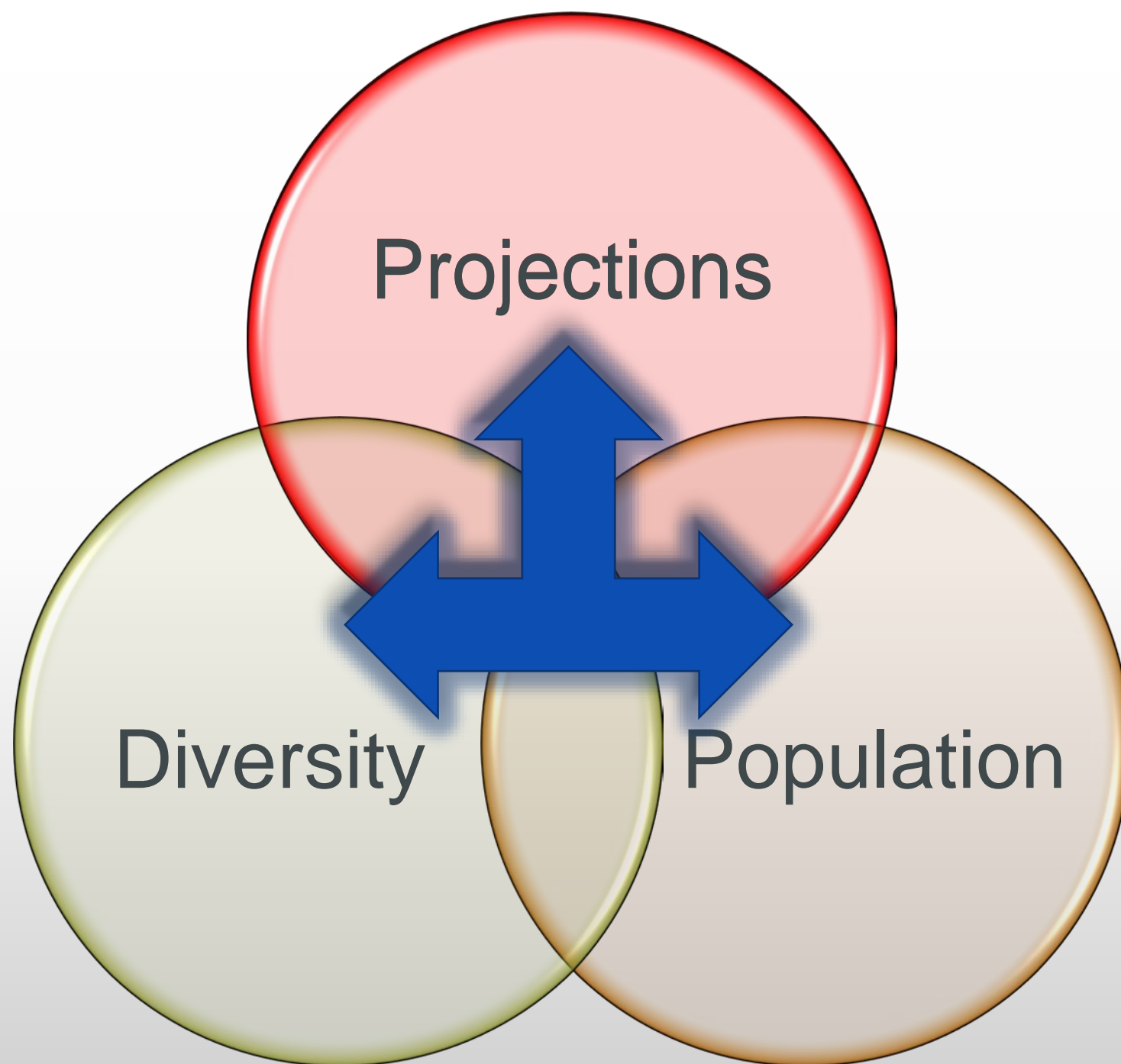


The State of the Physician Workforce

Michael J. Dill
Director, Workforce Studies
AAMC

November 4, 2017



Projections

Supply, demand, specialty groups



2017 Update

The Complexities of Physician Supply and Demand:
Projections from 2015 to 2030

Final Report

Prepared for:

Association of American Medical Colleges

Submitted by:

IHS Markit
February 28, 2017

What's new?

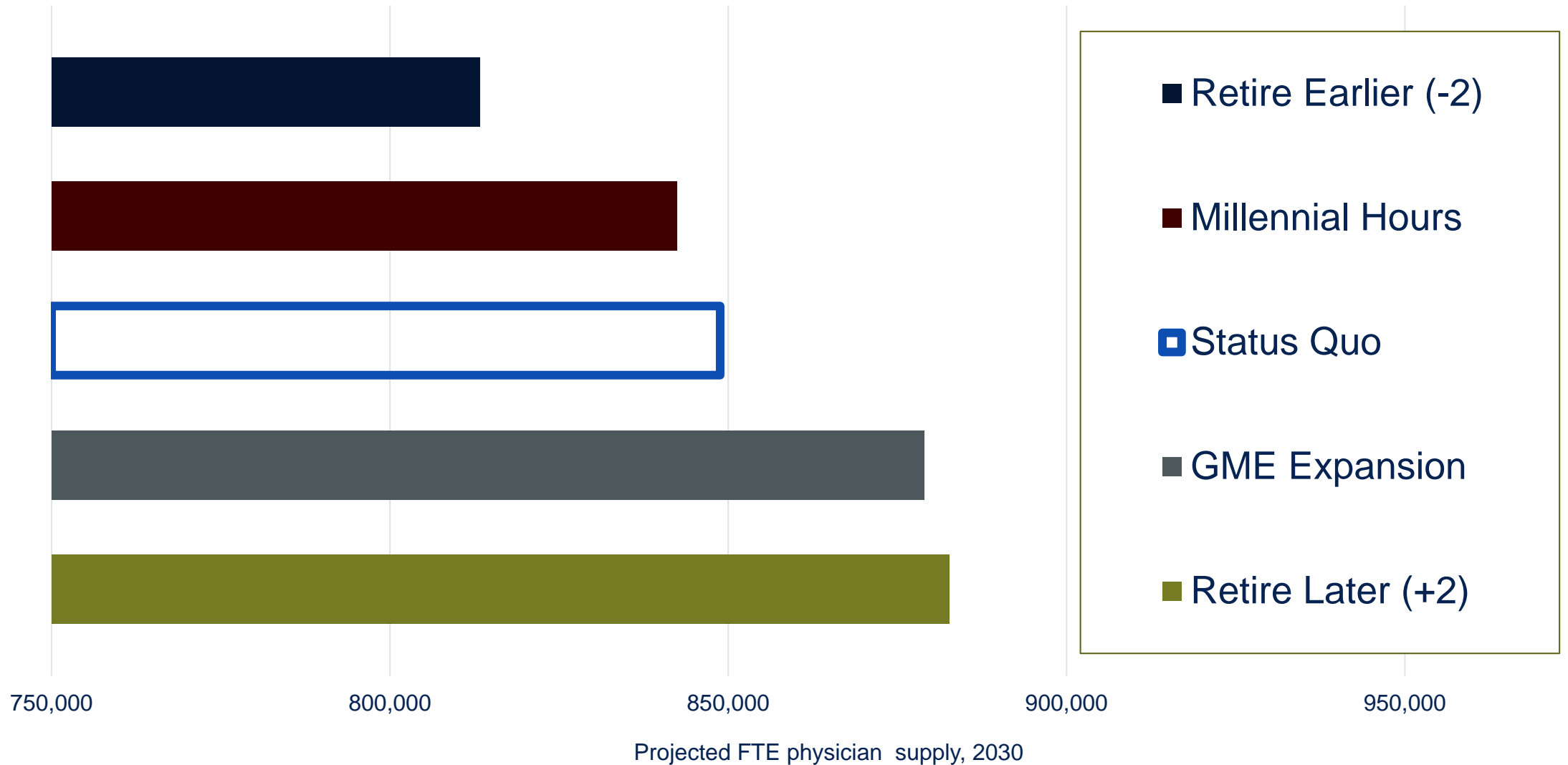
- Updated data
- Refined hospitalists estimates
- Updated PA & APRN supply projections
- Population health scenario
- Metro/non-metro location data for demand and utilization equity

Key takeaways from the updated projections

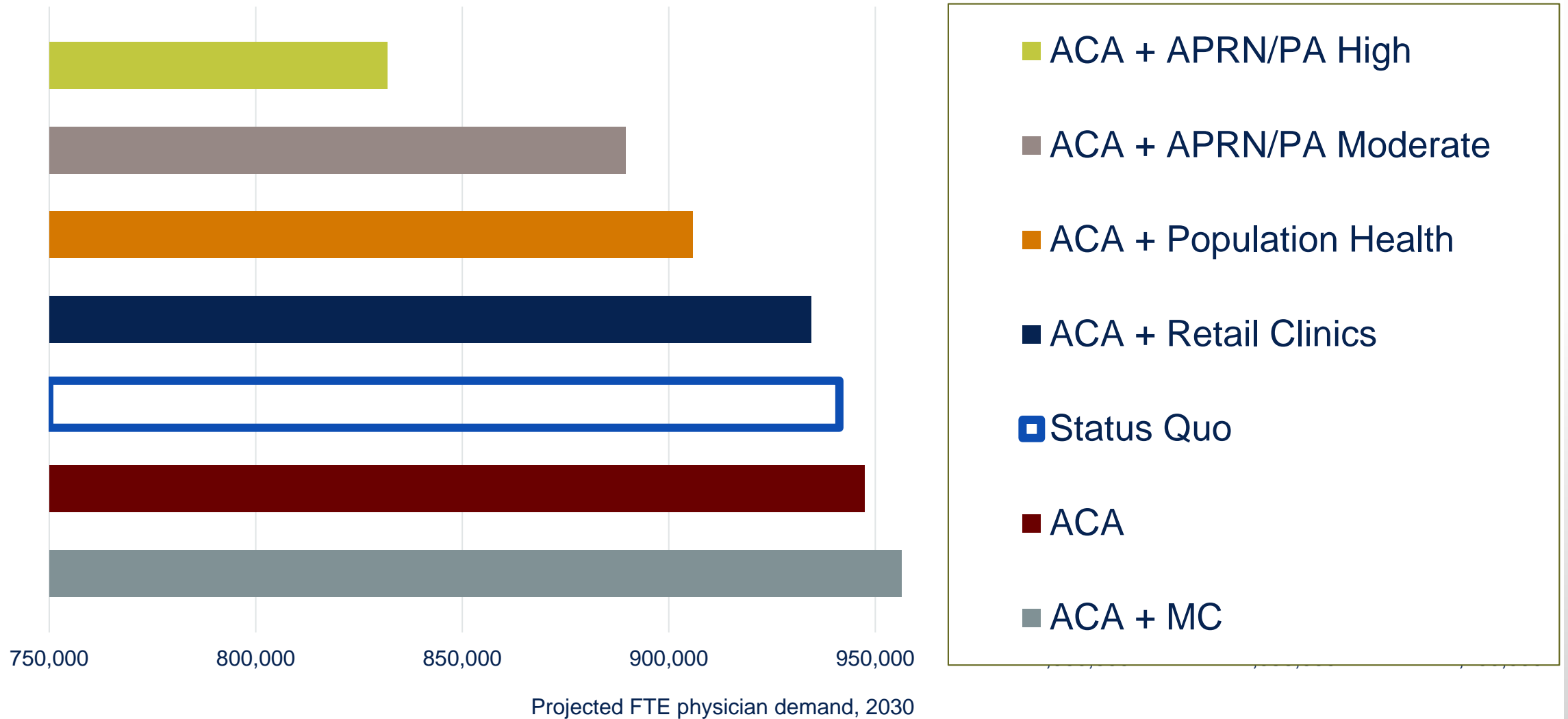
- Physician demand continues to grow faster than supply
- Projected total physician shortfall of between 40,800 and 104,900 physicians by 2030
- Shortages in both primary and specialty care – with a particularly large shortage in surgical specialties
- Consistent with 2015 & 2016 projections reports



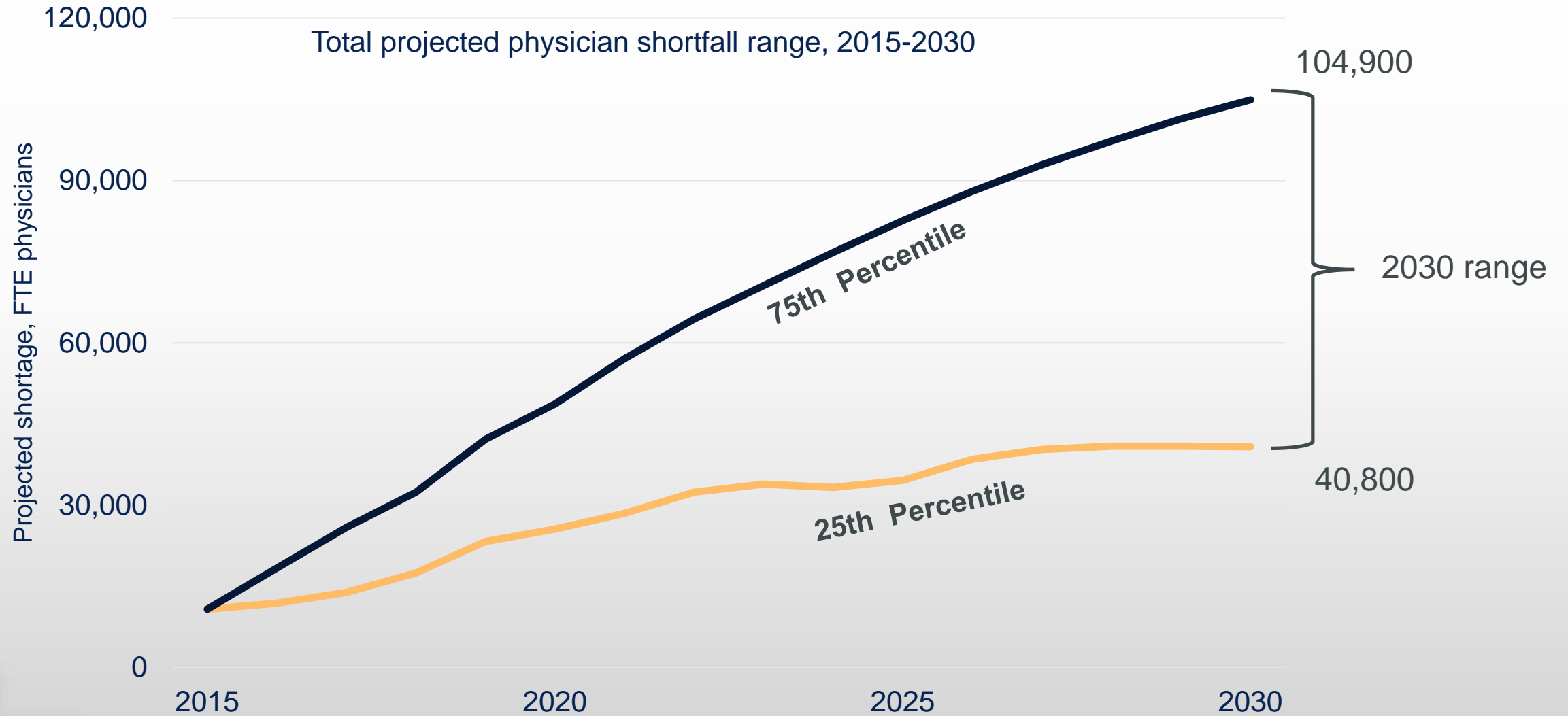
Supply scenarios include retirement, work hours, GME expansion



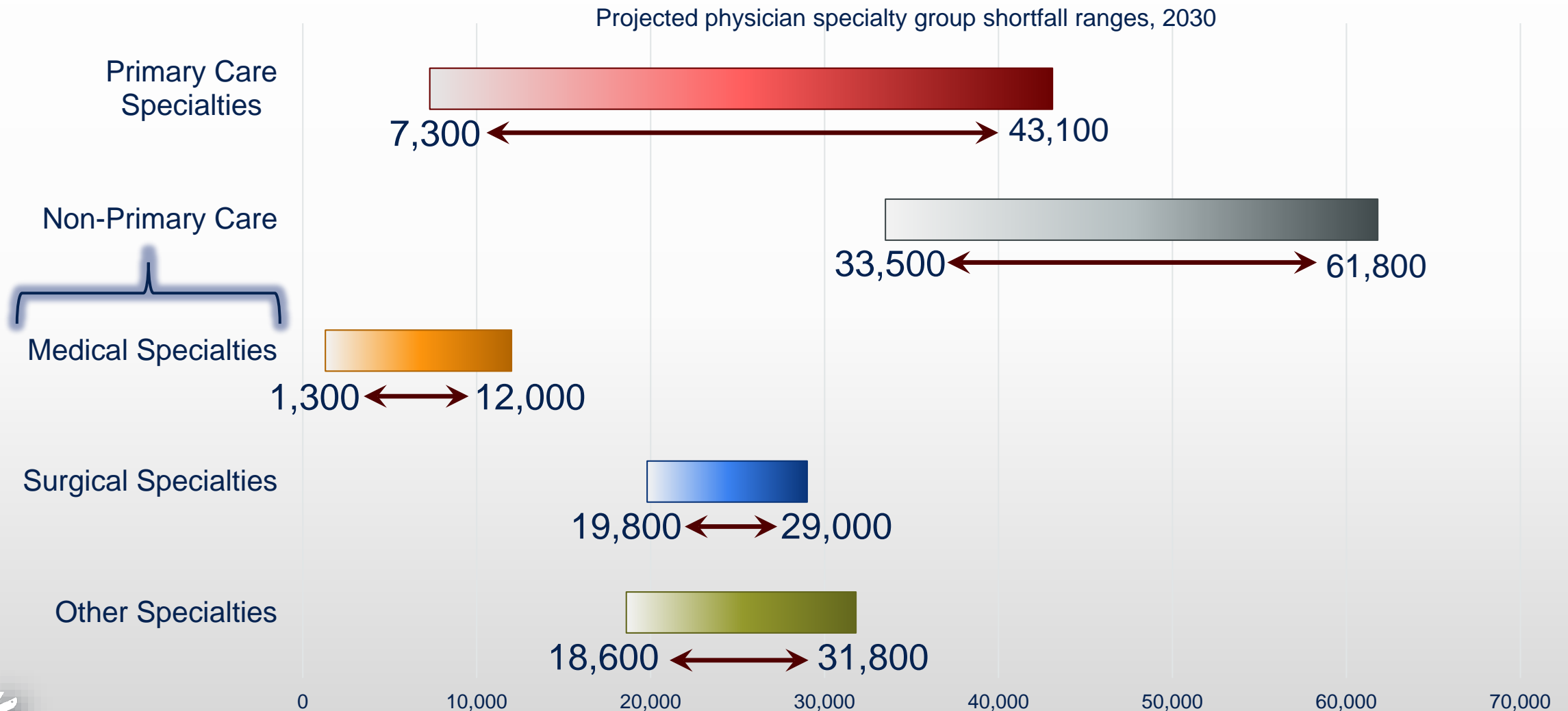
Demand scenarios include ACA, APRNs/PAs, population health, retail clinics, managed care



An increasing overall shortage of physicians is projected through 2030



The size and range of projected physician shortages varies by specialty group



Projections

Health care utilization equity & population health

We model Health Care Utilization Equity to better understand magnitude of unmet need

- What if barriers disappeared? How much more utilization (in 2015)?

