



Metropolitan Policy Program  
at BROOKINGS

# Baseline: Building a 21<sup>st</sup> Century Workforce for the Houston Region

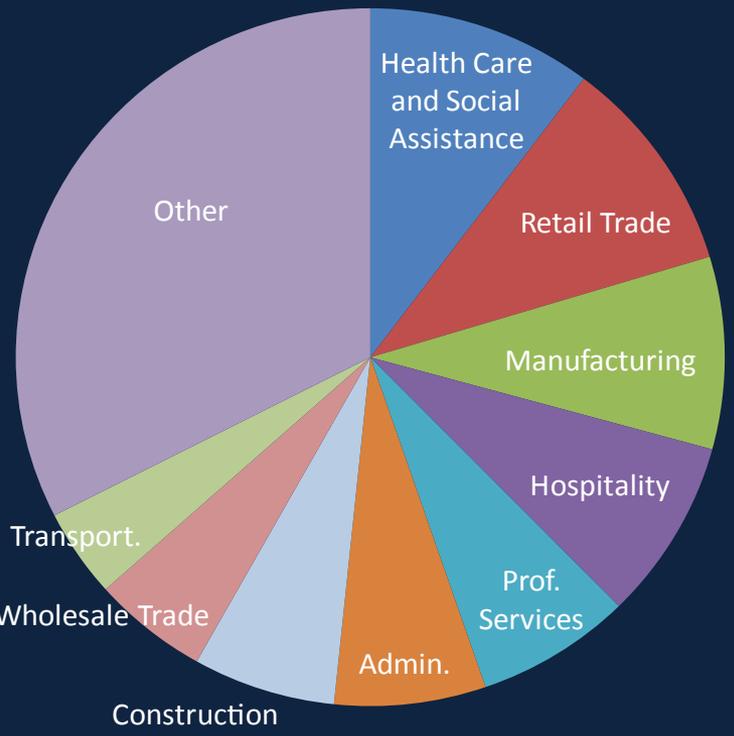
Marek Gootman

Global Cities Initiative - Houston

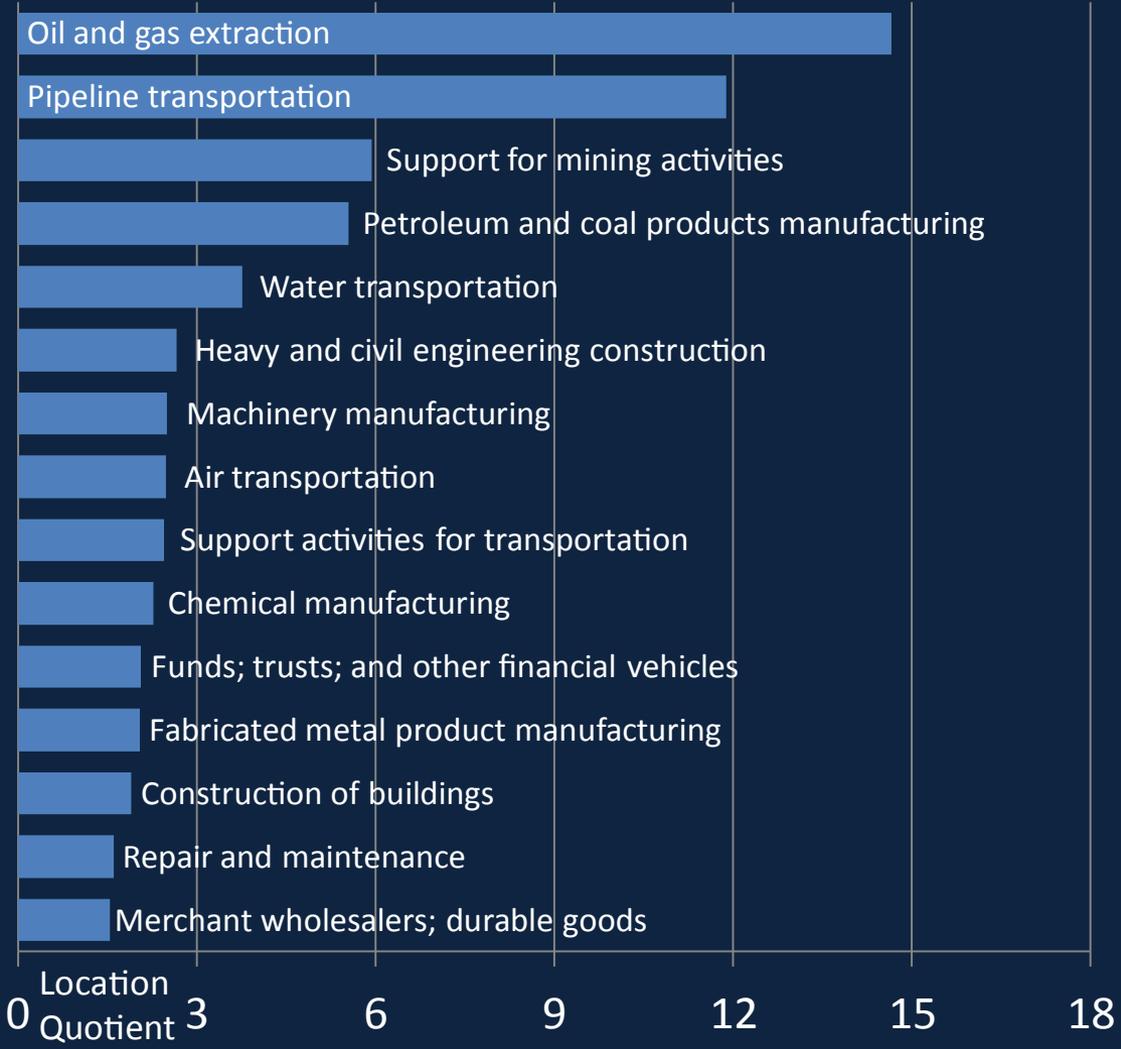
May 14, 2013

# Manufacturing, energy, healthcare, transportation are critical components of the Houston economy

Share of Total Employment by Industry Sector, 2012  
n=2,734,392



Most Specialized Sub-Sectors by Employment, 2012



Source: Brookings analysis of Moody's Analytics data.

