

**2018**

Learn Serve Lead  
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# Evaluating the Impact, Use, and Predictive Validity of the New MCAT Exam

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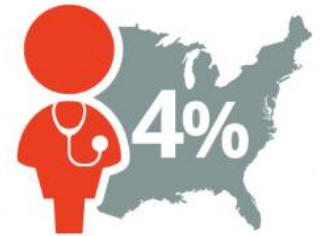
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University of Illinois College of Medicine



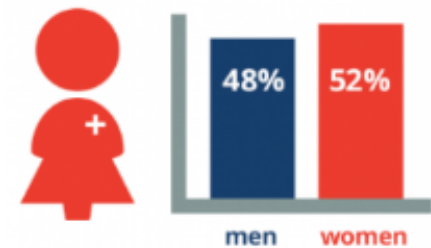
Association of  
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# Diversity is a core driver of high quality health care

- ❑ Minority physicians are significantly more likely to practice primary care and in underserved areas
- ❑ Similar race/ethnicity identification between physicians and patients results in better communication, increased patient satisfaction, and routine preventive care visits
- ❑ Communicating in patients' native language often improves adherence to treatment
- ❑ Medical students agree that there are benefits of a diverse student body, including the opportunity to learn from others from different backgrounds and the preparation to care for a diverse society



Black/African-Americans comprise only 4 percent of the physician workforce

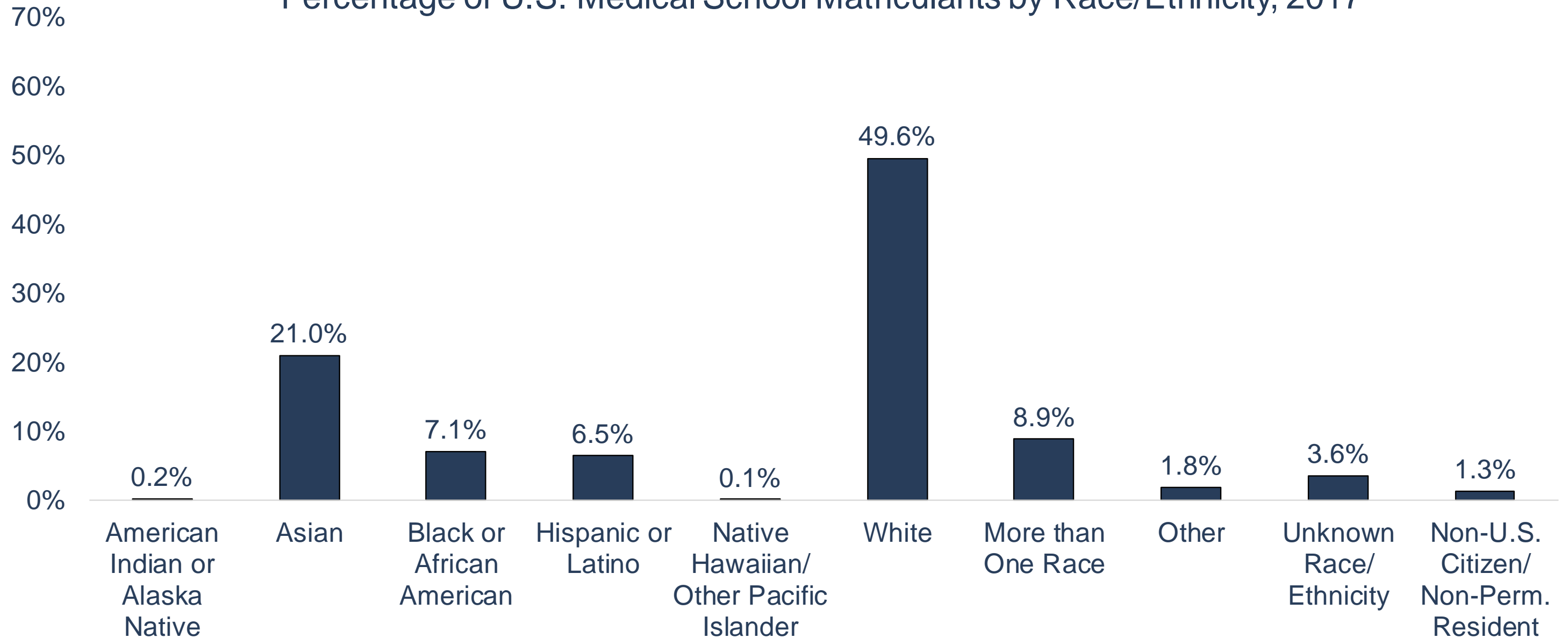


The majority of younger minority physicians in the workforce are women

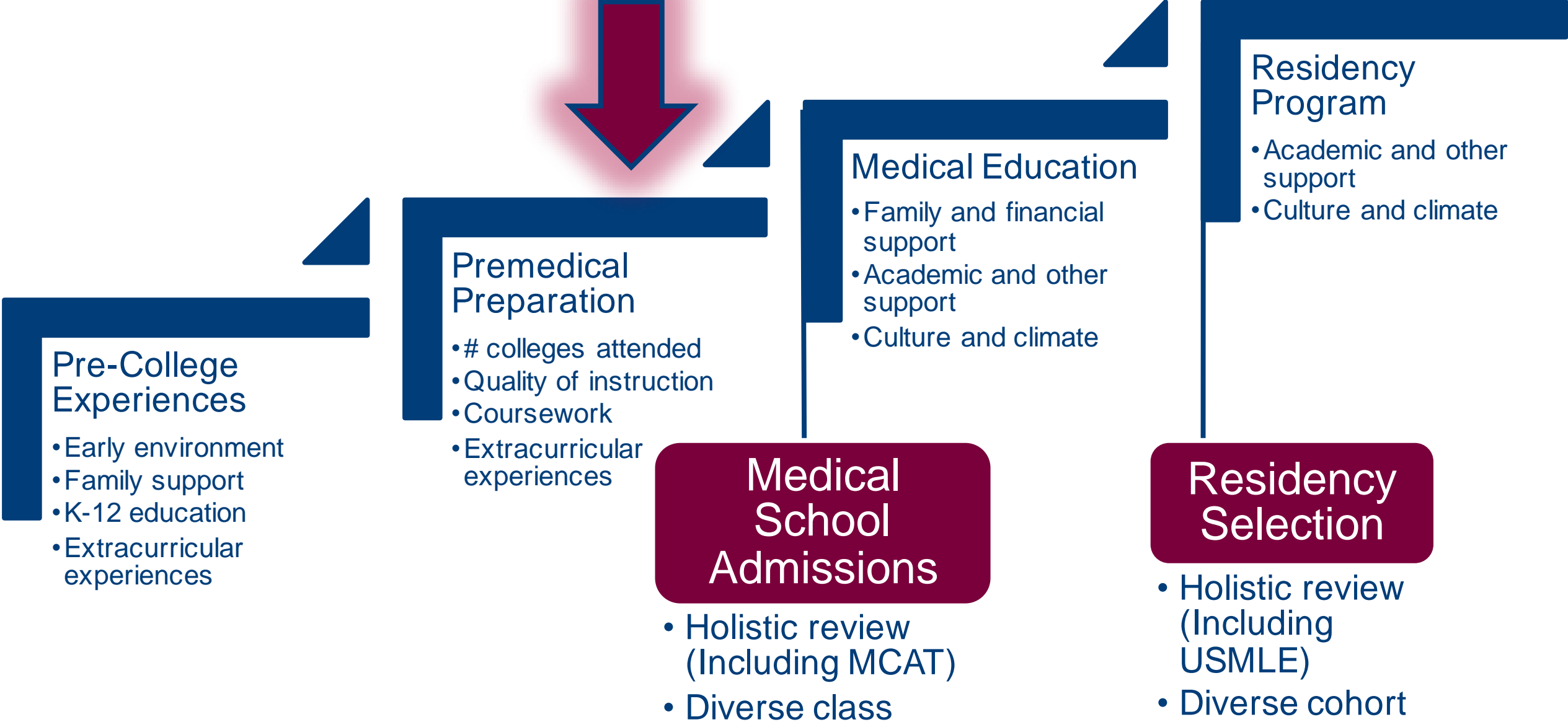
Walker KO, et al. J Natl Med Assoc. 2012 Jan-Feb; 104(0): 46-52.; Xierali, et al. AAMC Analysis in Brief. 2014; 14(8); 14(9)  
Alsan M, et al. NBER Working Paper: 2018.  
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Saha, et al. JAMA. 2008;300:10: 1135-1145.  
AAMC Diversity in the Physician Workforce Facts and Figures 2014.

# About half of medical school matriculants self-identify as white

Percentage of U.S. Medical School Matriculants by Race/Ethnicity, 2017



# The path to becoming a physician starts early



# Group differences in academic achievement are associated with societal inequalities

- ❑ MCAT, LSAT, GMAT, GRE and other tests of academic achievement show population group differences
  - MCAT measures specific content knowledge and skills in natural, behavioral, and social science subject areas
- ❑ Presence of differences does not equate to test bias (i.e., construct irrelevant content or alterations in administration)
- ❑ Structural racism and privilege likely contribute to the differences seen across the spectrum of exams

Compared with majority examinees, minority examinees:

- More likely to experience adverse environmental factors (poverty, food insecurity, low quality day care)
- More likely to have had disrupted or low quality K-12 education
- Less likely to have high quality exam prep experiences or advising experiences in college

# Fairness was front and center in designing and developing the new exam

Type of Fairness	Definition	Influence on New MCAT Exam
<b>Societal Fairness</b>	Aspiring physicians from different groups have equity in access to preparation materials and opportunities to prepare for the exam.	Blueprints, test preparation resources
<b>Procedural Fairness</b>	Admissions officers and their committees have ample information and resources to make appropriate and balanced use of MCAT scores in admissions.	New score scales, score reports, and resources for admissions officers
<b>Exam Fairness</b>	MCAT scores have the same meaning and predict student performance equally well for examinees from different backgrounds.	Item development/review, test form development

# Overview of the MCAT Validity Research Program

# 21 medical schools and 2 pre-health advisors are working together to evaluate the new exam



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**UCSF**  
School of Medicine

 **UNIFORMED SERVICES UNIVERSITY**  
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OF ARIZONA

 **THE OHIO STATE UNIVERSITY**  
COLLEGE OF MEDICINE



**MEMORIAL**  
UNIVERSITY

 **MEHARRY**  
MEDICAL COLLEGE



**UIC** COLLEGE OF  
MEDICINE

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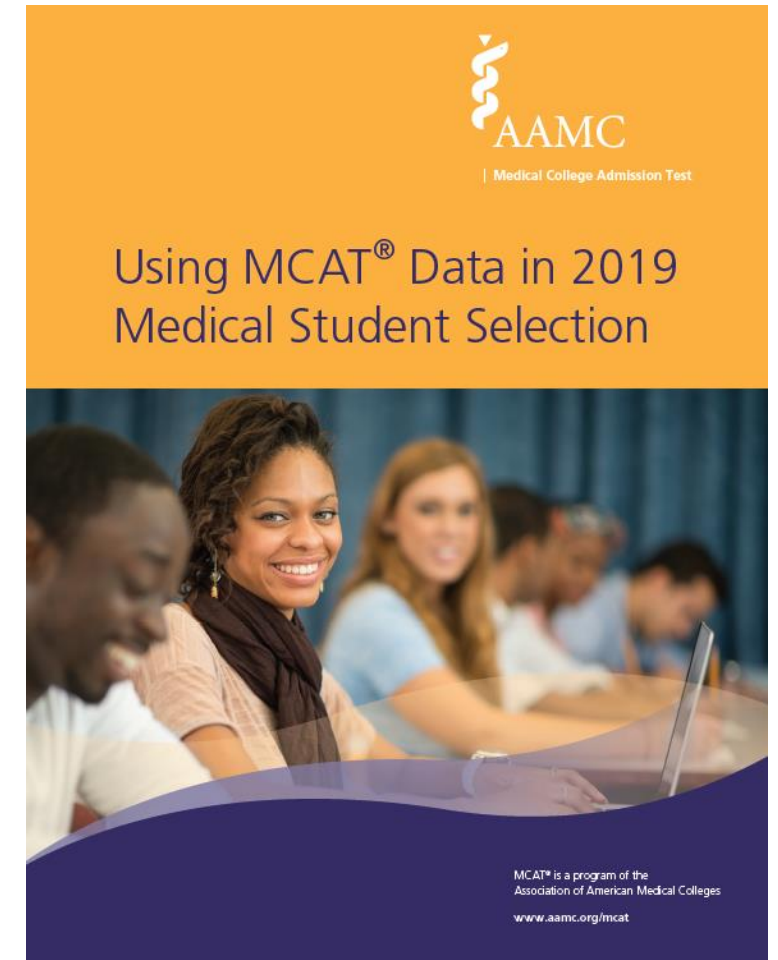


# The MCAT validity research program is complex

- ❑ Multiple research questions in three broad areas
- ❑ Qualitative and quantitative data from
  - Examinees
  - Applicants
  - Medical students
  - Medical schools
- ❑ Multiple methods and data collection designs (longitudinal, cross sectional)
- ❑ The validity study will last about nine years (2014 to 2023)

# The MCAT validity research addresses multiple goals

- ❑ Provides evidence about the value of the new MCAT exam in admissions decisions
- ❑ Answers questions about the fairness and consequences of introducing the new MCAT exam for examinees, applicants, and medical students
- ❑ Presents data to admissions officers that they can act on to improve their admissions decisions
- ❑ Uses findings about the needs of aspiring physicians from underrepresented backgrounds to improve test preparation resources and outreach



# The MCAT validity research agenda includes three broad areas



**Predicting  
Medical Student  
Performance**



**Admissions  
Decision Making**



**Academic  
Preparation,  
Diversity, and  
Fairness**

# We're testing 3 hypotheses about predicting medical student performance

**Evaluating the predictive validity of the new exam**

Do scores from the new exam correlate with academic performance throughout medical school?