Scenario 1:
Insurance &
Metro/
Non-metro

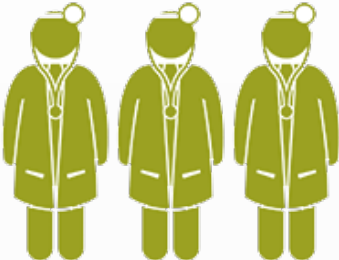
- People without medical insurance and people living in non-metropolitan areas => utilization patterns equivalent to their insured peers living in metropolitan areas

Scenario 2:
Insurance,
Metro/Non-
metro, &
Race/Ethnicity

- Everyone => utilization patterns equivalent to white insured populations residing in metropolitan areas

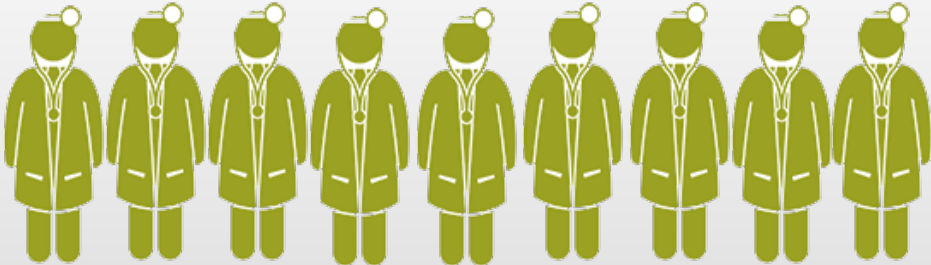
Estimated Additional Physicians Needed if U.S. Had Achieved Health Care Utilization Equity in 2015

Scenario 1:
Insurance &
Metro/
Non-metro



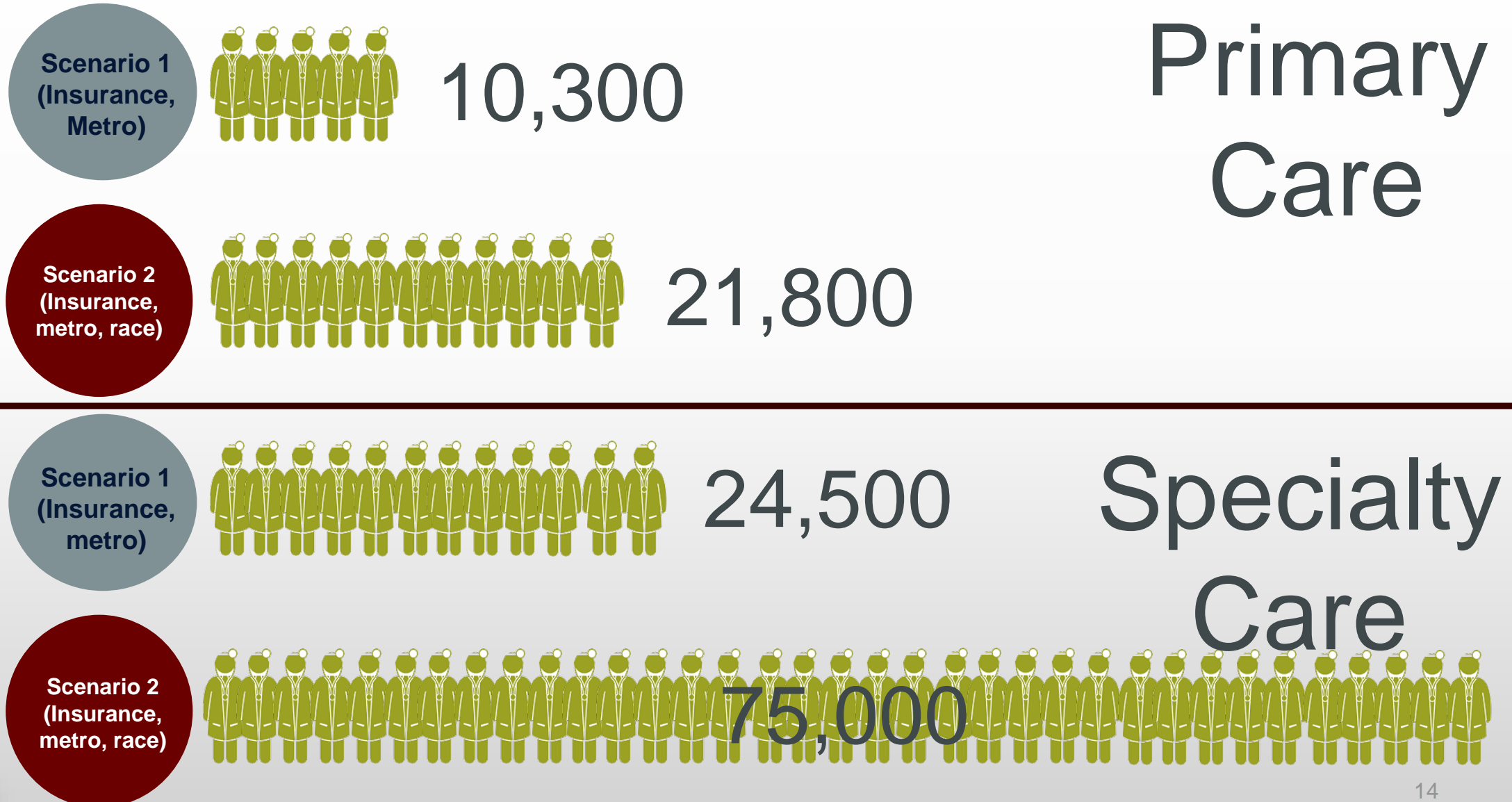
34,800
Additional Physicians

Scenario 2:
Insurance,
Metro/Non-
metro, &
Race/Ethnicity



96,800
Additional Physicians

Estimated Additional Physicians Needed if U.S. Had Achieved Health Care Utilization Equity in 2015



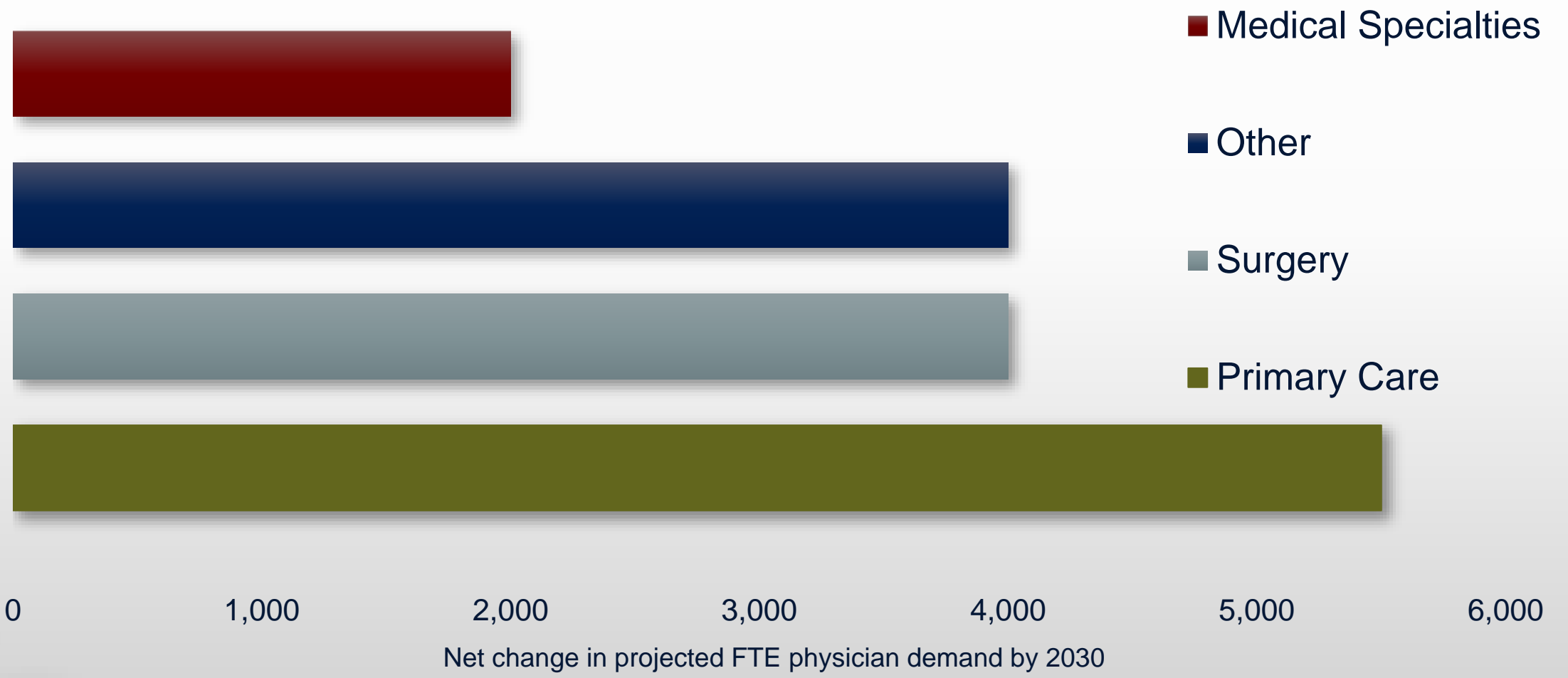
We model population health measures to ¹⁵ better understand their long term workforce implications

- Scenario models the workforce implications of achieving selected Healthy People 2020 goals
 - Sustained 5% body weight loss for overweight and obese adults
 - Improved blood pressure, cholesterol, and blood glucose levels for adults with elevated levels
 - Smoking cessation

Achieving population health goals would have different short- and long-term effects on demand

- Short-term: 1% decline in physician demand
- Long-term: 2% increase in physician demand (by 2030)
- Shifts in demand for select physician specialties
- Shifts in utilization across delivery settings

Effect of achieving population health goals would differ across specialty groups



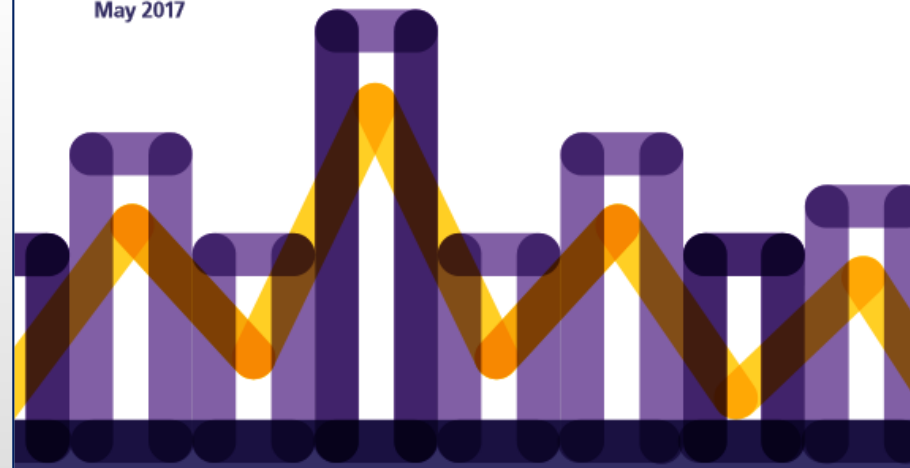
Projections

Underlying trends: UME

Results of the 2016 Medical School Enrollment Survey

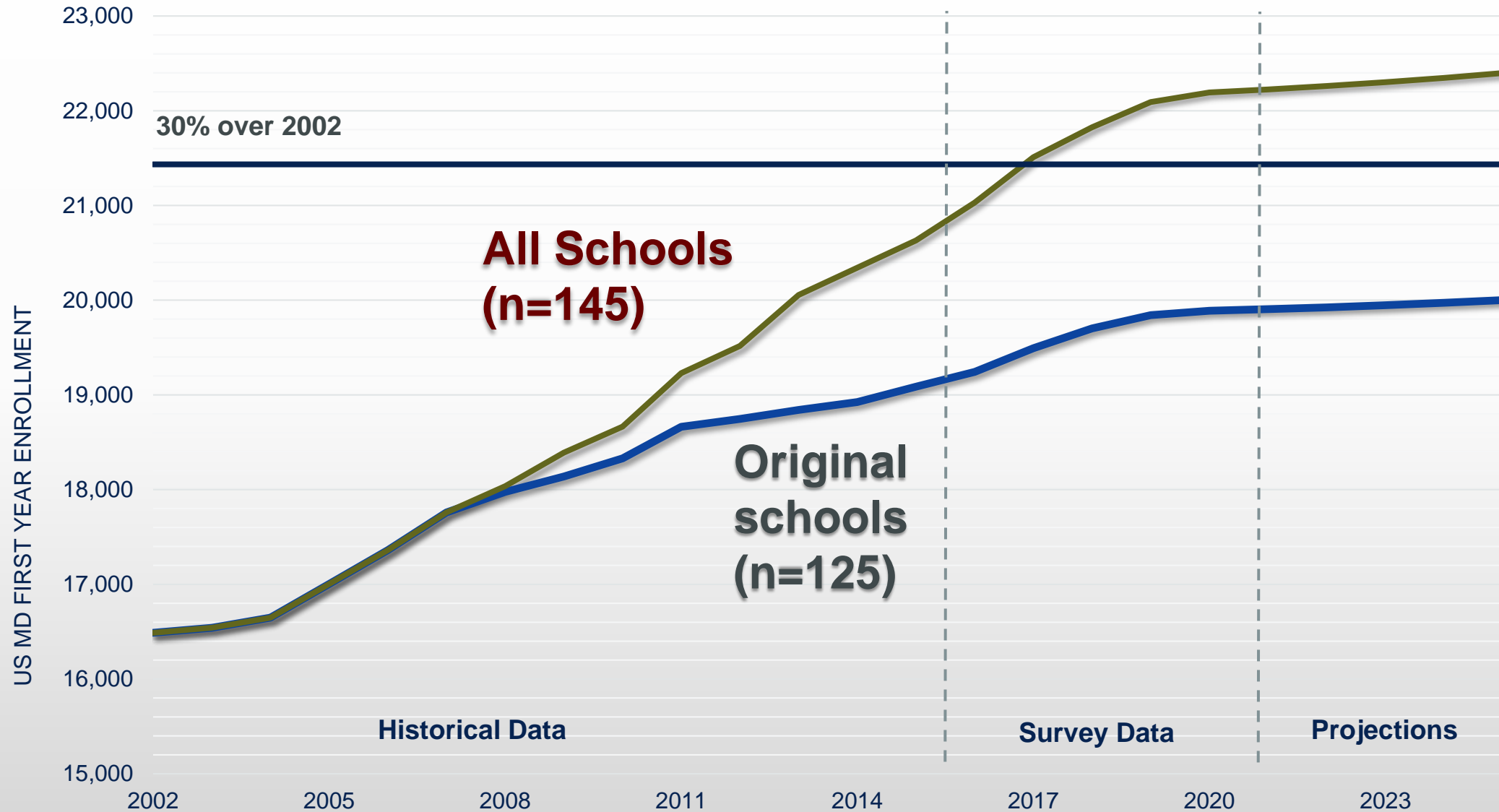
Learn
Serve
Lead

May 2017



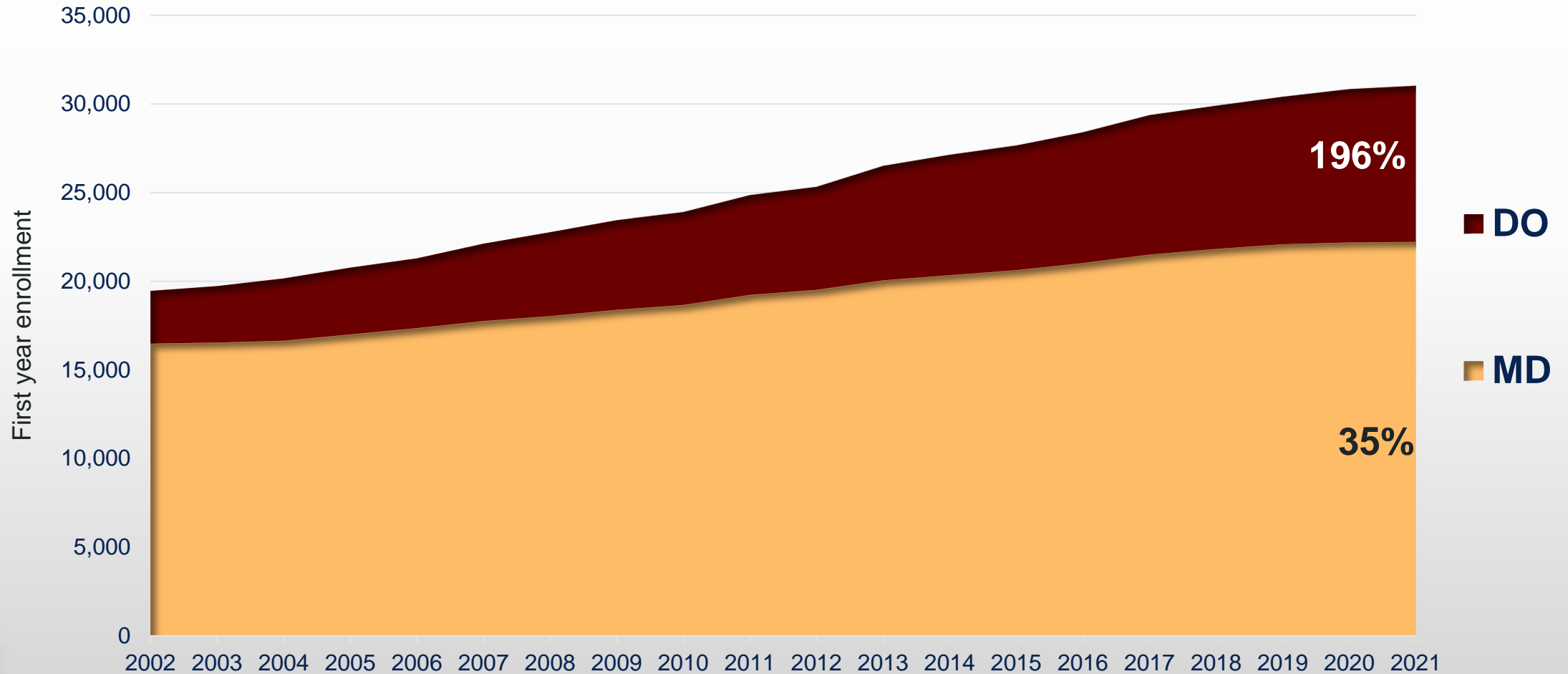
Association of
American Medical Colleges

US MD enrollment expected to exceed 30% increase



Overall MD & DO first year enrollment is projected to grow 59% between 2002 and 2021

Projected MD and DO first year enrollment through 2021



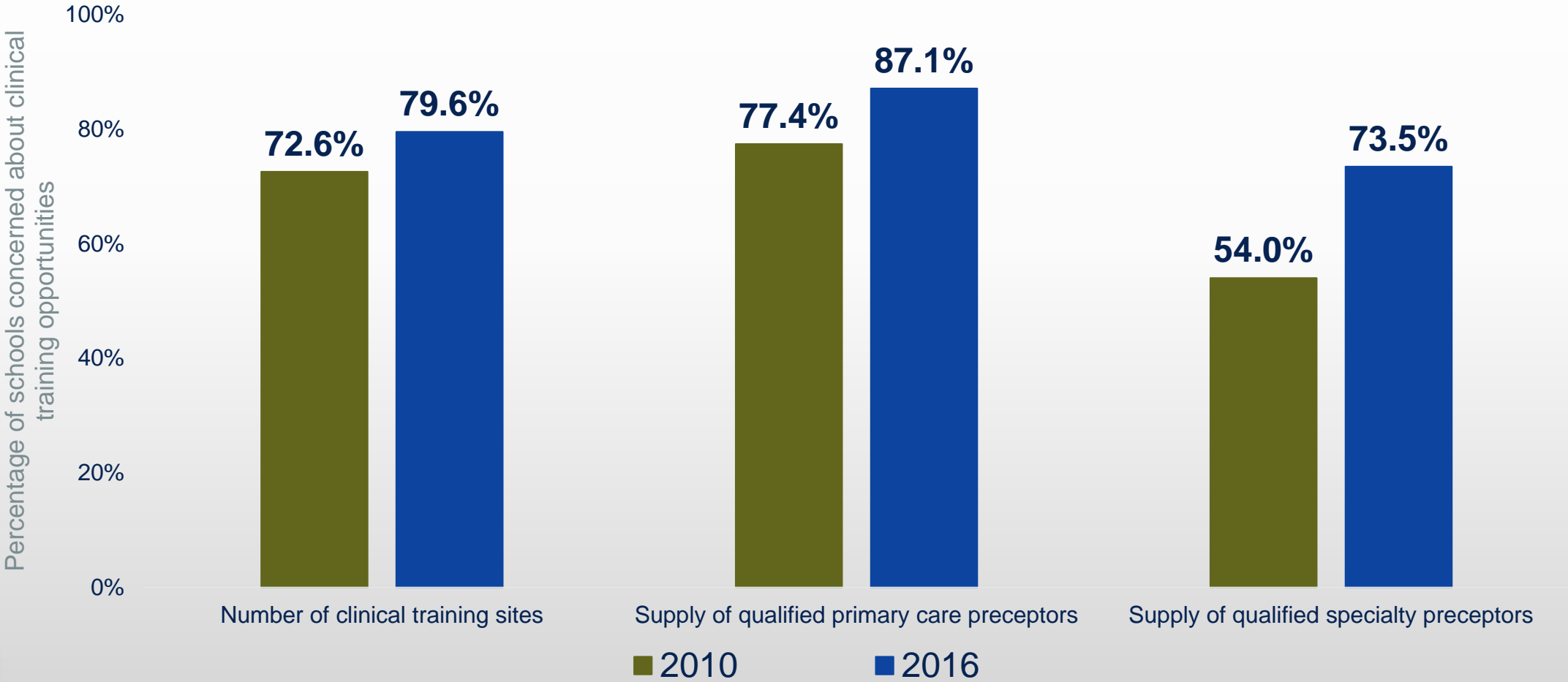
Admissions/UME

Clerkships

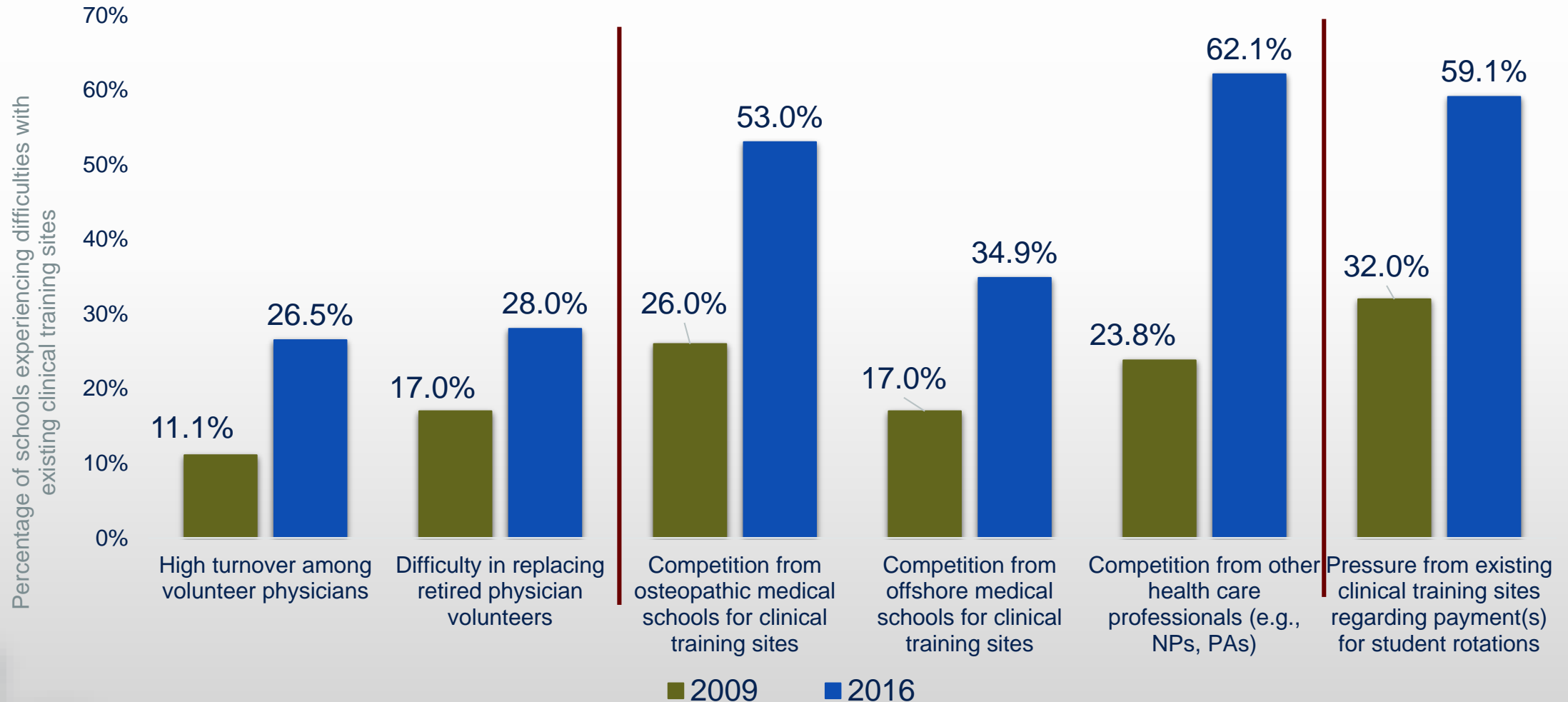
Match/GME



Medical schools are increasingly concerned about clinical training opportunities for their students