Manufacturing, energy, and healthcare account for 675,000+ jobs, one quarter of Houston's employment base – two in tradable sectors

Manufacturing

190,507

7.0%

Energy

244,484

8.9%

Health Care

243,559

8.9%

# Houston is a major exporter – tradable sectors of petrochemicals and machinery manufacturing drive performance

Export Volume

**\$47.9 B**

Export Jobs

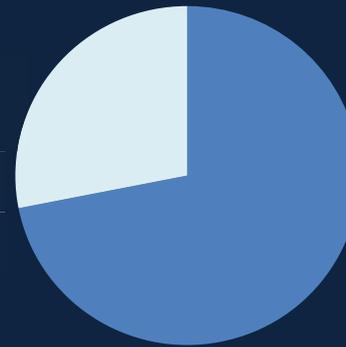
**307,000**

Export Intensity



Goods & Services Exports

**28.1%**  
services share  
of exports



**71.9%**  
goods share  
of exports

**Top Services Sectors**

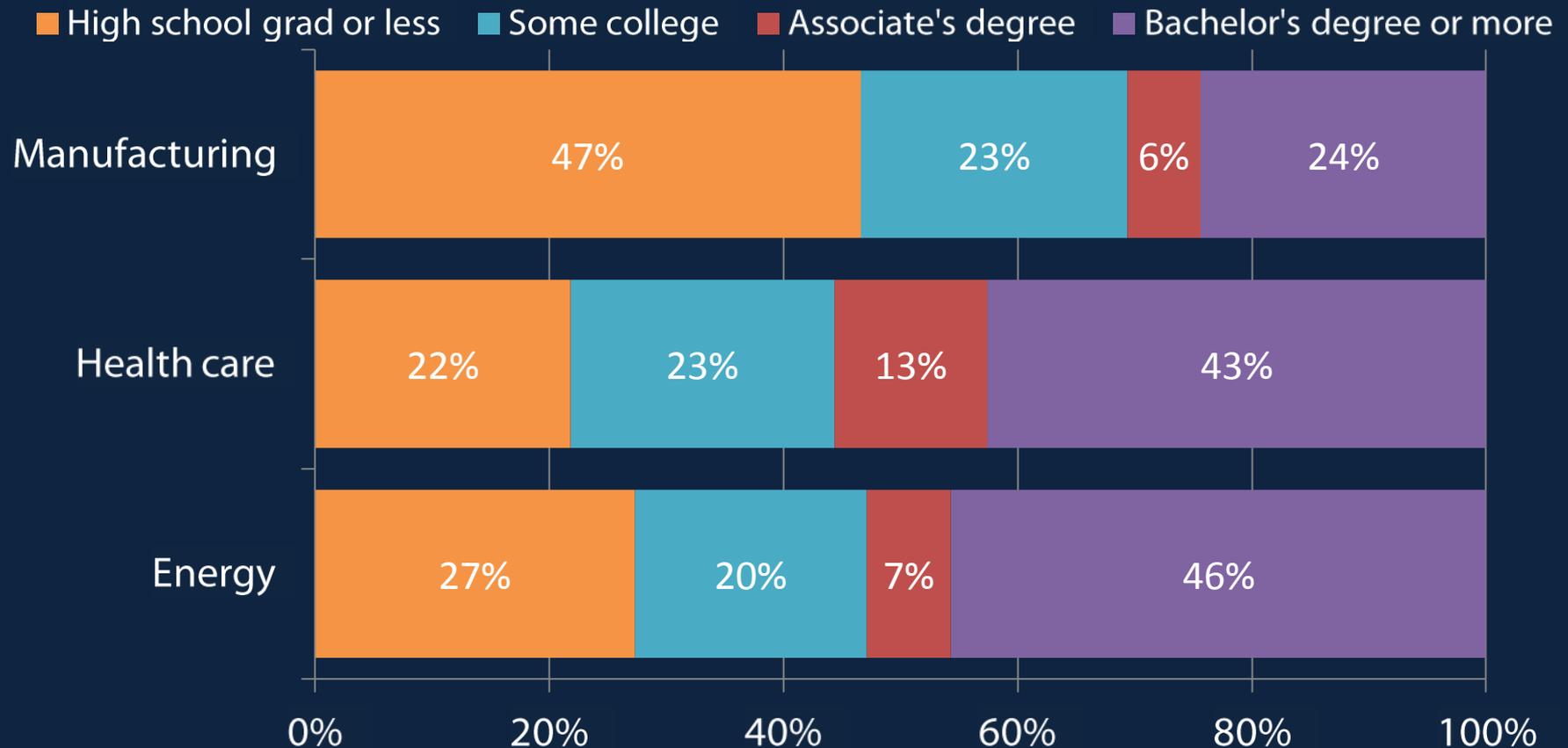
Travel and Tourism	<b>8.9%</b>
Business Services	<b>6.9%</b>
Royalties	<b>5.6%</b>

**Top Goods Sectors**

Chemicals	<b>20.3%</b>
Machinery Manufacturing	<b>15.1%</b>
Petroleum and Coal Products	<b>14.9%</b>