**Examining the predictive validity of the newest test section**

Will scores from the Psychological, Social, and Biological Foundations of Behavior section correlate with performance in medical school courses that call on the behavioral and social sciences better than section scores from the old exam?

**Comparing the predictive validity of the new MCAT exam to other predictors**

Do scores from the new exam add value to the academic information applicants already provide about themselves through applications and transcripts?

# We're testing 2 hypotheses about admissions decision making

## Acceptance of a wide range scores

Will medical schools increase the percentage of applicants with total scores in the middle of the MCAT score scale who are invited to interview and receive acceptance offers?

## Use of section scores

Will admissions committees use information about applicants' strengths and weaknesses from the MCAT score reports to identify applicants who best fit their academic missions and goals?

# We're testing 9 hypotheses about academic preparation, diversity, and fairness, for example:

## Change in breadth of academic preparation

Will more individuals learn about psychology, sociology, and biochemistry in preparation for the MCAT exam?

What resources, information, and outreach will provide equity in access for students from sociodemographic groups underrepresented in medicine?

## Diversity of aspiring physicians

Will the diversity of examinees, applicants, and medical students who took the new exam change?

## Fairness in score meaning

Will scores from the new exam predict academic performance equally well for medical students from different racial, ethnic, or disadvantaged backgrounds?

# This presentation focuses on three questions



How well did scores from the new MCAT exam predict students' pre-clerkship and USMLE Step 1 performance?



How did admissions officers work with new MCAT scores in 2017-2018 admissions decisions?

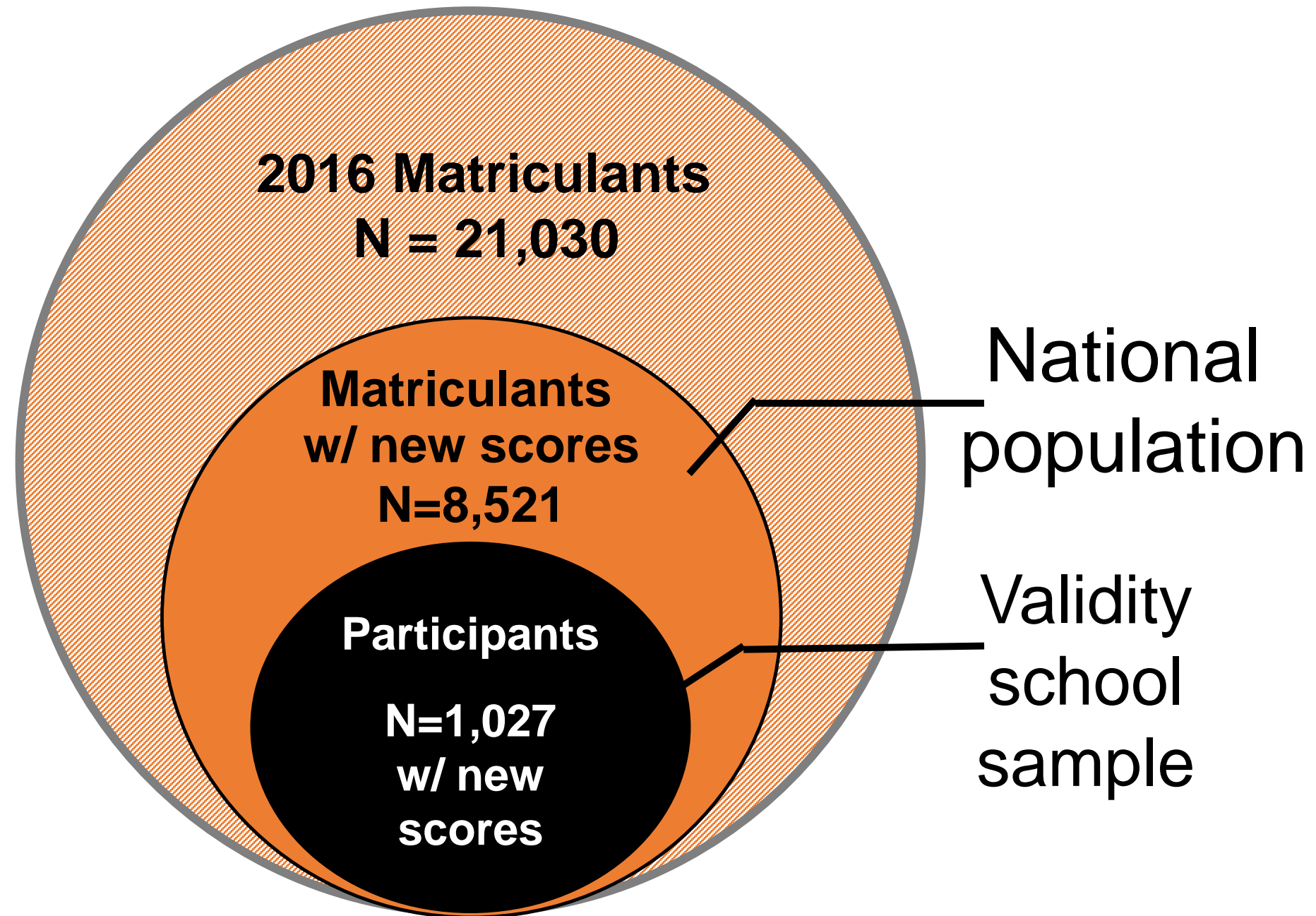


What can we learn about preparation resources needed by examinees from underrepresented backgrounds?

**How well did scores from the new MCAT exam predict students' pre-clerkship and USMLE Step 1 performance?**



# Findings presented today come from the 2016 entrants with new scores



## We are presenting validity findings for four pre-clerkship outcomes

<b>Performance Outcome</b>	<b>Type of Outcome</b>	<b>Source of Outcome Data</b>
Progression to Clerkship On Time	Pass/Fail	National
Passing the Step 1 Exam on the 1 <sup>st</sup> Attempt	Pass/Fail	National
Summative Performance Across Pre-Clerkship Courses	Continuous	Validity Schools
Step 1 Scores from the 1 <sup>st</sup> Attempt	Continuous	National

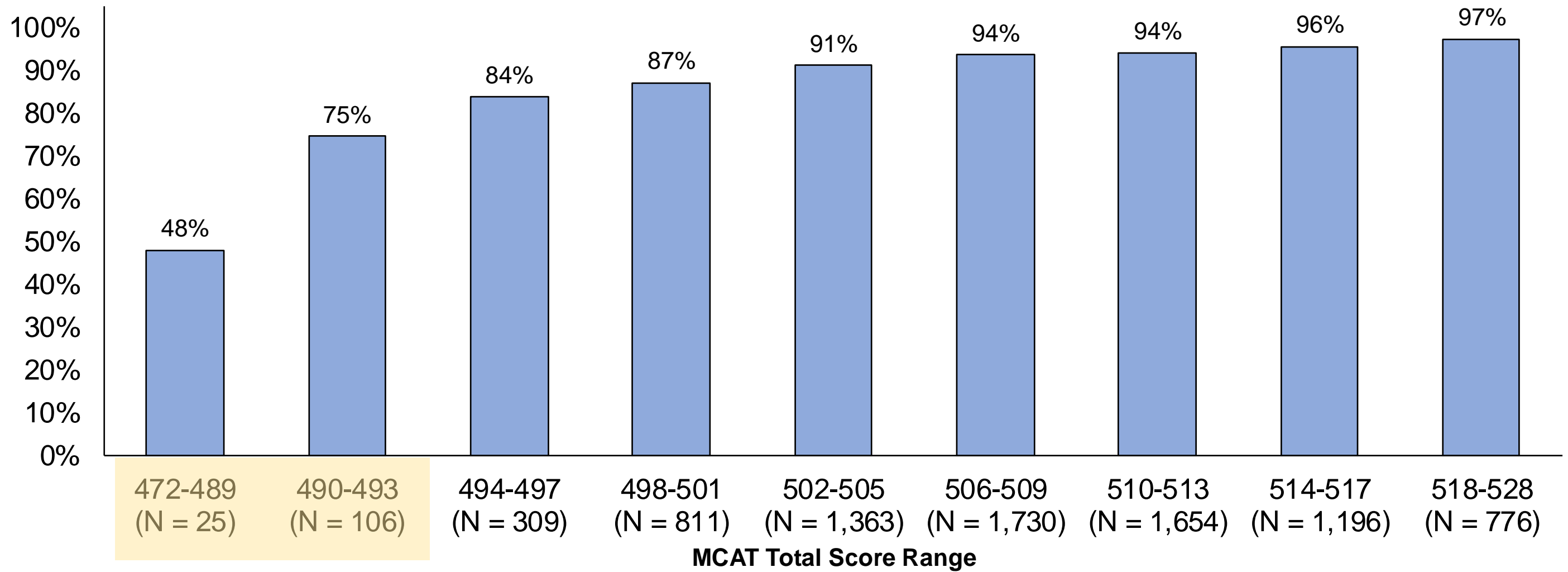
**How Well Do MCAT scores  
Predict Performance on the Pass/Fail Outcomes:**

**Progression to Clerkship on Time**

**Passing the Step 1 Exam on the First Attempt**

# Nationally, 2016 entrants with a wide range of scores progressed to clerkships on time

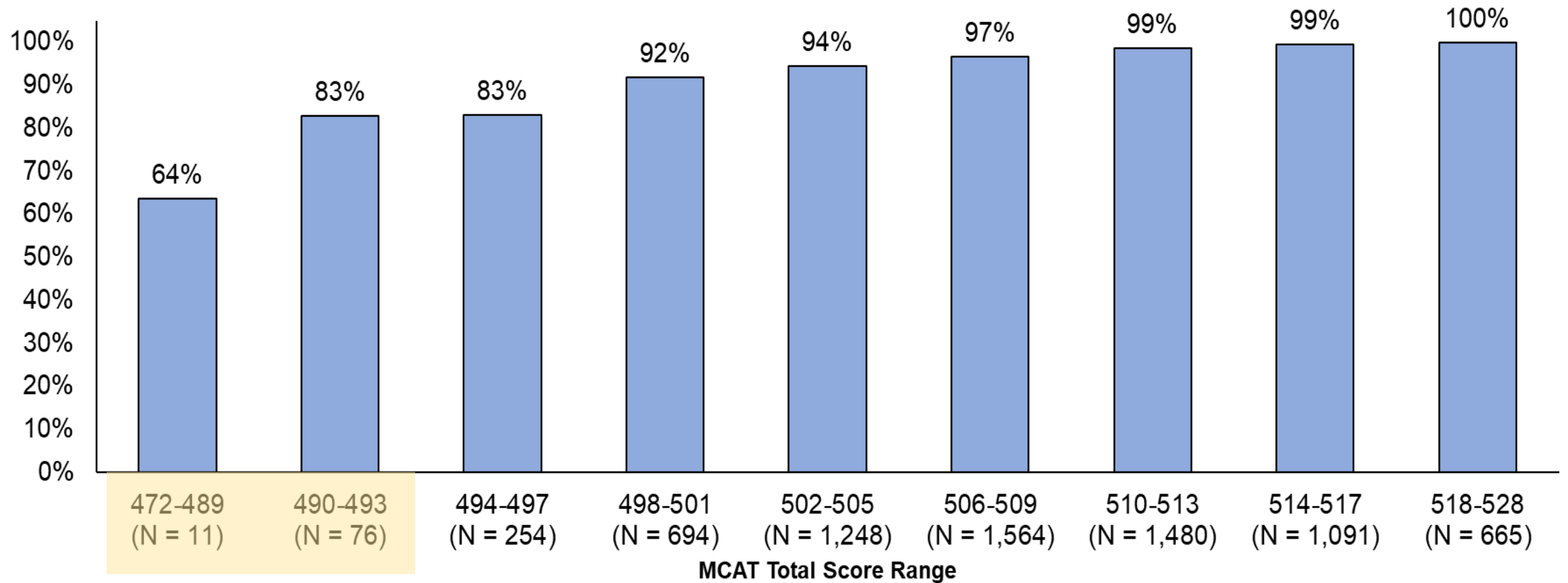
**% of 2016 Entering Medical Students Who Progressed to Clerkship on Time**



Note: The number of students with scores below 494 is too small to interpret meaningful differences in their progression rate compared with those who scored at or above 494.