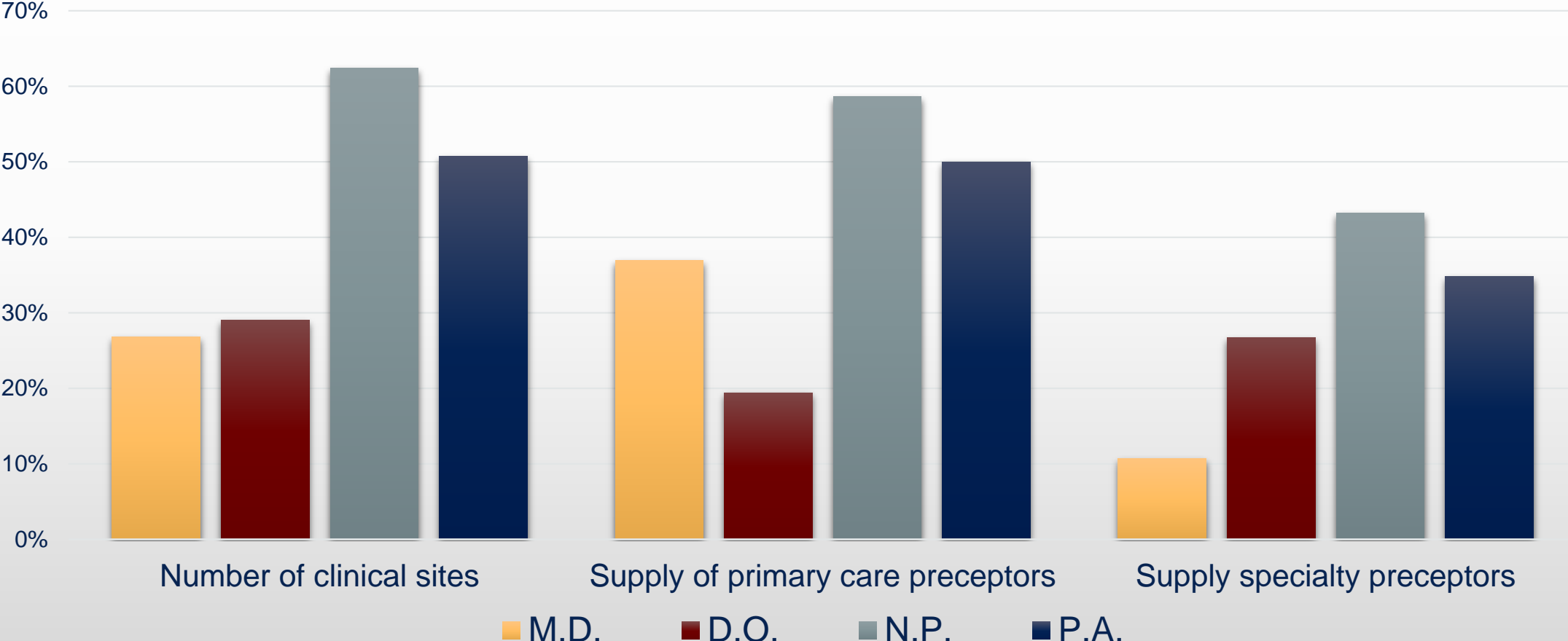
Medical schools experiencing more difficulties with existing clinical training sites





Adequacy of clinical opportunities for students an across-the-board concern

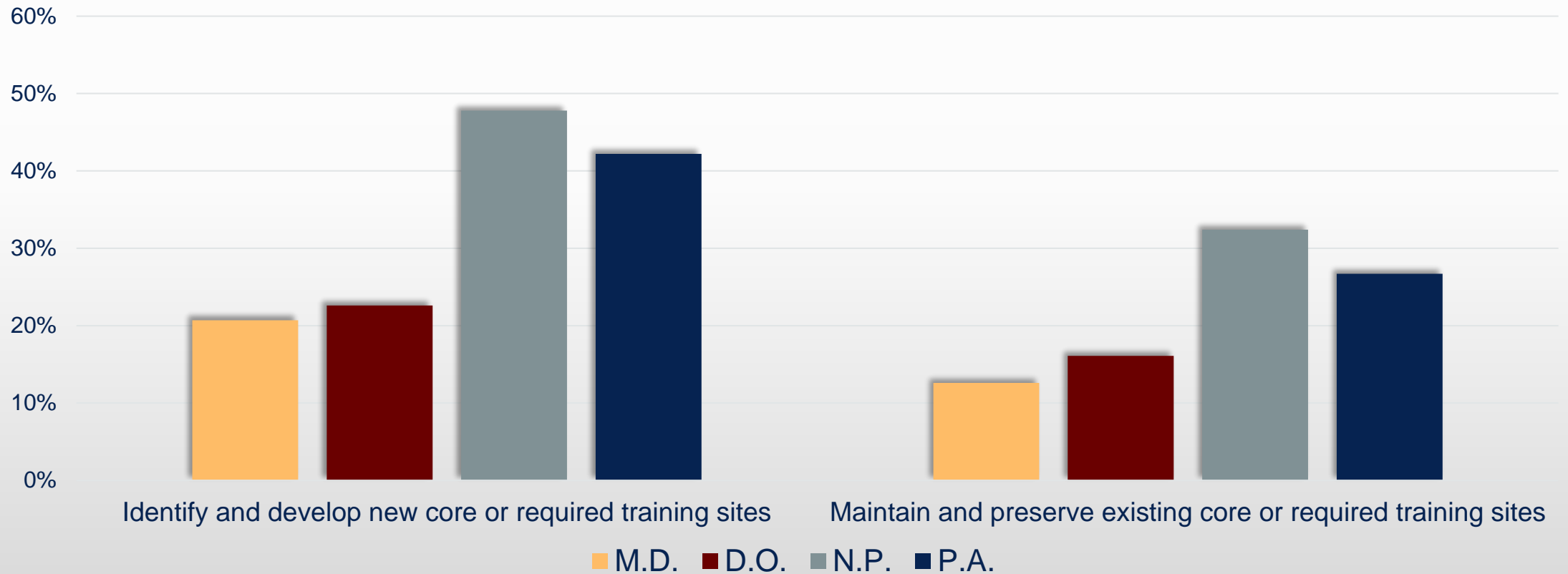
Percent of programs very concerned



Source: Recruiting and Maintaining U.S. Clinical Training Sites: Joint Report of the 2013 Multi-Discipline Clerkship/Clinical Training Site Survey.

Clerkship/clinical training sites were getting harder to develop & maintain 4 years ago

Percent of programs reporting much more difficult than two years prior

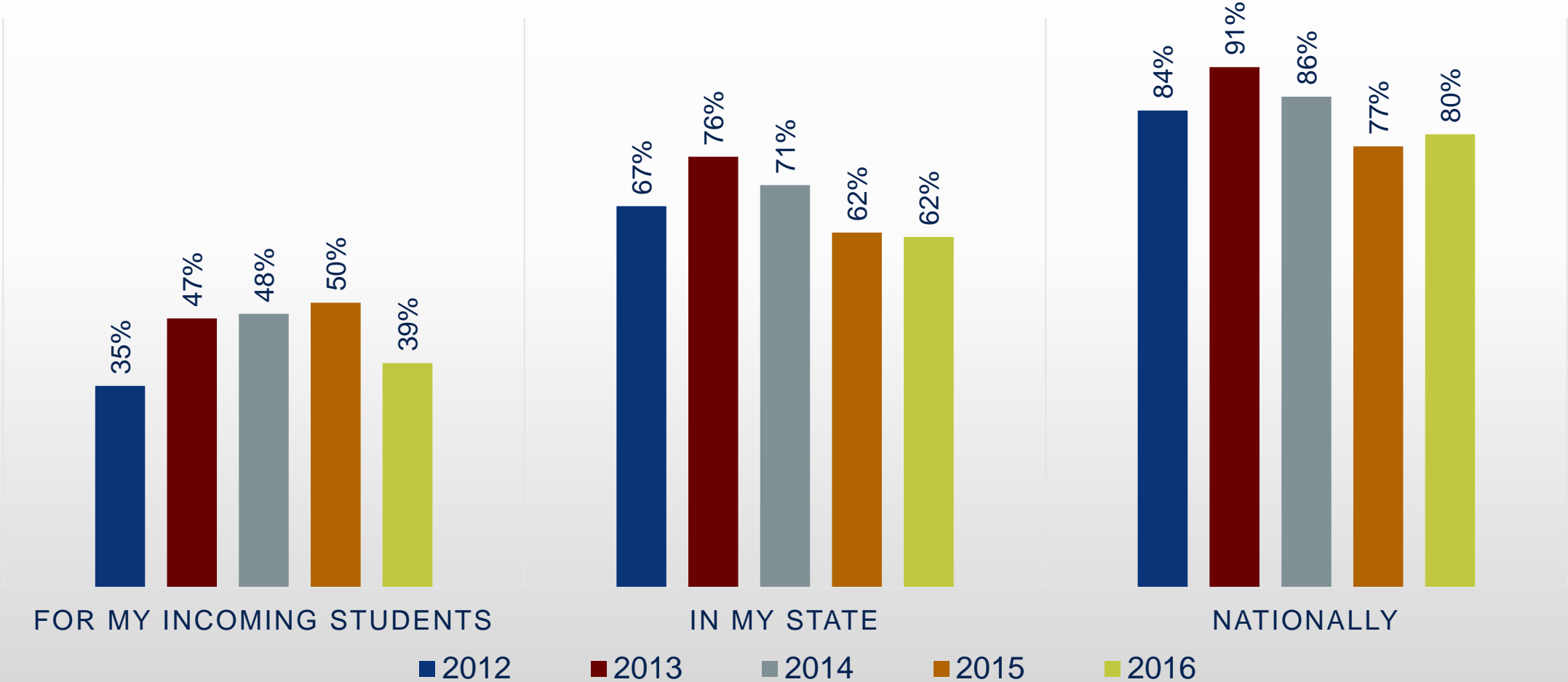


Projections

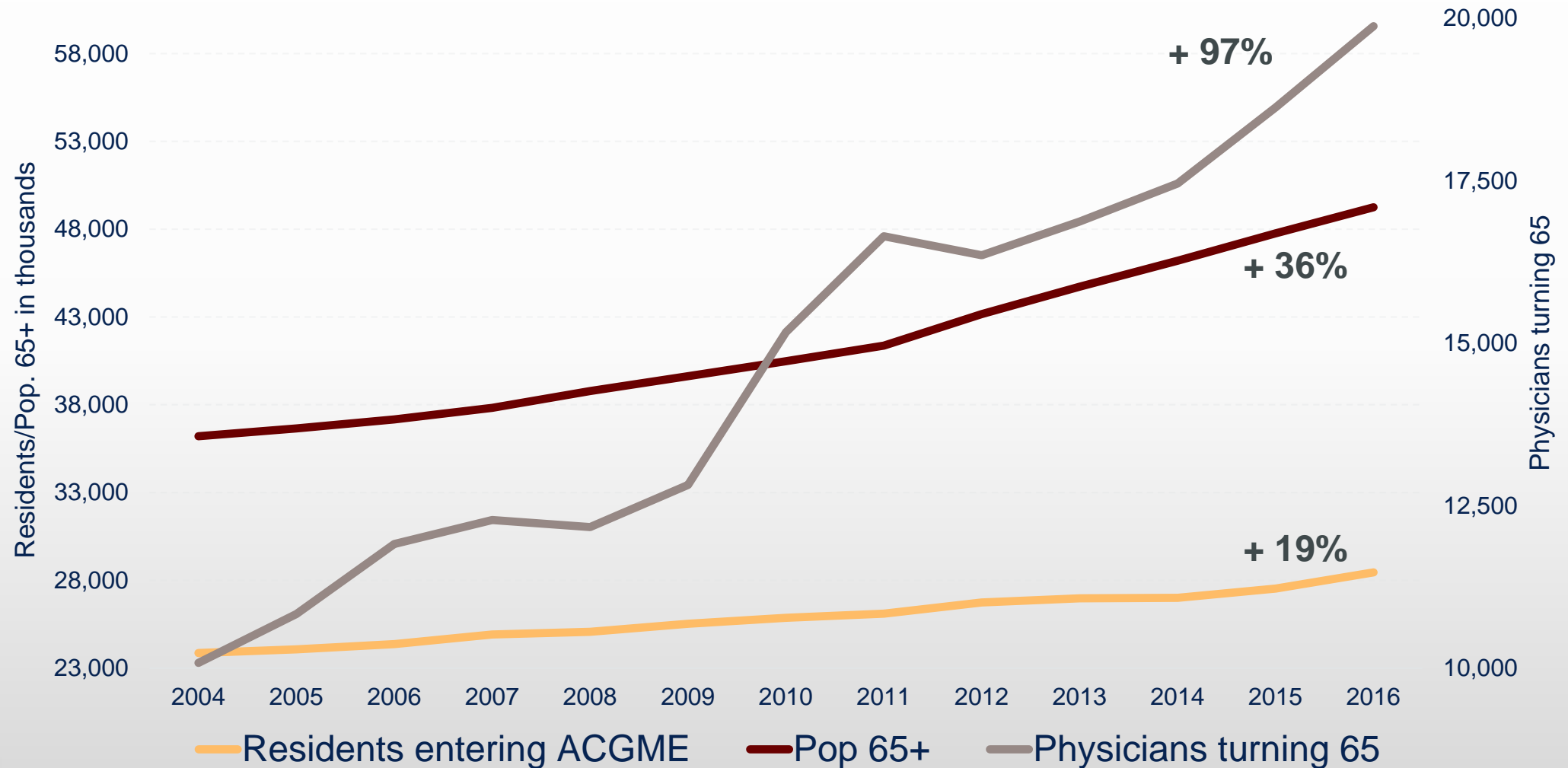
Underlying trends: GME

Percentage of schools concerned about graduate medical education, 2012–2016

PERCENT OF SCHOOLS REPORTING MAJOR OR MODERATE CONCERN



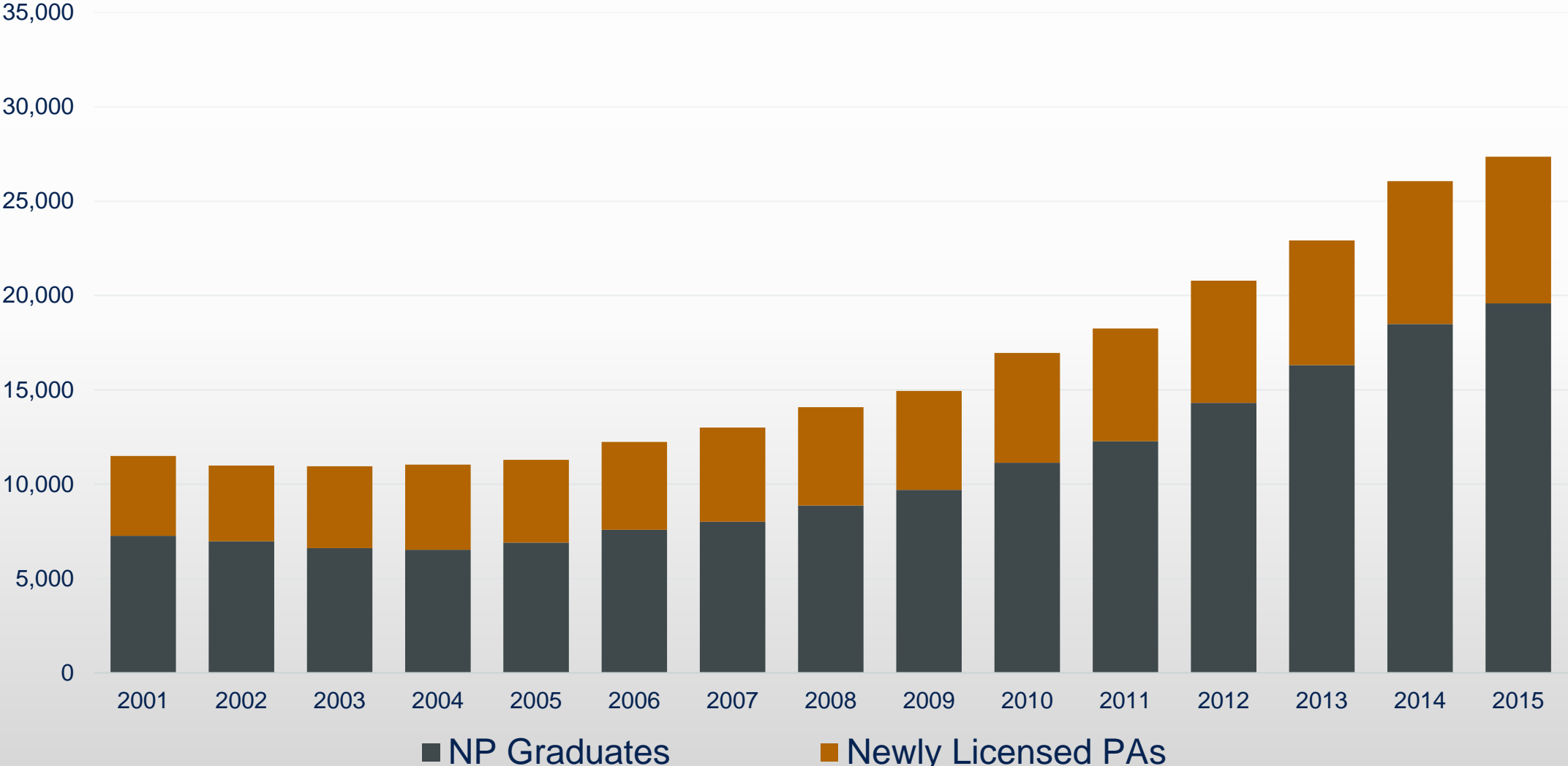
Production of new physicians not keeping up with aging workforce and population



Projections

Underlying trends: Physician practice

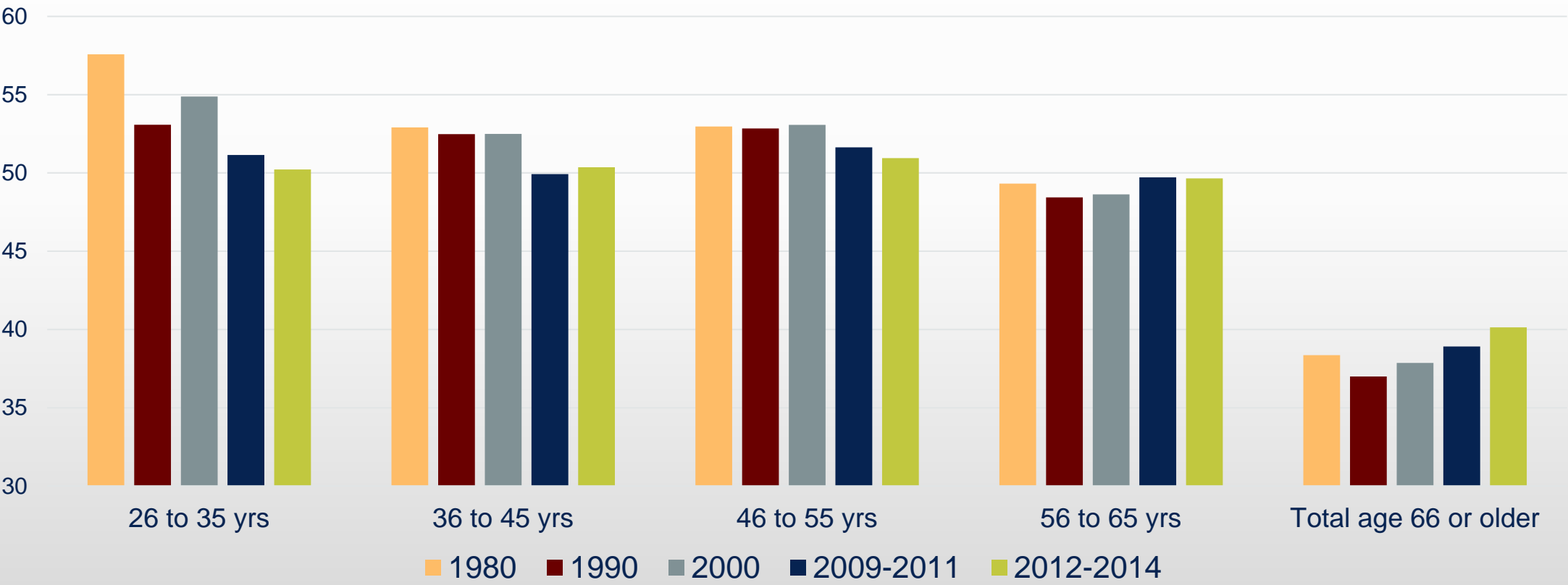
Numbers of new PAs and NPs still growing rapidly



Source: NCCPA; AACN.

