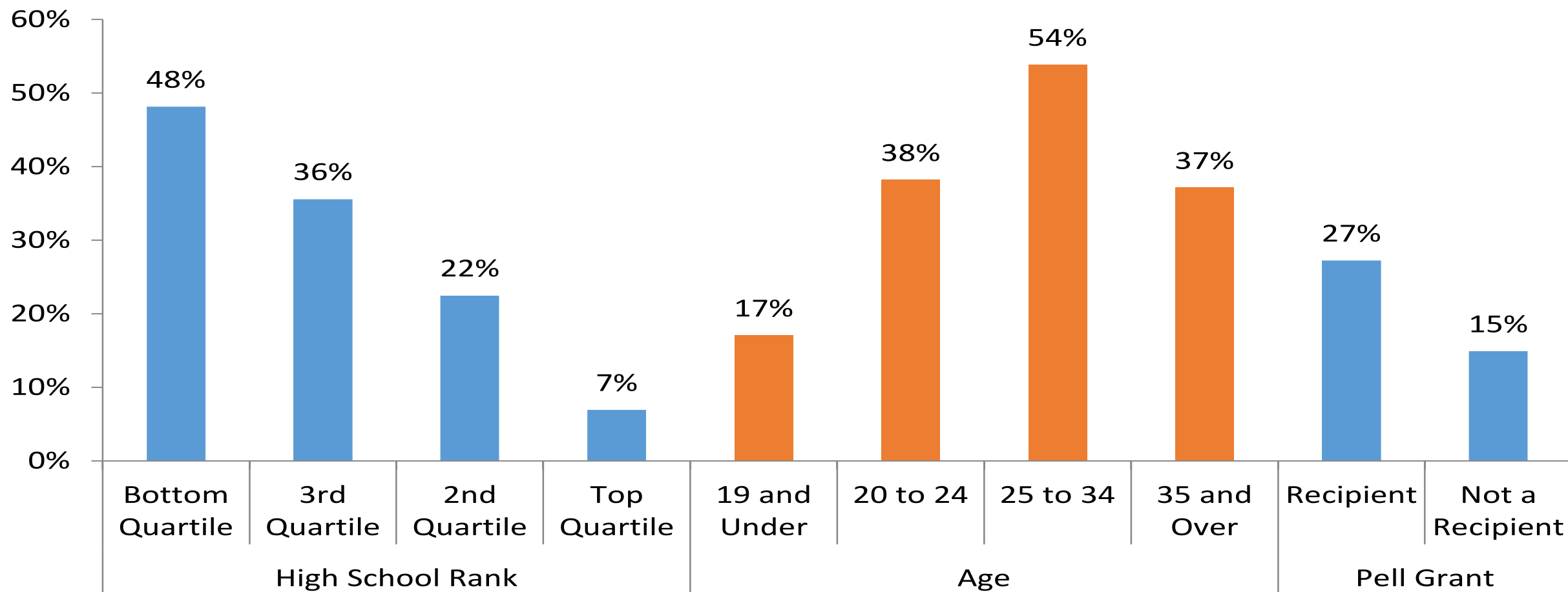
## Early Math Placement Tool (EMPT)

- High School Juniors who participated in EMPT:
  - Placed in college remedial math HALF as often as non-participating students
  - Were 20% more likely to be placed into Calculus than non-participants

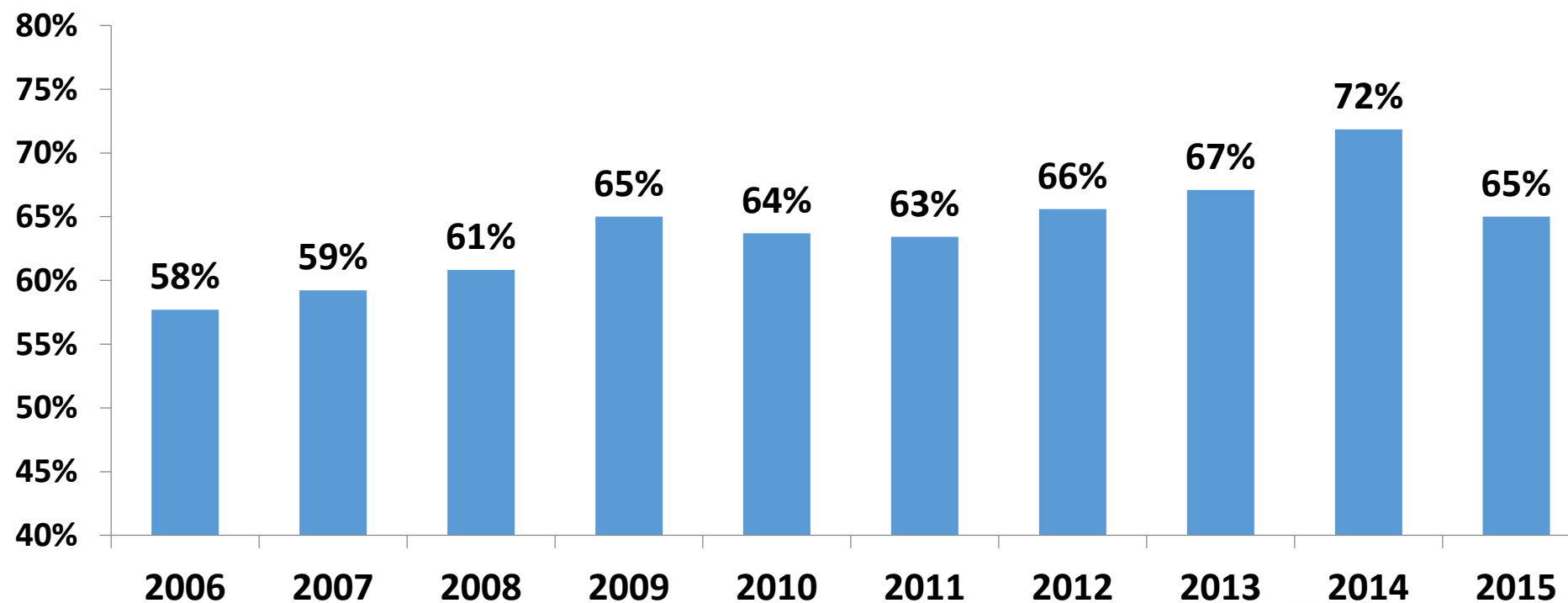
# New Freshmen Requiring Math Remediation: 2007 - 2016



# New Freshman Requiring Math Remediation: Student Characteristics 2014 to 2016



# First-Year Math Remediation Completion Rate: 2006 - 2015



# Reports to High Schools on Student Placement & Success

- Continue to work with DPI to expand high school feedback
- New Act 28 Reporting Requirement
  - Intent: provide families with information on how high schools prepare students for college
  - Report: percentage of immediate high school graduates requiring Math or English remediation while enrolled in UW institutions

# Highlights of Work at UW System Institutions

- UW-Milwaukee
- UW Colleges