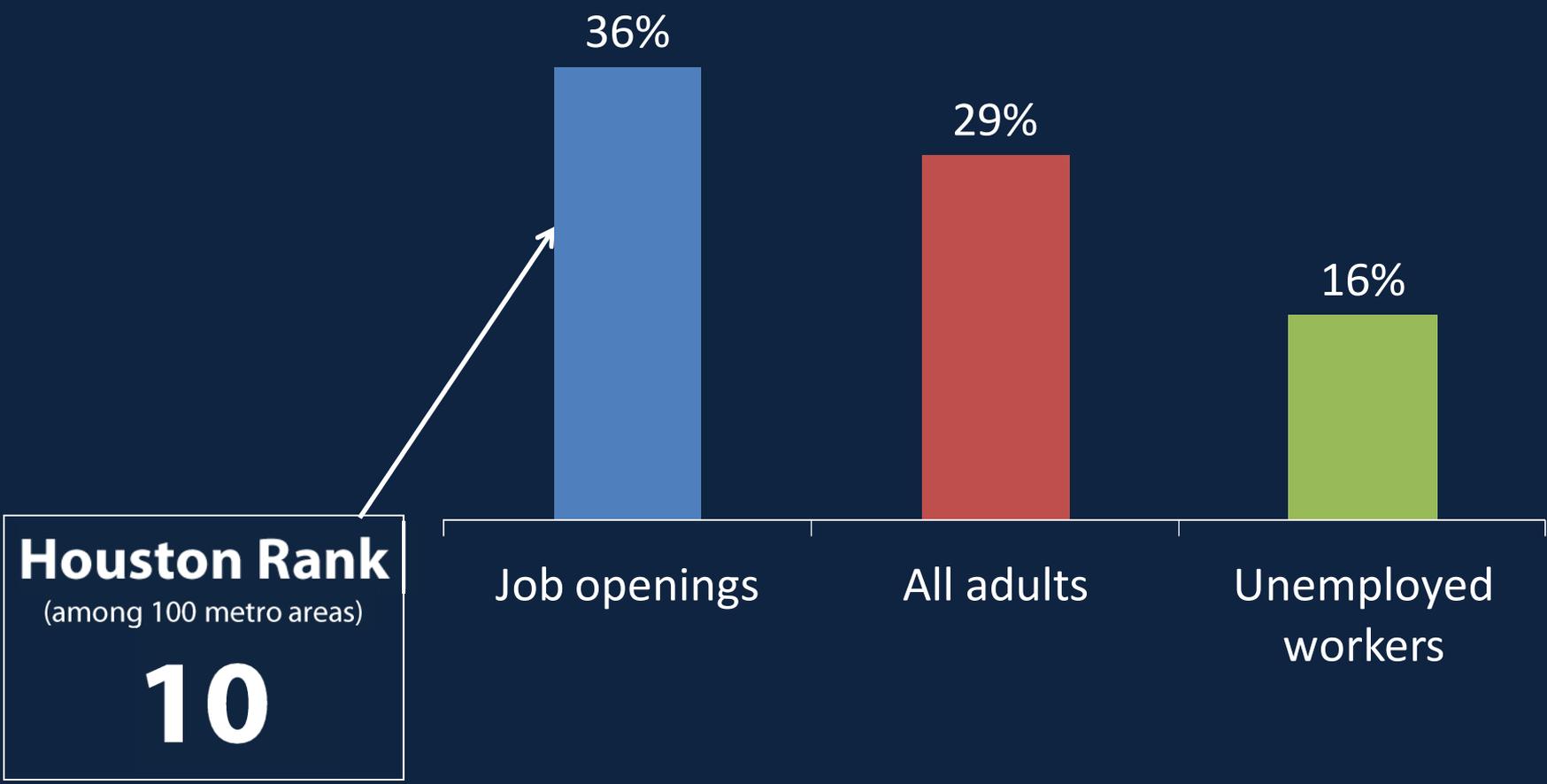
# Energy and Health Care workers have high levels of education. Manufacturing skill demands hidden by long-time incumbent workers, and will need more educated replacements.

Workers by sector by education attainment, Houston metro, 2011



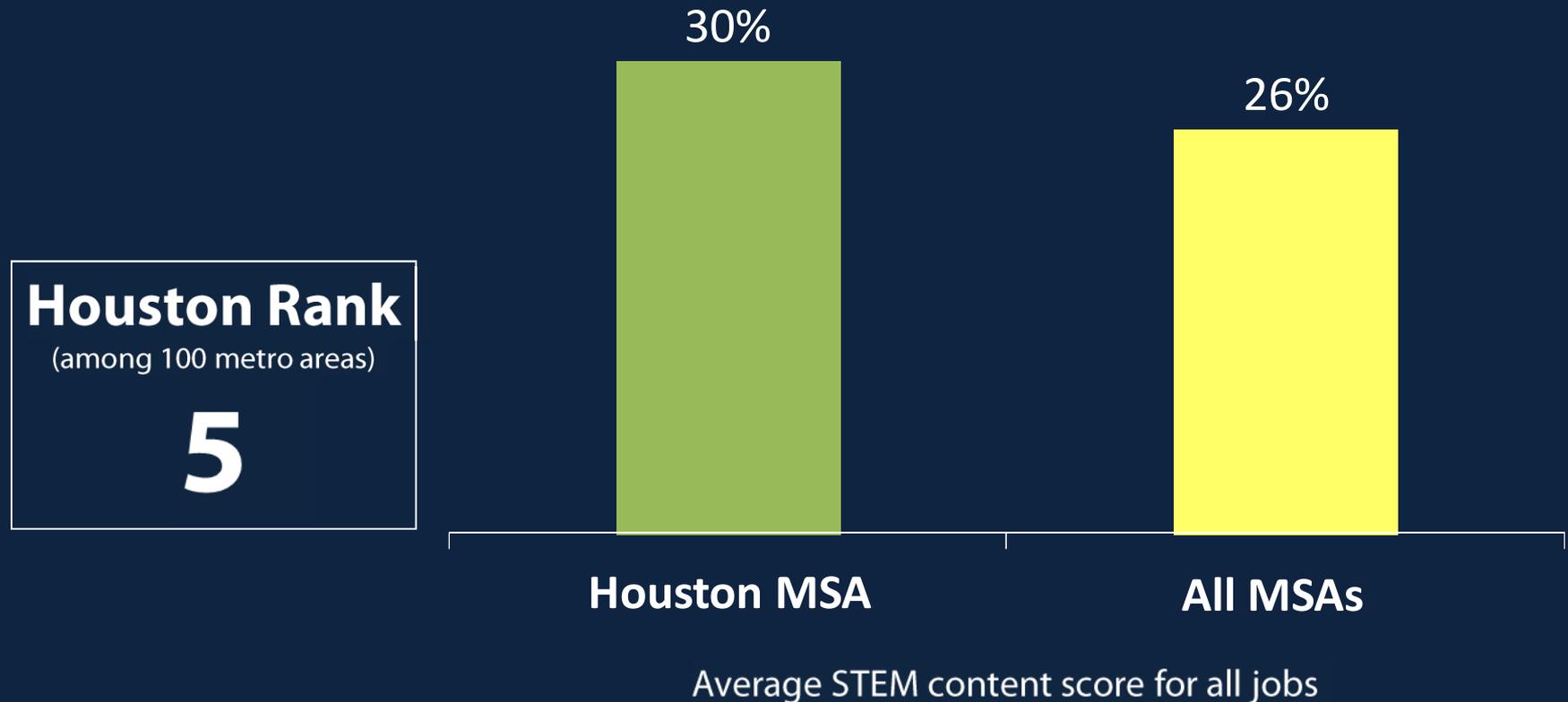
# The Houston region's job openings demand high levels of educational attainment