The shift in physician work hours has varied by age group

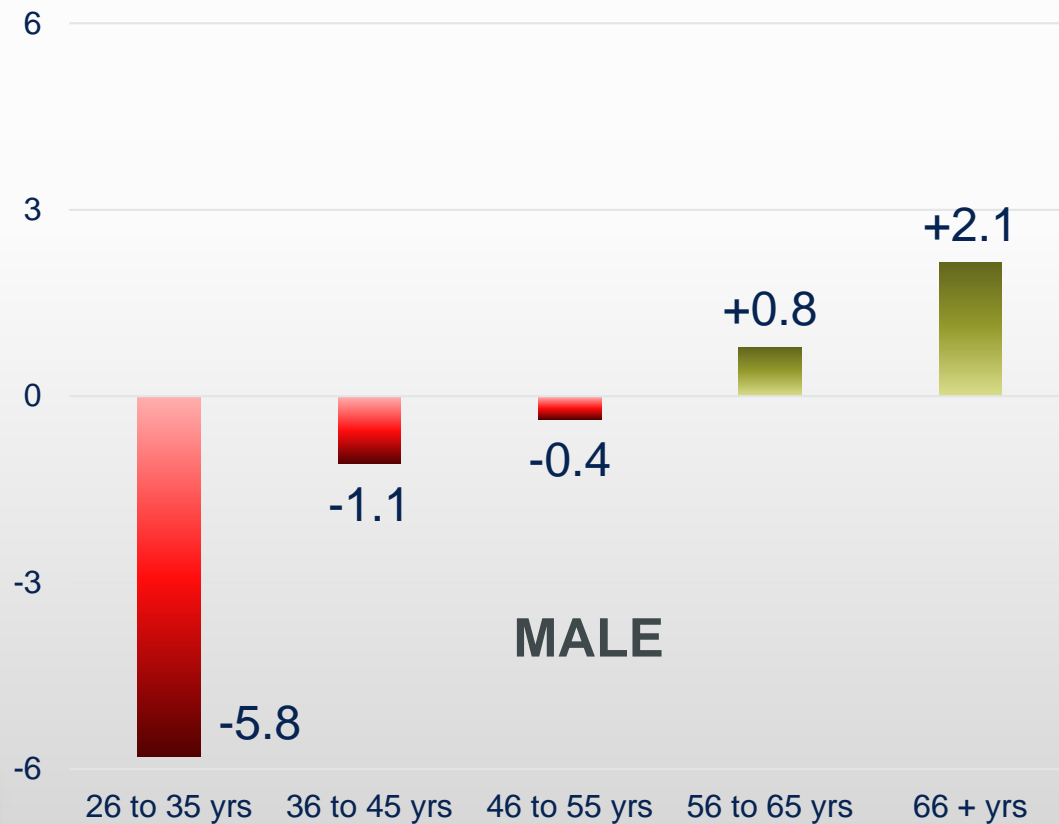
Average physician work hours per week



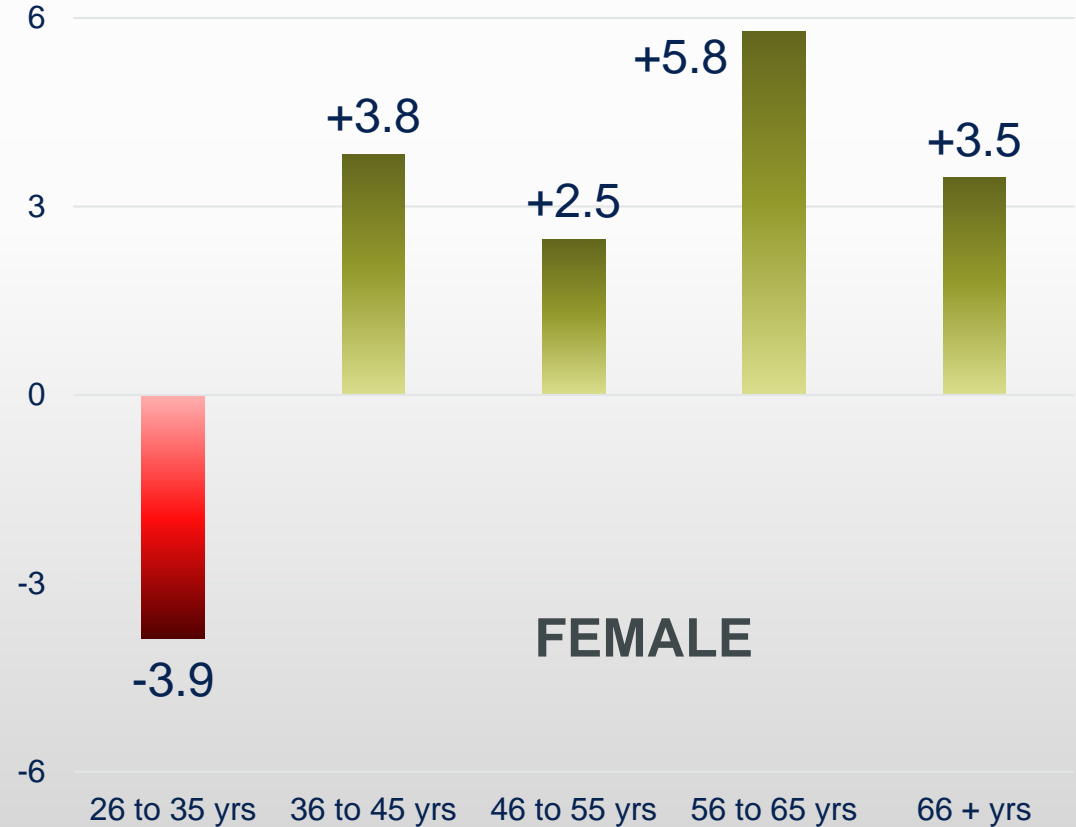
Source: Census (Decennial/ACS).

The shift in physician work hours has varied by age group and sex

Change in average male physician work hours, 1980 to 2012-2014

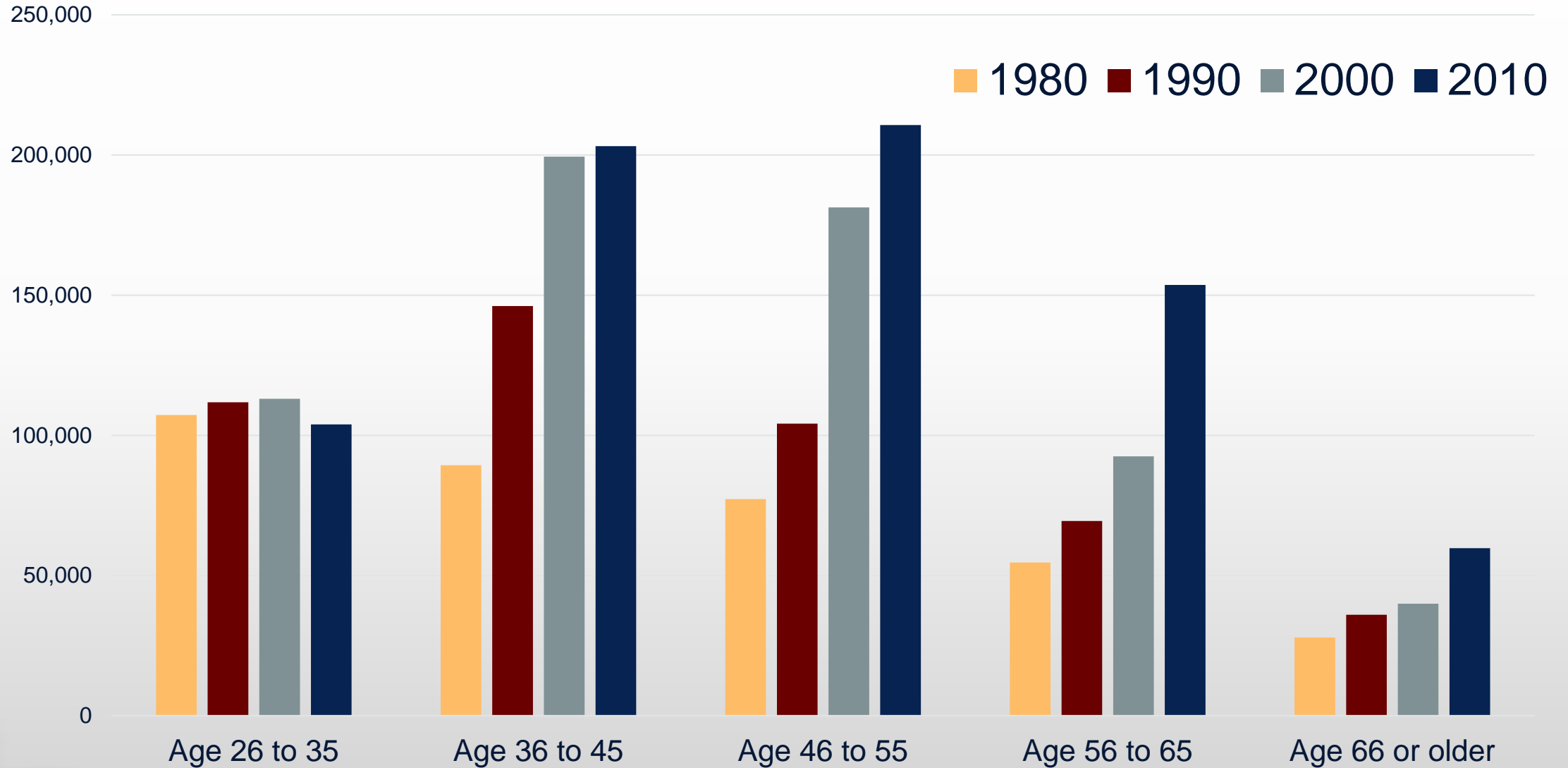


Change in average female physician work hours, 1980 to 2012-2014



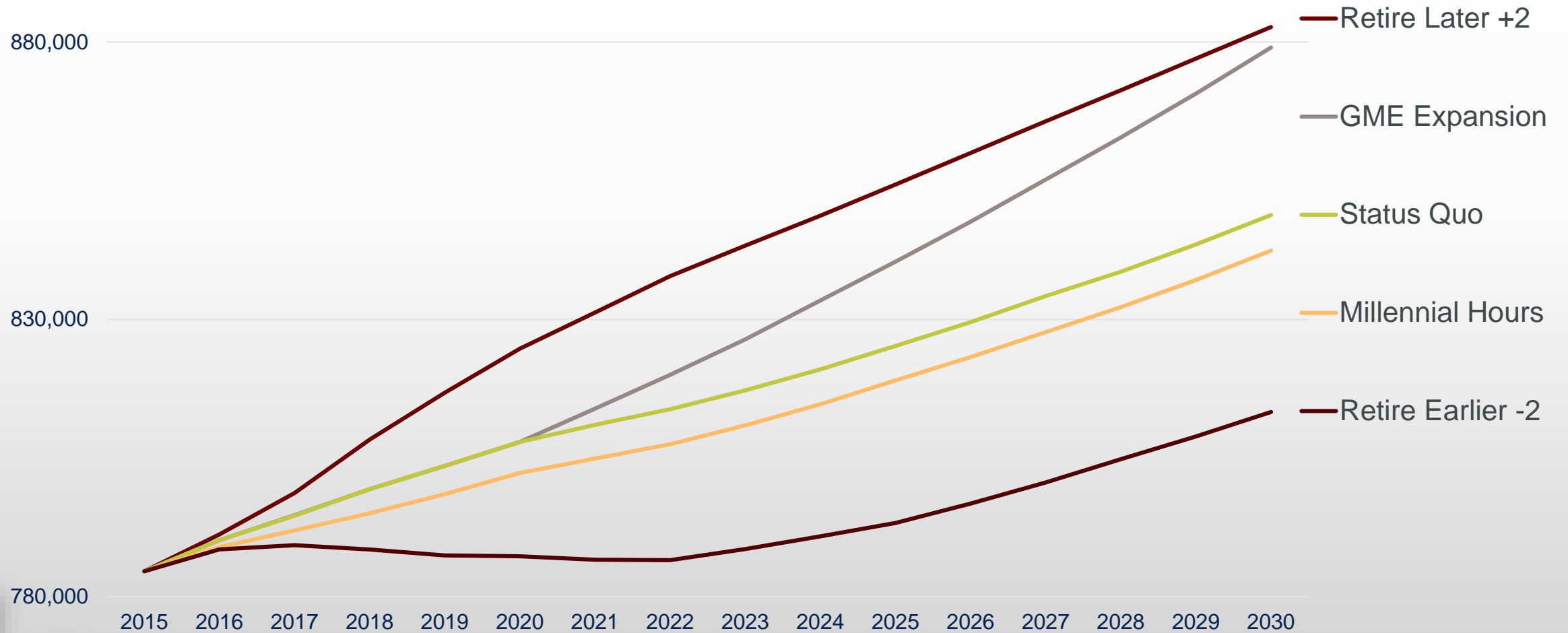
The US physician workforce is getting older

Number of Physicians Who Worked in Prior Year



Retirement scenarios remain the most extreme physician supply projections

Projected FTE Physician Supply: All Physicians



Technology can improve access to a wide array of services

From a patient perspective, we ask about:

- Viewing lab results online
- Making appointments online
- Telephone communication
- Email communication
- Video communication



Consumers report overall increases in most types of technology use

DATA REMOVED PENDING PUBLICATION.

Largest divergence in consumers' use of technology reported for video communication

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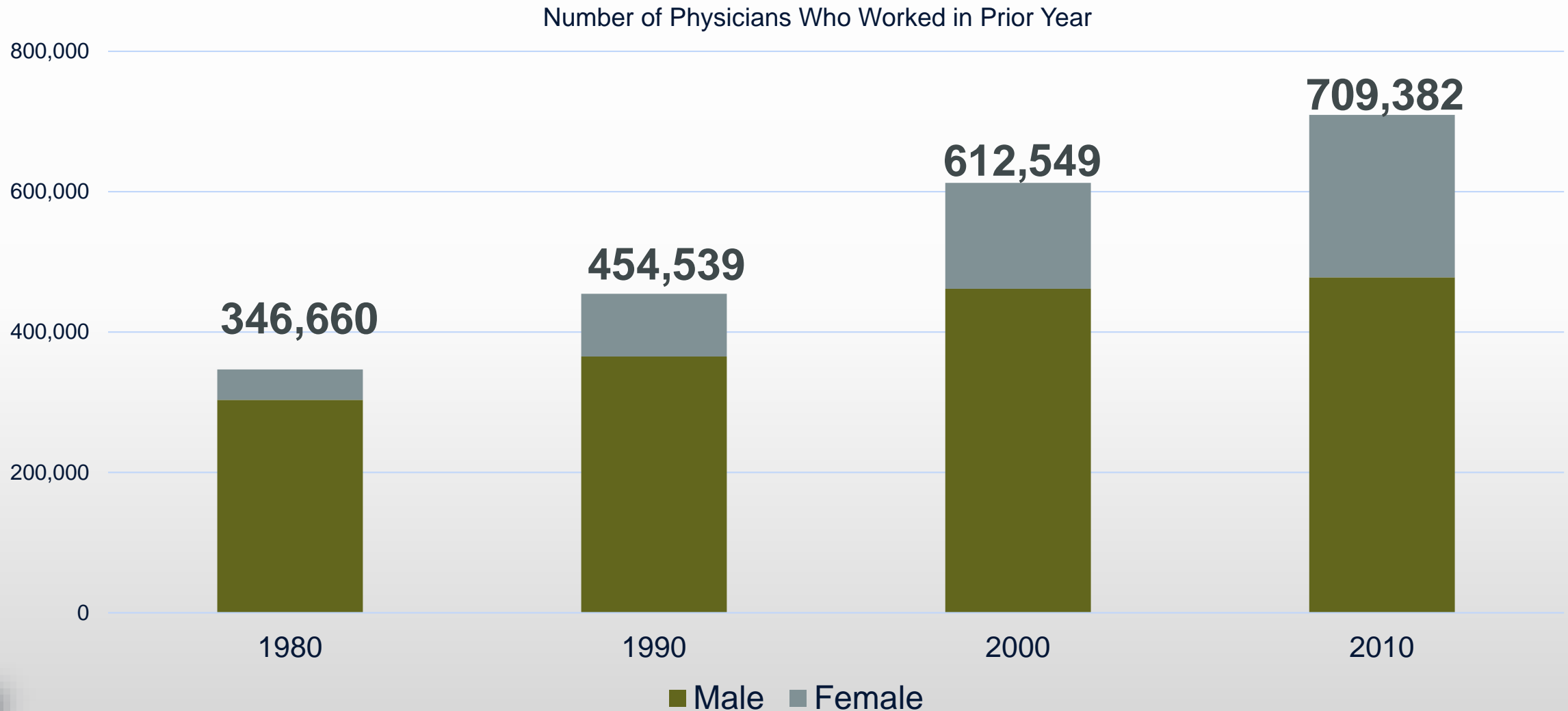


Workforce



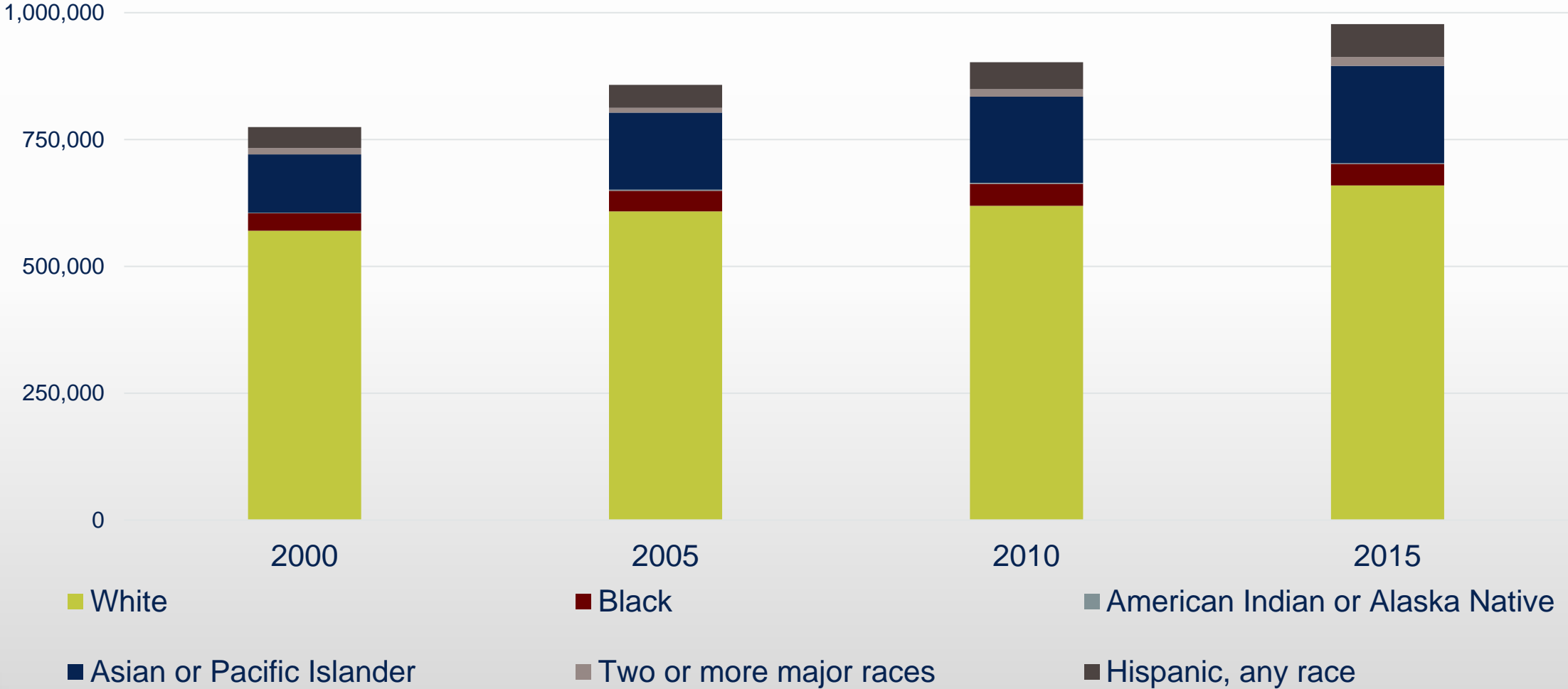
Diversity

Physician workforce in the US continues to grow and to include more female physicians



