

# Employment and Racial Disparities in Maryland's Workforce Pipeline

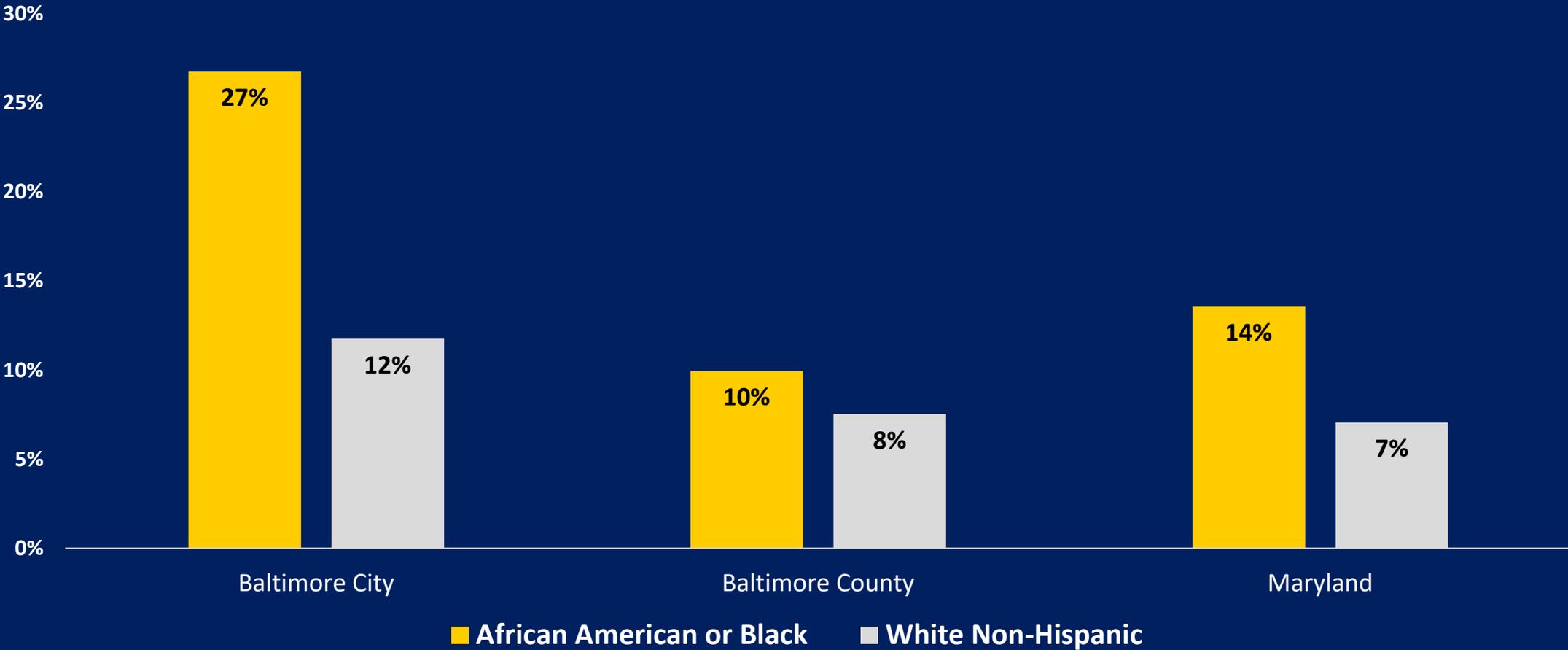


Regional Economic  
Studies Institute

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May 16, 2018

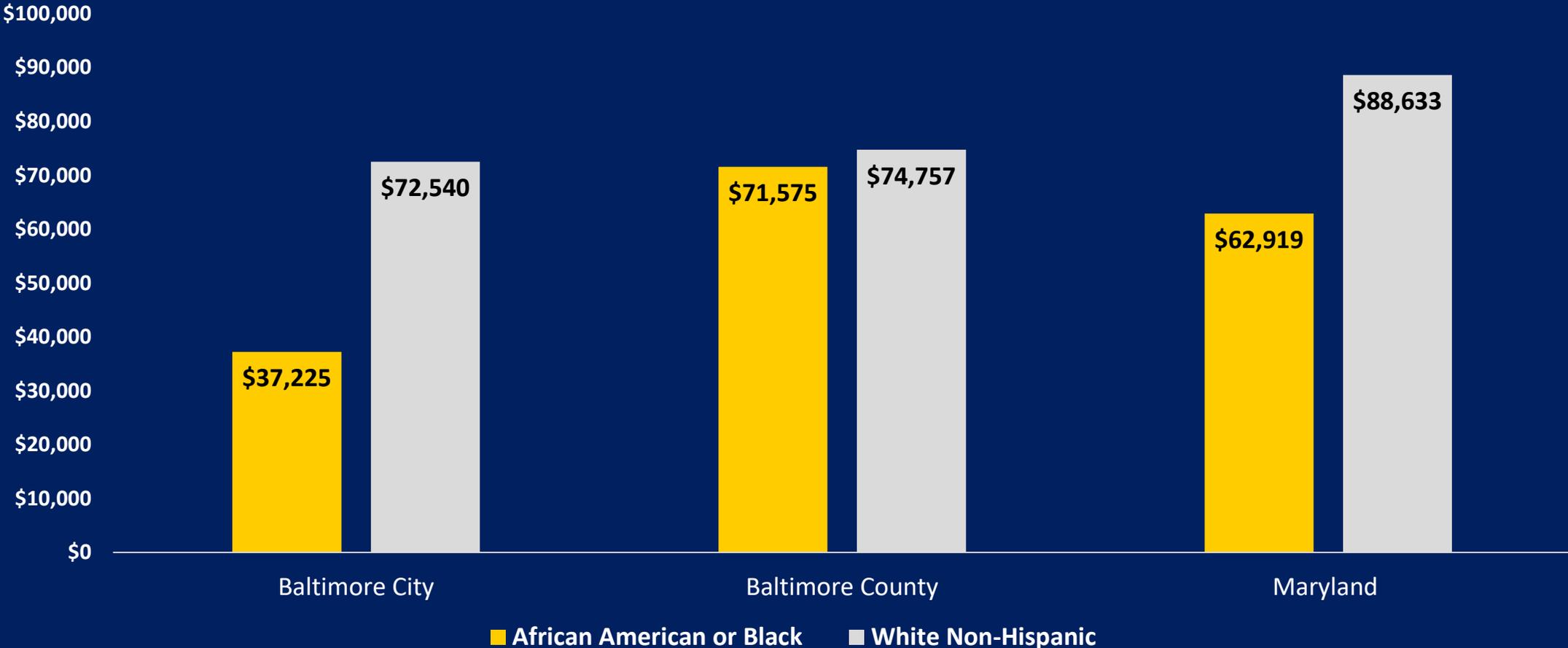
# Poverty is More Prevalent Among African American than White Marylanders

Poverty Rates by Race, 2016



# African Americans Tend to Earn Less Than White Maryland Residents

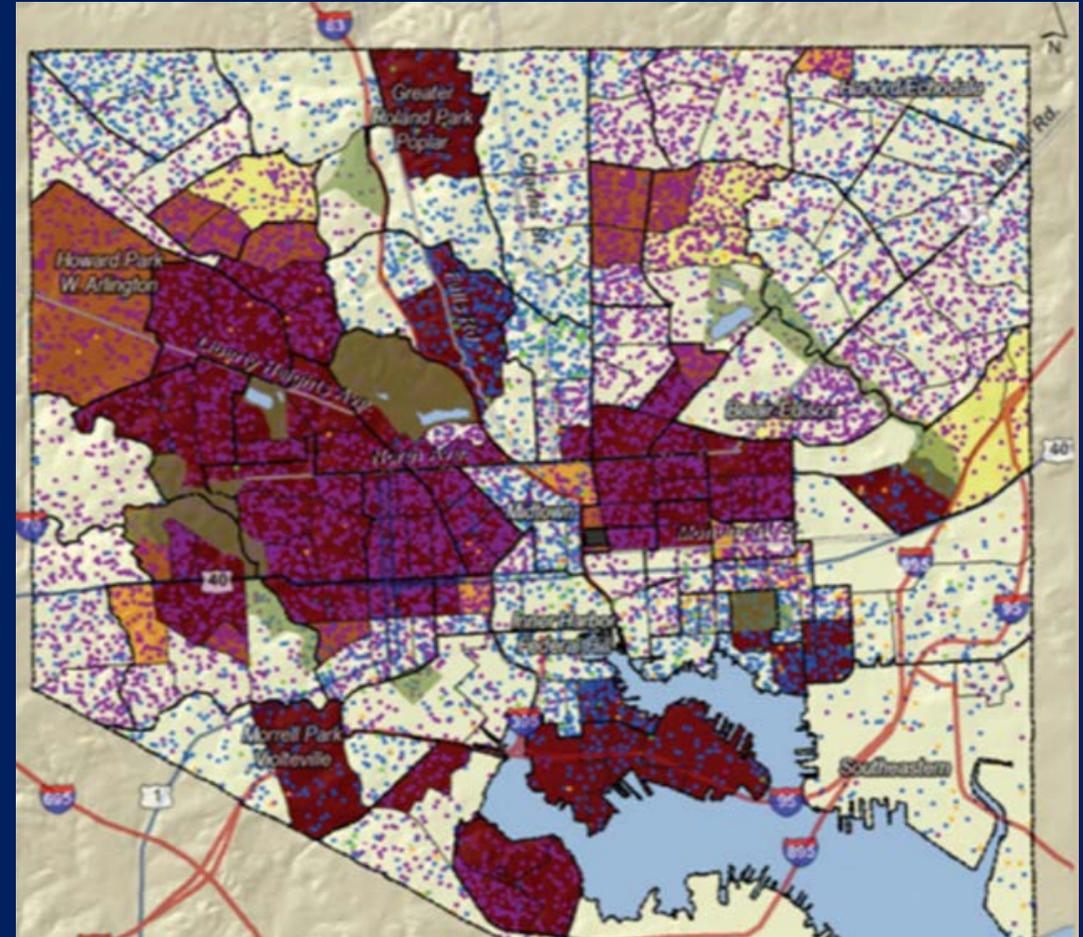
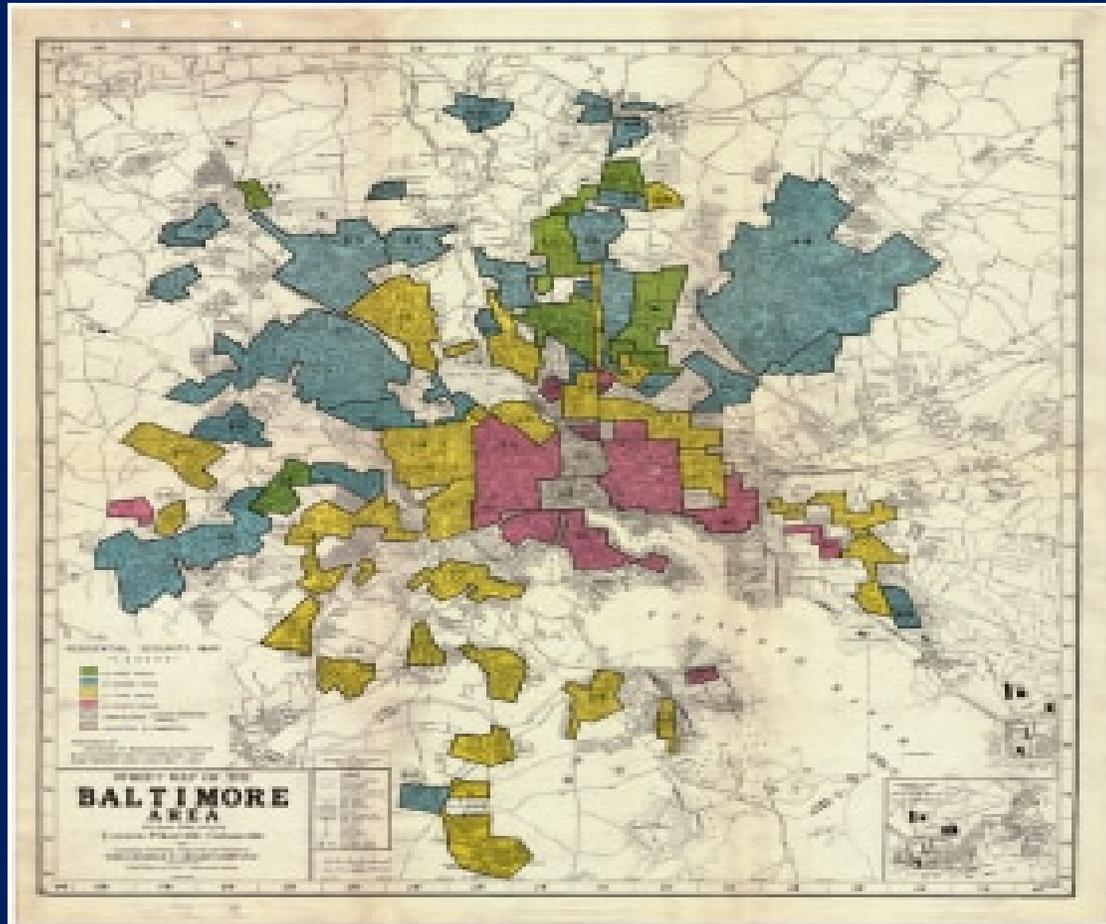
Median Household Income by Race, 2016