Share of job openings requiring, and adults possessing, bachelor's degree, Houston metro, 2011



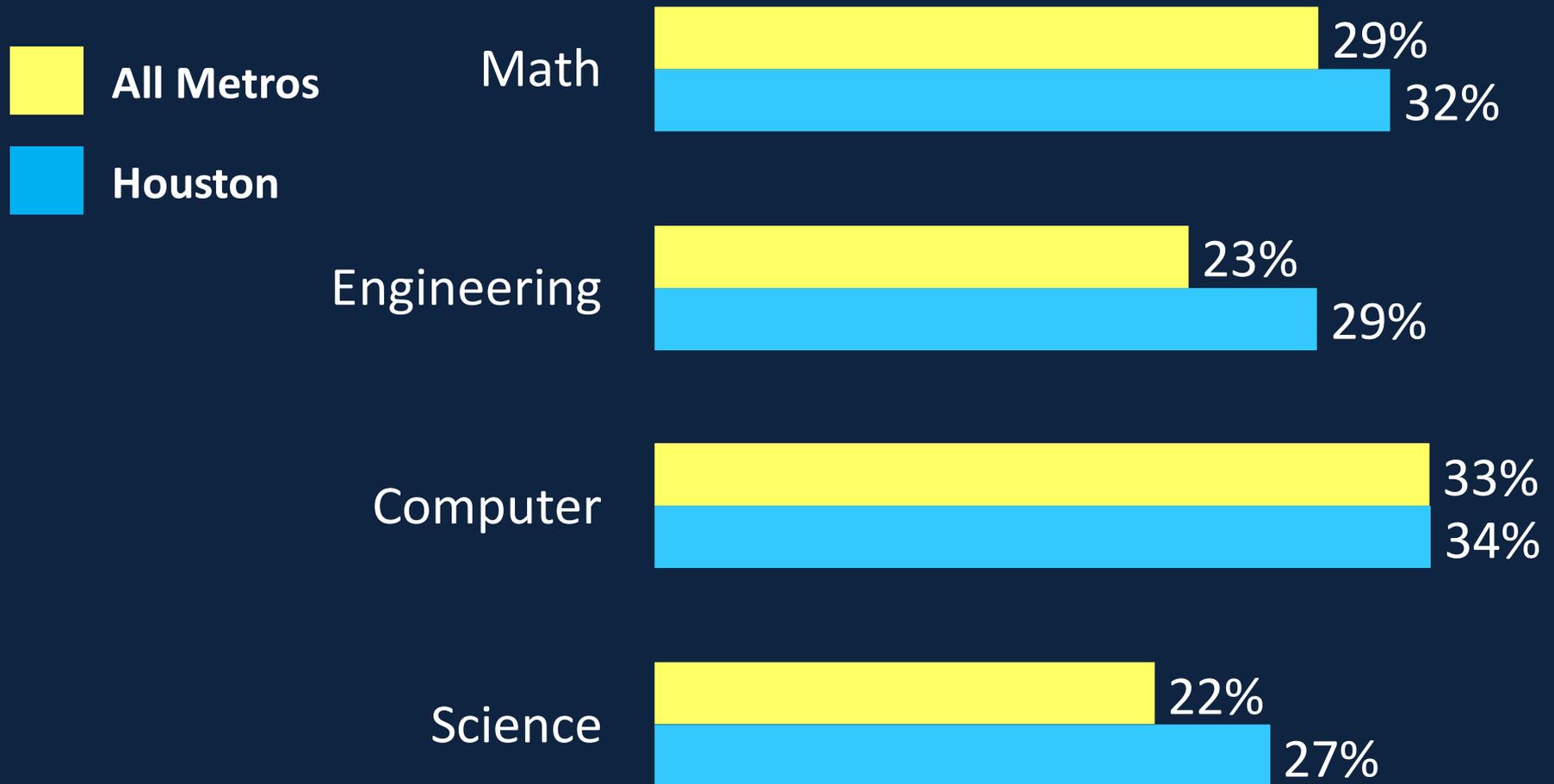
# About one third of Houston's jobs are in STEM-focused fields