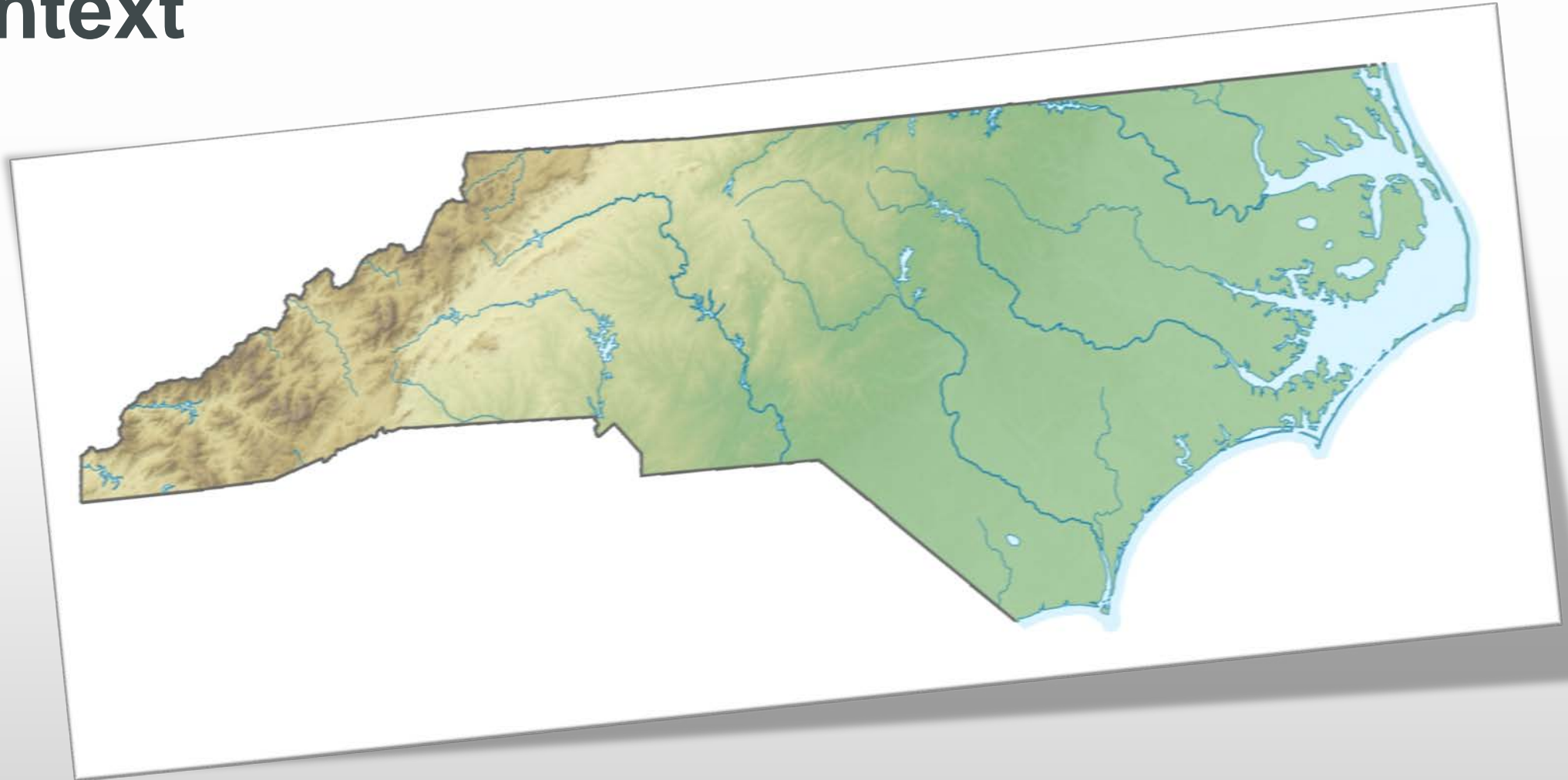
Physician workforce is slowly becoming more racially and ethnically diverse

Number of Physicians Who Worked in Prior Year



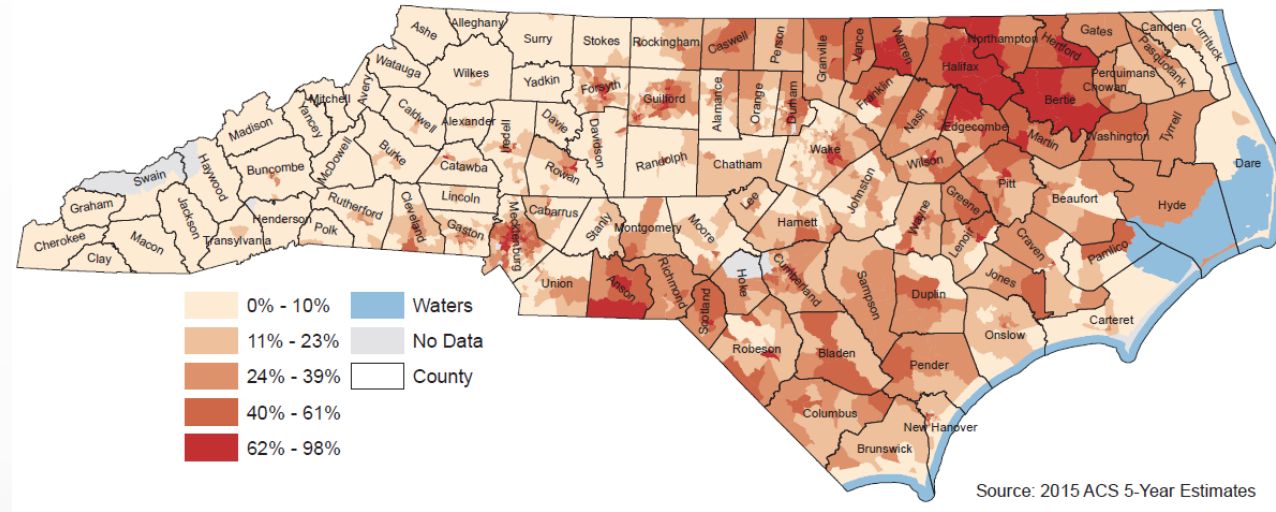
Source: United States Census Bureau. Note: Data for 2010 are a combination of 2009, 2010, 2011 American Community Surveys. *In 2000 and 2010, "Other" includes two or more races

North Carolina makes a good case study in the need to understand workforce diversity in context



Black or African American population and physician distributions dissimilar

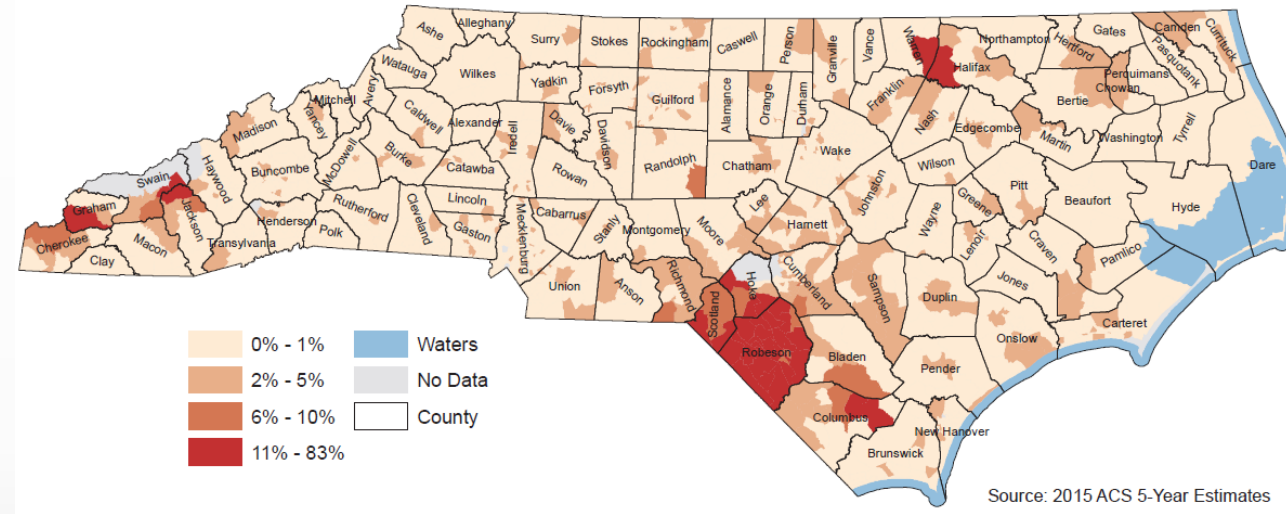
Population



PHYSICIAN DATA REMOVED PENDING PUBLICATION.

American Indian / Alaska Native population and physician distributions somewhat similar

Population



PHYSICIAN DATA REMOVED PENDING PUBLICATION.

IMGs comprise a significant part of the nation's physician workforce

24.5%

of 2016 active **physicians** were International Medical Graduates (IMGs).¹

24.9%

of 2015-2016 active **residents** were International Medical Graduates (IMGs).²



Deferred Action for Childhood Arrivals (DACA) program uncertainty could impact workforce diversity

Students with DACA status:

113 Applied to U.S. medical schools for the 2016-2017 year

65 Enrolled in U.S. medical schools in the 2016-2017 year

AAMC expects increased enrollment of DACA Dreamers in 2017-2018 since most with confirmed DACA status have not yet finished their undergraduate degrees.





Education pipeline

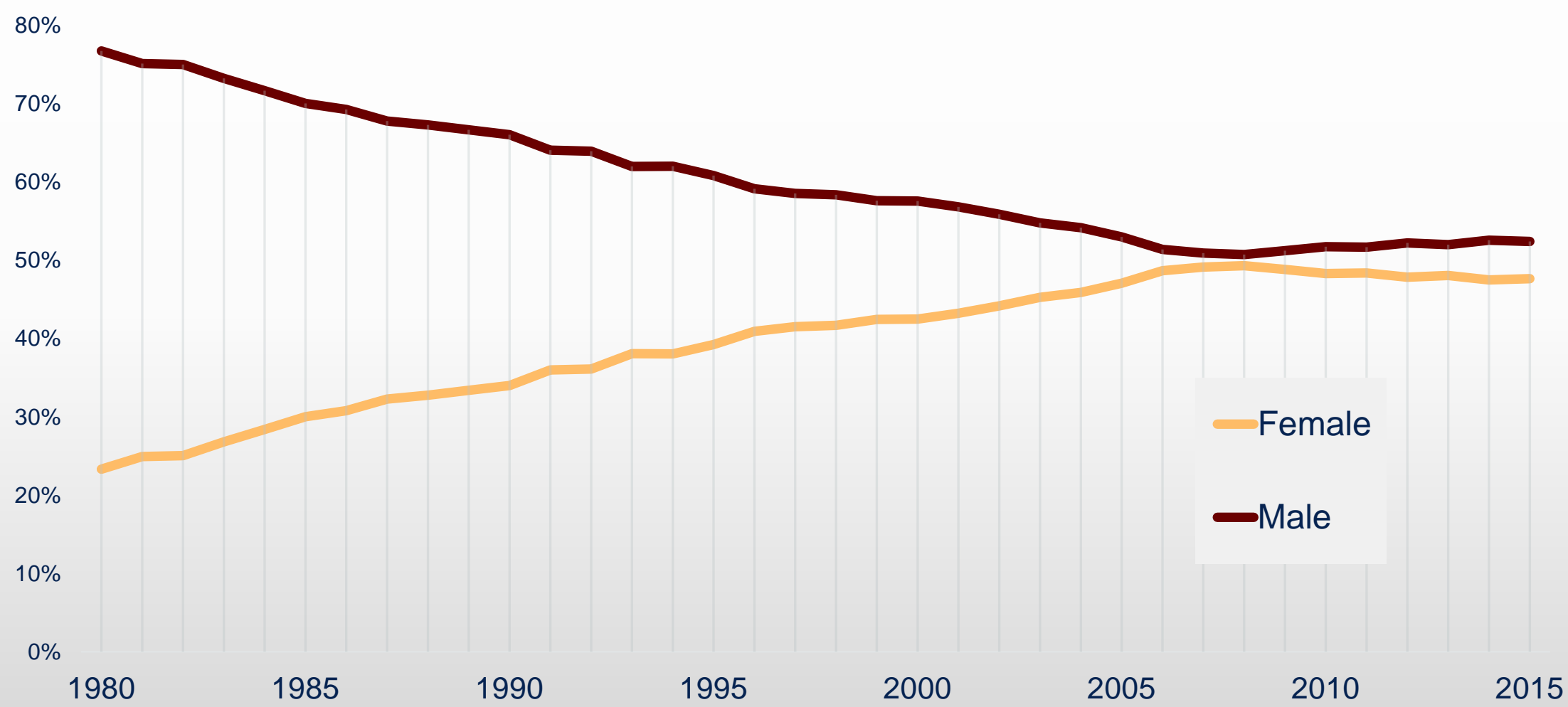


Diversity

Small but important gains from medical school expansion

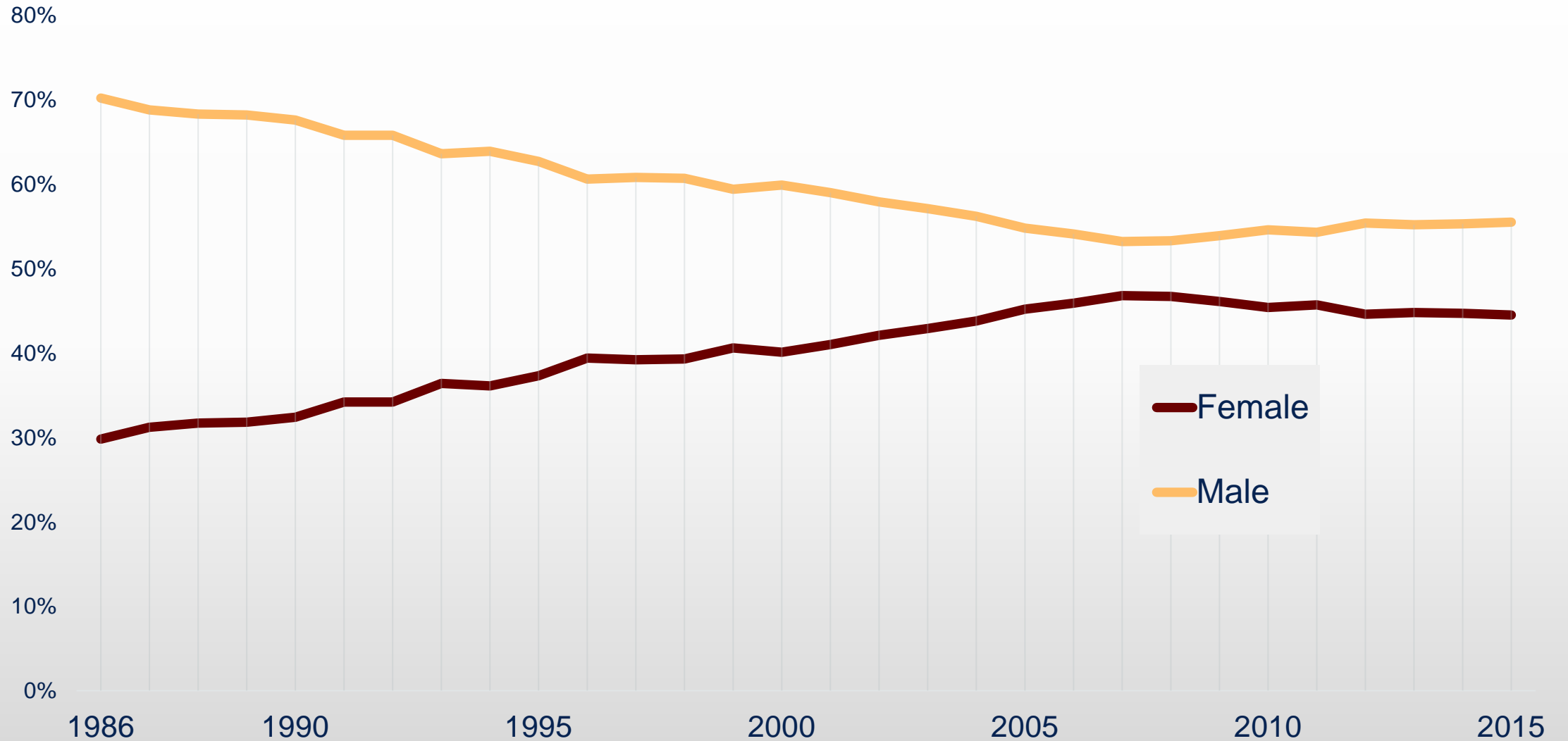
- Most expansion - highest proportions in primary care and practicing in underserved and rural areas.
- Racial and ethnic diversity of matriculants increased modestly - new schools contributed disproportionately.

Percentage of U.S. medical school graduates by sex, 1980-2015

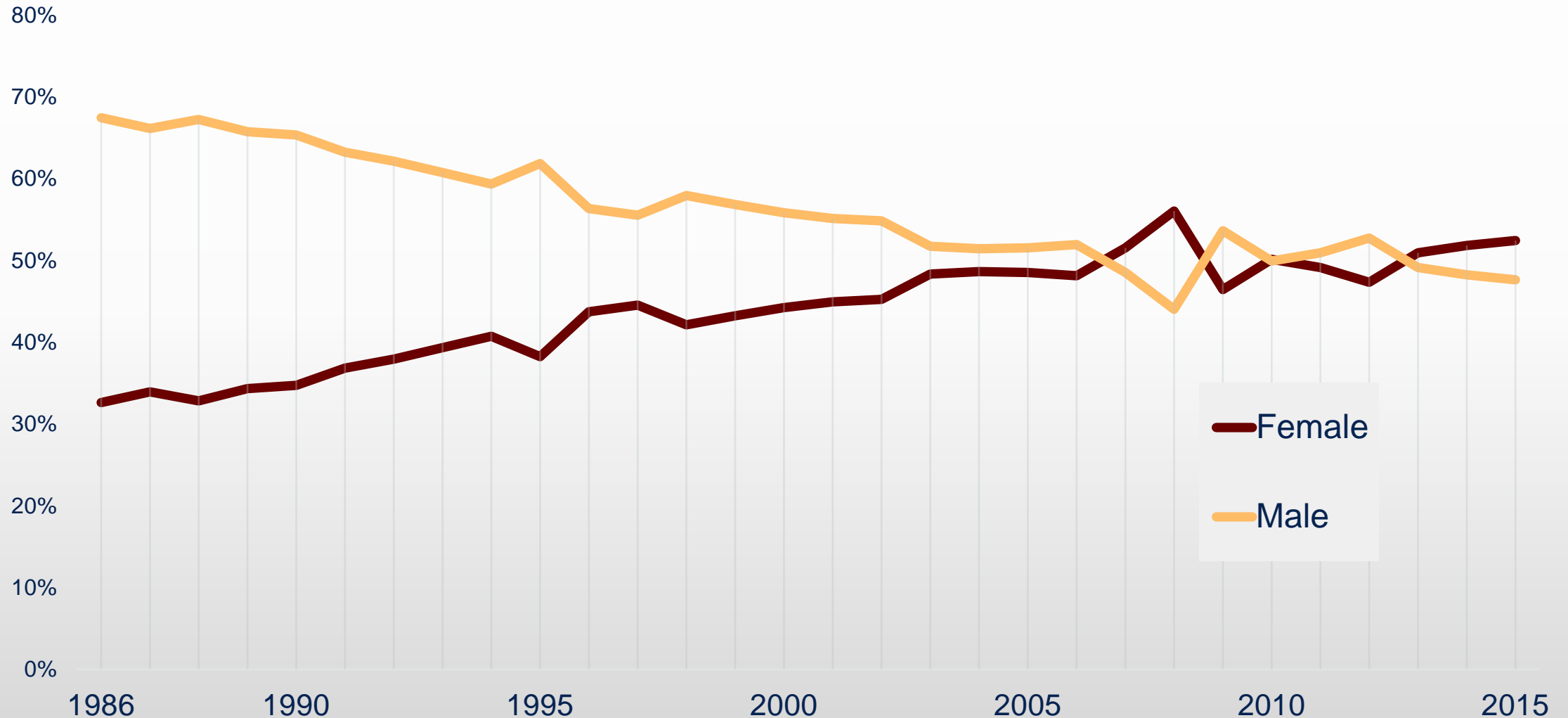


Source: AAMC Data Warehouse: Student file, as of 1/7/2016.