# Nationally, 2016 entrants with a wide range of scores passed the Step 1 exam on the first attempt

**% of 2016 Entering Medical Students Who Passed USMLE Step 1 on the First Attempt**



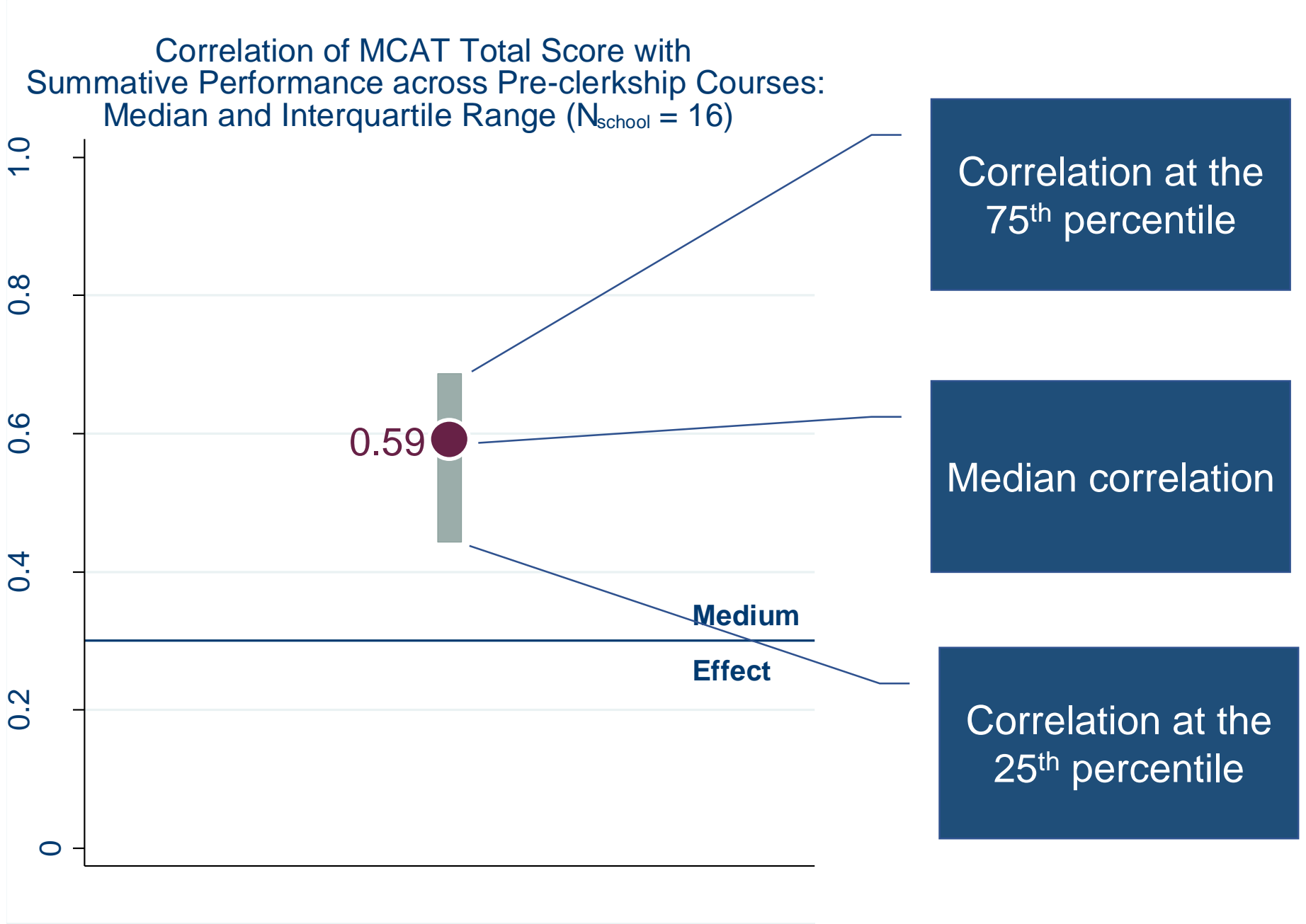
Note: The number of students with scores below 494 is too small to interpret meaningful differences in their progression rate compared with those who scored at or above 494.

**How Well Do MCAT Scores  
Predict Performance on the Continuous Outcomes:**

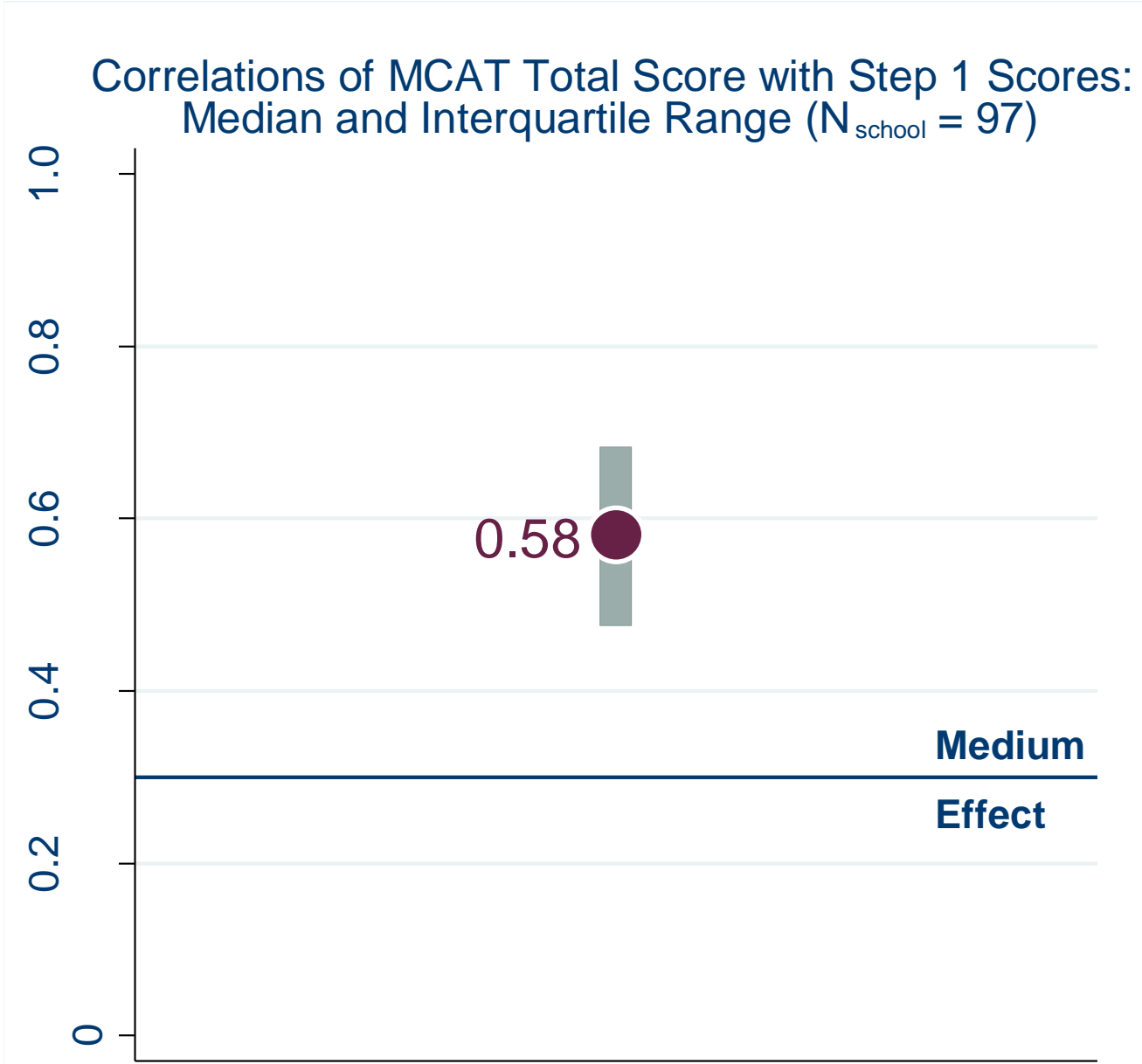
**Summative Performance Across Pre-Clerkship  
Courses**

**Scores from the Step 1 Exam (First Attempt)**

# At validity schools, MCAT total scores show a medium to large correlation with 2016 entrants' performance across pre-clerkship courses



# At MD-granting medical schools, MCAT total scores also show a medium to large correlation with 2016 entrants' Step 1 scores



Note: Schools that do not have 30 or more students' Step 1 scores were excluded from the analysis.



# These validities compare well to those for other admissions tests

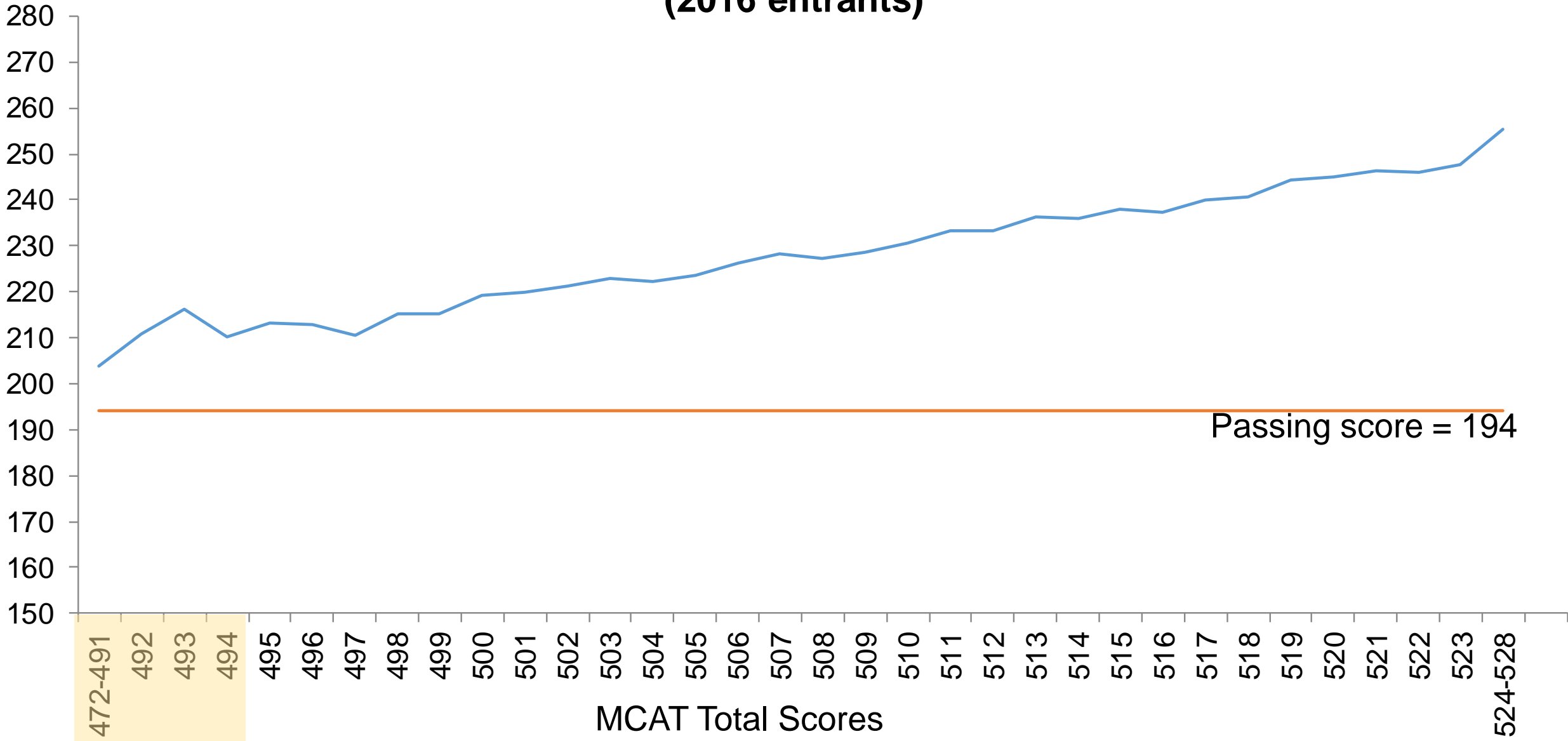
Author (Year)	Exam	Type of Exam Score	Type of Outcome	Median Validity Coefficient	Unit of Analysis
AAMC (2018)	New MCAT	Total score	Performance across pre-clerkship courses	.59	School (N <sub>school</sub> =16)
AAMC (2018)	Old MCAT	Total score	Performance across pre-clerkship courses	.54	School (N <sub>school</sub> =17)
Talento-Miller & Rudner (2005)	GMAT	Total score	Mid-program grades	.47	Study (N <sub>study</sub> = 272)