Share of jobs with above-average STEM content, Houston metro, 2011



# Houston's jobs are above-average in every aspect of STEM content

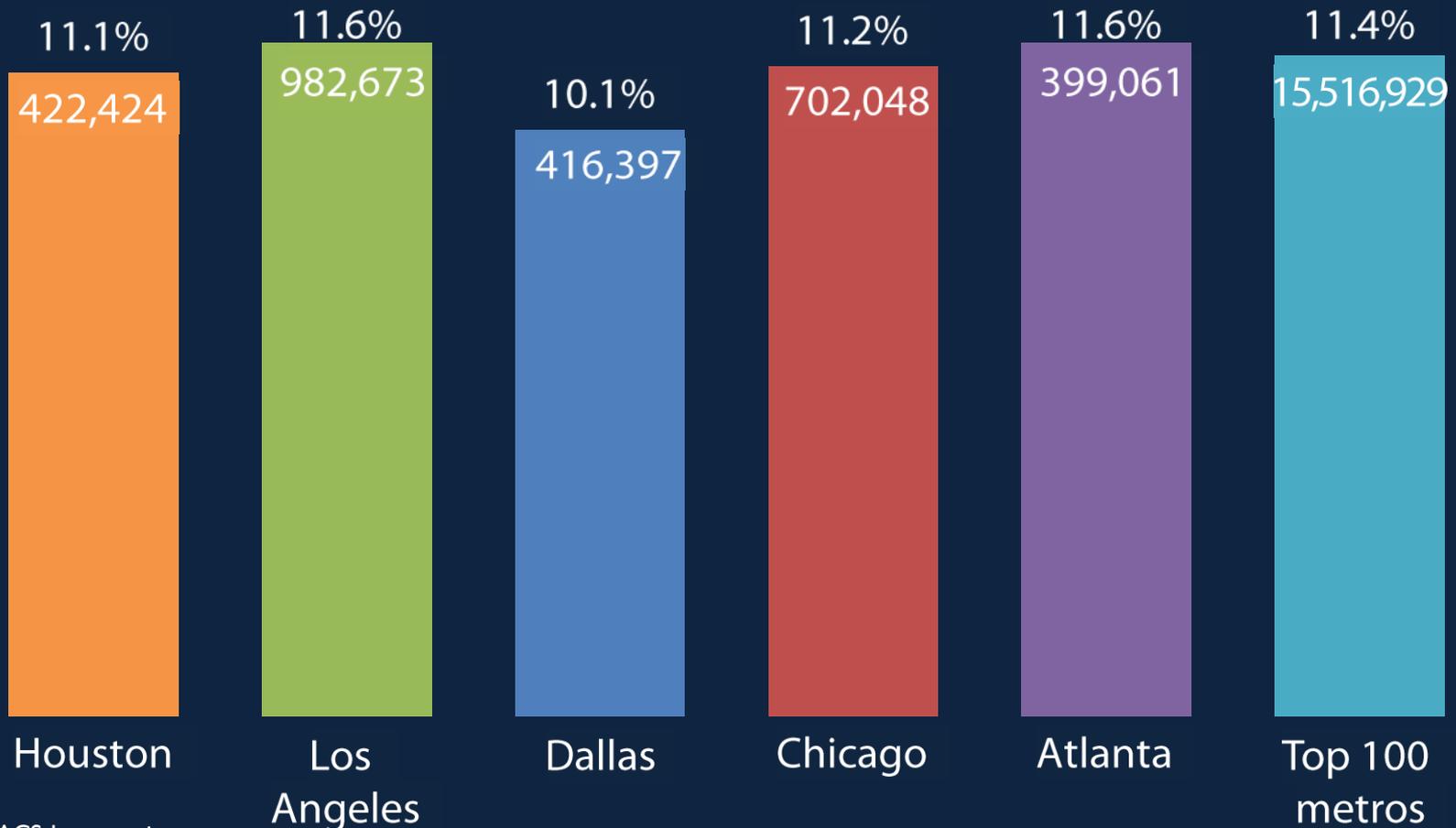
Share of jobs with high science, computer, engineering, or math content, Houston metro, 2011



# Houston MSA ranks 5<sup>th</sup> in population, but 33<sup>rd</sup> in share of STEM degrees among the top 100 metros

Share of population 25+ with a degree in a STEM field, 2011

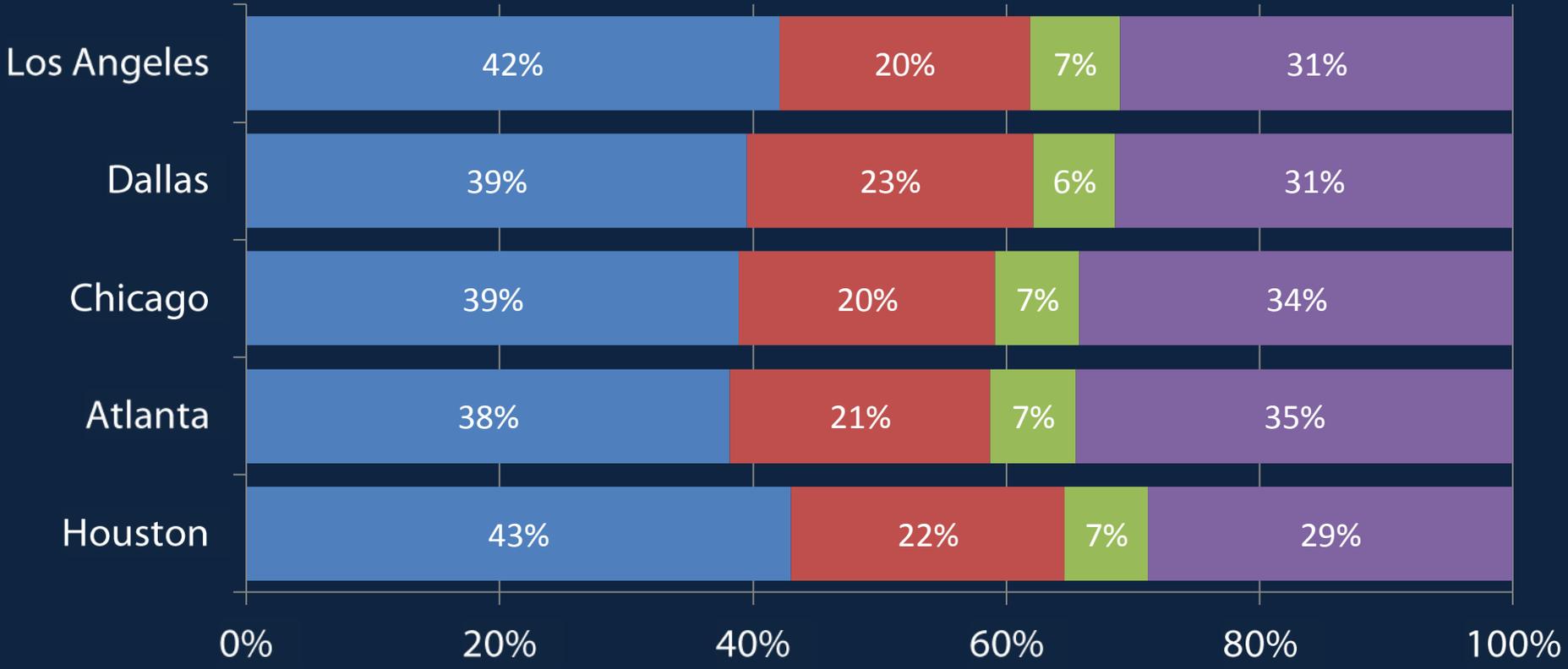
**Houston Rank** (among 100 metro areas): **33**