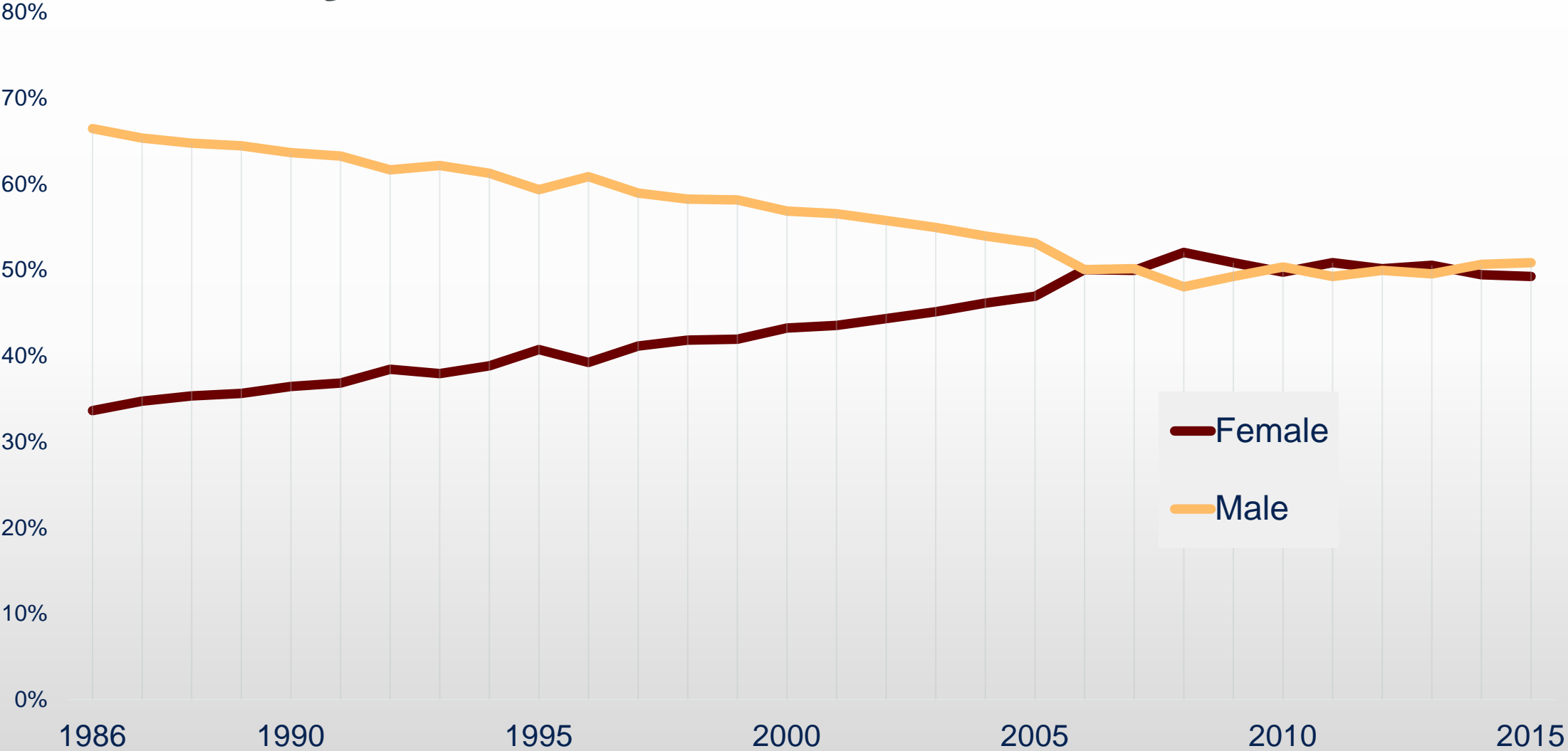
Percentage of U.S. medical school white graduates by sex, 1986-2015



Percentage of U.S. medical school Hispanic graduates by sex, 1986-2015

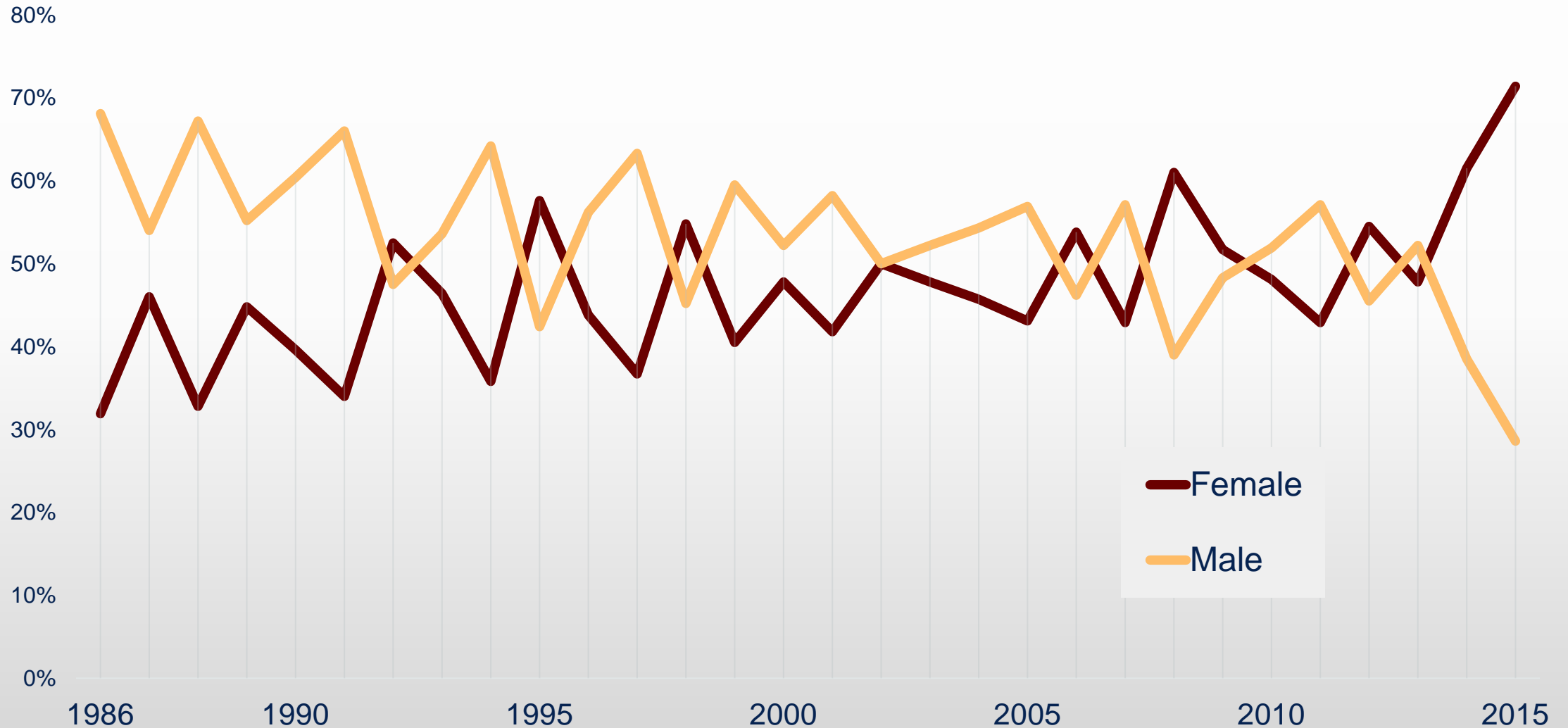


Percentage of U.S. medical school Asian graduates by sex, 1986-2015

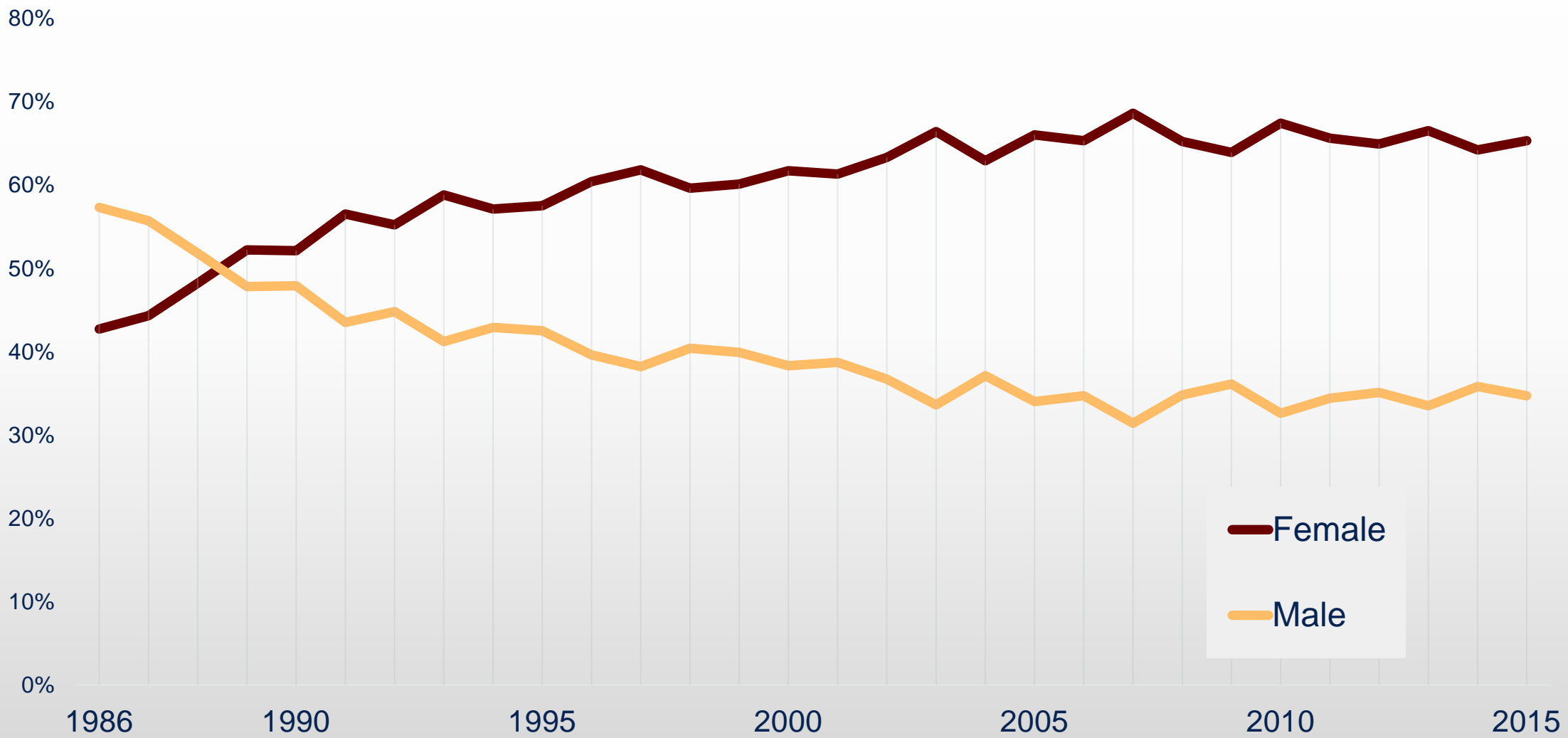


Source: AAMC Data Warehouse: Student data and Applicant and Matriculant file, as of 7/11/2016.

Percentage of U.S. medical school American Indian/Alaska Native graduates by sex, 1986-2015

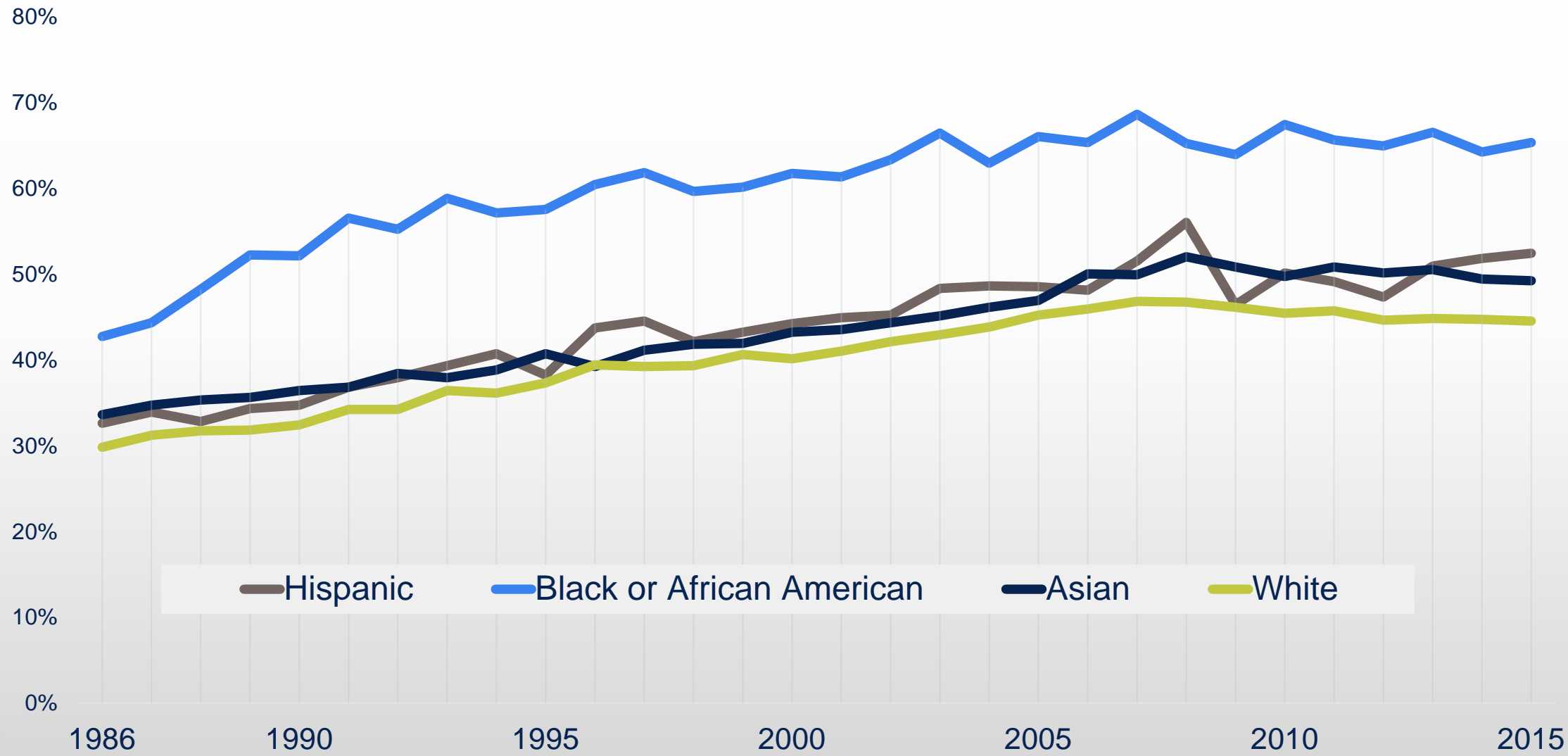


Percentage of U.S. medical school Black or African American graduates by sex, 1986-2015



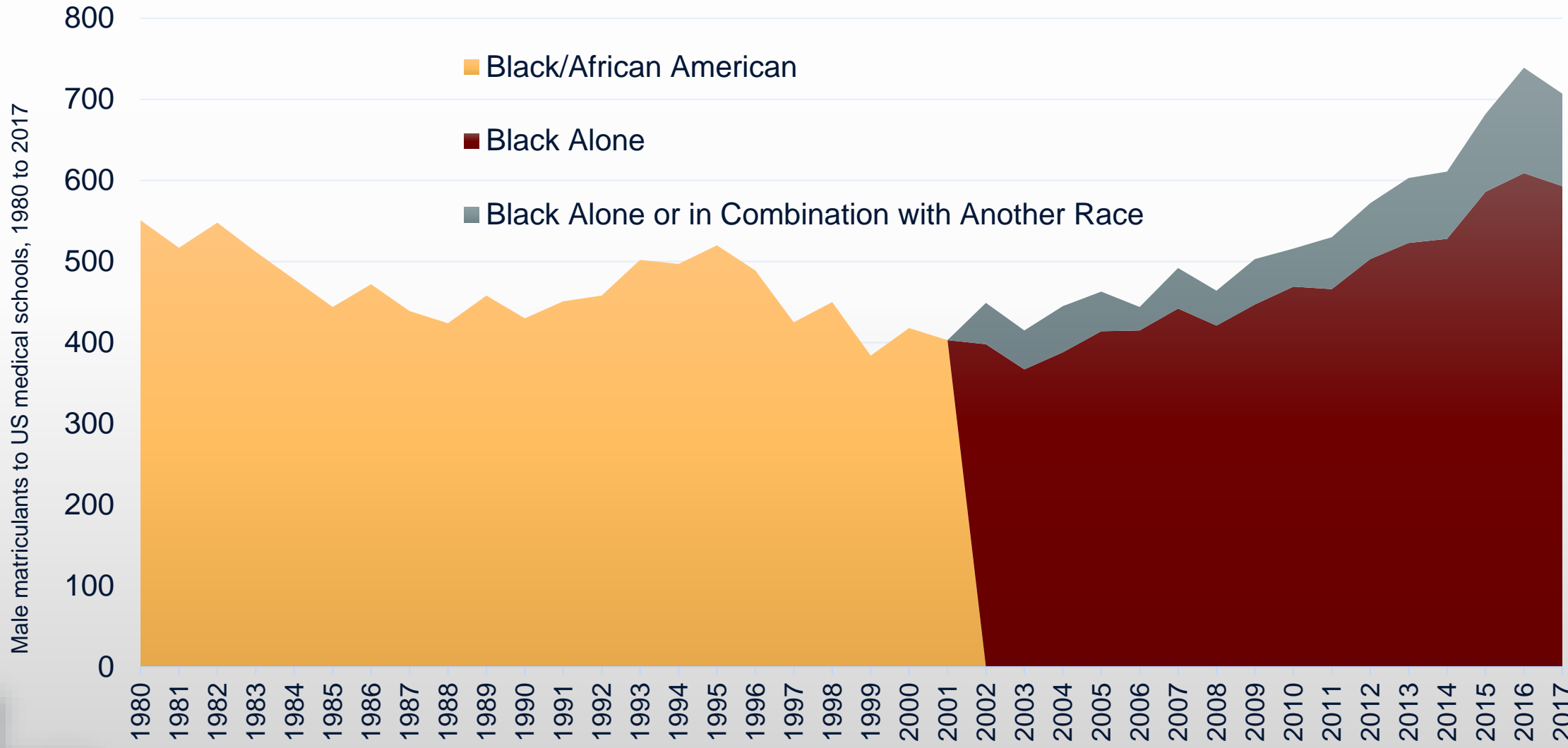
Source: AAMC Data Warehouse: Student data and Applicant and Matriculant file, as of 7/11/2016.

Percentage of U.S. medical school female, 1986-2015



Source: AAMC Data Warehouse: Student data and Applicant and Matriculant file, as of 7/11/2016.

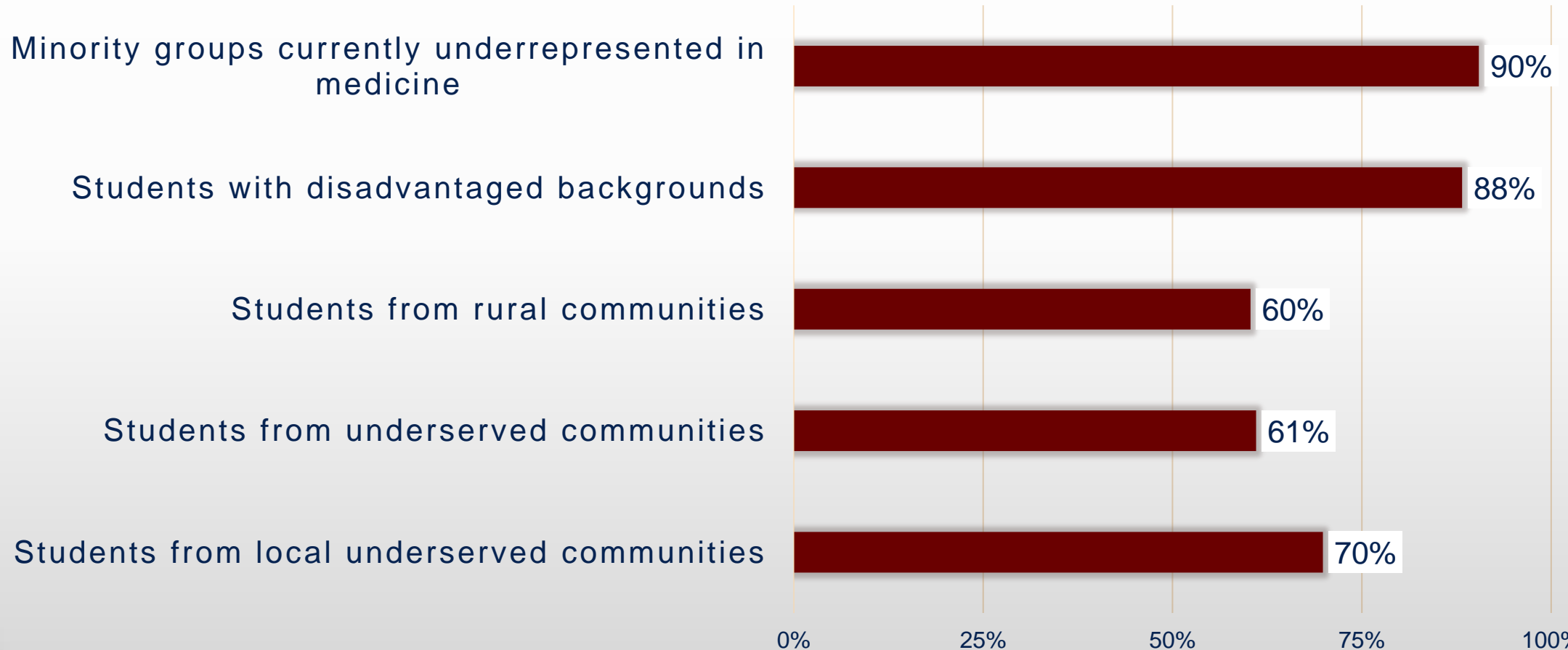
After 30+ years, Black male matriculation is slowly increasing above 1980 levels



Source: AAMC AMCAS APP_BIO tables. Race is only available for permanent residents.