## References:

1. Talento-Miller, E. & Rudner, L. M. (2005). GMAT validity study summary report for 1997 to 2004. Retrieved from [https://www.gmac.com/-/media/files/gmac/research/validity-and-testing/rr0506\\_vsssummaryreport.pdf](https://www.gmac.com/-/media/files/gmac/research/validity-and-testing/rr0506_vsssummaryreport.pdf)

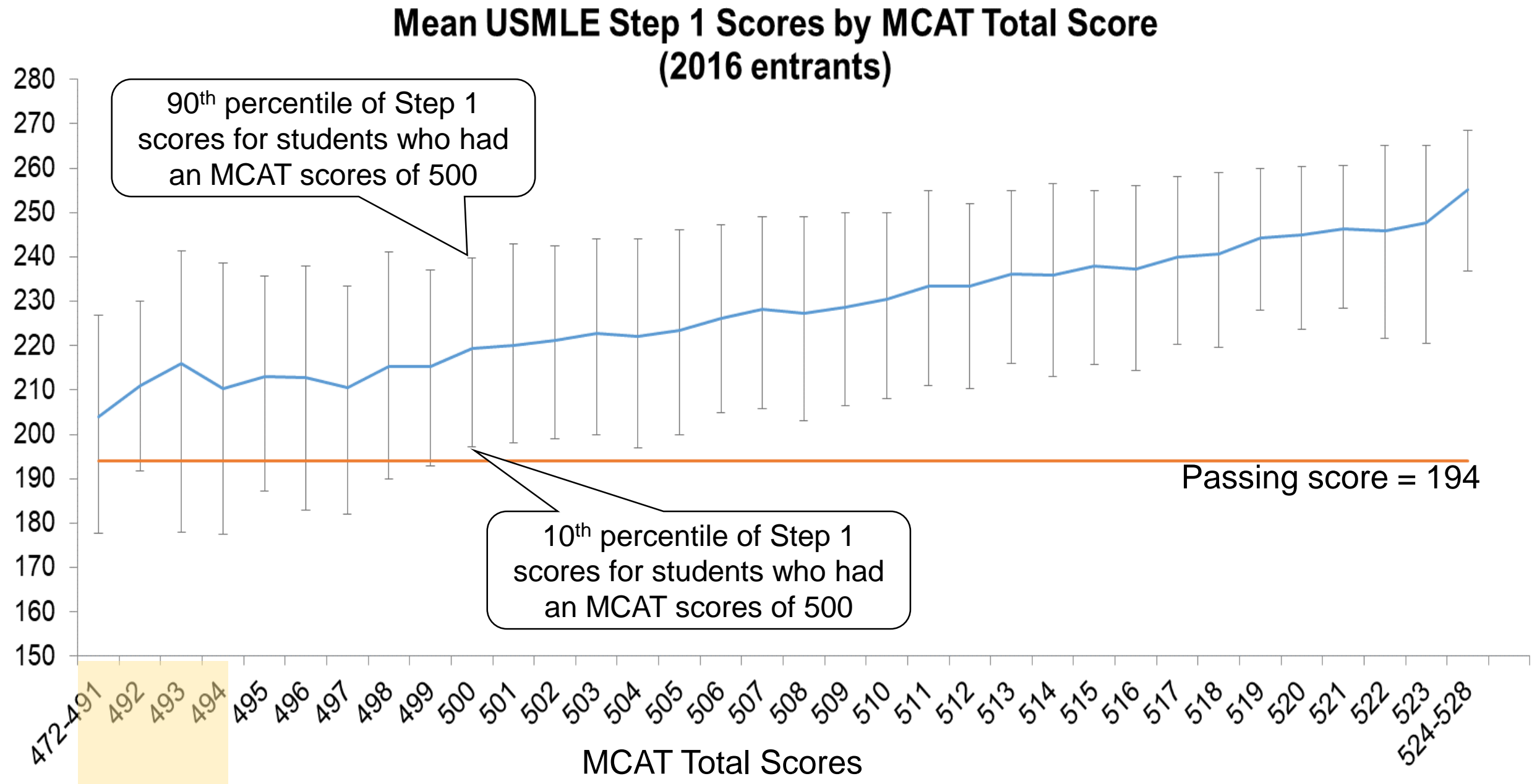
# Nationally and on average, 2016 entrants with higher MCAT scores obtained higher Step 1 scores

## Mean USMLE Step 1 Scores by MCAT Total Score (2016 entrants)



Note: The number of students with scores below 494 is too small to interpret meaningful differences in their mean Step 1 scores compared with those who scored at or above 494.

# At every MCAT total score, some students performed better than expected, and others performed less well



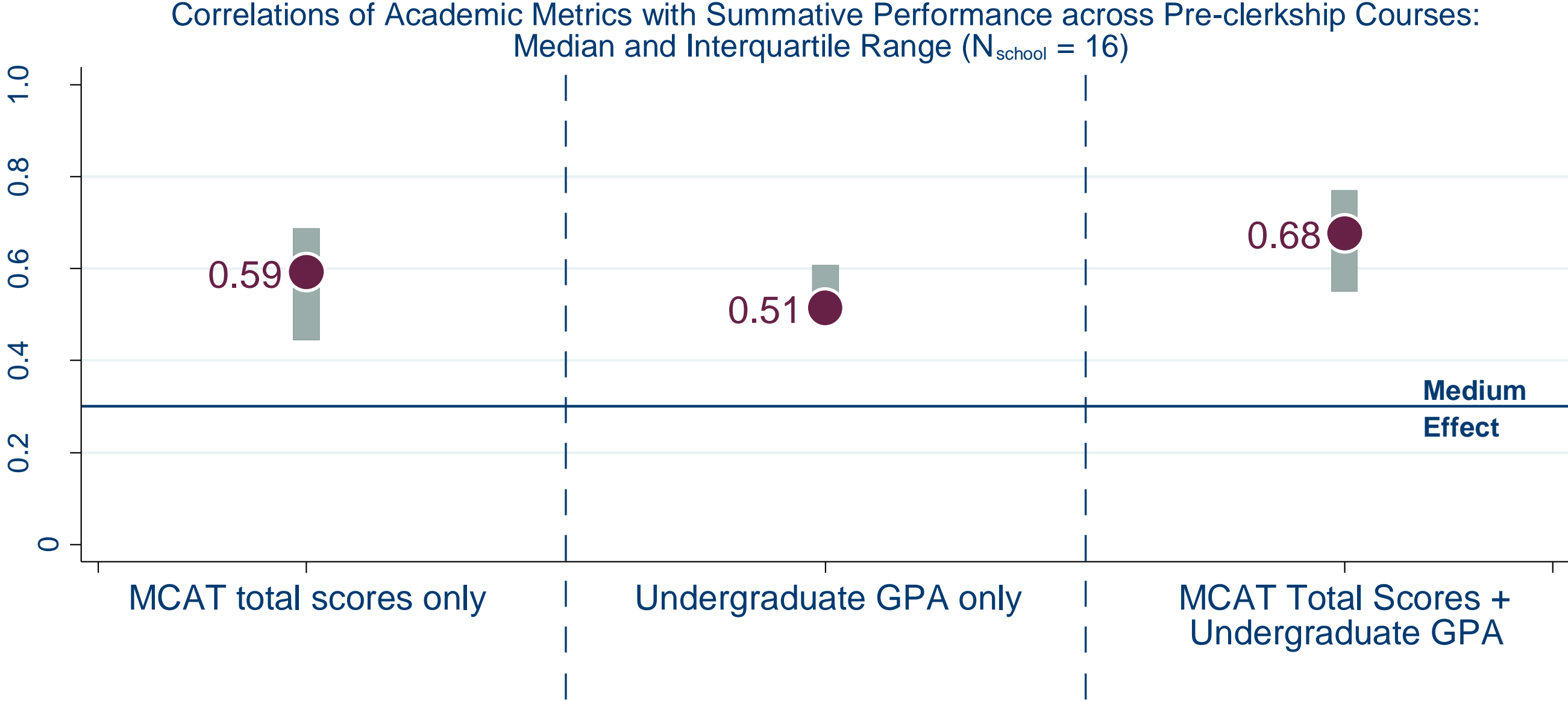
Note: The number of students with scores below 494 is too small to interpret meaningful differences in their mean Step 1 scores compared with those who scored at or above 494.

# MCAT scores provide comparable prediction for students from different sociodemographic backgrounds

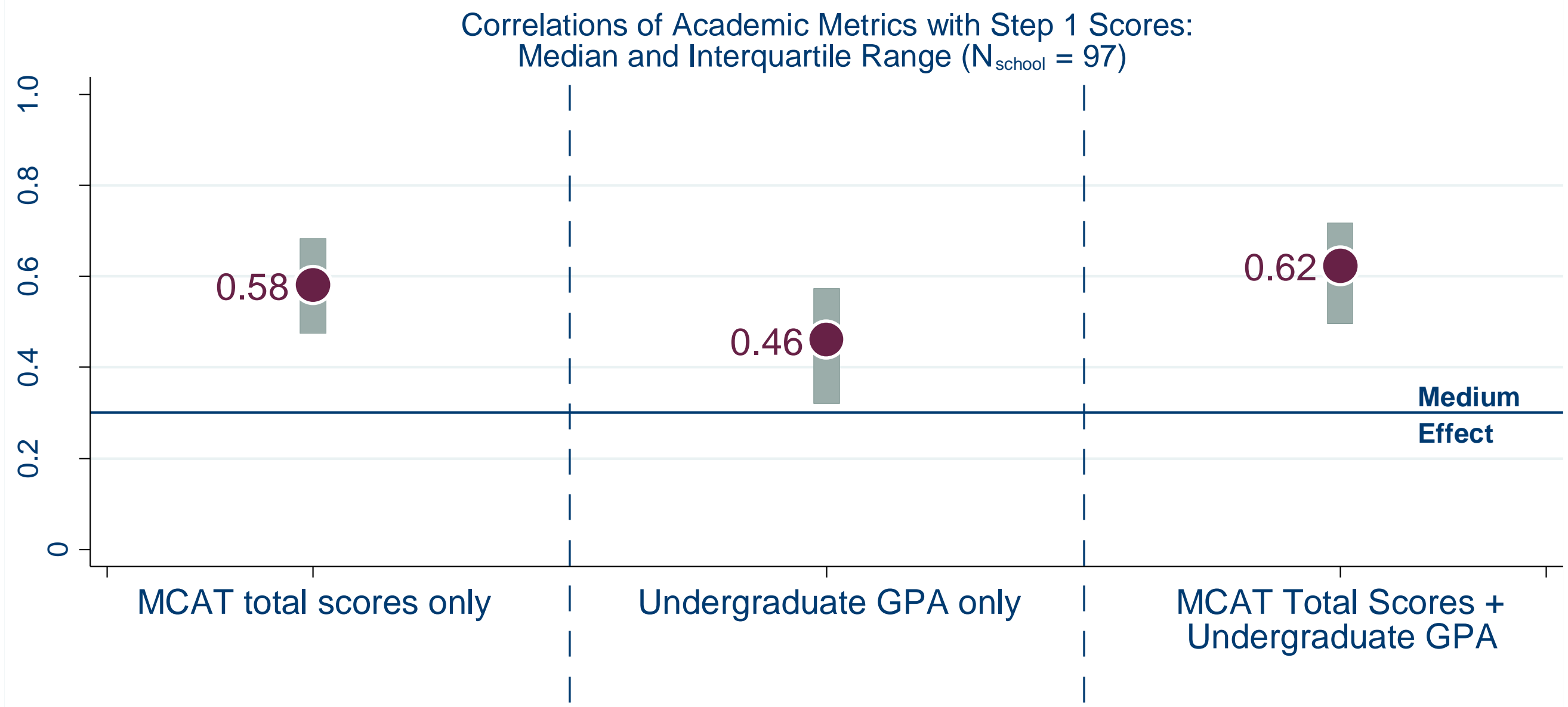
- ❑ Research studied these early relationships for students grouped by:
  - Race/ethnicity
  - Socioeconomic status
  - Gender
- ❑ So far, MCAT scores neither over- nor under-predict the performance of students from these groups based on two types of performance outcomes:
  - National outcome: Progression to clerkship on time
  - Validity school outcome: Performance across pre-clerkship courses

**Together MCAT scores and GPAs provide better information than either alone**

# At the validity schools, MCAT scores and UGPAs predict 2016 entrants' performance across pre-clerkship courses. Combined, they predict better than either one alone



# At MD-granting medical schools, MCAT scores and UGPAs predict 2016 entrants' Step 1 scores. Combined, they predict better than either one alone



Note: Schools that do not have 30 or more students' Step 1 scores were excluded from the analysis.