# Educational attainment in Houston mirrors national trends but is a bit lower than peer metros

Educational attainment for the population 25 and over, 2011

■ High School diploma or less ■ Some college ■ Associate's degree ■ Bachelor's degree or more



Source: 2011 ACS 1-year estimates

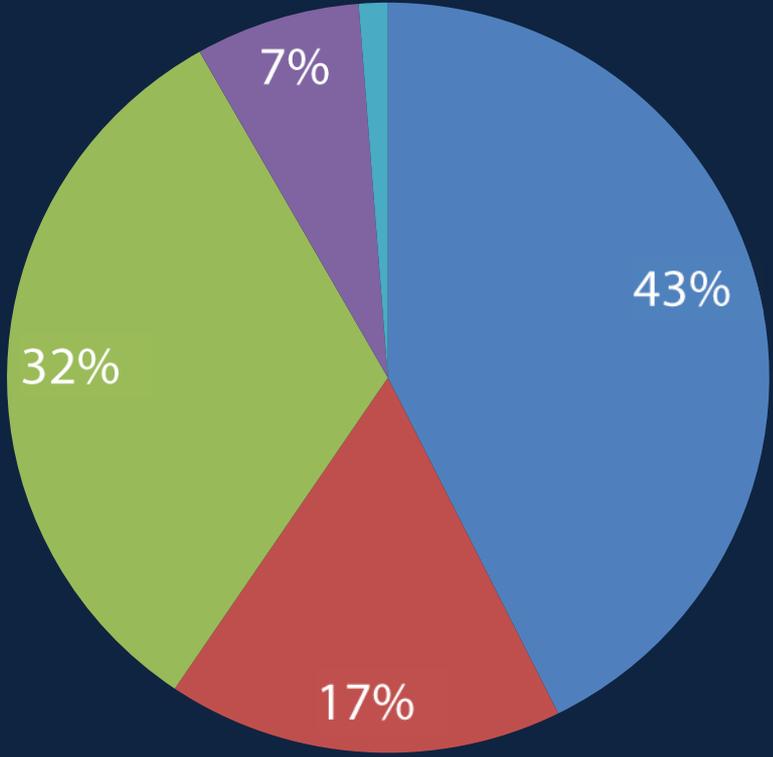
# Latinos make up almost 50 percent of youth, compared to 1/3 of adults, indicating a growing presence in the region