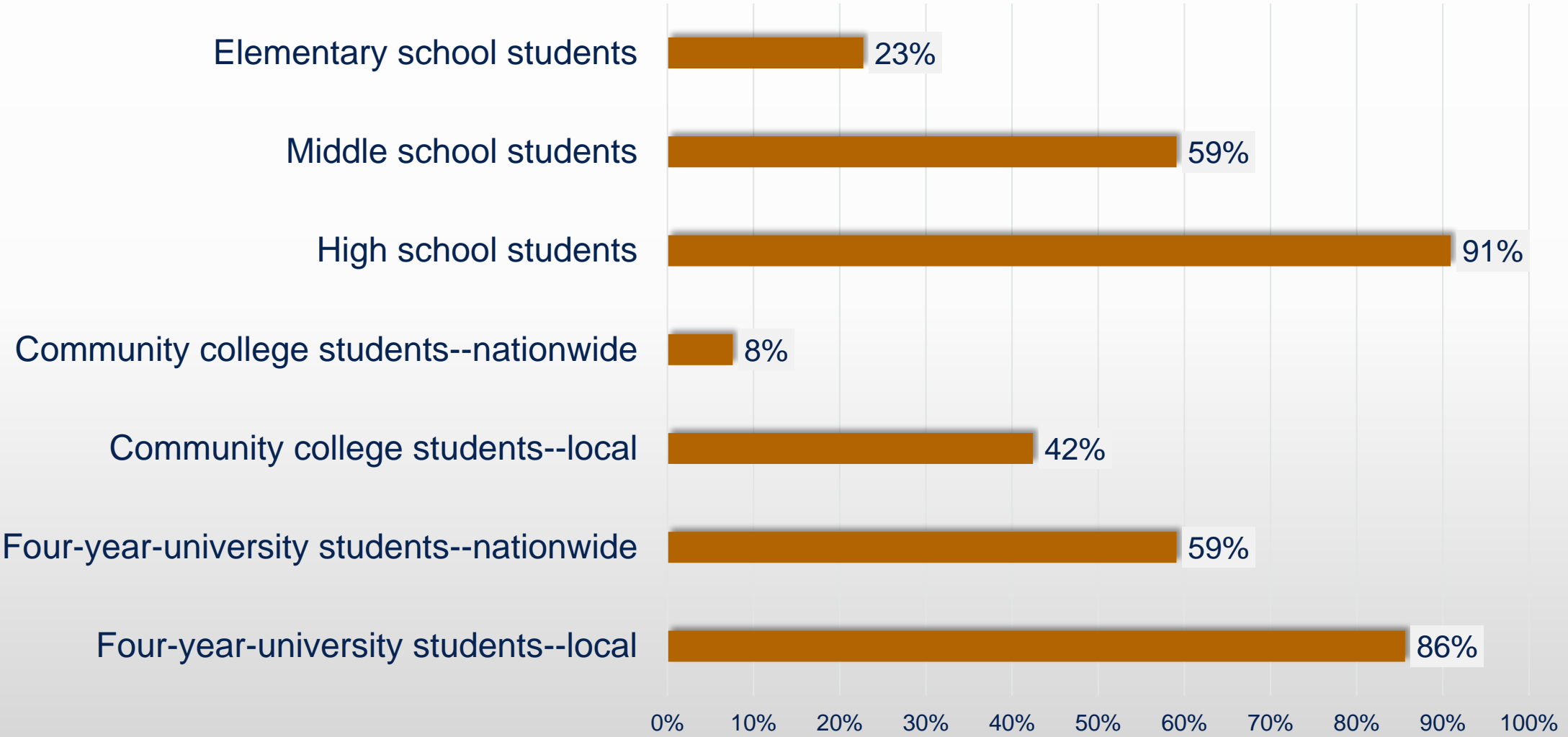
Most USMD schools have programs or policies designed to recruit a diverse student body

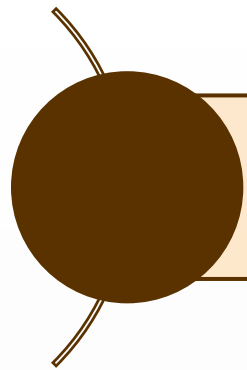
Percentage of programs



Recruitment programs begin in elementary school

Percentage of schools with specific admissions programs or policies

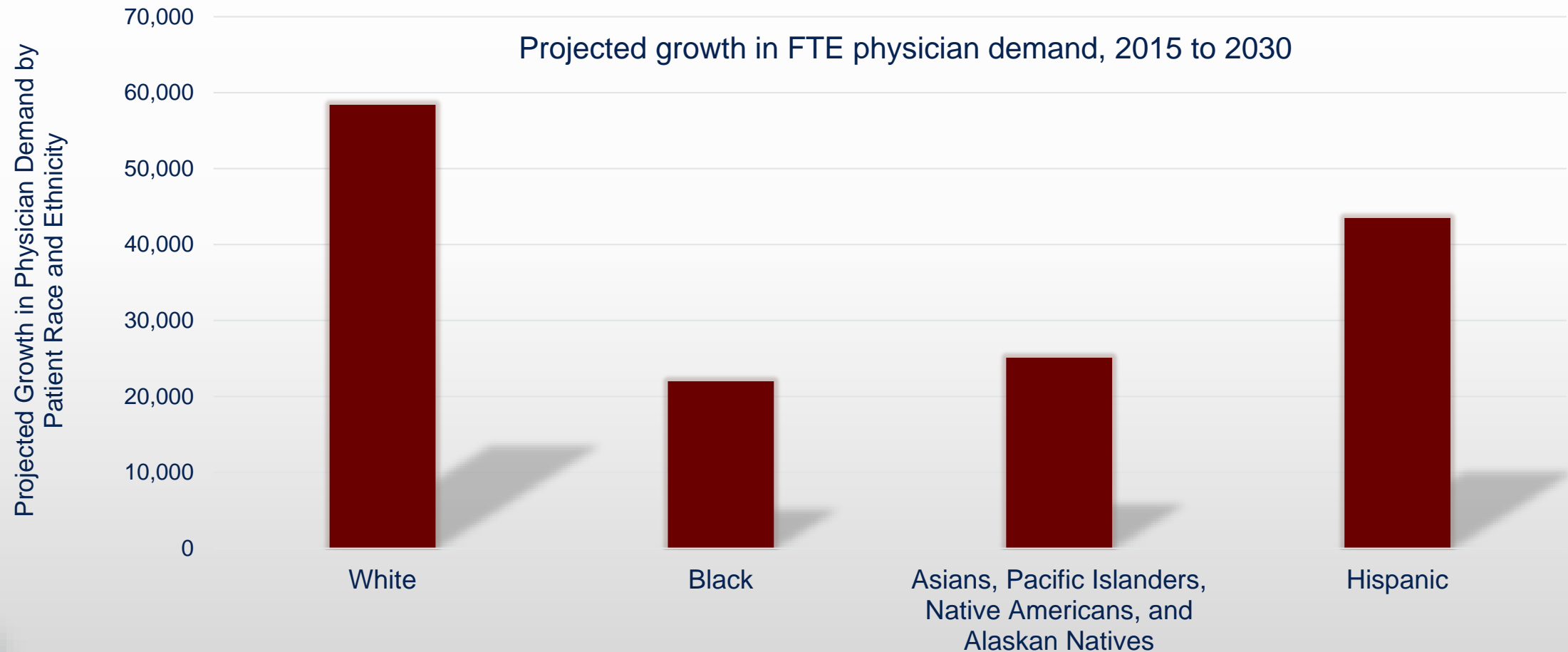




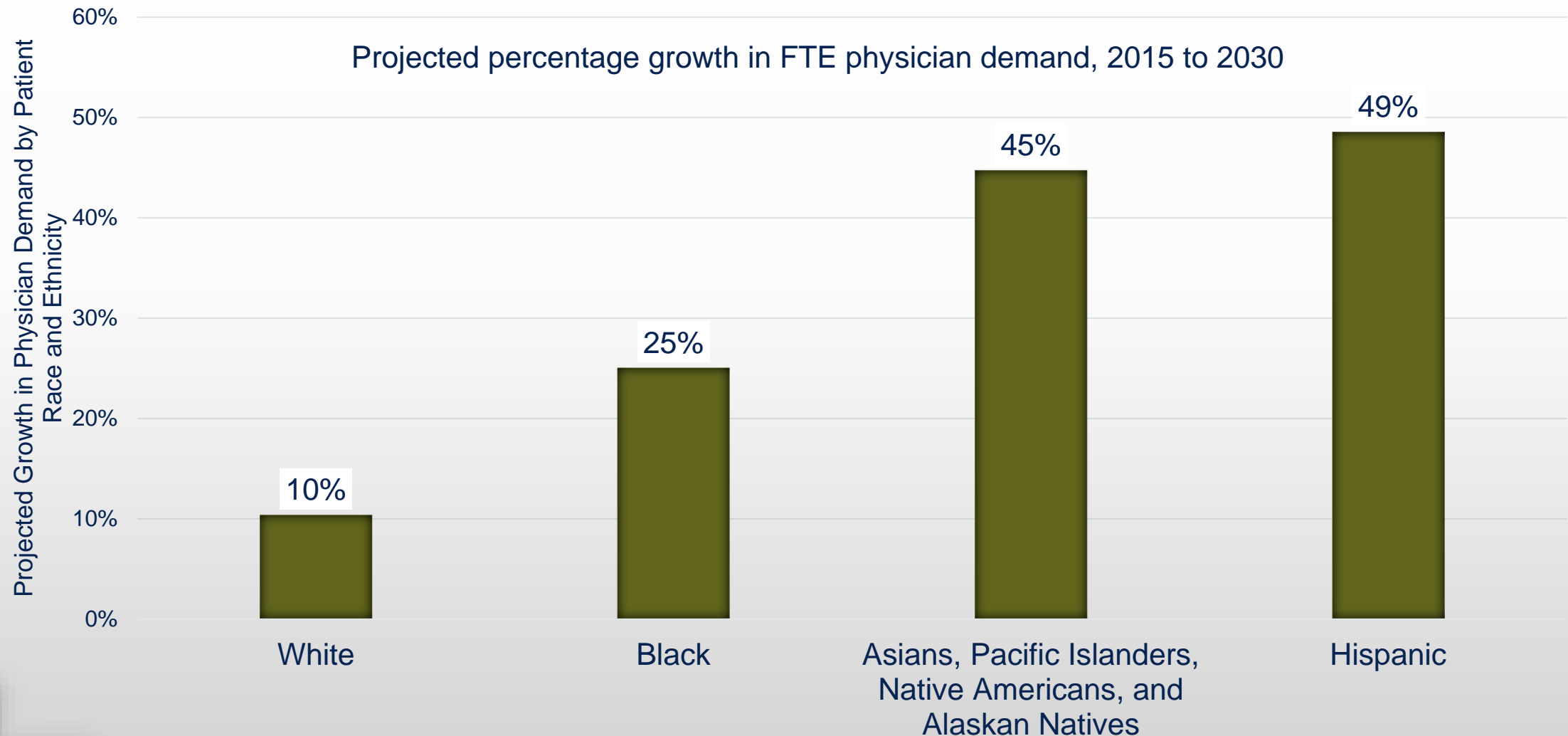
Demand



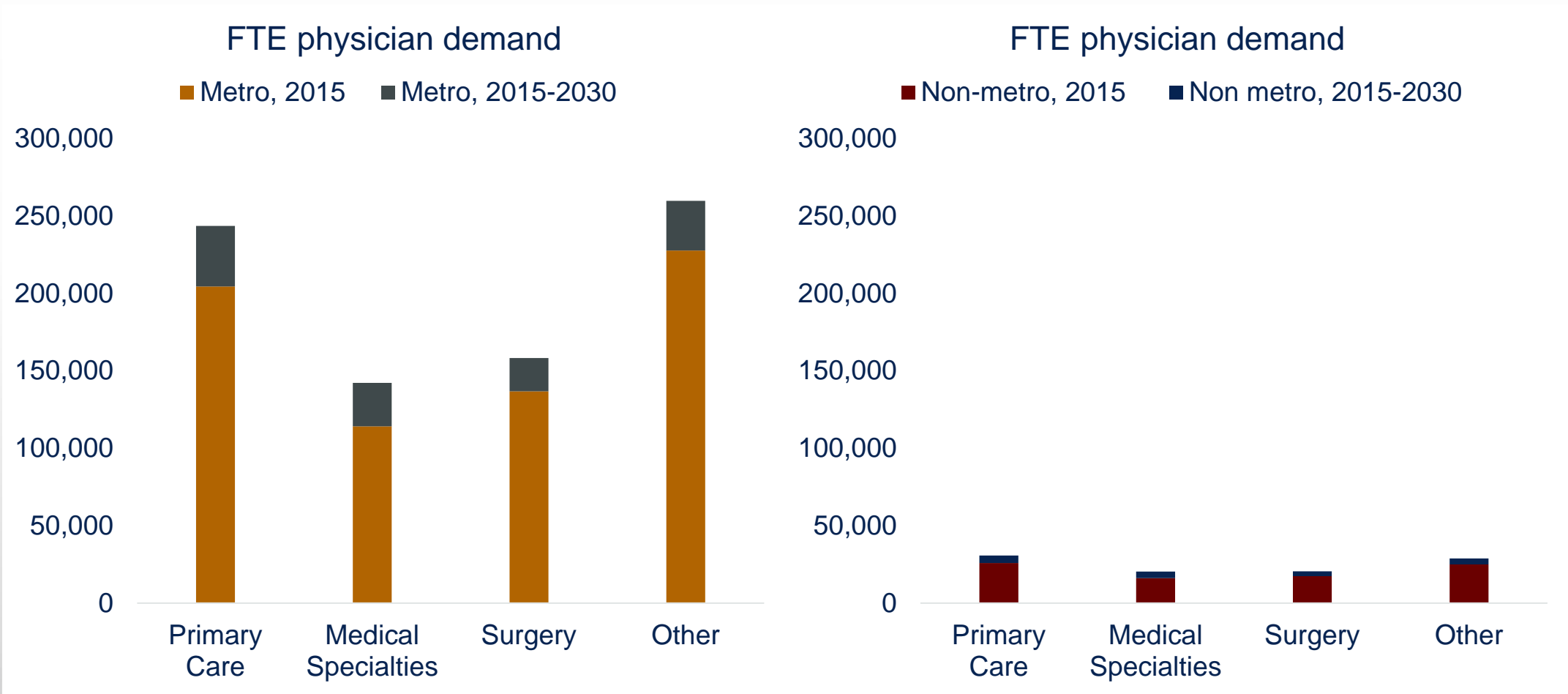
More absolute future growth in utilization projected from whites than other groups



Much faster utilization growth rates projected for other groups than for whites



The vast majority of physician demand – current and projected – is in metropolitan areas

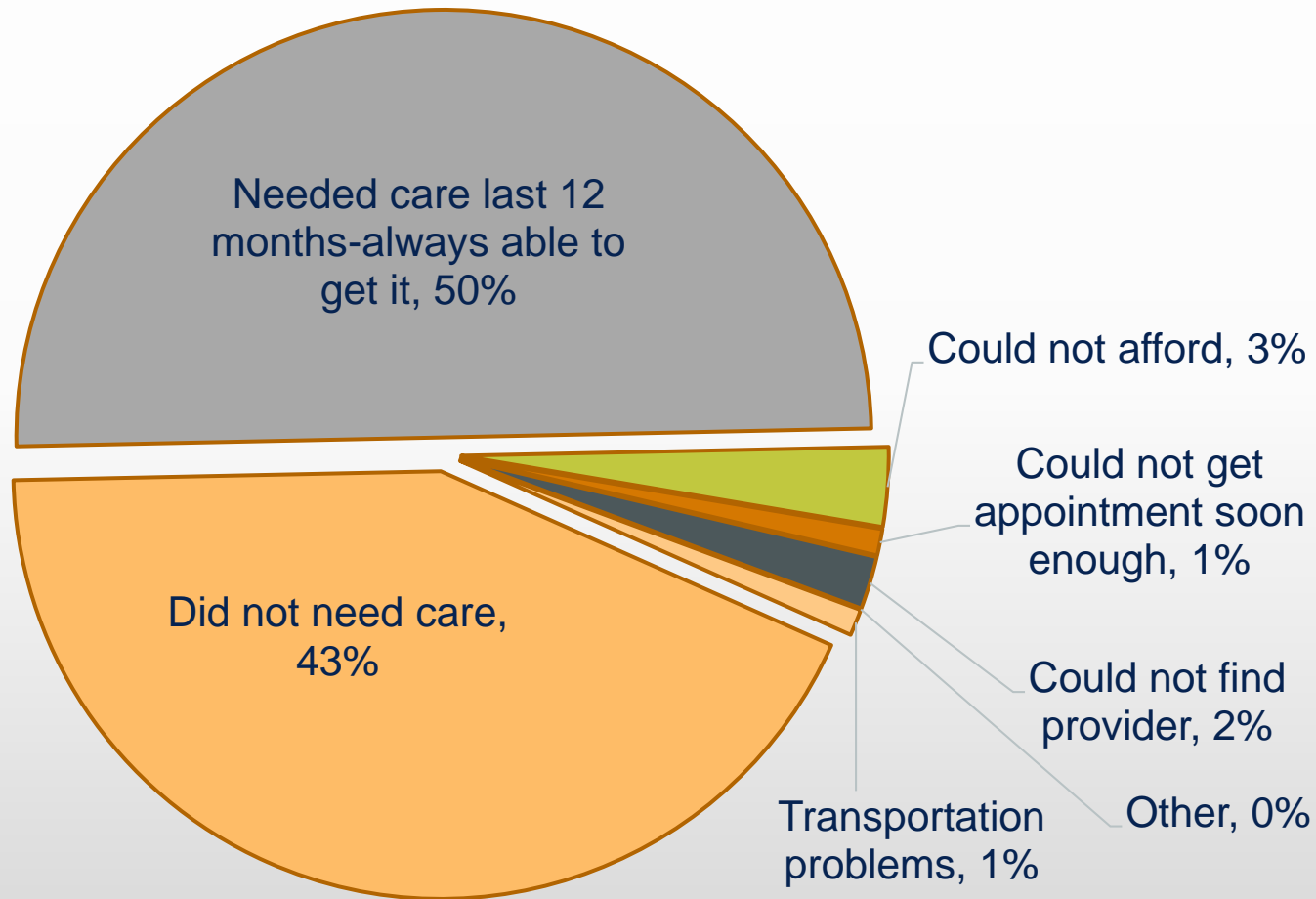




Access to care



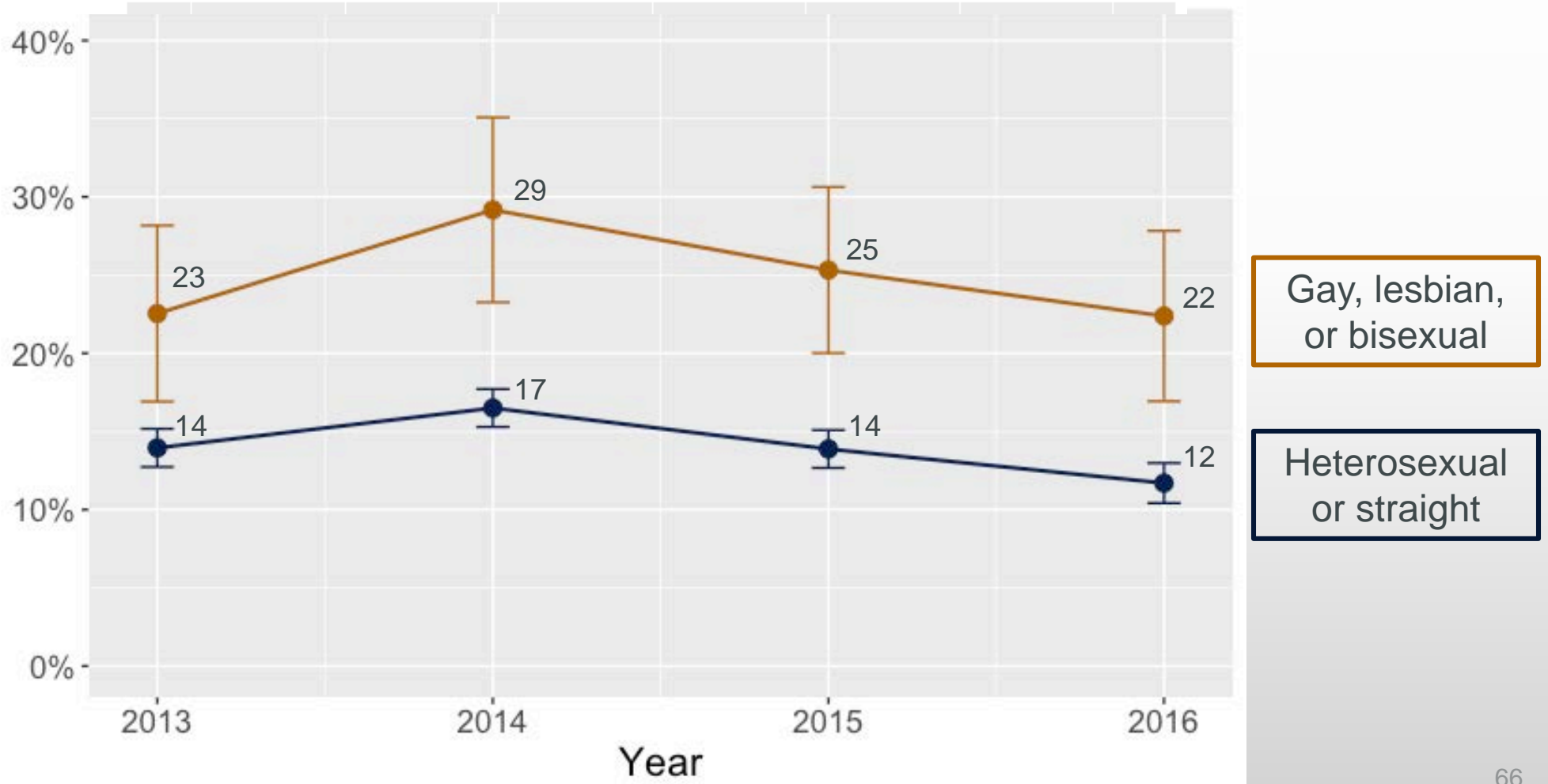
AAMC collects data on health care access from consumers