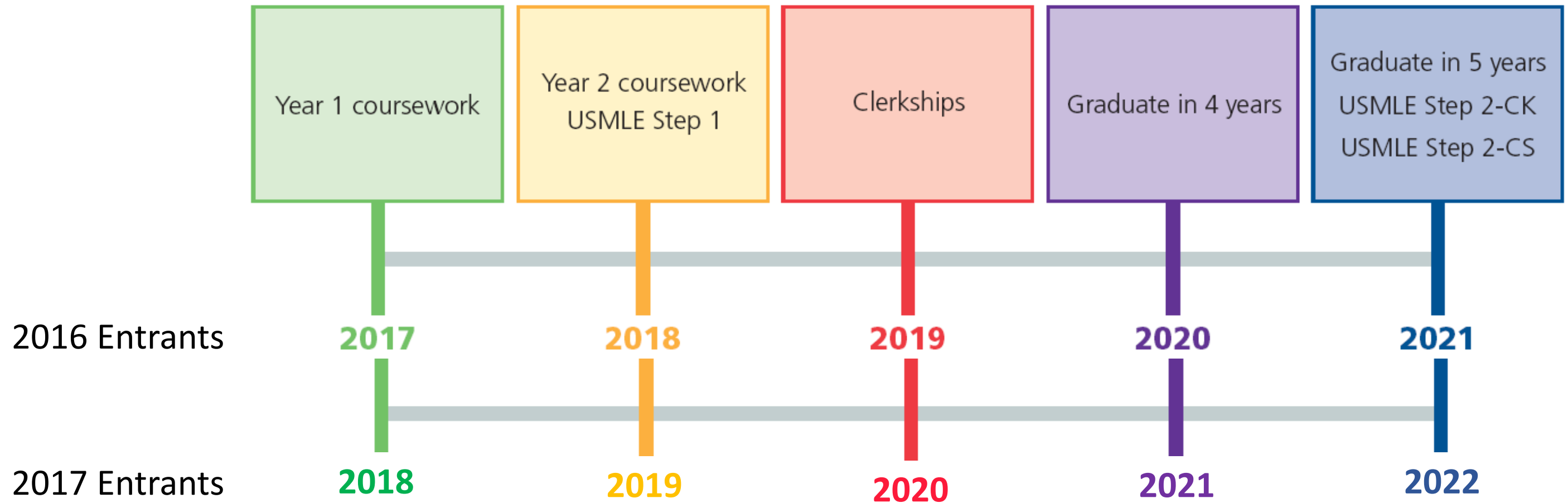
# What we have learned so far

- ❑ Students with a wide range of MCAT scores progressed to their clerkships and passed the Step 1 exam at high rates.
  - You identified students with the right mix of experiences, attributes, and academic preparation at these score ranges capable of succeeding at your schools
- ❑ MCAT scores do a good job of predicting pre-clerkship and Step 1 performance.
- ❑ MCAT scores are only one signal of student's preparation for medical school.
  - At every MCAT total score, some students do better than expected, some do less well than expected
- ❑ MCAT scores show comparable prediction for medical students from different sociodemographic backgrounds.
- ❑ MCAT scores and UGPAs predict students' pre-clerkship and Step 1 performance well. Combined, they predict better than either one alone.



# Predictive validity findings will be reported annually through 2022 for medical students who took the new exam

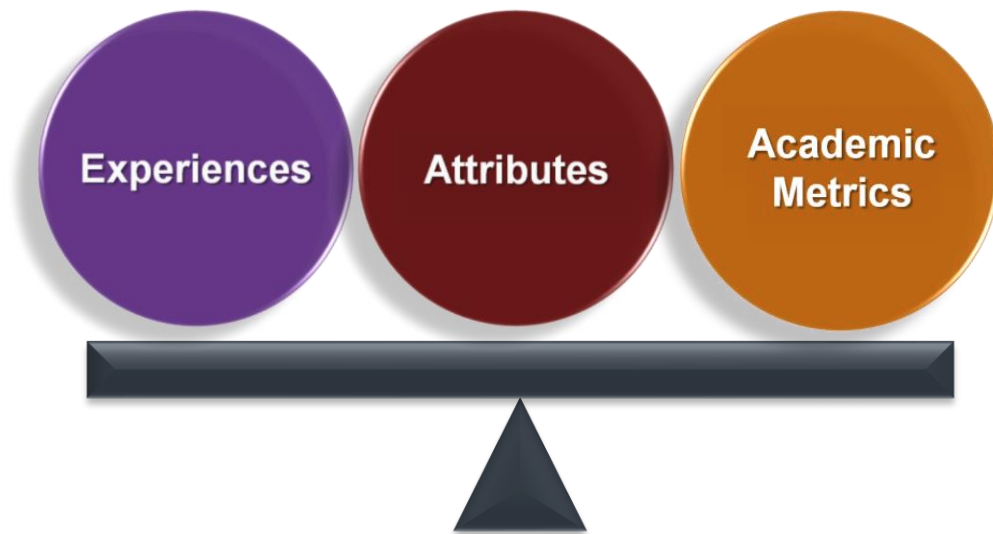
We have a lot more to learn about how students do in their third clerkships and on their future USMLE exams, and their graduation from undergraduate medical school



**What do we know about the applicants to the classes we admitted in 2017 and 2018?**



# We give individualized consideration to each applicant



- ❑ How they might contribute to teaching and learning at our schools and to the practice of medicine
- ❑ How they help balance the class across the criteria needed by our schools to achieve desired outcomes

# Admissions committees used holistic review practices to put MCAT scores in context in 2017-2018 selection

Percentage and Number of 2017-2018 Applicants Accepted into at Least One Medical School, by New MCAT Total Score and Undergraduate GPA Range

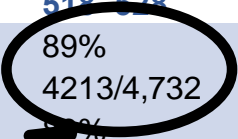
GPA Total	MCAT Total										All
	472-485	486-489	490-493	494-497	498-501	502-505	506-509	510-513	514-517	518-528	
<b>3.80-4.00</b>	3%	3%	8%	19%	31%	51%	64%	76%	83%	89%	66%
	3/107	7/217	40/482	204/1,061	668/2,141	1782/3,500	3207/5,009	4,156/5,492	3971/4,772	4213/4,732	18,251/27,524
<b>3.60-3.79</b>	0%	1%	5%	13%	25%	36%	51%	66%	75%	83%	48%
	0/250	6/416	40/884	221/1,692	707/2,869	1,520/4,177	2,538/4,929	3,014/4,549	2,209/2,944	1,478/1,774	11,733/24,484
<b>3.40-3.59</b>	1%	1%	4%	10%	19%	28%	38%	52%	63%	71%	32%
	5/382	7/577	41/1,108	190/1,865	510/2,691	939/3,366	1,359/3,554	1,475/2,835	979/1,559	565/791	6,070/18,728
<b>3.20-3.39</b>	<1%	<1%	3%	8%	16%	22%	30%	40%	50%	58%	22%
	1/455	2/559	26/1,001	118/1,483	290/1,864	471/2,138	584/1,919	556/1,383	347/695	158/273	2,553/11,770
<b>3.00-3.19</b>	<1%	1%	2%	6%	13%	22%	26%	35%	42%	46%	16%
	1/499	5/515	13/710	62/959	136/1,070	223/1,034	237/908	228/650	103/245	57/123	1,065/6,713
<b>2.80-2.99</b>	1%	1%	2%	5%	7%	16%	21%	25%	28%	39%	9%
	3/459	2/367	9/439	23/481	37/504	75/462	76/361	48/190	31/110	14/36	318/3,409
<b>2.60-2.79</b>	0%	1%	<1%	4%	9%	18%	14%	16%	43%	--	7%
	0/306	2/212	1/278	10/254	22/257	31/175	17/124	11/69	18/42		117/1,726
<b>2.40-2.59</b>	0%	1%	2%	4%	3%	17%	26%	27%	30%	--	5%
	0/229	1/120	2/122	5/124	3/87	11/63	10/39	8/30	3/10		45/830
<b>2.20-2.39</b>	0%	0%	0%	3%	12%	23%	10%	14%	--	--	5%
	0/126	0/67	0/55	1/37	4/34	6/26	2/21	2/14			19/387
<b>2.00-2.19</b>	0%	0%	5%	0%	--	9%	--	--			1%
	0/76	0/22	1/20	0/18		1/11					2/159
<b>less than 2.00</b>	0%	--	10%	--	--	--	--	--			1%
	0/38		1/10								1/67
<b>All</b>	<1%	1%	3%	10%	21%	34%	48%	62%	74%	84%	42%
	13/2,927	32/3,081	174/5,109	834/7,981	2,377/11,522	5,059/14,953	8,030/16,868	9,498/15,217	7,663/10,381	6,494/7,758	40,174/95,797

# Some 2017 and 2018 applicants w/ high UGPAs and MCATs weren't accepted

Percentage and Number of 2017-2018 Applicants Accepted into at Least One Medical School, by New MCAT Total Score and Undergraduate GPA Range

GPA Total	MCAT Total										All
	472-485	486-489	490-493	494-497	498-501	502-505	506-509	510-513	514-517	518-528	
<b>3.80-4.00</b>	3%	3%	8%	19%	31%	51%	64%	76%	83%	89%	66%
	3/107	7/217	40/482	204/1,061	668/2,141	1782/3,500	3207/5,009	4,156/5,492	3971/4,772	4213/4,732	18,251/27,524
<b>3.60-3.79</b>	0%	1%	5%	13%	25%	36%	51%	66%	75%	80%	48%
	0/250	6/416	40/884	221/1,692	707/2,869	1,520/4,177	2,538/4,929	3,014/4,549	2,209/2,944	1,478/1,774	11,733/24,484
<b>3.40-3.59</b>	1%	1%	4%	10%	19%	28%	38%	52%	63%	71%	32%
	5/382	7/577	41/1,108	190/1,865	510/2,691	939/3,366	1,359/3,551	1,979/4,559	1,079/1,559	565/791	6,070/18,728
<b>3.20-3.39</b>	<1%	<1%	3%	8%	16%	22%	30%	40%	50%	58%	22%
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<b>3.00-3.19</b>	<1%	1%	2%	6%	13%	22%	29%	37%	46%	46%	16%
	1/499	5/515	13/710	62/959	136/1,070	223/1,034	271/1,111	371/1,311	257/715	57/123	1,065/6,713
<b>2.80-2.99</b>	1%	1%	2%	5%	7%	16%	22%	30%	39%	39%	9%
	3/459	2/367	9/439	23/481	37/504	75/462	103/462	141/462	141/367	14/36	318/3,409
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	0/306	2/212	1/278	10/254	22/257	31/175	41/175	51/175	61/175	--	117/1,726
<b>2.40-2.59</b>	0%	1%	2%	4%	3%	17%	26%	34%	43%	--	5%
	0/229	1/120	2/122	5/124	3/87	11/63	10/30	10/30	10/30	--	45/830
<b>2.20-2.39</b>	0%	0%	0%	3%	12%	23%	10%	10%	10%	--	5%
	0/126	0/67	0/55	1/37	4/34	6/26	2/21	2/21	2/21	--	19/387
<b>2.00-2.19</b>	0%	0%	5%	0%	--	9%	--	--	--	--	1%
	0/76	0/22	1/20	0/18	--	1/11	--	--	--	--	2/159
<b>less than 2.00</b>	0%	--	10%	--	--	--	--	--	--	--	1%
	0/38	--	1/10	--	--	--	--	--	--	--	1/67
<b>All</b>	<1%	1%	3%	10%	21%	34%	48%	62%	74%	84%	42%
	13/2,927	32/3,081	174/5,109	834/7,981	2,377/11,522	5,059/14,953	8,030/16,868	9,498/15,217	7,663/10,381	6,494/7,758	40,174/95,797