Race/Ethnicity by age category, Houston metro, 2011

■ White ■ Black ■ Latino ■ Asian/Pacific Islander ■ Other

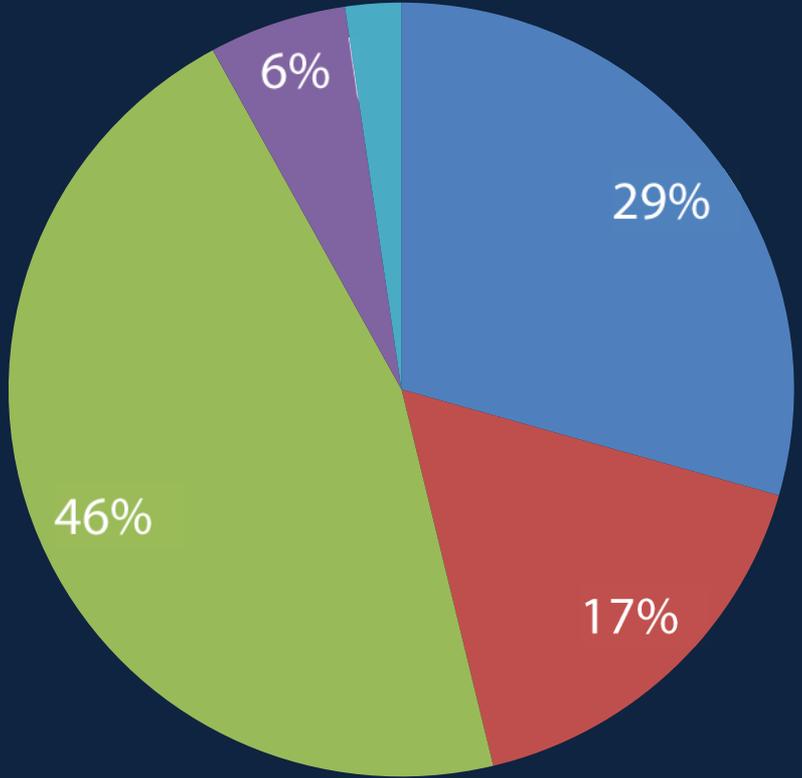
## Adults age 18 and over

n = 4,358,833



## Youth under Age 18

n = 1,672,341

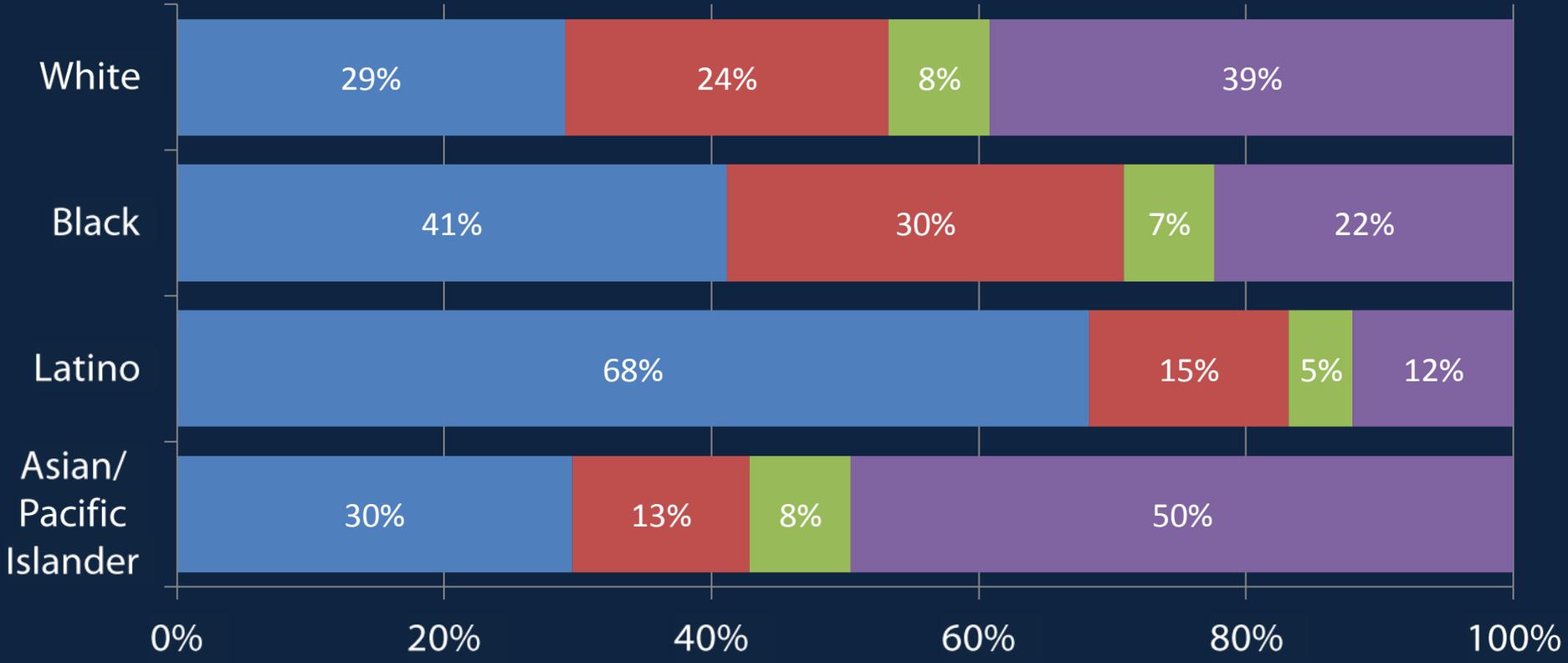


Source: 2011 ACS 1-year estimates microdata, accessed via IPUMS.org

# Latinos have the lowest educational levels

Educational attainment for the population 25 and over by race/ethnicity, Houston metro, 2011

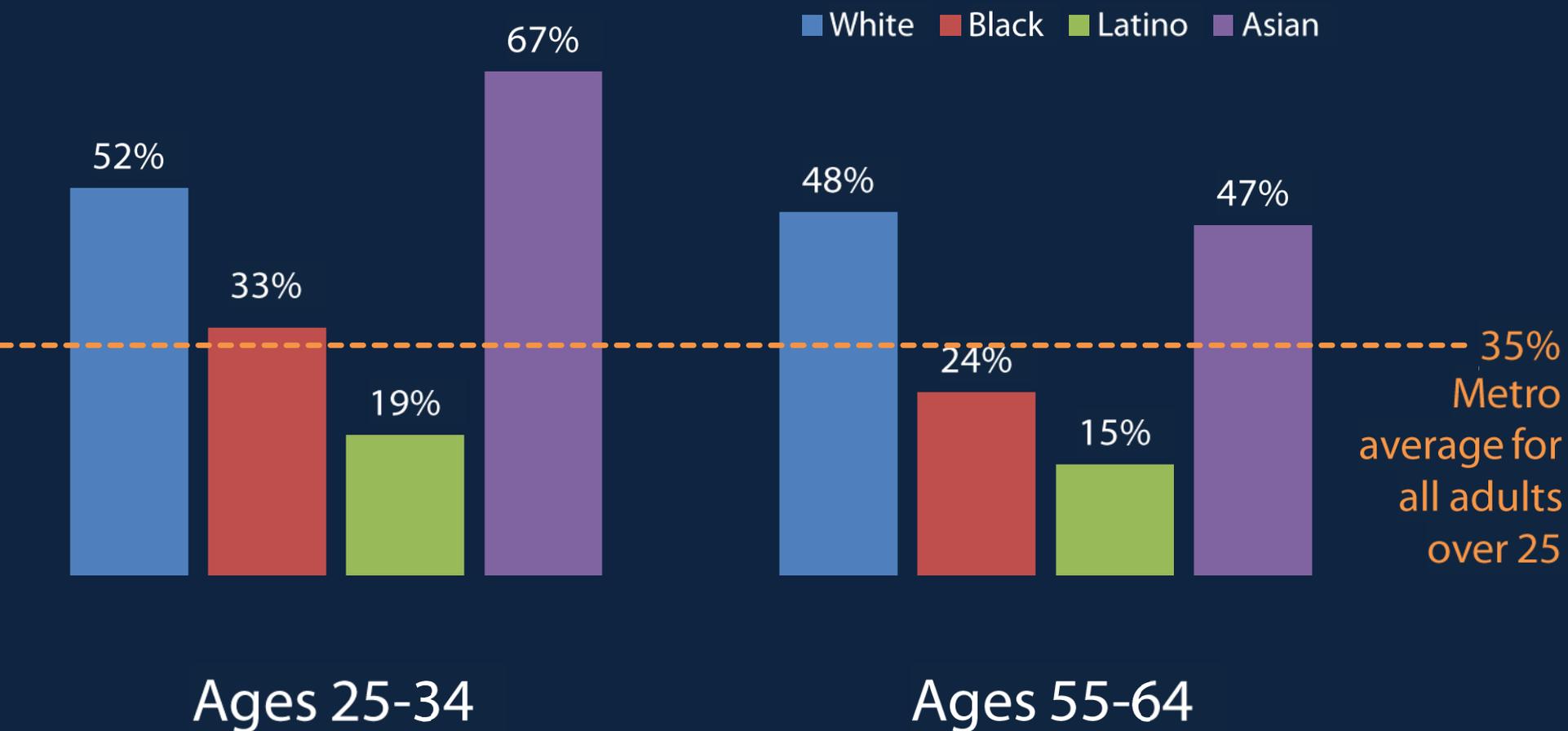
■ High School diploma or less ■ Some college ■ Associate's degree ■ Bachelor's degree or more