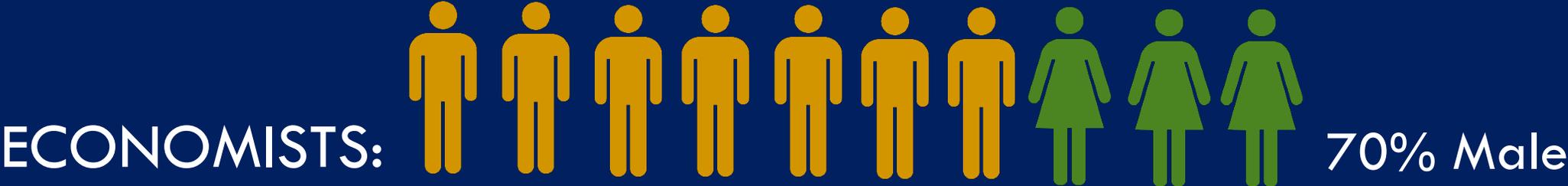
# 1/3 of Baltimore City Households of Color Have Zero Net Worth



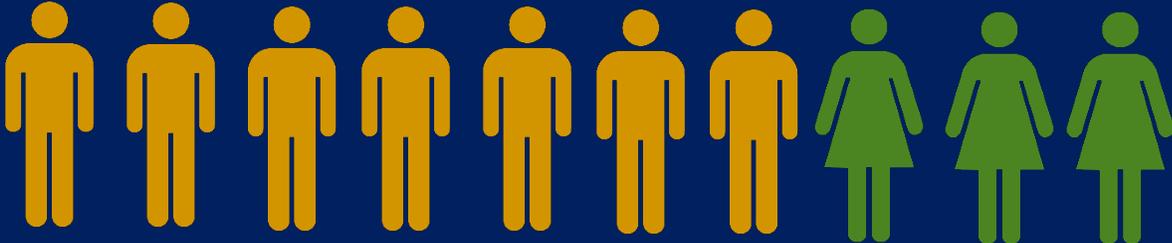
# Red-Lining vs Persistent Segregation



# How We Measure Segregation Matters: What Baseline Do We Use?

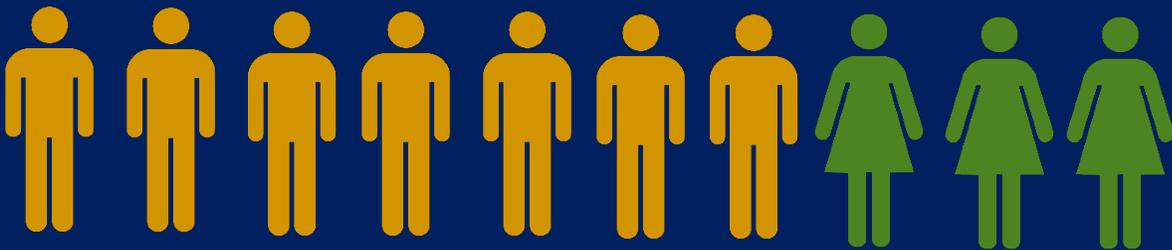


# How We Measure Segregation Matters: What Baseline Do We Use?

ECONOMISTS:  70% Male

50% Male - 50/50 Split?

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ECONOMISTS:  70% Male

50% Male - 50/50 Split?

70% Male - Gender Split in Region?

60% Male - Gender Split with Needed Education?

# When Measuring Segregation, We Need to Control for Education

- Education may vary between groups for a variety of reasons:
  - Self selection
  - Cultural norms
  - Implicit bias
  - Poverty
- Need to separate how much of an occupation's segregation is due to education or other biases

# Occupational Crowding

*Percent of group in occupation*

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*Percent of group with necessary education*

- The resulting ratio tells you if a group is over- or under-represented in a given occupation
  - 1 indicates no crowding (proportional representation)
  - Scores above 1 indicate group members are being “crowded” by society into those occupations

# How We Measure Segregation Matters: Aggregating Across an Economy



# How to Measure Segregation Across an Area: The Duncan Index of Dissimilarity

$$\frac{1}{2} \sum \left| \frac{Men_i}{Men} - \frac{Women_i}{Women} \right|$$

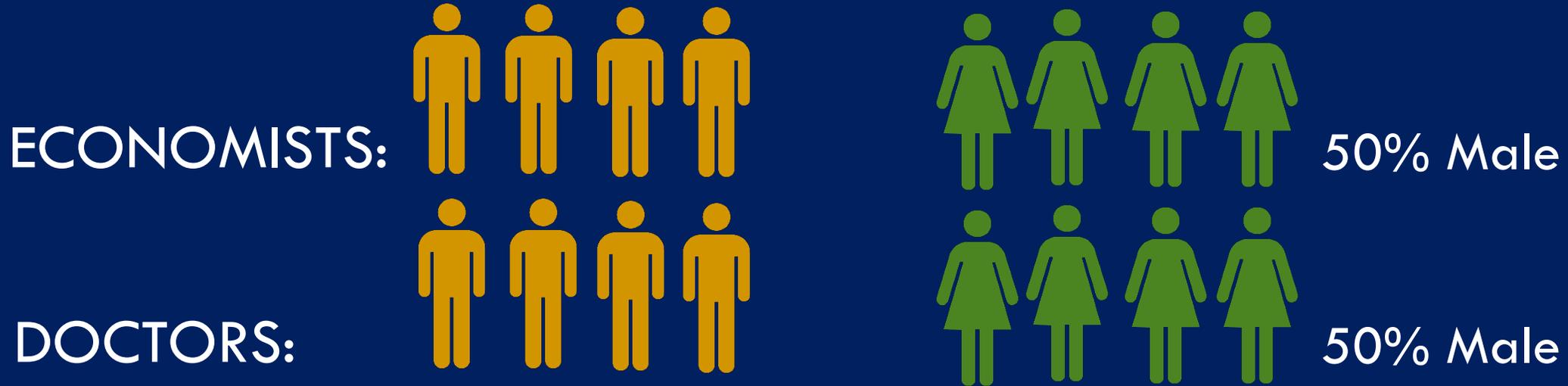
- Tells us the percentage of workers in a group that would have to switch jobs to “balance” the economy

# The Duncan Index in Practice



$$\frac{1}{2} \left[ \left| \frac{6}{8} - \frac{4}{8} \right| + \left| \frac{2}{8} - \frac{4}{8} \right| \right] = 25\%$$

