



University of California  
San Francisco

# Diversity of California's Nursing Workforce Chartbook

Prepared for the California Board of Registered Nursing by the  
University of California, San Francisco

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# Goals of this Project

- Examine the diversity of California RNs in:
  - Education
  - Age
  - Race/ethnicity
  - Gender
  - Employment setting
  - Job titles
  - Regions

# Source of Data

- This Chartbook is based on data from the California Board of Registered Nursing:
  - 2018 Survey of Registered Nurses (RNs)
  - 2018-2019 Annual Schools Report
- The 2018 Survey of RNs was sent to 8,000 active RNs with addresses in California, and other states.
  - Survey was completed by 4,608 RNs, with a final response rate of 60.1%.
  - All figures highlighted in text are statistically significant at the 0.05 level of significance.
- The 2018-2019 Annual Schools Report is based on a survey completed by all California-approved RN education programs.

# Regions

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<b>Region</b>	<b>Counties</b>
<b>Northern Counties</b>	<b>Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Siskiyou, Sierra, Tehama, Trinity</b>
<b>Sacramento</b>	<b>El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba</b>
<b>San Francisco Bay Area</b>	<b>Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma</b>
<b>Central Valley / Sierra</b>	<b>Alpine, Amador, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, Tuolumne</b>
<b>Central Coast</b>	<b>Monterey, San Benito, San Luis Obispo, Santa Barbara</b>
<b>Los Angeles</b>	<b>Los Angeles, Orange, Ventura</b>
<b>Inland Empire</b>	<b>Riverside, San Bernardino</b>
<b>Southern Border</b>	<b>Imperial, San Diego</b>
<b>Out of State</b>	<b>All states other than California</b>

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# Diversity of California's RN Workforce

# Racial/ethnic composition of RNs in California

- California's RN workforce has no majority racial/ethnic group.
  - Non-White groups are 59.3% of the workforce.
- Hispanics are substantially underrepresented in the RN workforce.
  - Hispanics were 39.3% of the California population in 2018<sup>1</sup>, but only 9.6% of the RN workforce.
- The diversity of the workforce has been increasing over time.
  - The largest changes was for Hispanic nurses, increasing from 7.5% of the workforce in 2008 to 9.6% in 2018.
  - Other groups with large increases were Filipino nurses (18% in 2008 to 20.6% in 2018) and Asian/Pacific Islander nurses (8.6% in 2008 to 11.9% in 2018).

<sup>1</sup> U.S. Census Bureau; American Community Survey, 2018 American Community Survey 1-Year Estimates, Table DP05

# Racial/ethnic composition of RNs in California

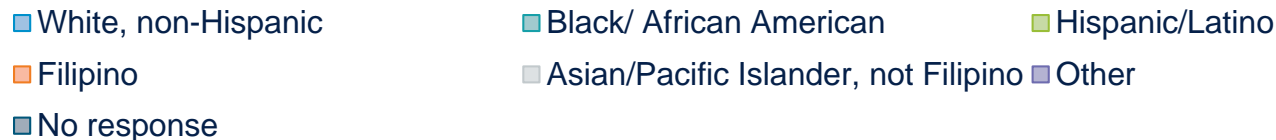
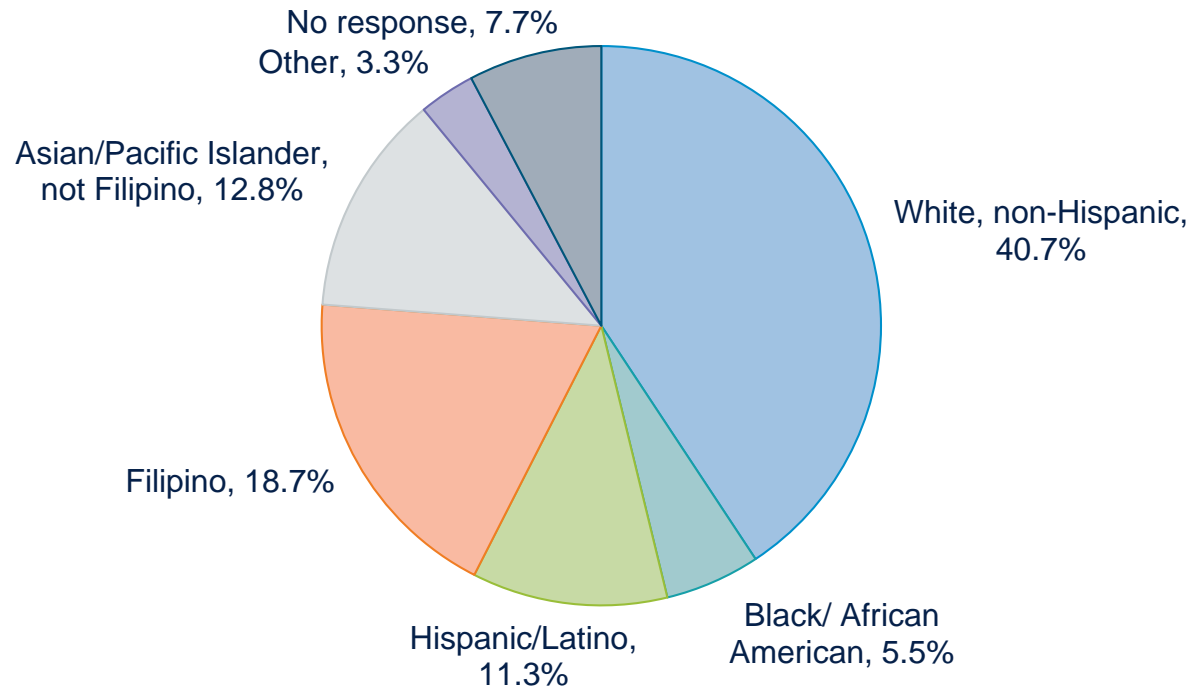
- Younger nurses are more diverse than older nurses.
  - Larger percentages of younger nurses are Hispanic, Asian/Pacific Islander, and Mixed/Other.
  - Smaller percentages of younger nurses are White and Black.
  - Filipino nurses are the largest non-White group among RNs 45-54 years old.