Source: 2011 ACS 1-year estimates microdata, accessed via IPUMS.org

# Younger residents of all races/ethnicities have higher educational levels than older residents, but significant racial/ethnic disparities remain

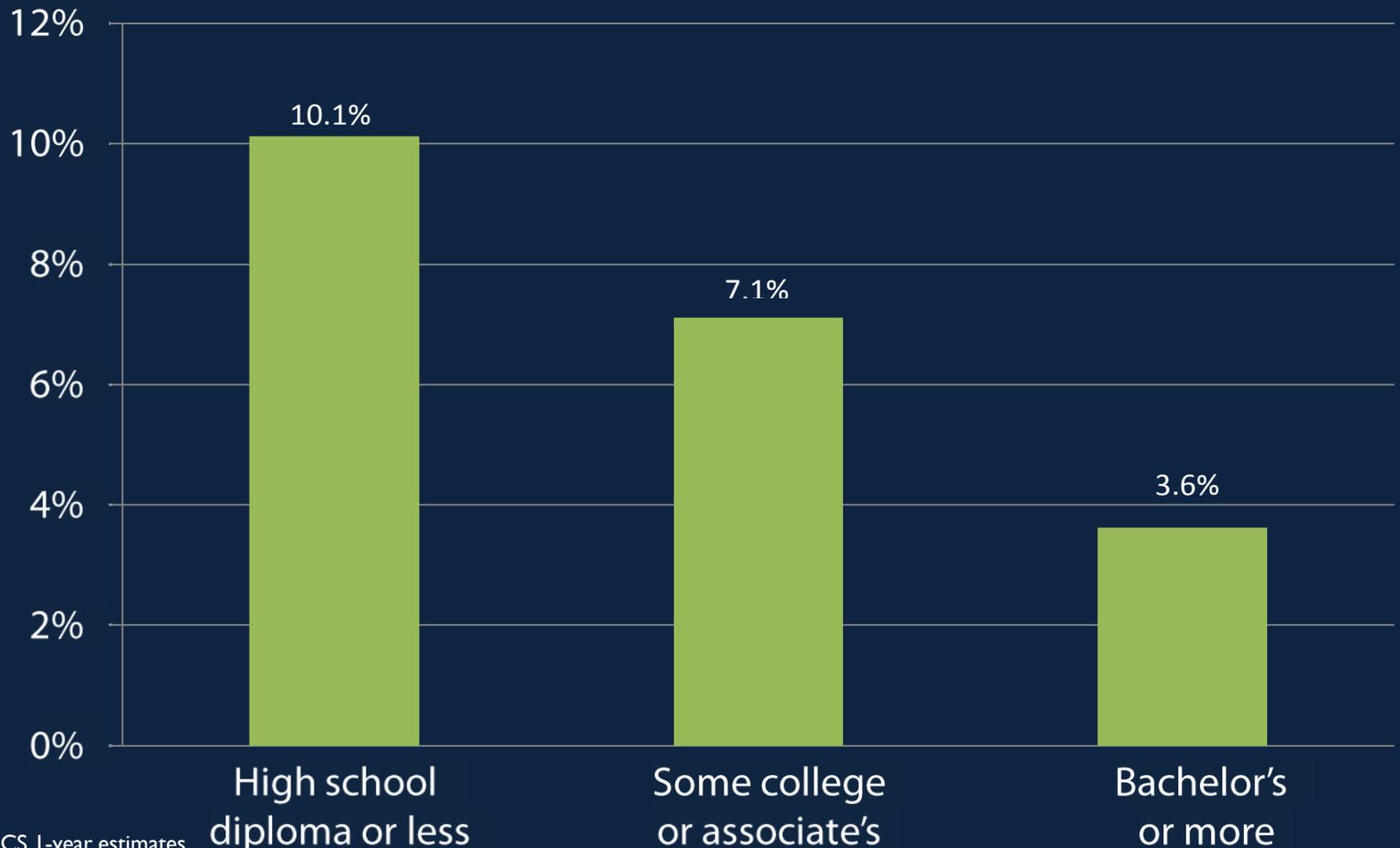
Share of population with an Associate's degree or above, Houston metro, 2011



Source: 2011 ACS 1-year estimates microdata, accessed via IPUMS.org

# Higher educated residents are much less likely to be unemployed

Share of civilian population 25-64 unemployed by education attainment, Houston metro, 2011



# Workforce Development Action: Considerations to Achieve Near-Term Impacts

Tailored – building on distinct regional industry profiles, demographics, labor markets.

Targeted – focusing to address needs by sectors, responsive to special populations, not all-encompassing.

Business-Led – consistently and methodically engaging the private sector for direction, feedback, and co-delivery.

Integrated / Collaborative – partner across multiple delivery systems, but with common objectives and measures.

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