7% of U.S. adults (>17 million people) could not always get care

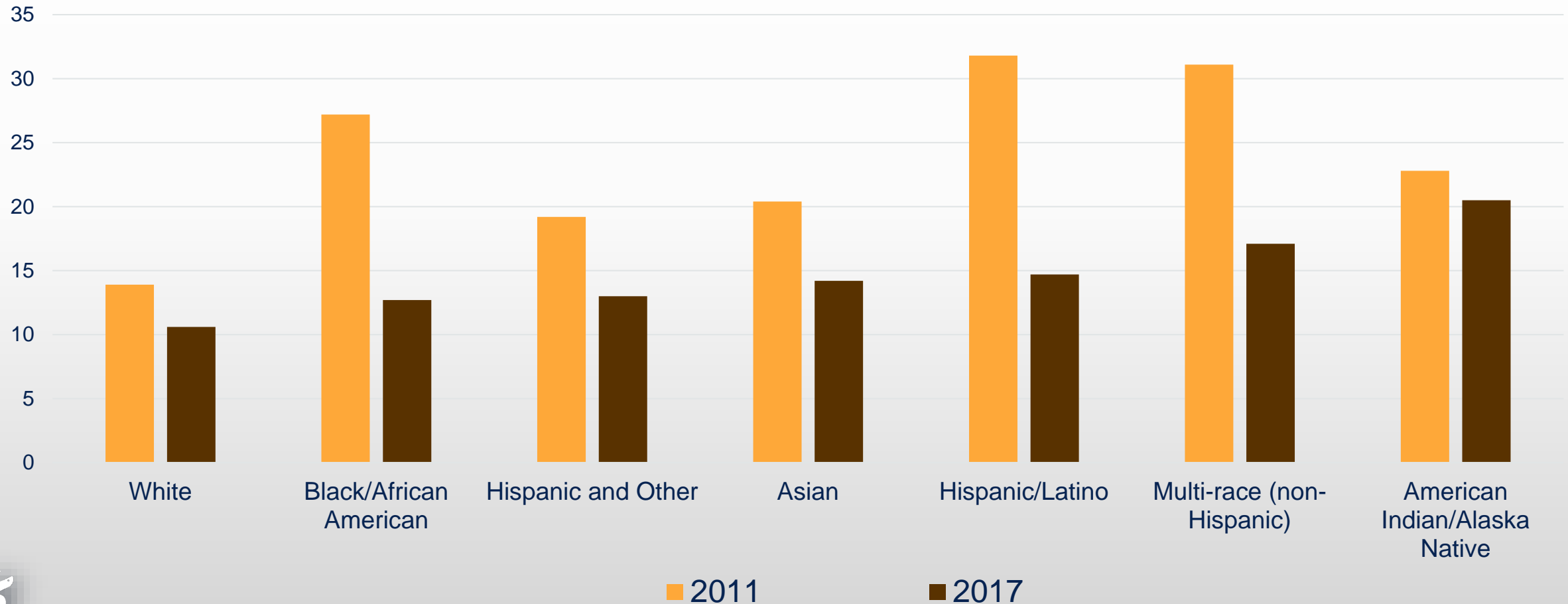
LGB individuals consistently face greater challenges accessing care

Percent of respondents not always able to get necessary medical care, by year



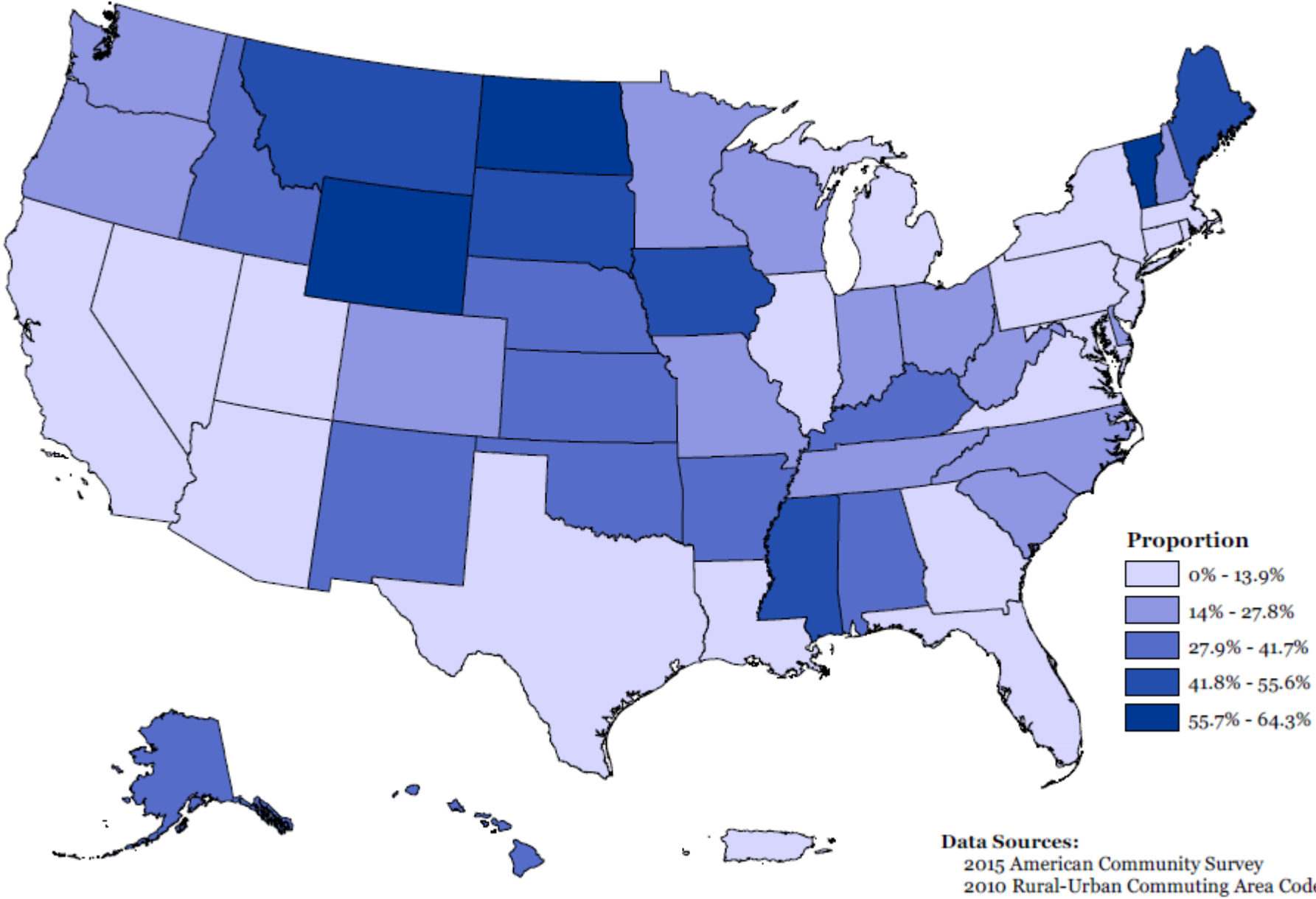
Access to care appears to be improving, though racial/ethnic disparities persist

Percent of respondents not always able to get care



Rural Population Race and Ethnicity by State Hispanic or Latino Origin (Any Race)

The nation's rural population is not homogenous



Rural access varies by race/ethnicity

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“The diversity of American medicine — and the conversations, ideas and breakthroughs this diversity sparks — may be one reason for our competitiveness as a global leader in biomedical research and innovation.”

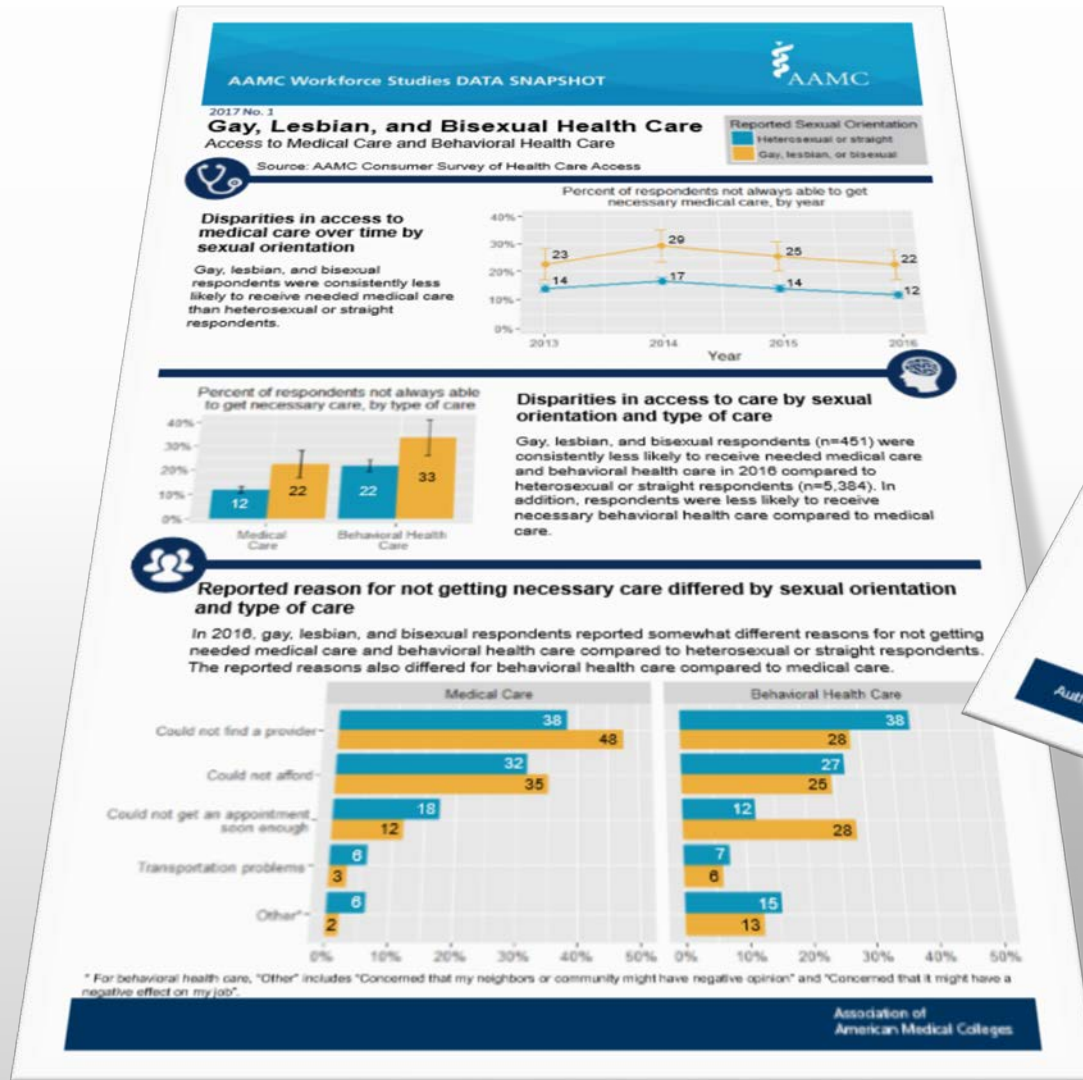
- Dhruv Khullar, MD

The AAMC Workforce Studies Team

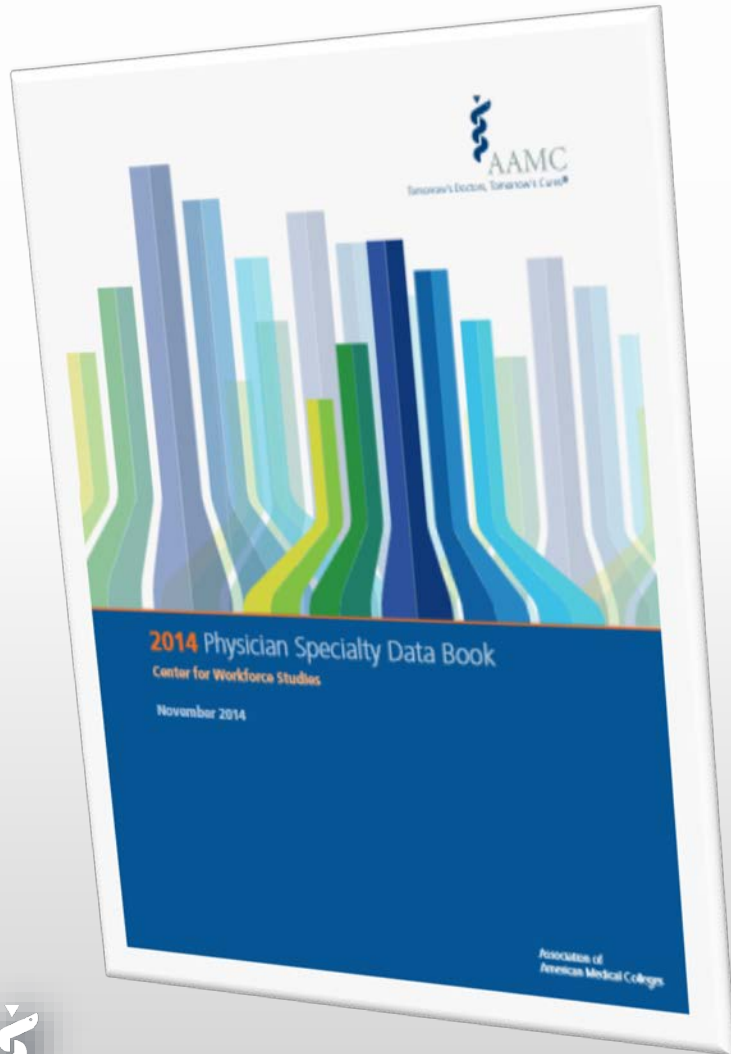
- Da'Shia Davis, BS
- Kara Fisher, MPH
- Sarah Hampton, BA
- Karen Jones, MApStat
- Scott Shipman, MD
- Imam Xierali, PhD

- Preeti Iyer, BSE (in progress)
- Michelle Ogunwole, MD

Data Snapshots



Physician data reports



State and specialty rankings and data on:

- Physician Supply
- UME/GME
- In-State Retention



mdill@aamc.org

www.aamc.org/workforce

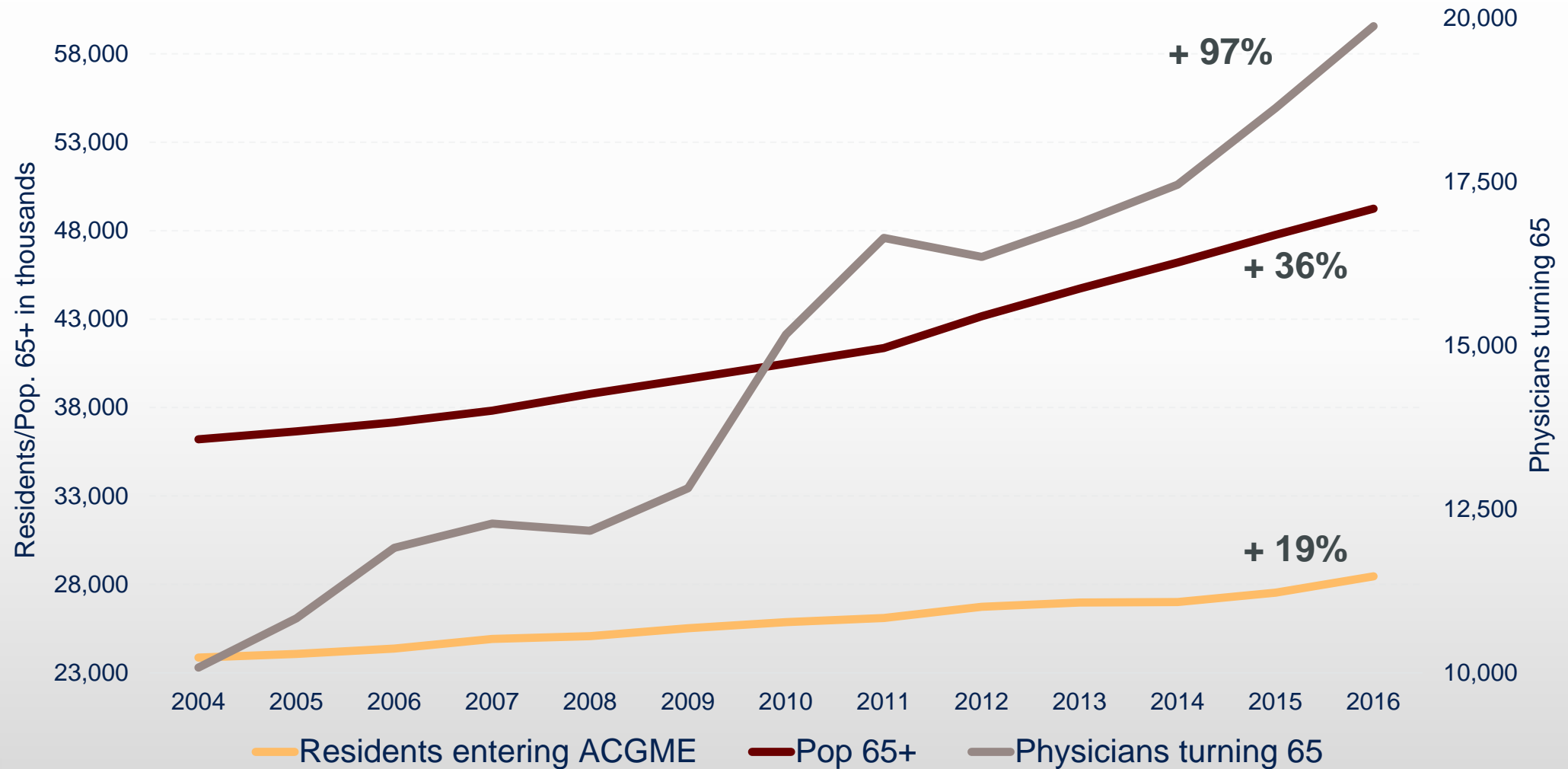
2018 Health Workforce Research Conference

Tysons, VA

May 9-11, 2018



Production of new physicians not keeping up with aging workforce and population



PROJECTIONS

- SHORTAGES
- NOT KEEPING UP WITH AGING

Pulling it all together

DIVERSITY

- A GOOD THING
- PROGRESS
- NEED MORE PROGRESS

POPULATION

- AGING
- DIVERSE
- DEALING WITH DISPARITIES

Where do we go from here?

- Extent of current shortages
- Work hours and retirement
- PAs and APRNs
- Clinical training/clerkships
- Distribution solutions
- Pipeline programs
- Keep tracking access

Questions?