# Racial/ethnic composition of RNs in California

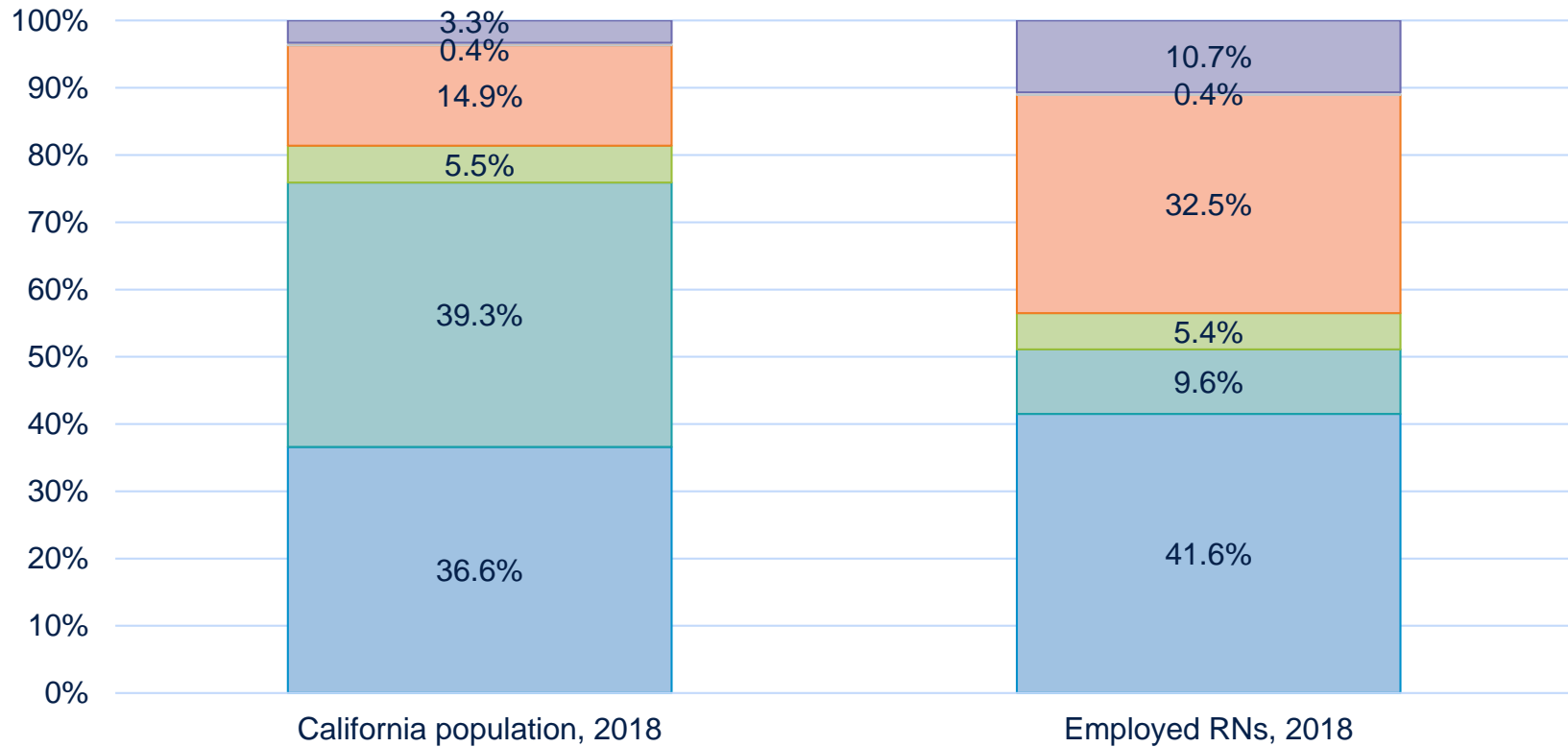
- Diversity varies markedly across regions of California.
  - The least diverse region is the Northern Counties region, where 79.2% of RNs are White.
  - The regions with the largest percentages of Hispanic RNs are Los Angeles (12.9%), the Central Valley/Sierra (11.7%), Inland Empire (11.6%), and Central Cost (11.4%).
  - The regions with the largest percentages of Black RNs are the Inland Empire (10.1%) and San Francisco Bay Area (6.3%).
  - The regions with the largest percentages of Filipino RNs are the Southern Border (23.7%), Los Angeles (23.1%), Inland Empire (23%), and San Francisco Bay Area (21.8%).
  - The regions with the largest percentages of Asian/Pacific Islander RNs are Los Angeles (16.3%), the San Francisco Bay Area (14.2%), and the Central Valley/Sierra (11.9%).