**11% of applicants with GPAs at or above 3.8 and MCAT scores at or above 518 were not admitted into any medical schools**



# Other 2017 and 2018 applicants with modest credentials were accepted

Percentage and Number of 2017-2018 Applicants Accepted into at Least One Medical School, by New MCAT Total Score and Undergraduate GPA Range

GPA Total	MCAT Total										All
	472-485	486-489	490-493	494-497	498-501	502-505	506-509	510-513	514-517	518-528	
3.80-4.00	3%	3%	8%	19%	31%	51%	64%	76%	83%	89%	66%
	3/107	7/217	40/482	204/1,061	668/2,141	1782/3,500	3207/5,009	4,156/5,492	3971/4,772	4213/4,732	18,251/27,524
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	0/250	6/416	40/884	221/1,692	707/2,869	1,520/4,177	2,538/4,929	3,014/4,549	2,209/2,944	1,478/1,774	11,733/24,484
3.40-3.59	1%	1%	4%	10%	19%	28%	38%	52%	63%	71%	32%
	5/382	7/577	41/1,108	190/1,865	510/2,691	939/3,366	1,359/3,554	1,475/2,835	979/1,559	565/791	6,070/18,728
3.20-3.39	<1%	<1%	3%	8%	16%	22%	30%	40%	50%	58%	22%
	1/455	2/559	26/1,001	118/1,483	290/1,864	471/2,138	584/1,919	556/1,383	347/695	158/273	2,553/11,770
3.00-3.19	<1%	1%	2%	6%	13%	22%	26%	35%	42%	46%	16%
	1/499	10/499	10/499	62/959	136/1,070	223/1,034	237/908	228/650	103/245	57/123	1,065/6,713
2.80-2.99	1%	1%	1%	5%	7%	16%	21%	25%	28%	39%	9%
	7/499	7/499	7/499	23/481	37/504	75/462	76/361	48/190	31/110	14/36	318/3,409
2.60-2.79	0%	0%	0%	4%	9%	18%	14%	16%	43%	--	7%
	0/254	0/254	0/254	10/254	22/257	31/175	17/124	11/69	18/42	--	117/1,726
2.40-2.59	0%	0%	0%	0%	3%	17%	26%	27%	30%	--	5%
	0/124	0/124	0/124	0/124	3/87	11/63	10/39	8/30	3/10	--	45/830
2.20-2.39	0%	0%	0%	0%	12%	23%	10%	14%	--	--	5%
	0/37	0/37	0/37	1/37	4/34	6/26	2/21	2/14	--	--	19/387
2.00-2.19	0%	0%	0%	0%	--	9%	--	--	--	--	1%
	0/18	0/18	0/18	0/18	--	1/11	--	--	--	--	2/159
less than 2.00	0%	0%	0%	--	--	--	--	--	--	--	1%
	0/38	0/38	0/38	--	--	--	--	--	--	--	1/67
All	<1%	1%	3%	10%	21%	34%	48%	62%	74%	84%	42%
	13/2,927	32/3,081	174/5,109	834/7,981	2,377/11,522	5,059/14,953	8,030/16,868	9,498/15,217	7,663/10,381	6,494/7,758	40,174/95,797

**13% of applicants with GPAs 3.00 - 3.19 and MCAT scores 498-501 were admitted into at least one medical school**

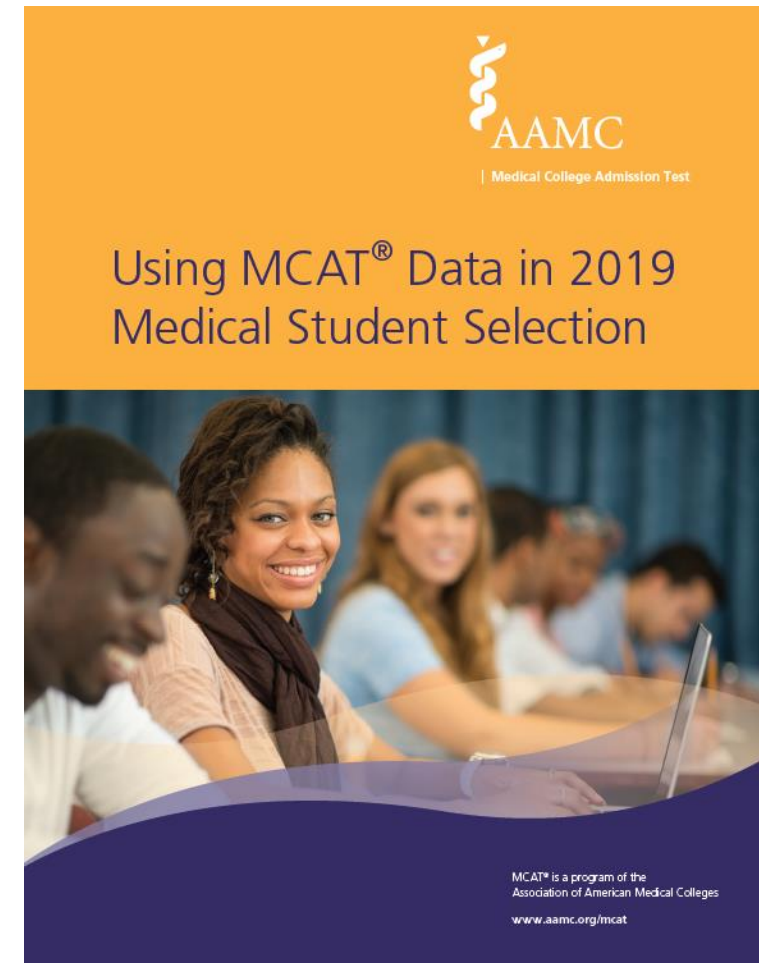
**Is there room to increase diversity?**

**Let's look at the characteristics of applicants with scores in different parts of the MCAT score distribution**

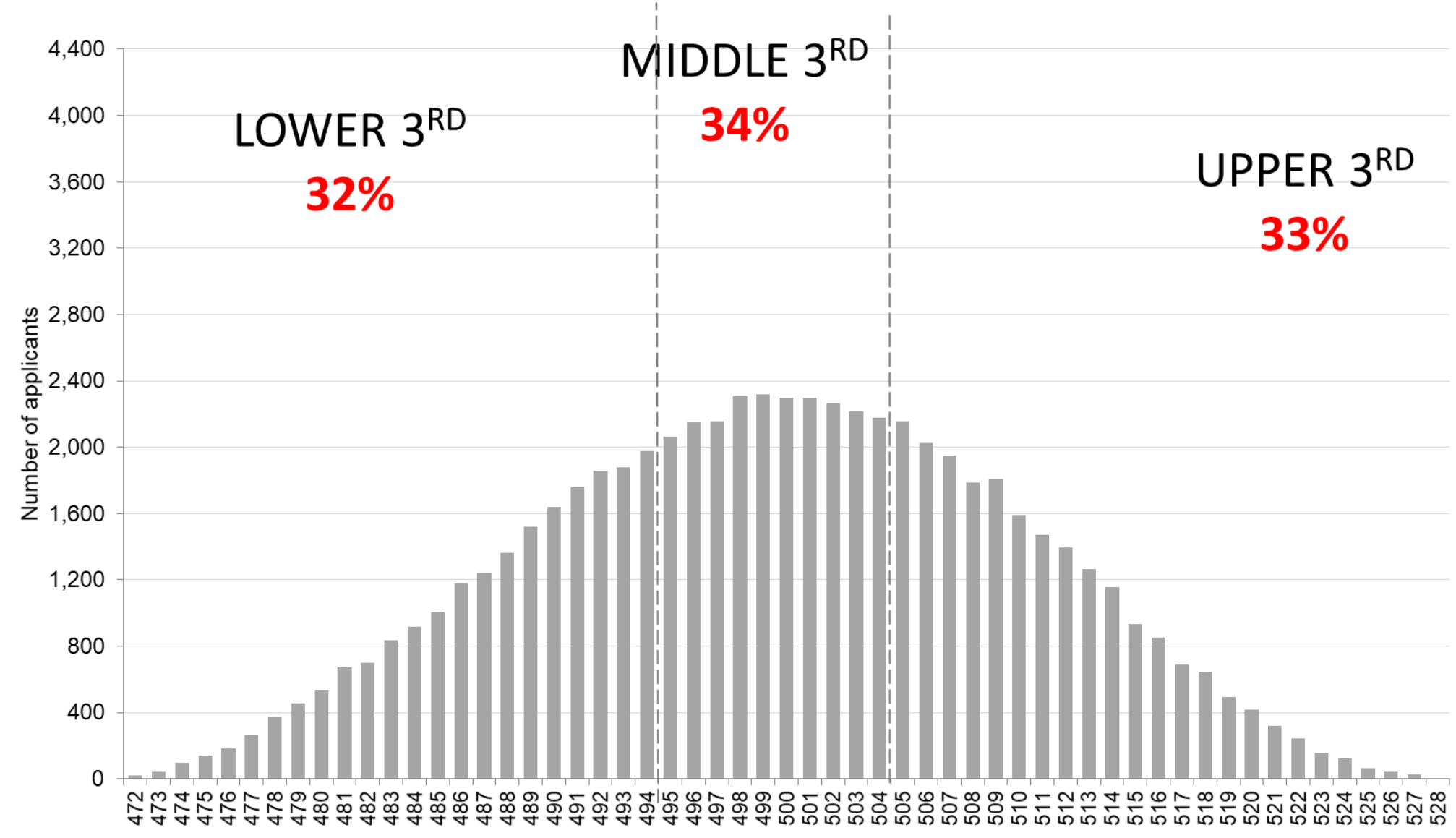


# The new score scales draw attention to the center of the scale

- ❑ Because on the old exam, students who entered medical school with scores in the center of the MCAT score scale succeeded
- ❑ The new scale uses a nice round number to draw attention to applicants who might otherwise be overlooked
- ❑ The new test also includes more questions per section, providing better information about examinees' strengths and weaknesses on the exam
- ❑ The new score reports use confidence bands to describe measurement precision and score profiles to describe strengths and weaknesses



# To help answer this question, we divided the distribution of examinees' scores into three equal parts



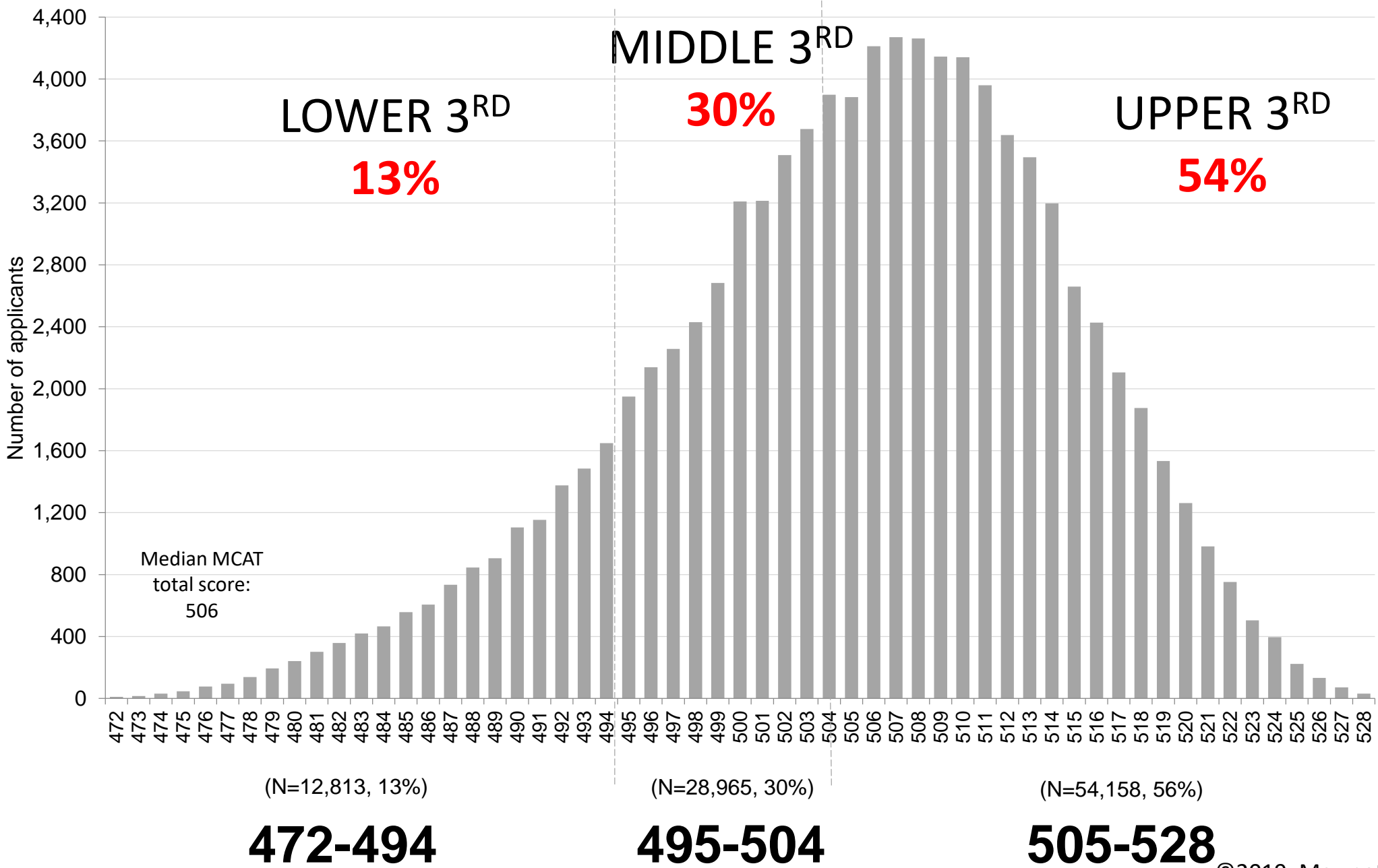
(N=20,664, 32%)                      (N=22,242, 34%)                      (N=21,599, 33%)