# The Duncan Index in Practice

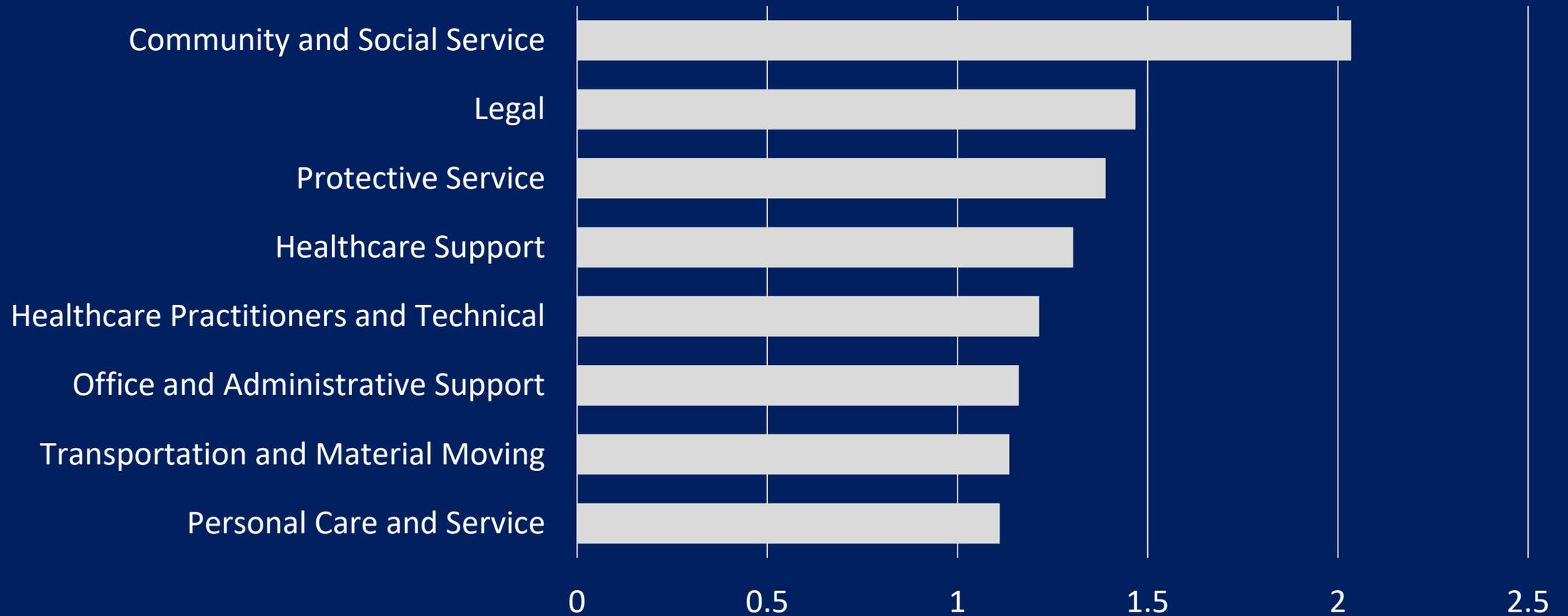


Moving 2 of the 8 men (25%) balanced out this economy

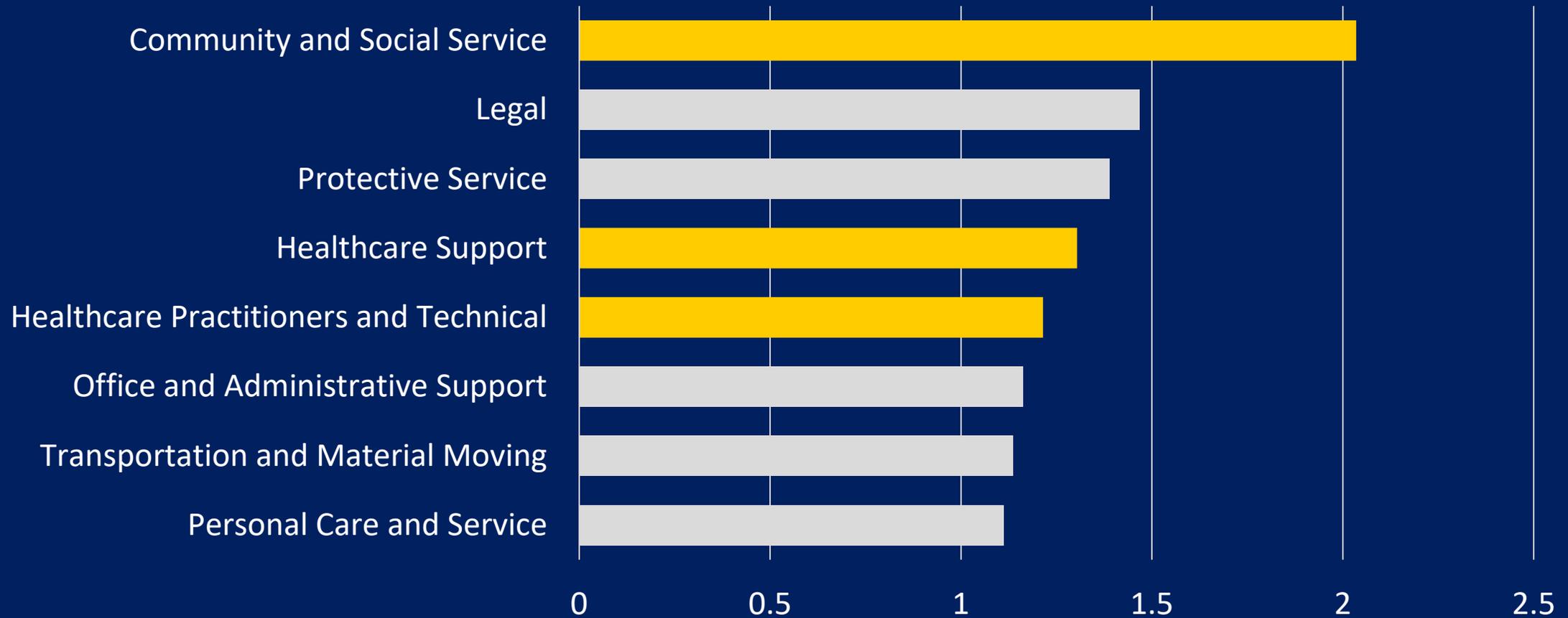
# RESI's Analysis of Segregation in Maryland

- Built on work by:
  - Michelle Holder (2015)
  - Hamilton, Austin, Darity (2011)
  - Gibson, Darity, Myers (1998)
  - Bergmann (1978)
- Used 5-year ACS data from IPUMS
  - 2009 – 2016
  - 2.3 million observations
- Computed Occupational Crowding statistics and Duncan Indices

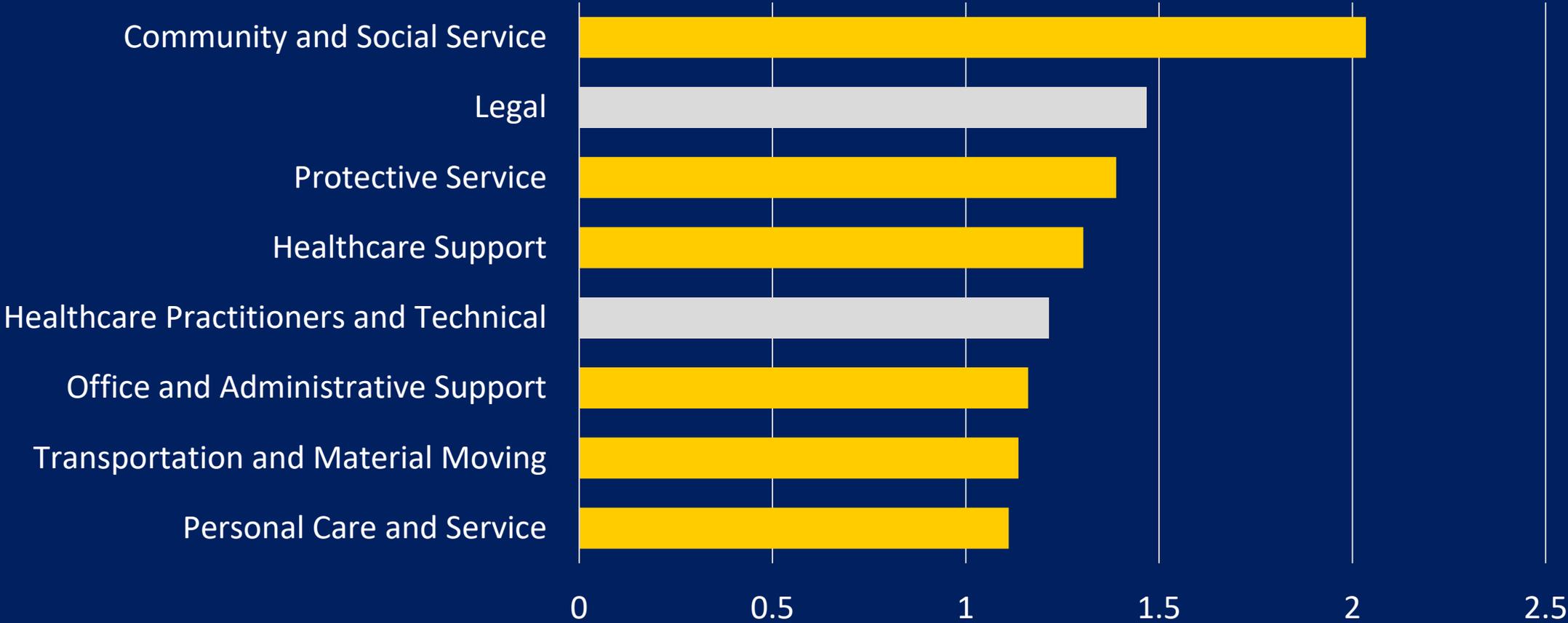
# Of 22 Major Occupation Categories, African Americans in Baltimore are “Crowded” Into 8



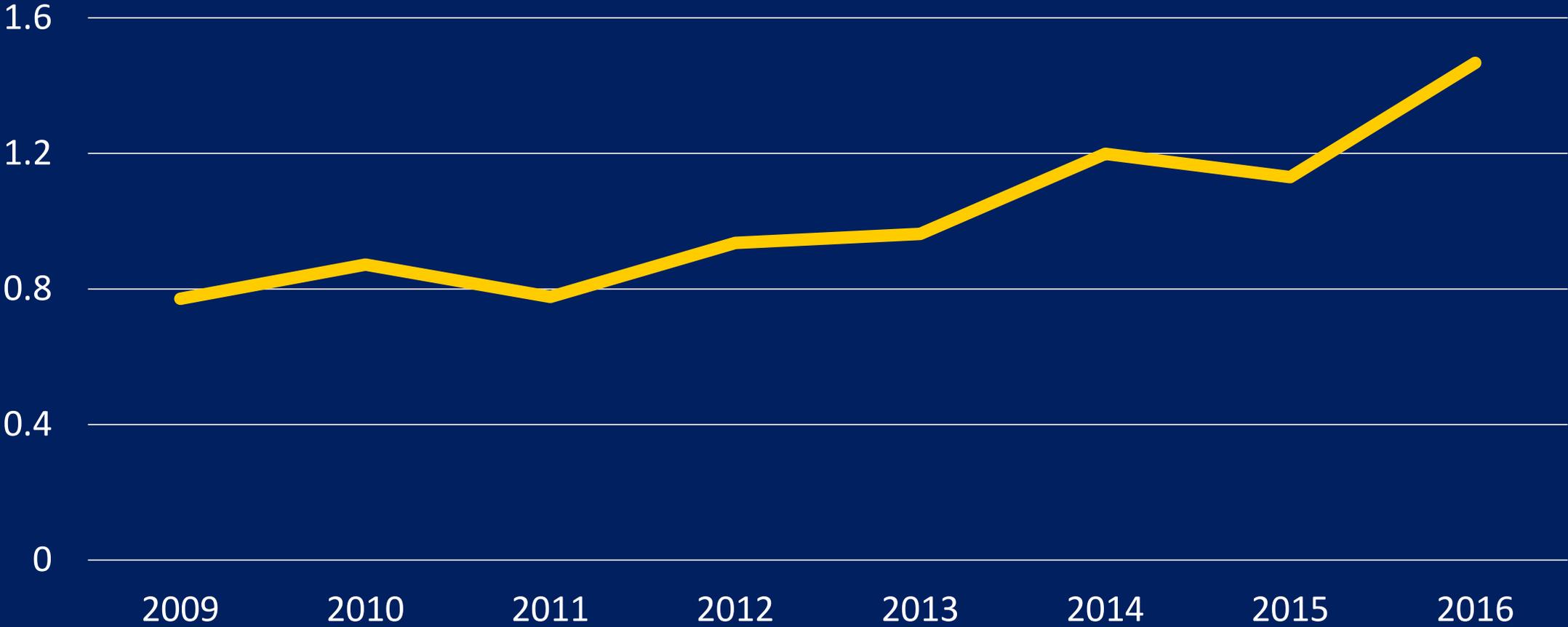
# African-American Workers in Baltimore are More Likely to Work in Healthcare