# Racial/ethnic composition of RNs with California licenses and residences

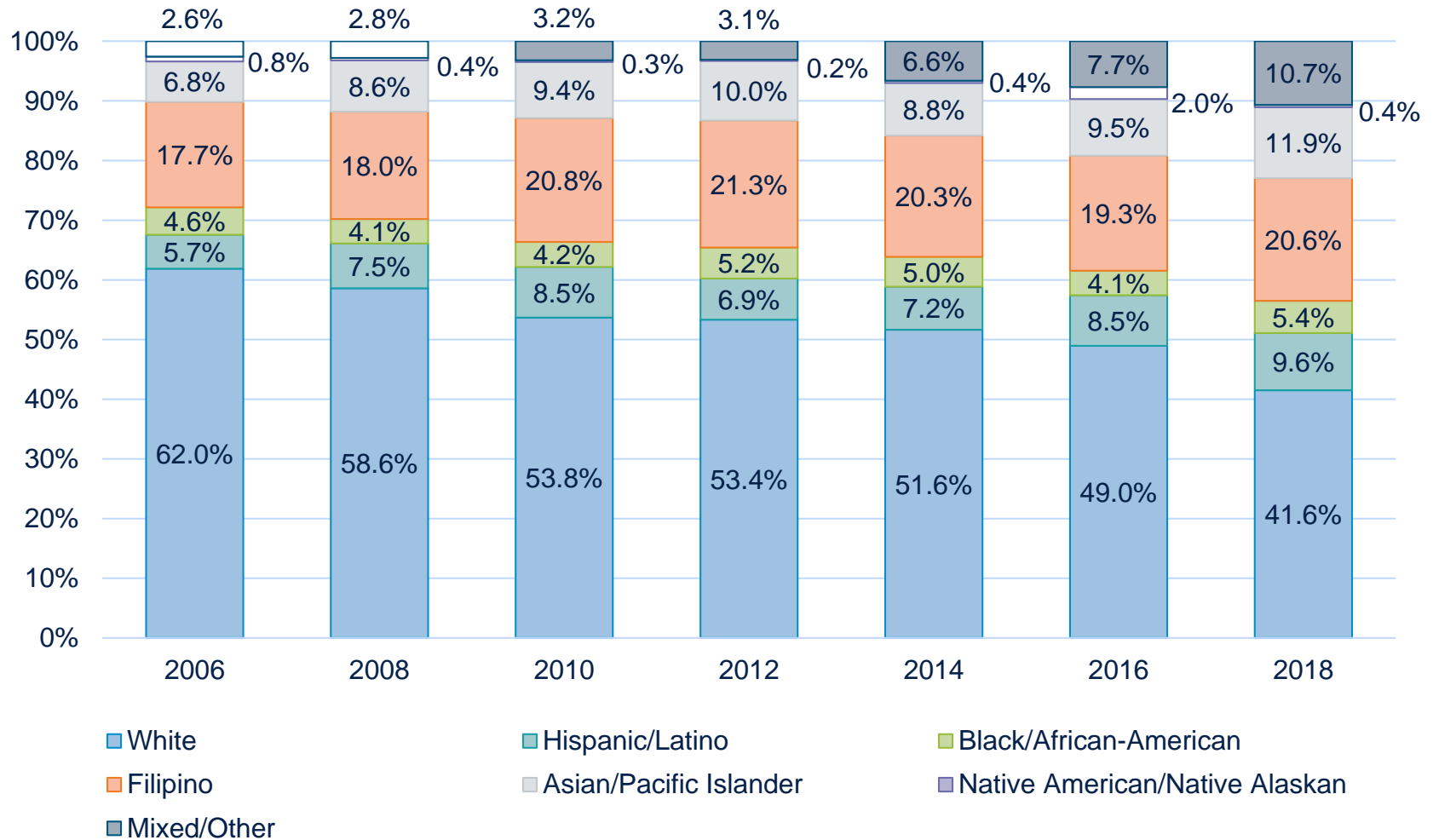


# Racial/ethnic composition of employed RNs compared with California's population