**472-494**                                      **495-504**                                      **505-528**

Data from 2015 examinees who took the new exam

# About 30% of the 2017 and 2018 applicants had MCAT scores in the middle third of the score scale

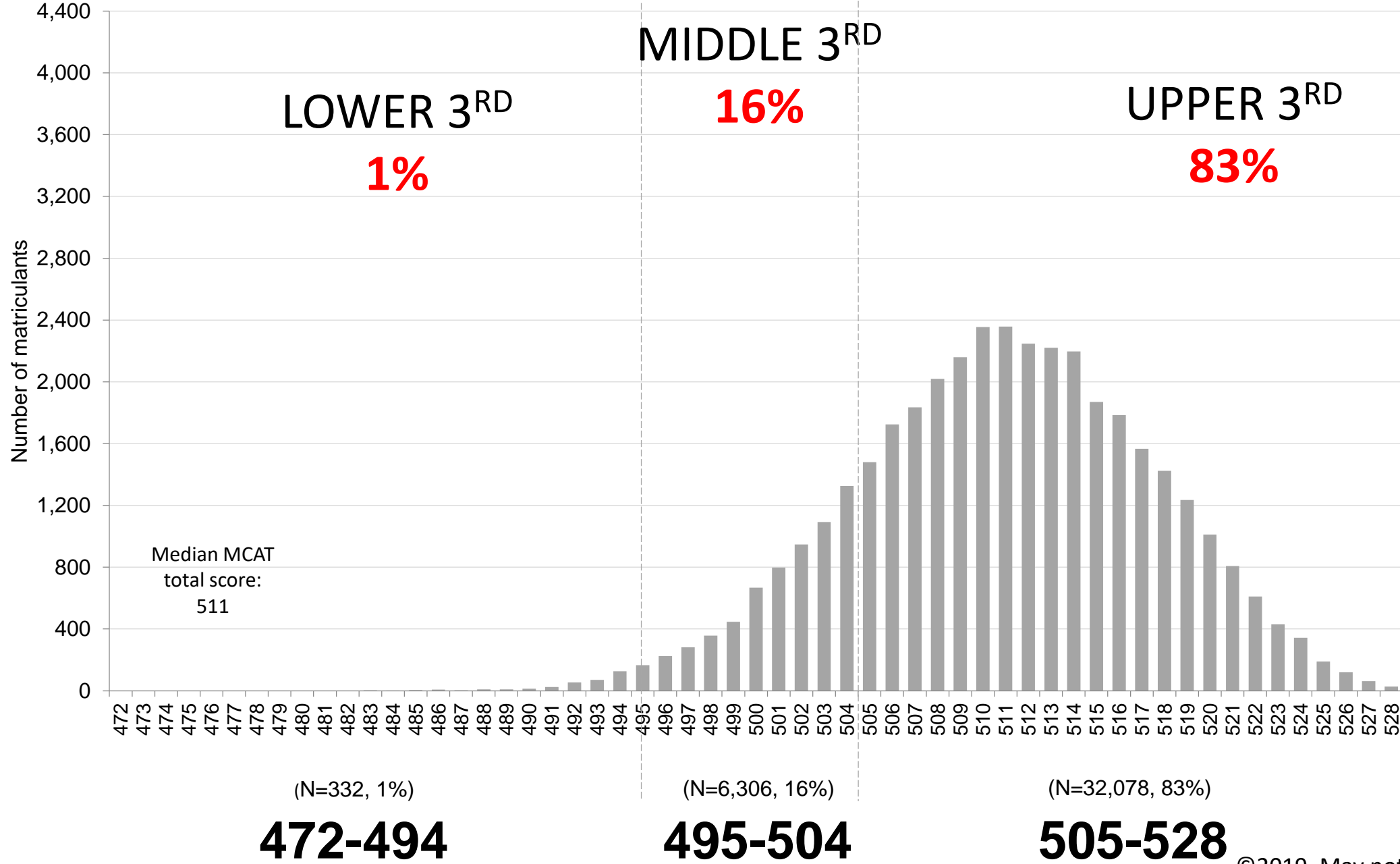
Number of 2017-2018 applicants at all U.S. MD-granting medical schools, by MCAT total score



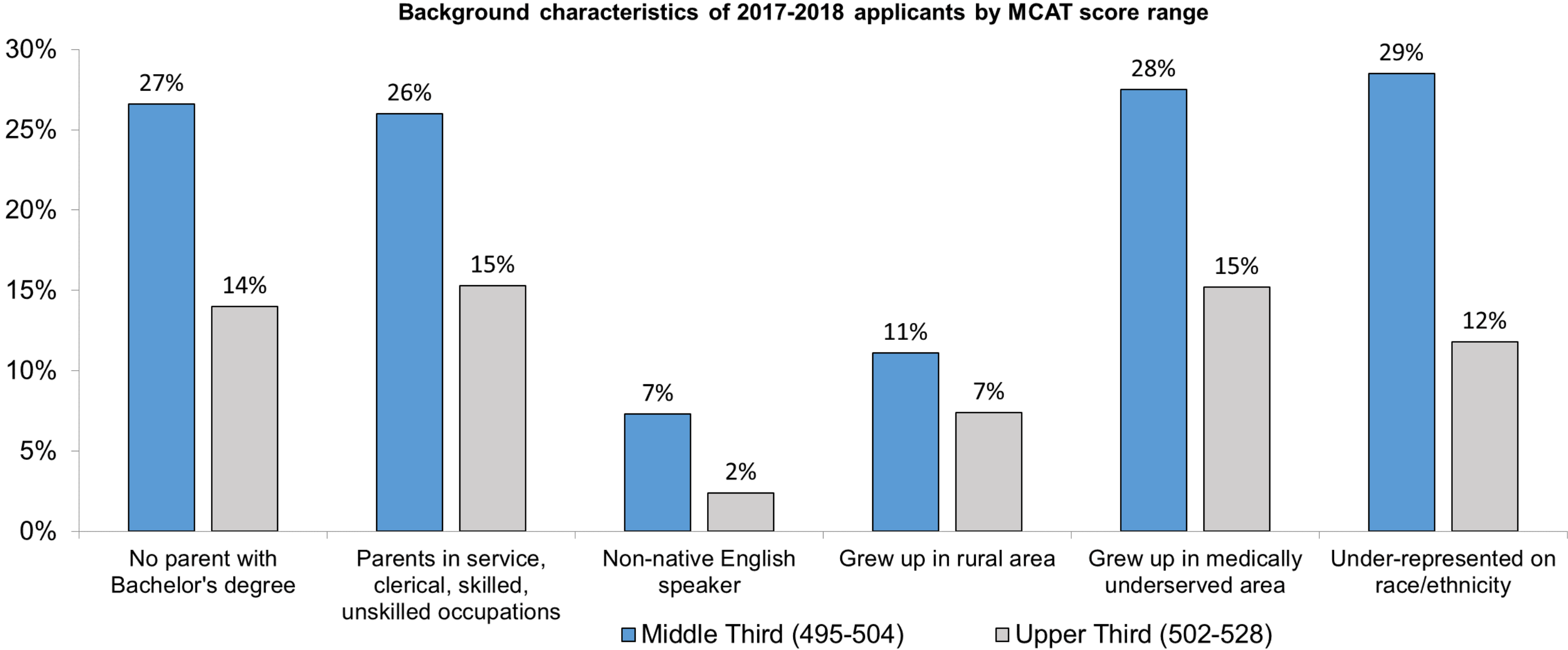
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# About 15% of 2017 and 2018 matriculants had MCAT scores in the middle third of the score scale

Number of 2017-2018 matriculants at all U.S. MD-granting medical schools, by MCAT total score



# Considering applicants with a wider range of MCAT scores provides more flexibility in building diverse classes



**Learning about preparation resources  
needed by examinees  
underrepresented in medicine**

# Group differences in academic achievement are associated with societal inequalities

- ❑ MCAT, LSAT, GMAT, GRE, and other tests of academic achievement show population group differences
  - Undergraduate GPAs of recent medical school applicants show similar group differences
- ❑ MCAT scores show comparable prediction for medical students from different sociodemographic backgrounds
- ❑ Societal inequalities likely contribute to the differences seen across the spectrum of exams and other measures of academic achievement
  - Food insecurity
  - Fewer experienced teachers
  - Less available support from home
  - Fewer role models and mentors

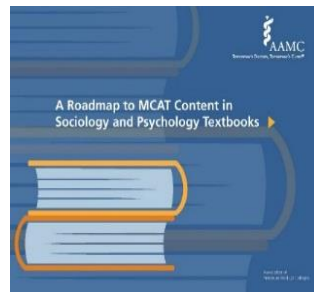
# The new test blueprints were developed with fairness in mind

- ❑ Test concepts widely taught at undergraduate institutions, including minority-serving and under-resourced institutions
- ❑ Test psychology and sociology concepts like discrimination, stereotype threat, and socio-economic inequalities
- ❑ Pay increased attention to population health, studies of diverse cultures, and ethics
- ❑ Balance the percentage of questions devoted to natural sciences concepts with the percentage devoted to behavioral and social sciences concepts and information processing
- ❑ Provide examinees with more working time per question



# Preparation resources were developed with fairness in mind

- ❑ The Khan Academy has over 1,100 free tutorials on exam content
- ❑ Practice materials and resources are available on AAMC's website:
  - *What's on the MCAT Exam?* Interactive Content Outline
  - Roadmaps to MCAT Content in Biochemistry, Psychology, and Sociology Textbooks
  - Guide to Creating a Study Plan
  - *How I Prepared for the MCAT Exam* Testimonials
  - Practice tests and question banks