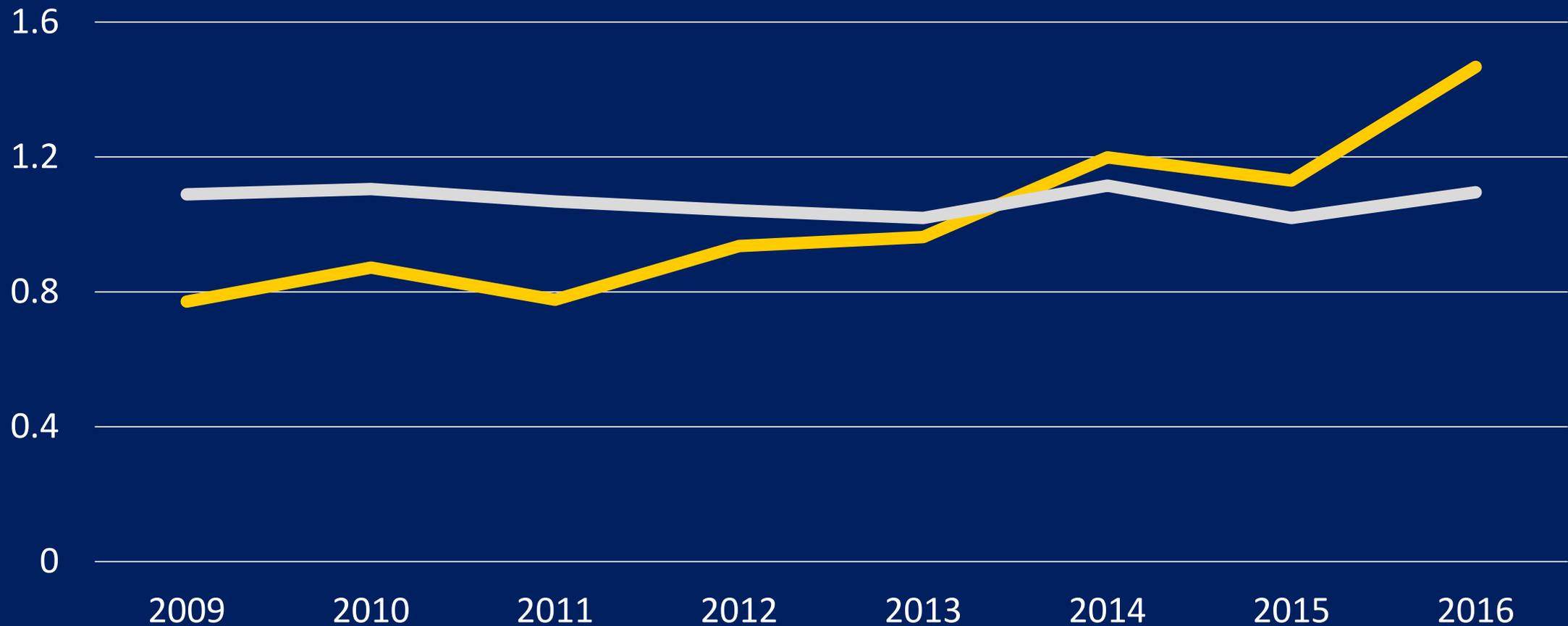
# African-American Workers in Baltimore are More Likely to be in Low-Paying Jobs



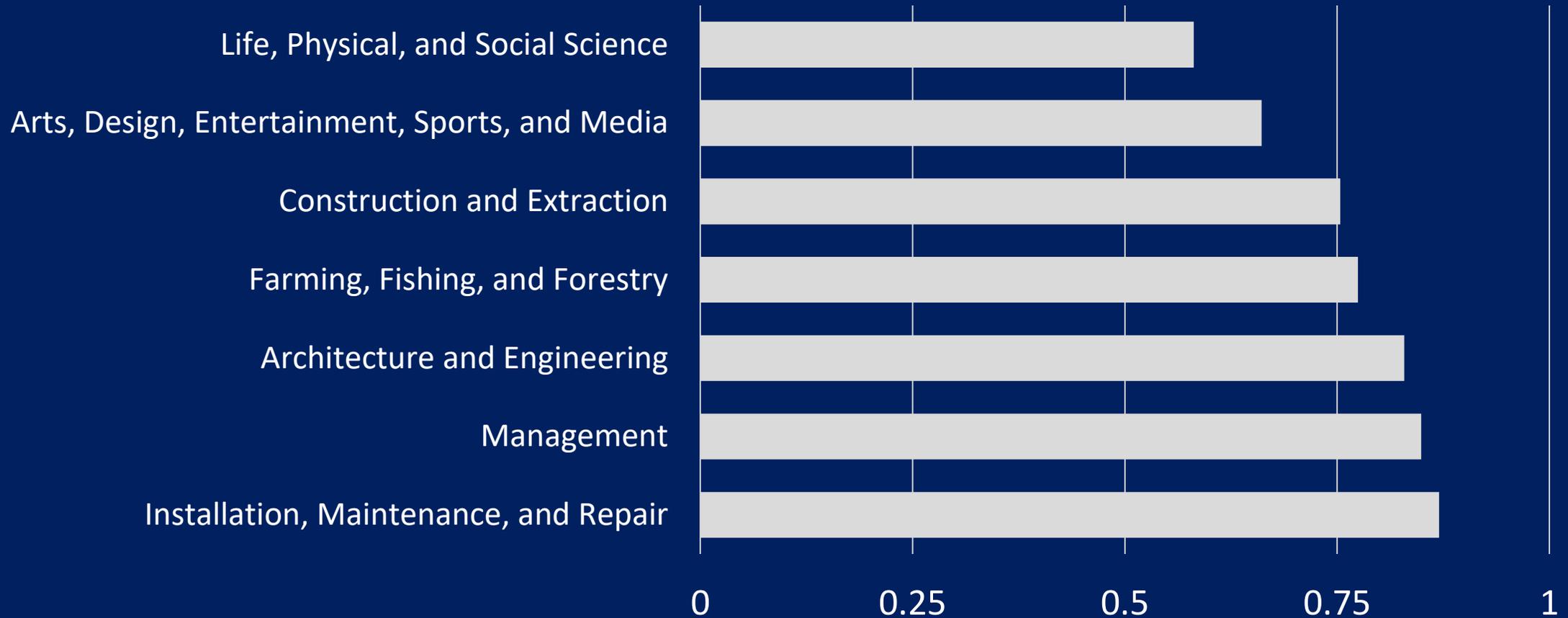
# Post-Recession, African Americans in Baltimore Diversified Legal Occupations



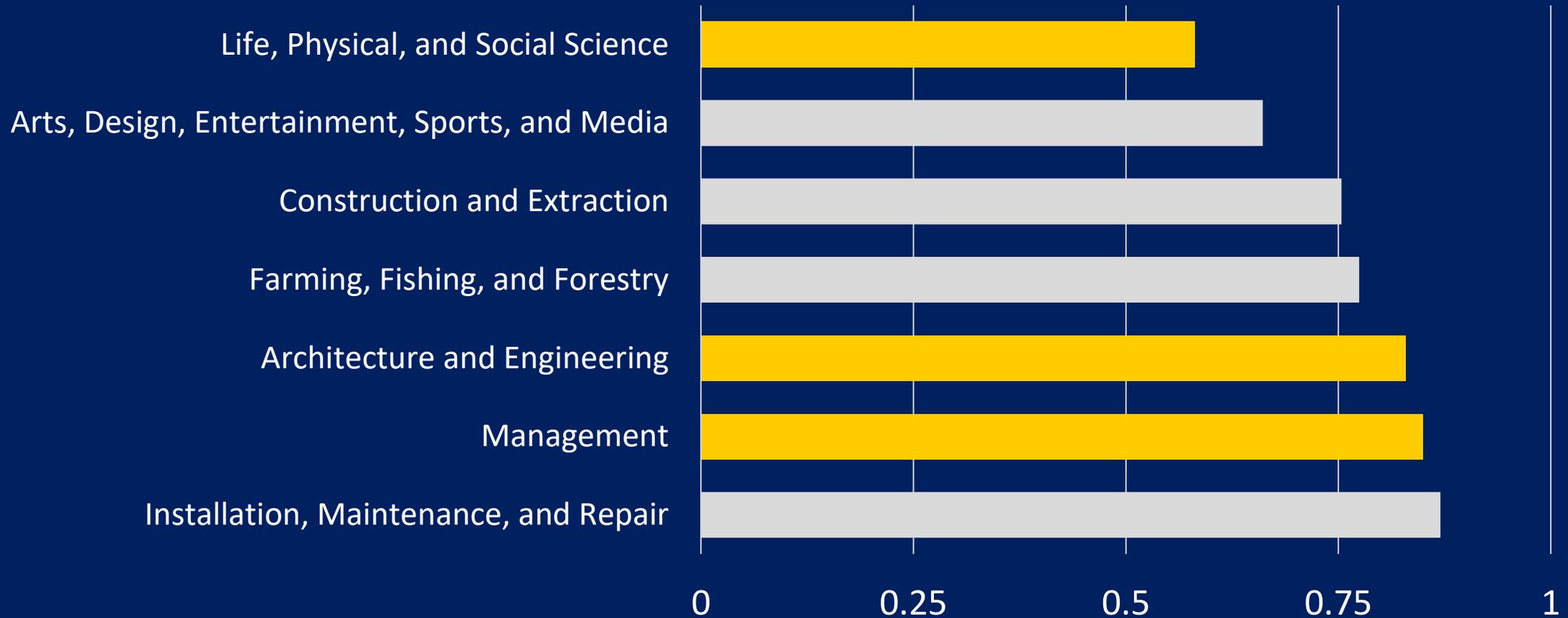
# ...However Similar Diversification Statewide did not Materialize



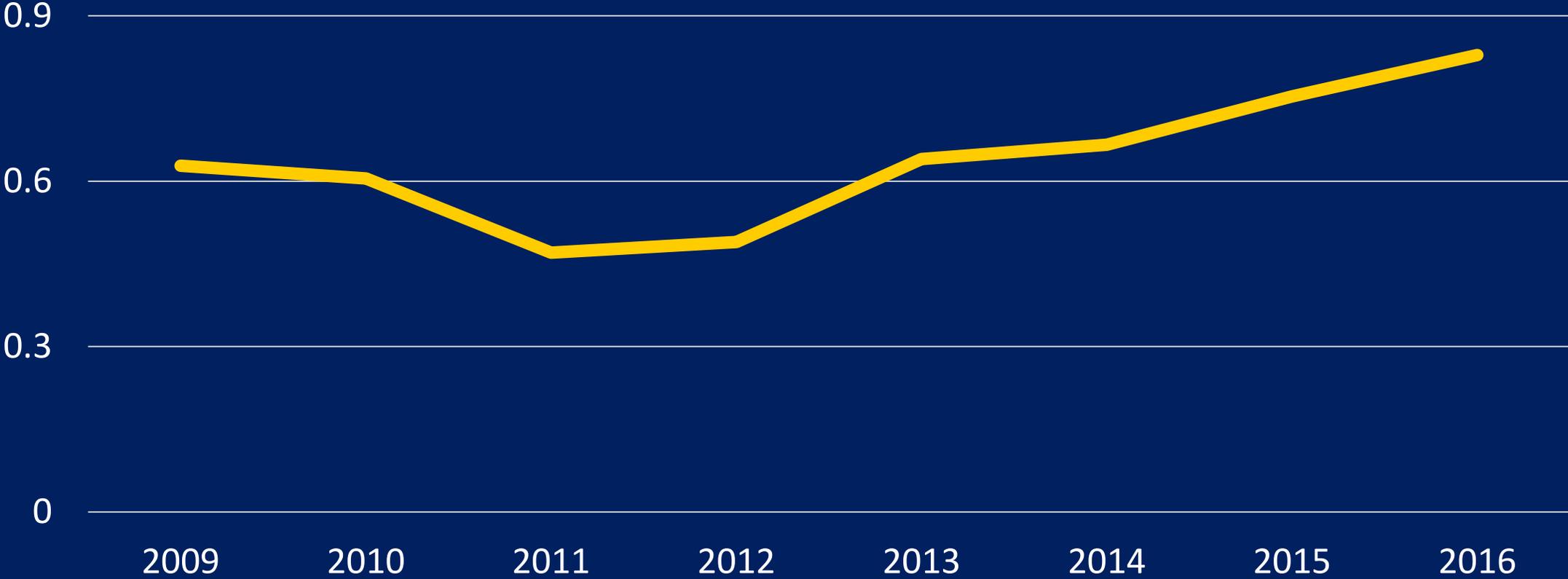
# Of 22 Major Occupation Categories, African Americans in Baltimore are “Crowded” Out of 7



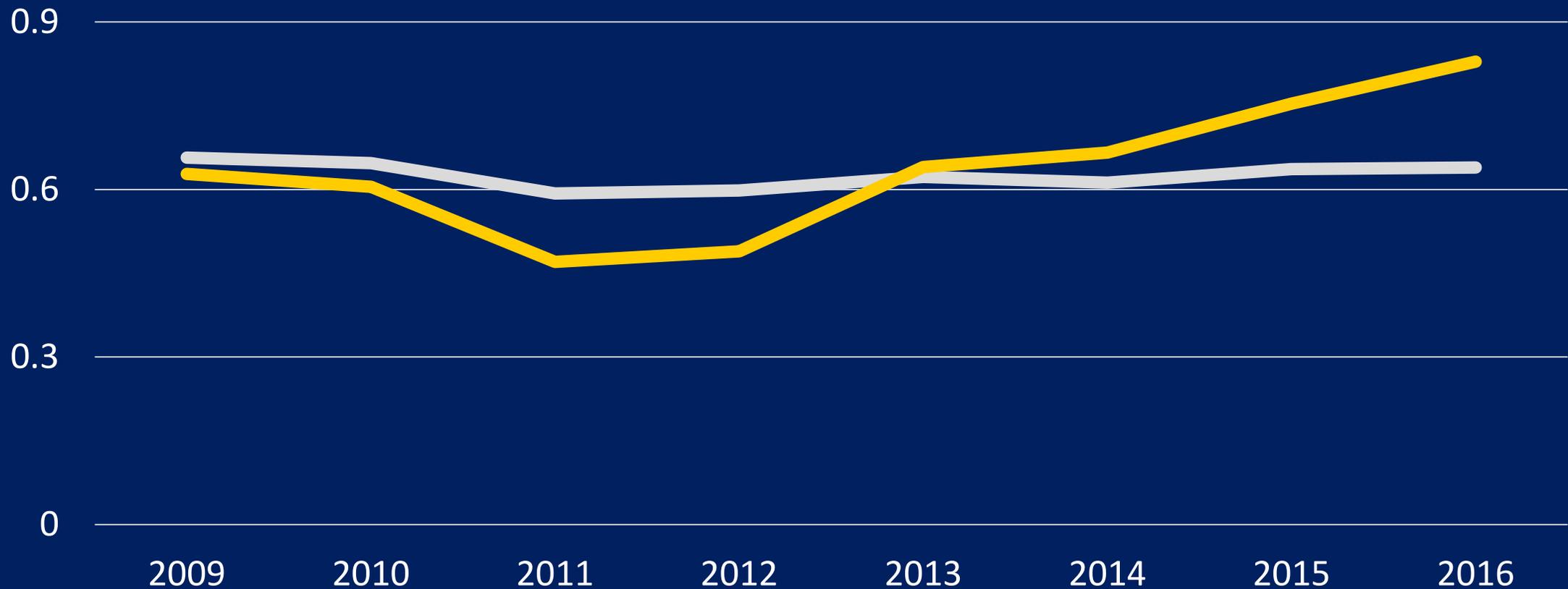
# ...These Include 3 of the 5 Occupations with the Highest Wages



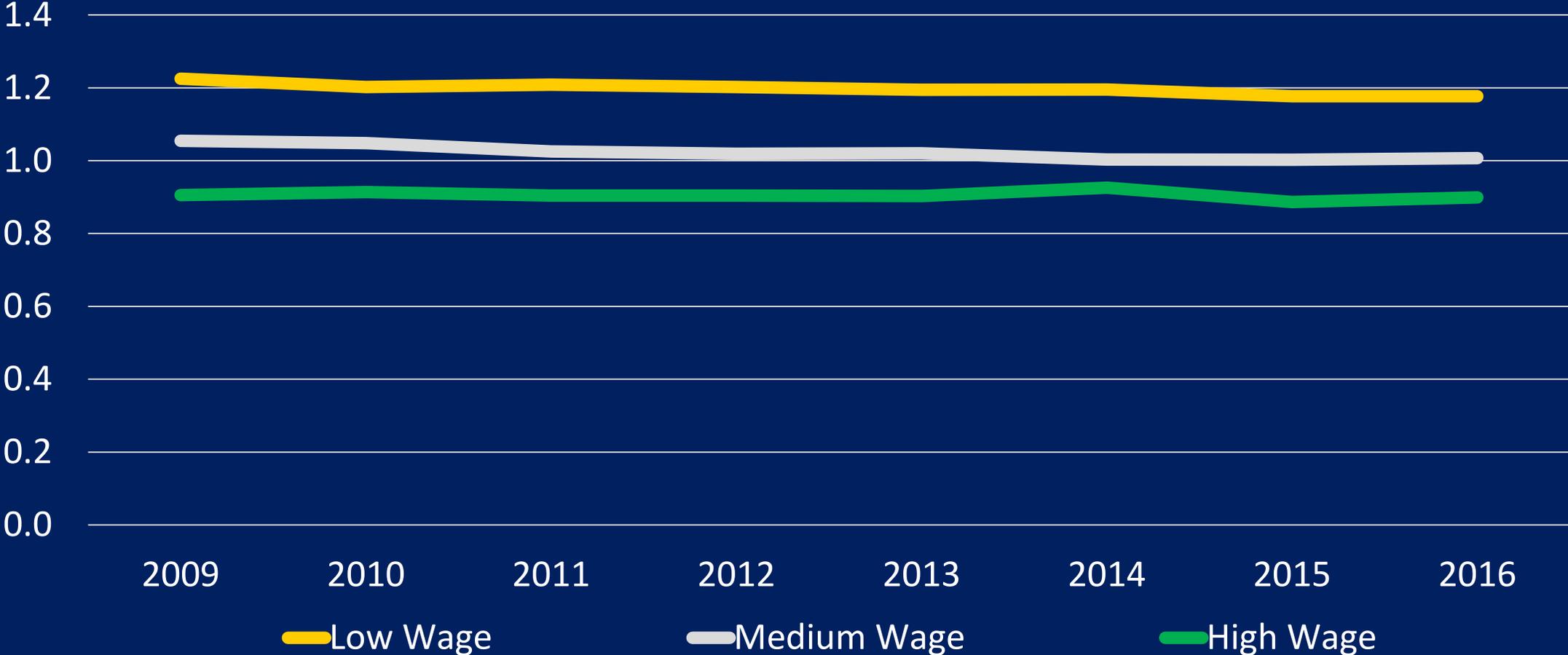
# Post-Recession, African Americans in Baltimore Increased Employment in Architecture and Engineering



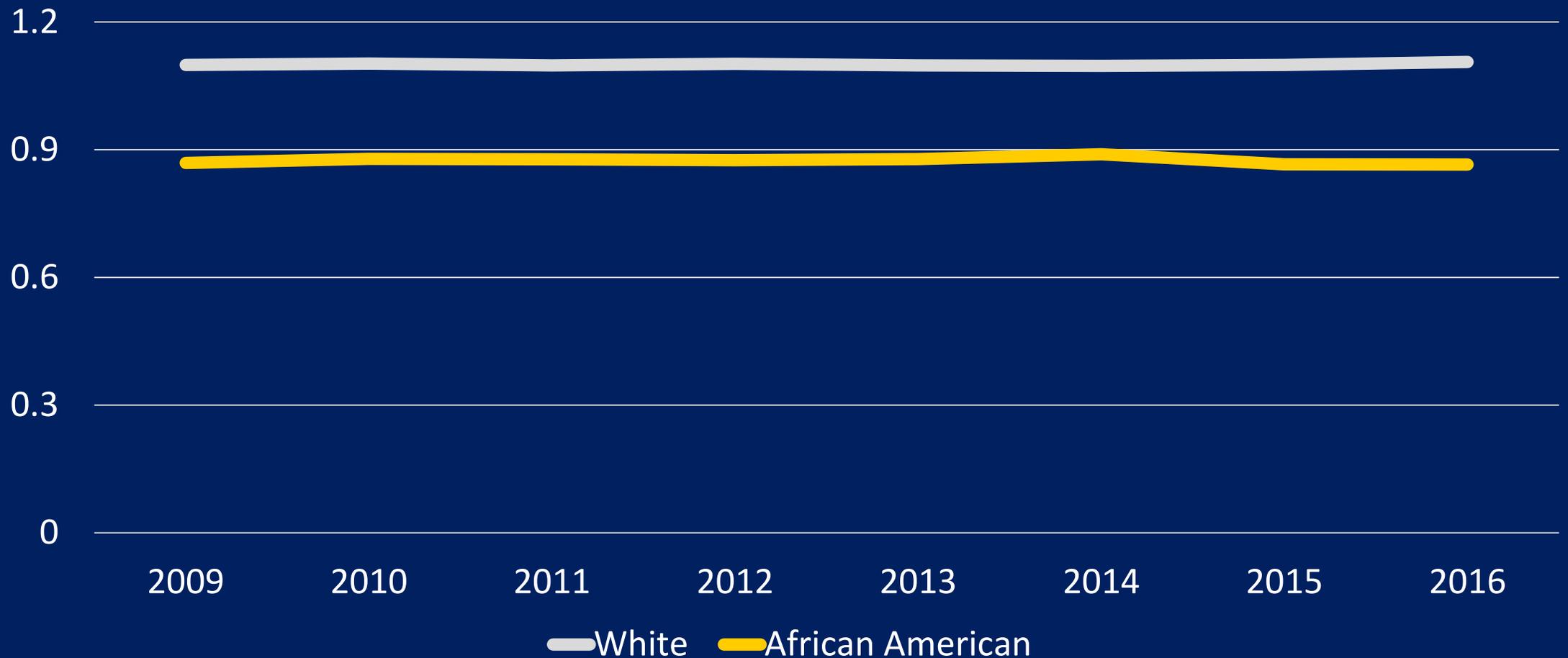
# ...However Similar Diversification Statewide did not Materialize



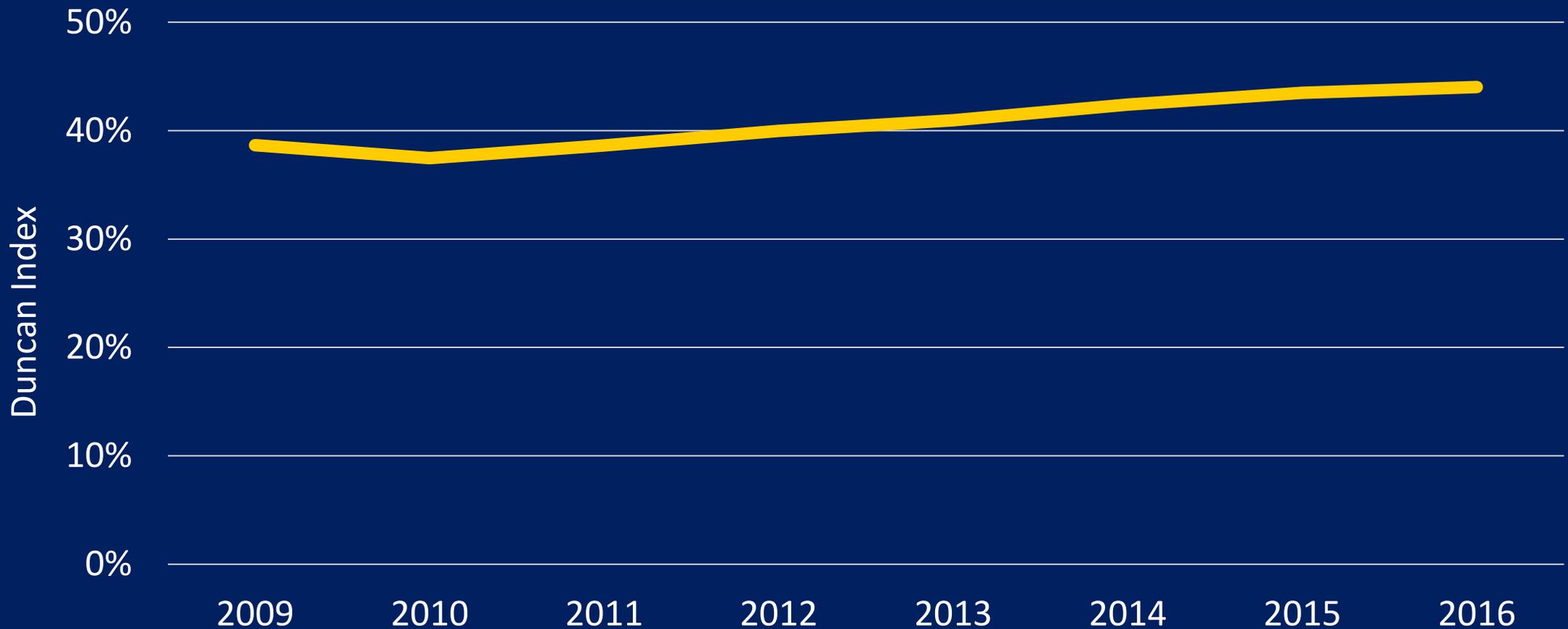
# Across all Occupations Statewide, African Americans are “Crowded” into Low Wage Jobs