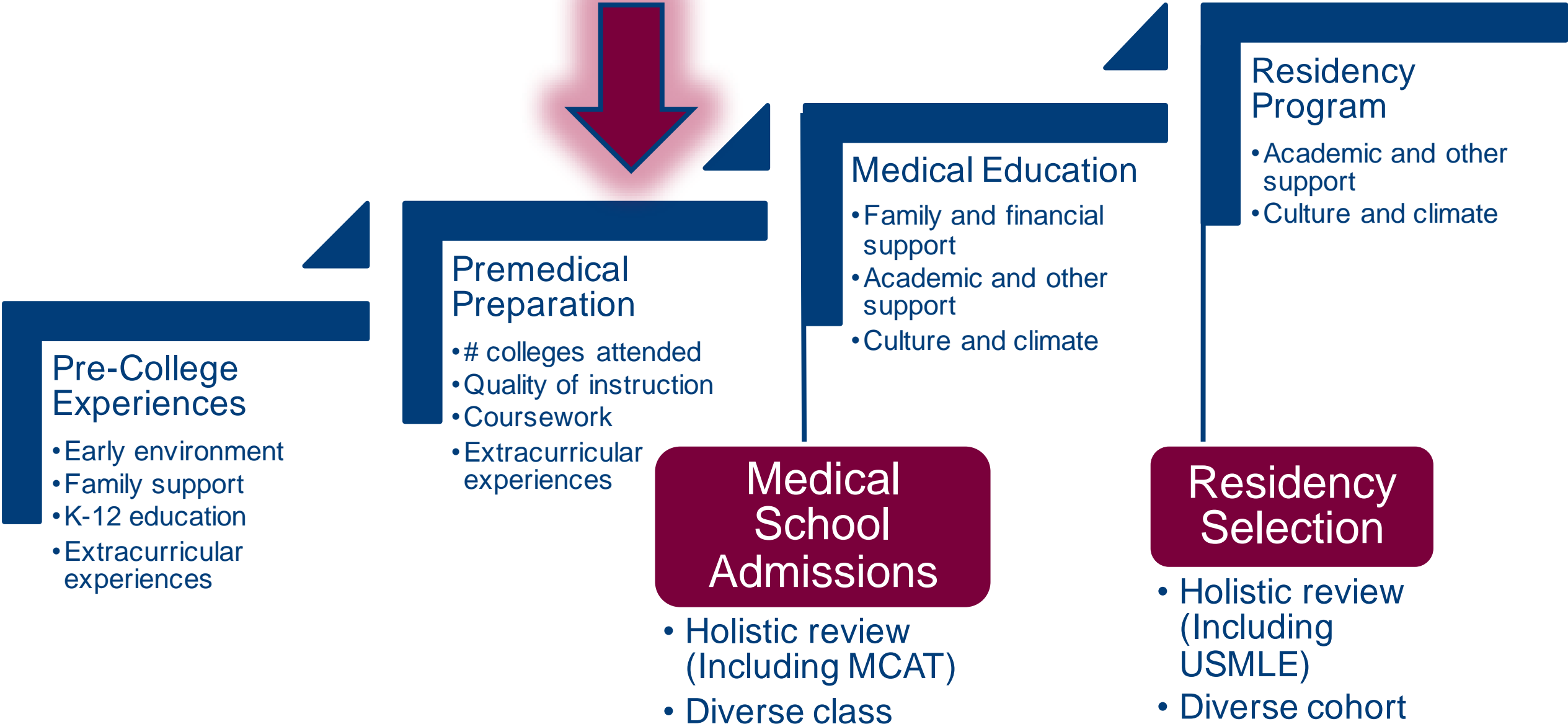


[Students-residents.aamc.org/mcatprep](https://students-residents.aamc.org/mcatprep)

# New outreach strategies targeted underrepresented groups

- ❑ Expand outreach directly to students from sociodemographic groups underrepresented in medicine
- ❑ Expand outreach to students through their advisors, with a particular focus on faculty at under-resourced institutions
- ❑ Distribute a monthly newsletter *Premed Navigator* with important information, resources, and tips
- ❑ Work with pre-health advisors on the MCAT Validity Committee to share findings and promote resources, such as the “Find an Advisor” resource for students at schools with no access to an advisor ([volunteer.advisor@naahp.org](mailto:volunteer.advisor@naahp.org))

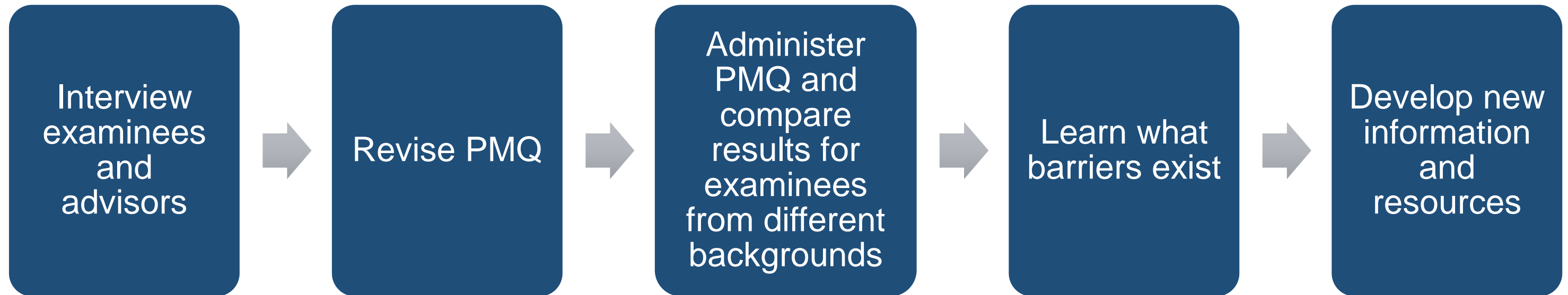
# Ongoing research examines how students prepare for the MCAT exam



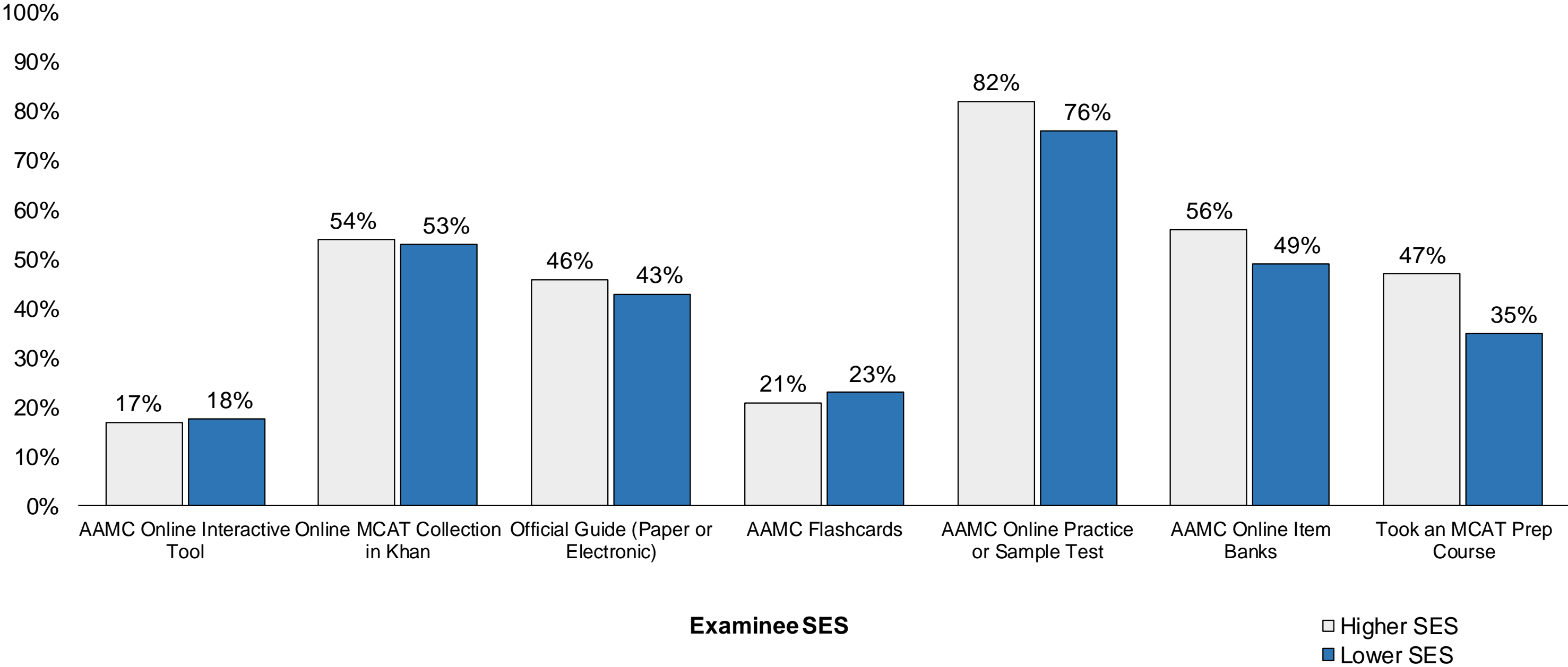
# **We are conducting qualitative and quantitative research to understand students' preparation strategies and barriers**

- Do students from different sociodemographic groups use preparation resources at similar rates?
- What is easy and difficult for examinees when they prepare for the MCAT exam?
- What is easy and difficult about using the AAMC's free and low-cost materials to prepare for the MCAT exam?
- Are these barriers different or greater for those from sociodemographic groups underrepresented in medicine?
- What additional resources and information do examinees and their advisors need?

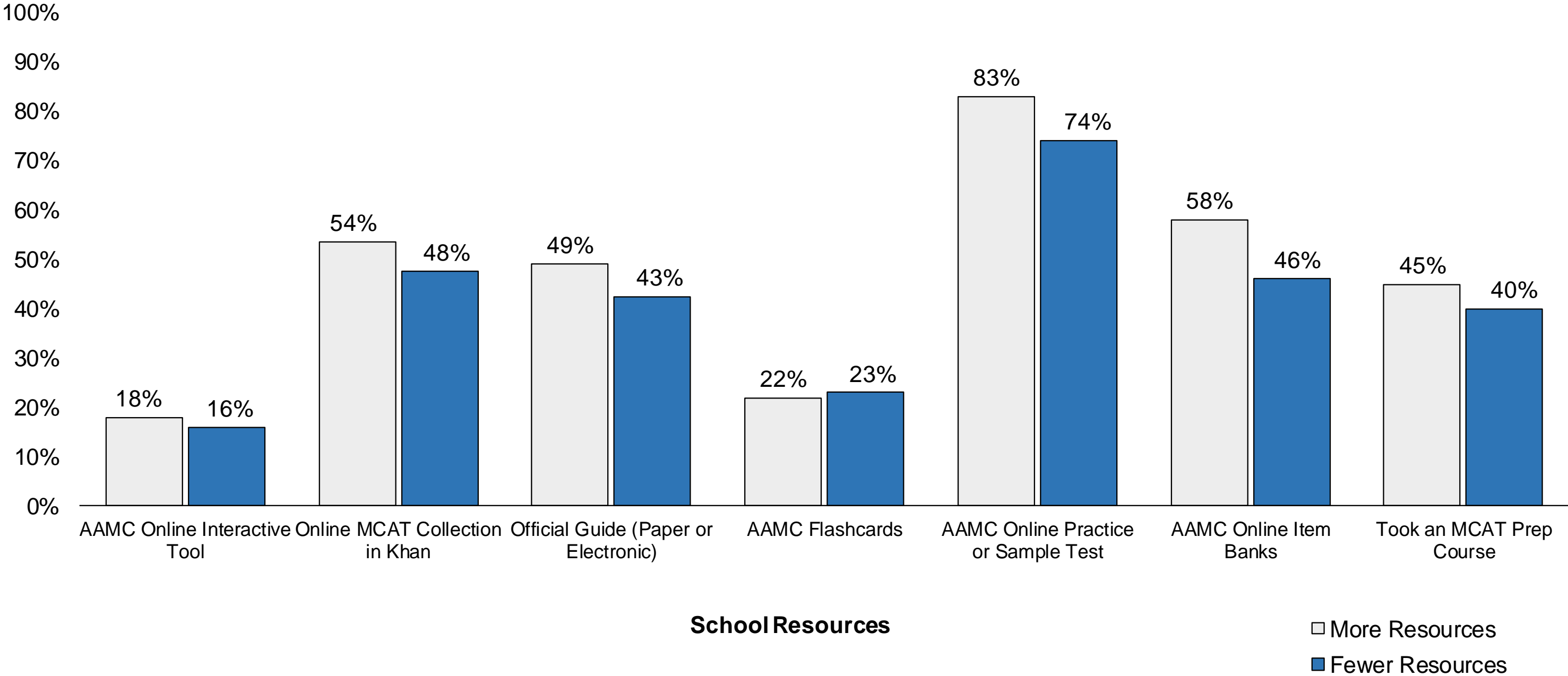
# Findings will be used to improve access to resources and information



# Use of most preparation resources is slightly lower for examinees from lower-SES backgrounds



# Use of most preparation resources is slightly lower for examinees from schools with fewer resources



# Interviews suggested hypotheses for the challenges faced by examinees

Some students...

- May lack the time to use resources because of work or family obligations
- May lack reliable access to computers or the internet to use the online preparation resources
- May lack access to quiet study places to concentrate on preparation
- May not be able to afford even the low-cost resources
- May not know how to create and execute a study plan
- May not know what resources are available or understand how to use them strategically



# The next step is to revise the Post-MCAT questionnaire to learn more about these challenges

- How examinees develop and implement study plans
  - Building in enough time to fully prepare
  - Breaking preparation into small chunks
  - Schedule breaks to manage burnout
  
- Preparation strategies, such as
  - Pre-exam study tailored to areas of weakness
  - Use of practice tests to promote learning

# The next step is to revise the Post-MCAT questionnaire to learn more about these challenges

- Preparation for the exam day, such as
  - Simulating the test day experience
  - Building endurance for the full test day
  - Planning food and drinks for scheduled breaks
  - Getting proper rest and nutrition the night before
  
- We will try out the new survey questions in 2019, and collect population data from examinees starting in 2020

# Questions?

Stay tuned for new research findings  
[aamc.org/validitycommittee](https://www.aamc.org/validitycommittee)





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