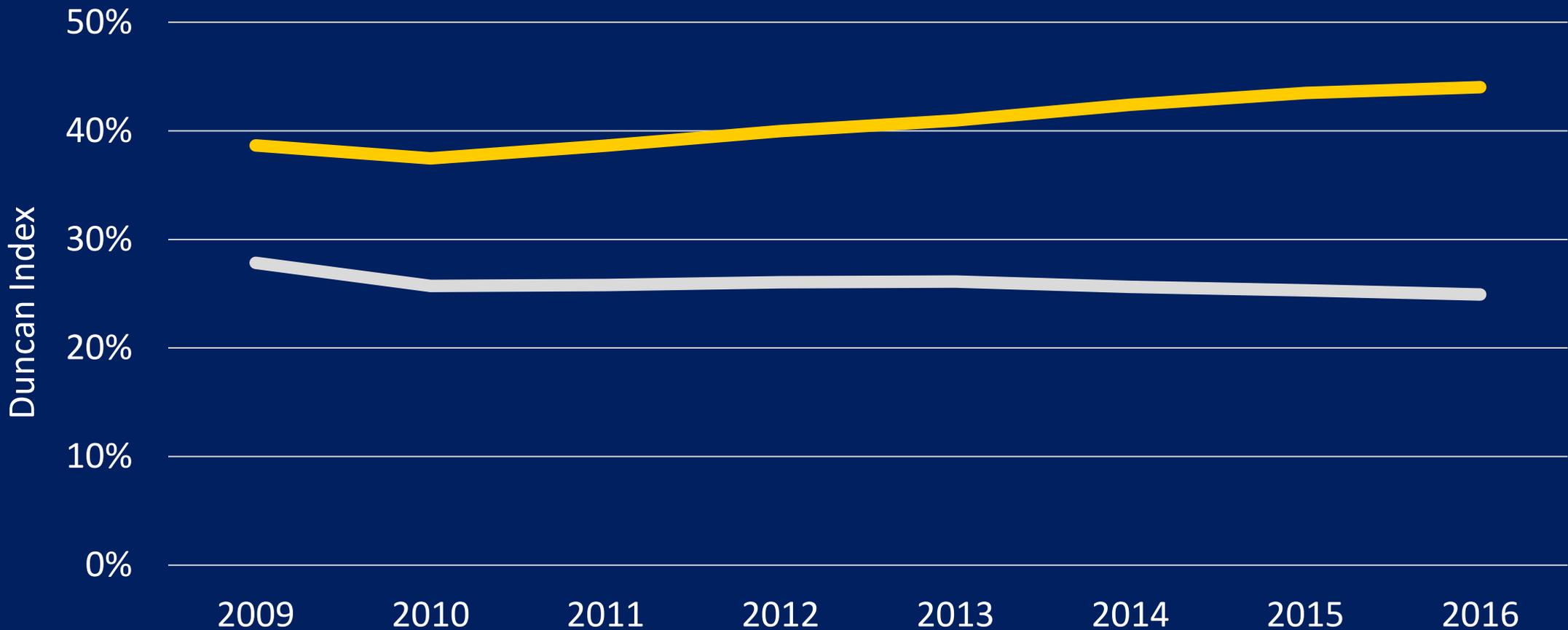
# ... And Statewide, African Americans are Crowded Out of Jobs Resistant to Automation



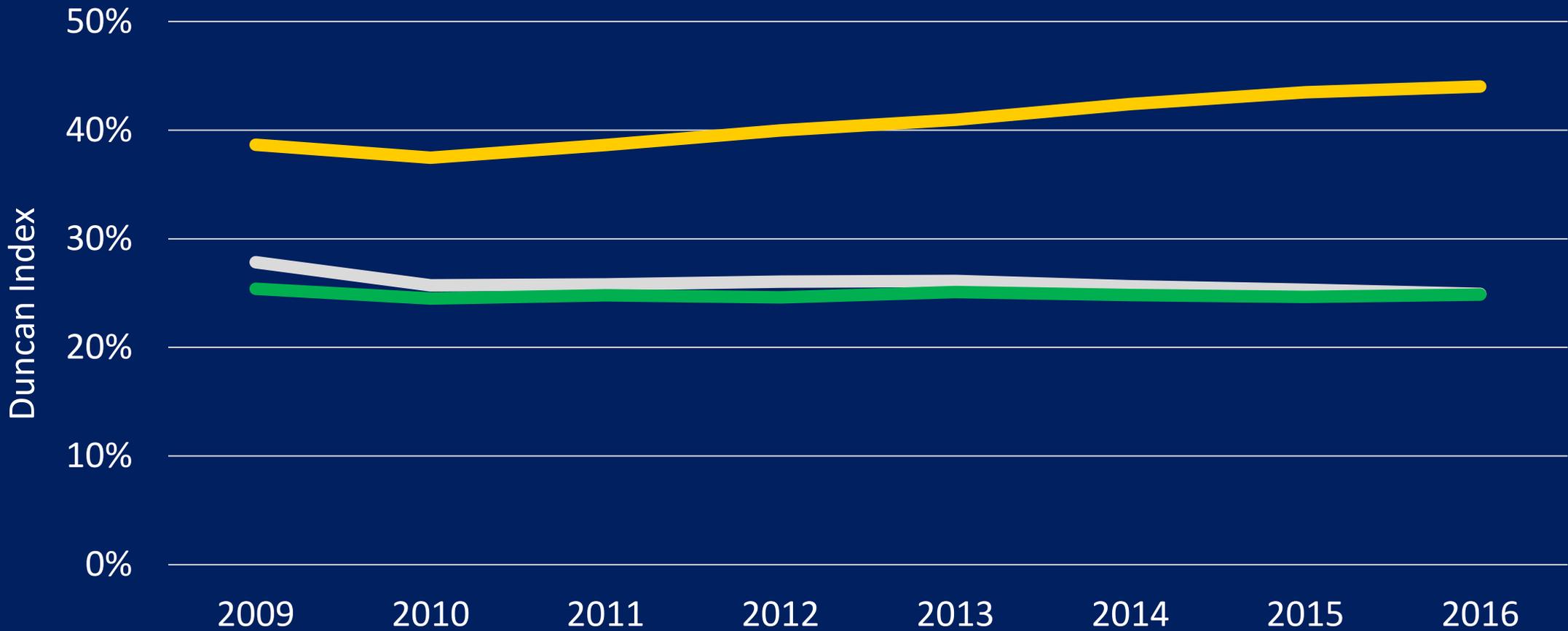
# Generally, Segregation Has Increased in Baltimore City Post-Recession



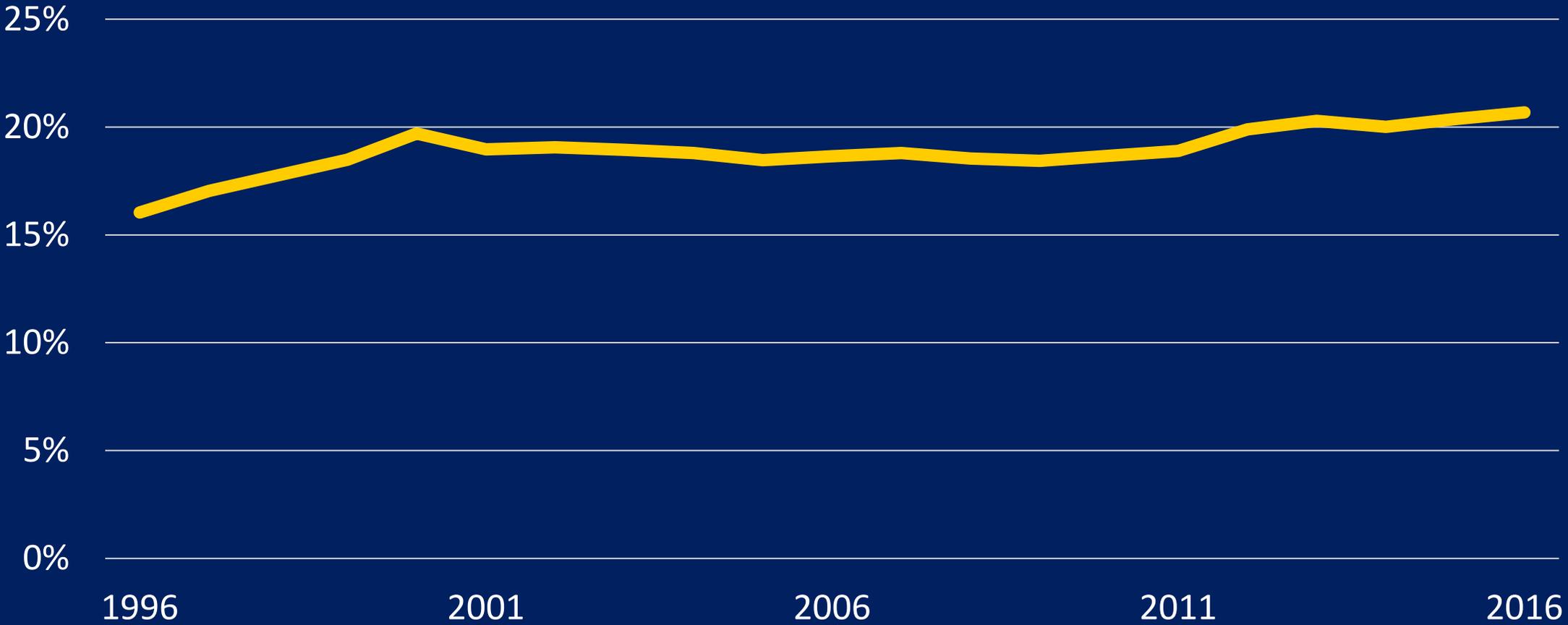
# ...However, Regional Segregation has Remained Relatively Constant or Declined



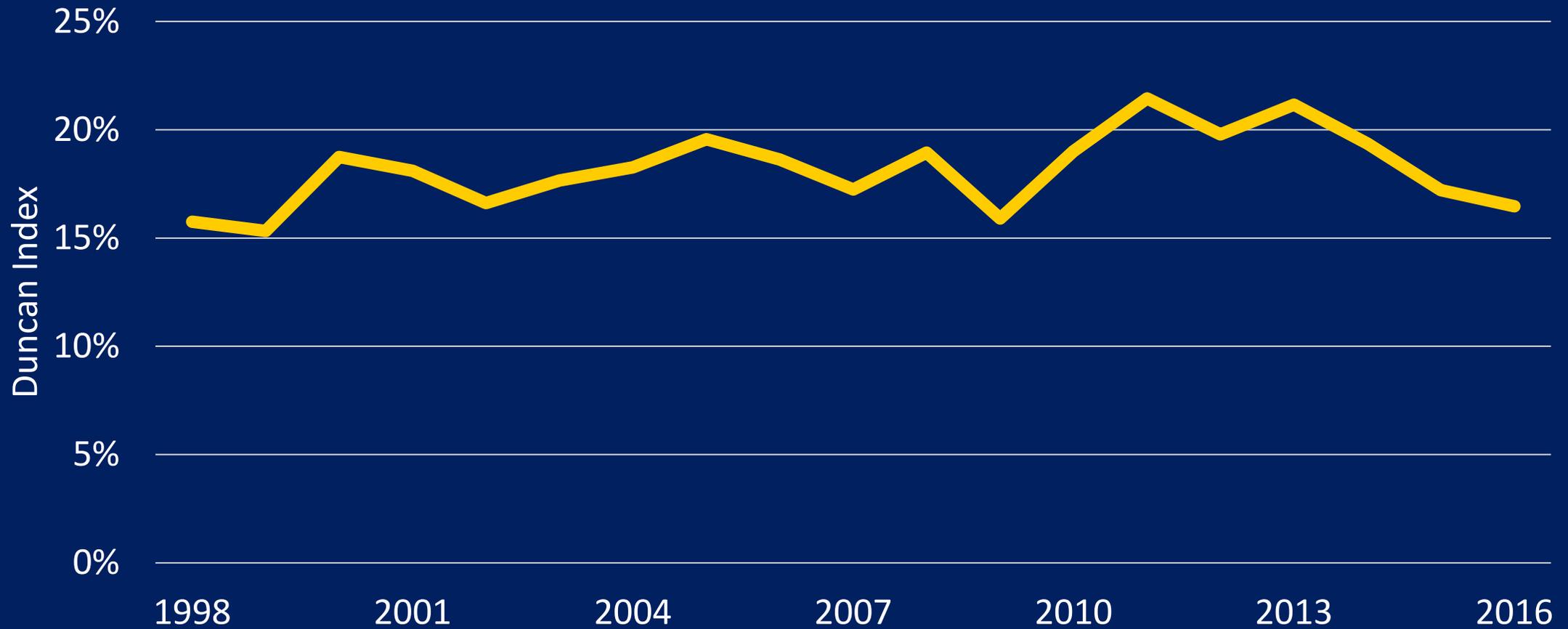
# ..Similarly, Segregation Statewide Remained Constant Post-Recession



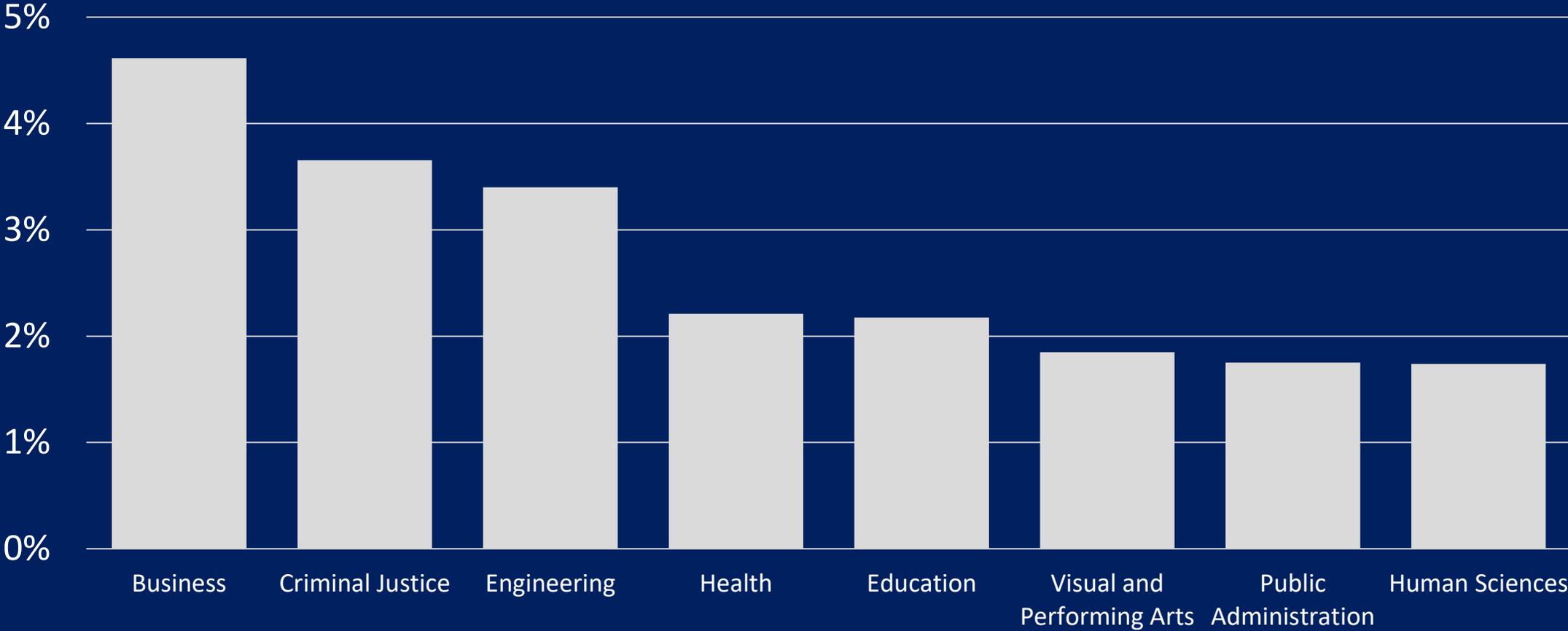
# More African Americans are Graduating From Maryland Colleges and Universities



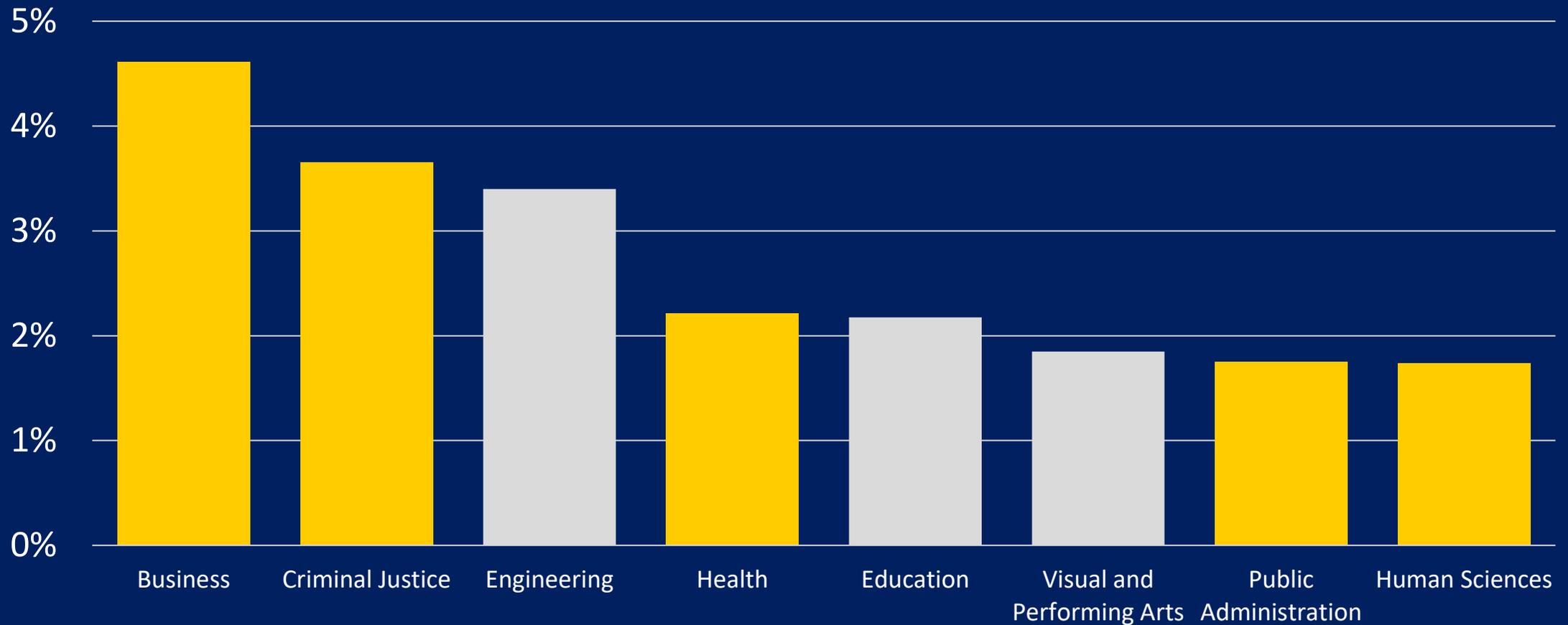
# ...Though Segregation in College Majors Has Remained Relatively Constant Over Time



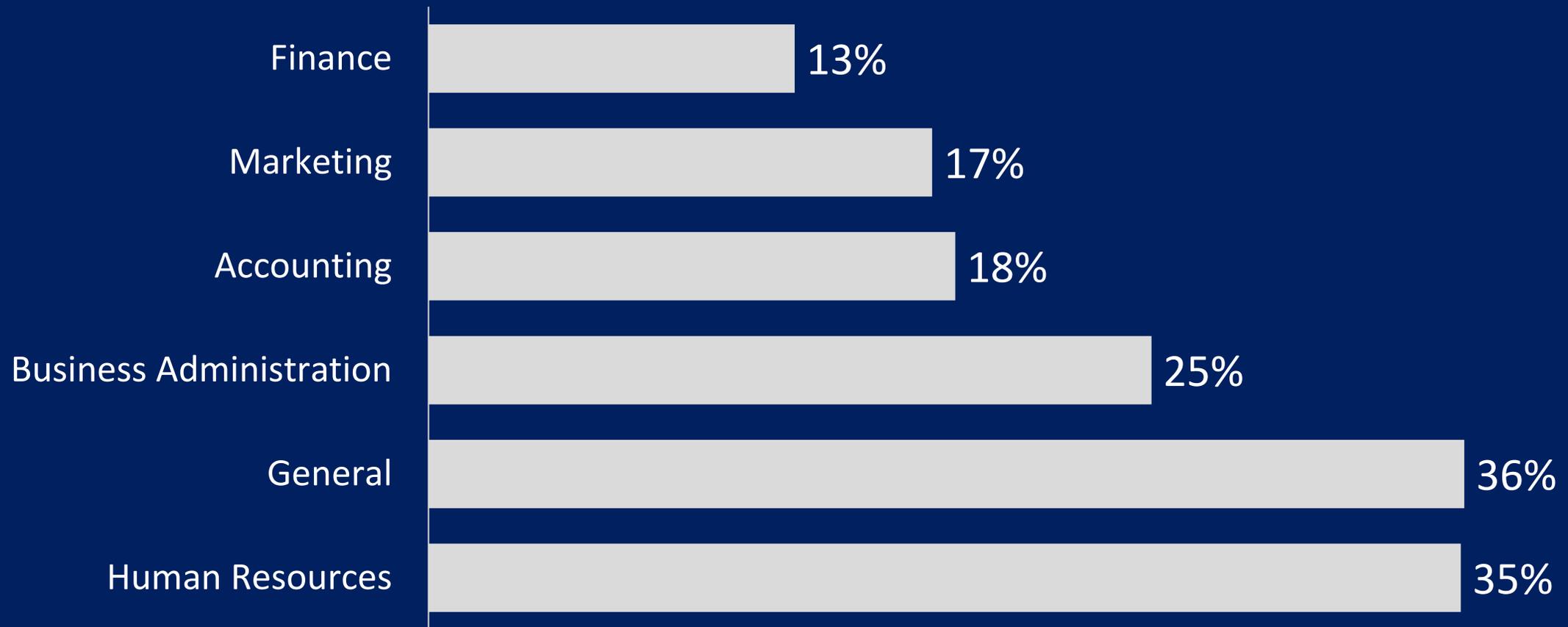
# Top Eight Differences In Majors between African American and White Graduates



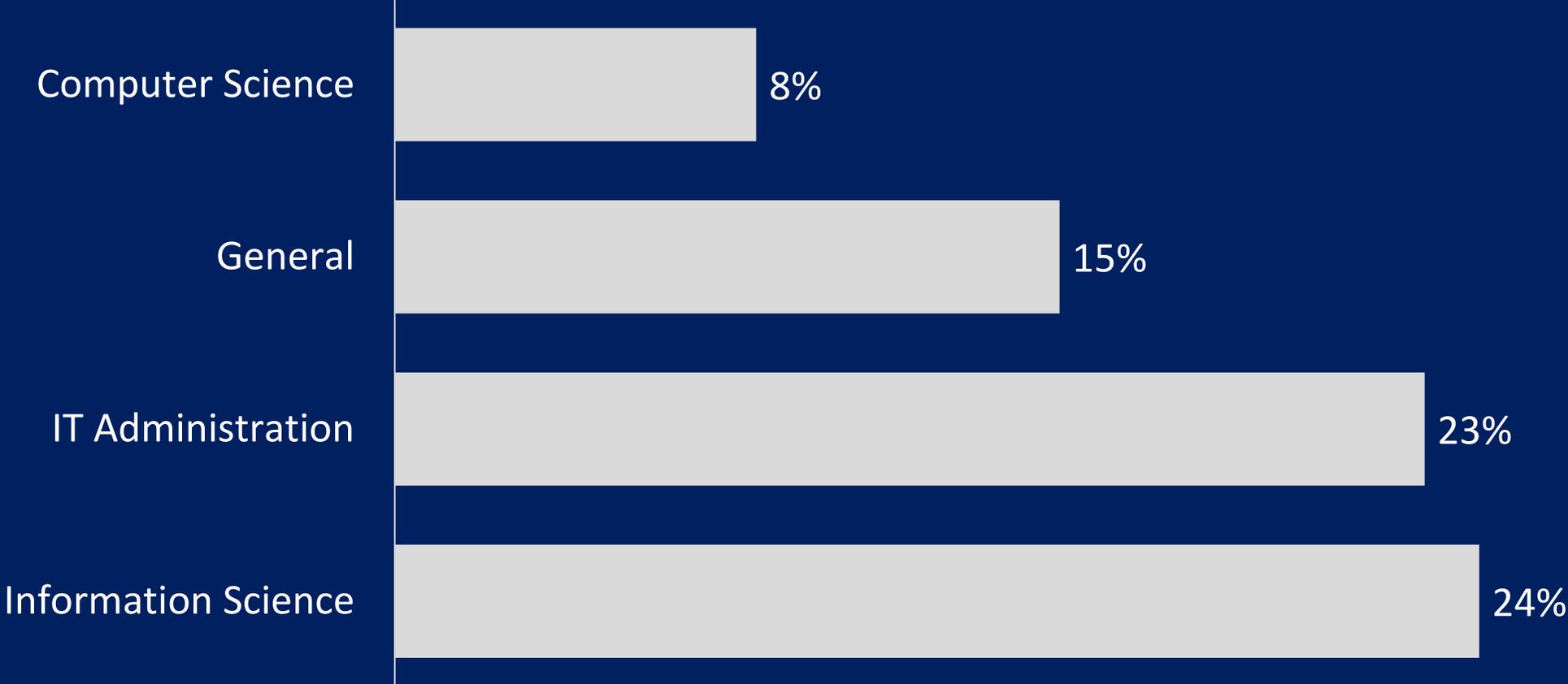
# ...Of These 5 Have Larger Shares of African Americans



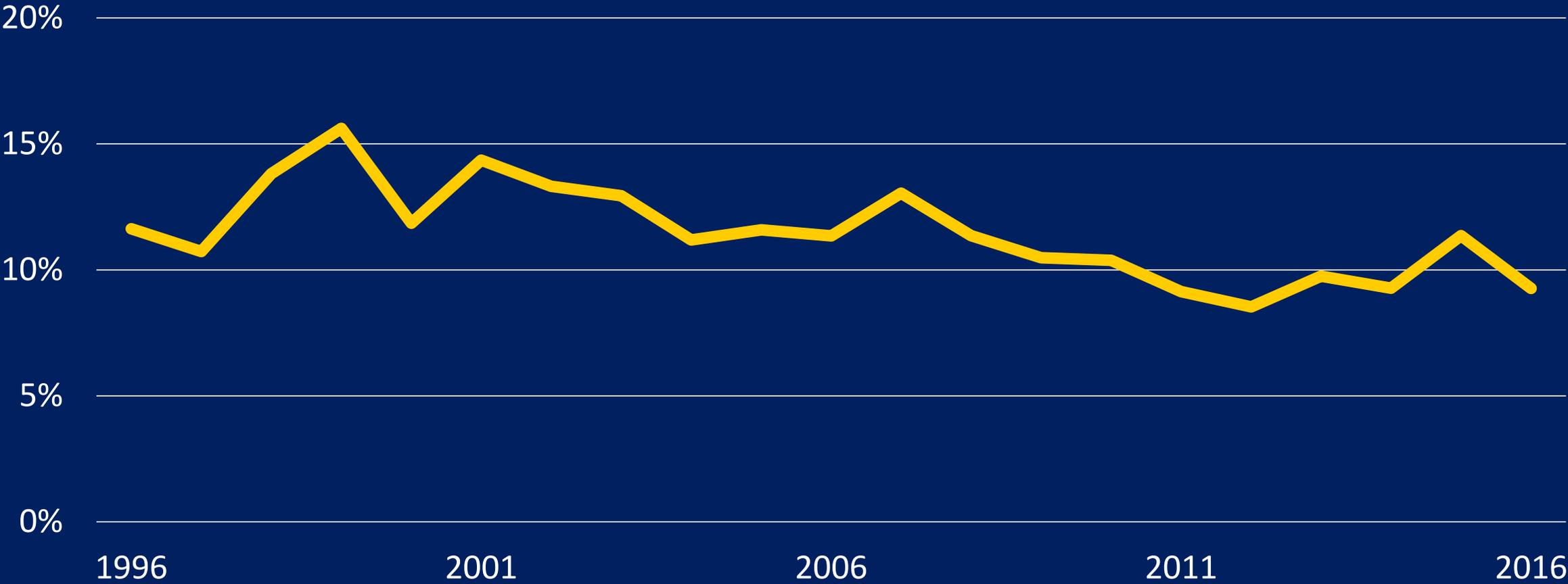
# Within Business Majors, African Americans Graduate With Less Specialized and More General Degrees



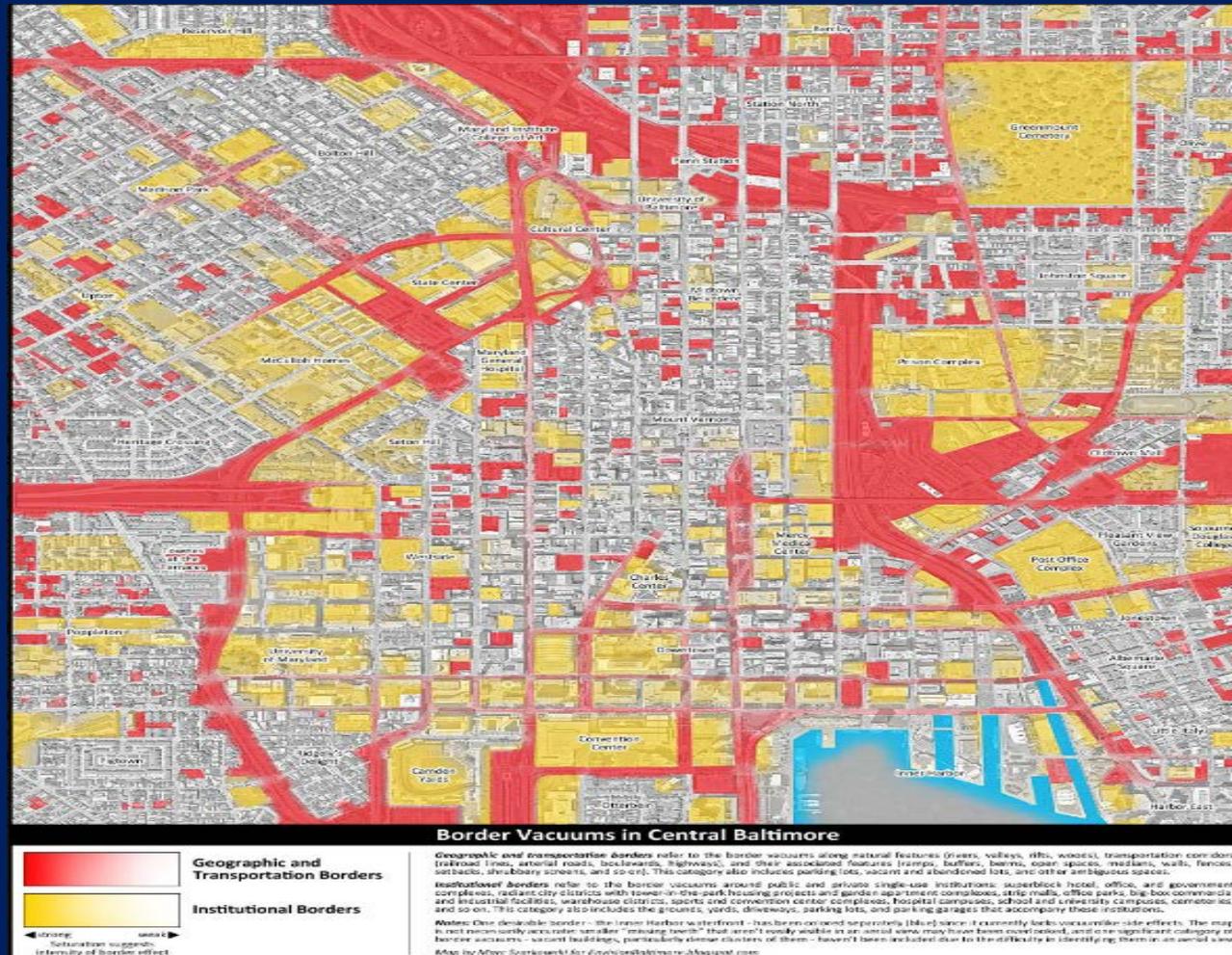
# Within All Computer-Related Majors, African Americans are Under-Represented in Computer Science Majors



# African Americans Constitute a Shrinking Proportion of Engineering Graduates Statewide



# Correcting Segregation: Transportation



# Correcting Segregation: Public Schools



# QUESTIONS?

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