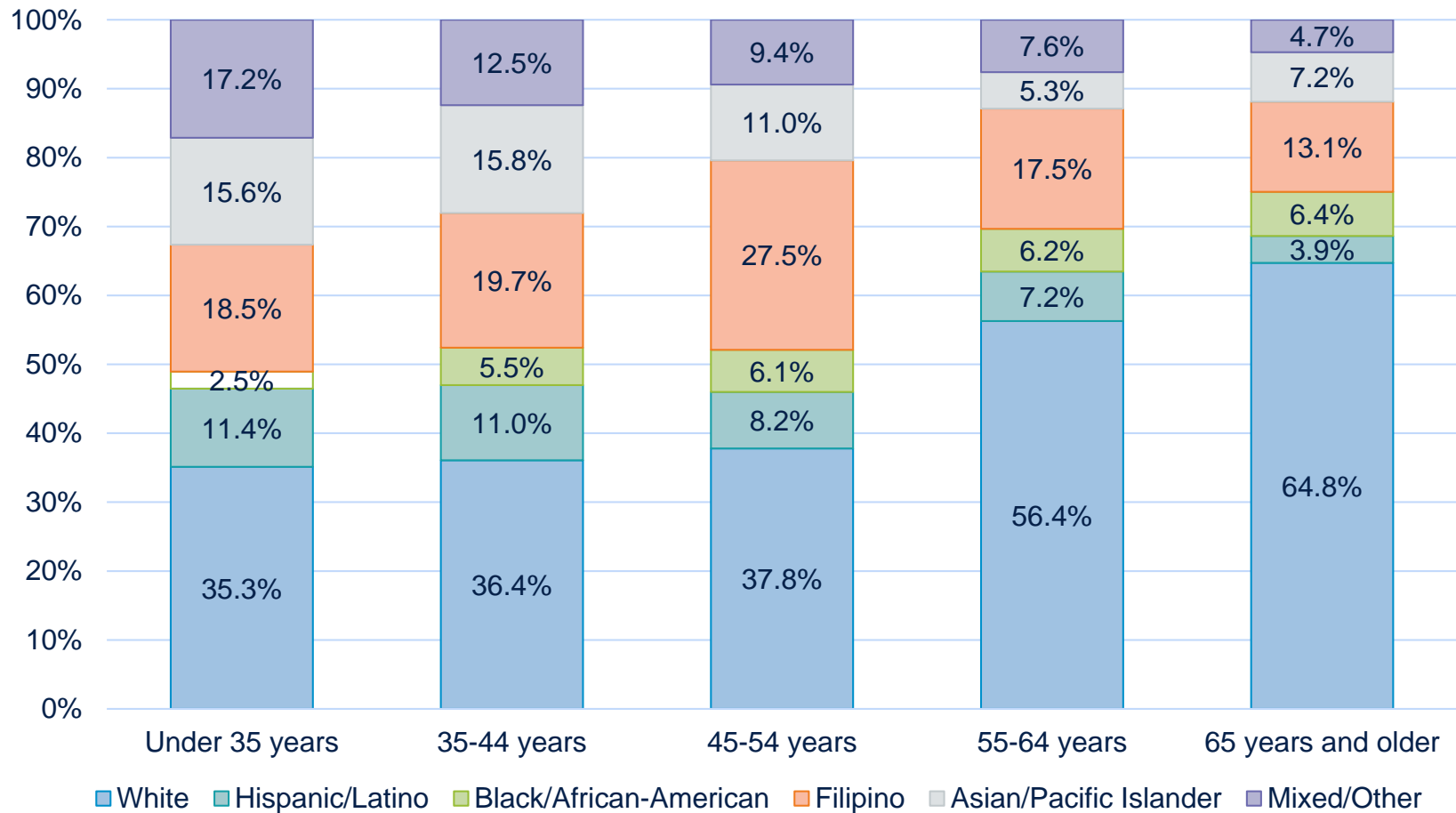


- White
- Asian/Pacific Islander
- Hispanic/Latino
- Native American/Native Alaskan
- Black/African-American
- Mixed/Other

# Racial/ethnic composition of employed RNs over time

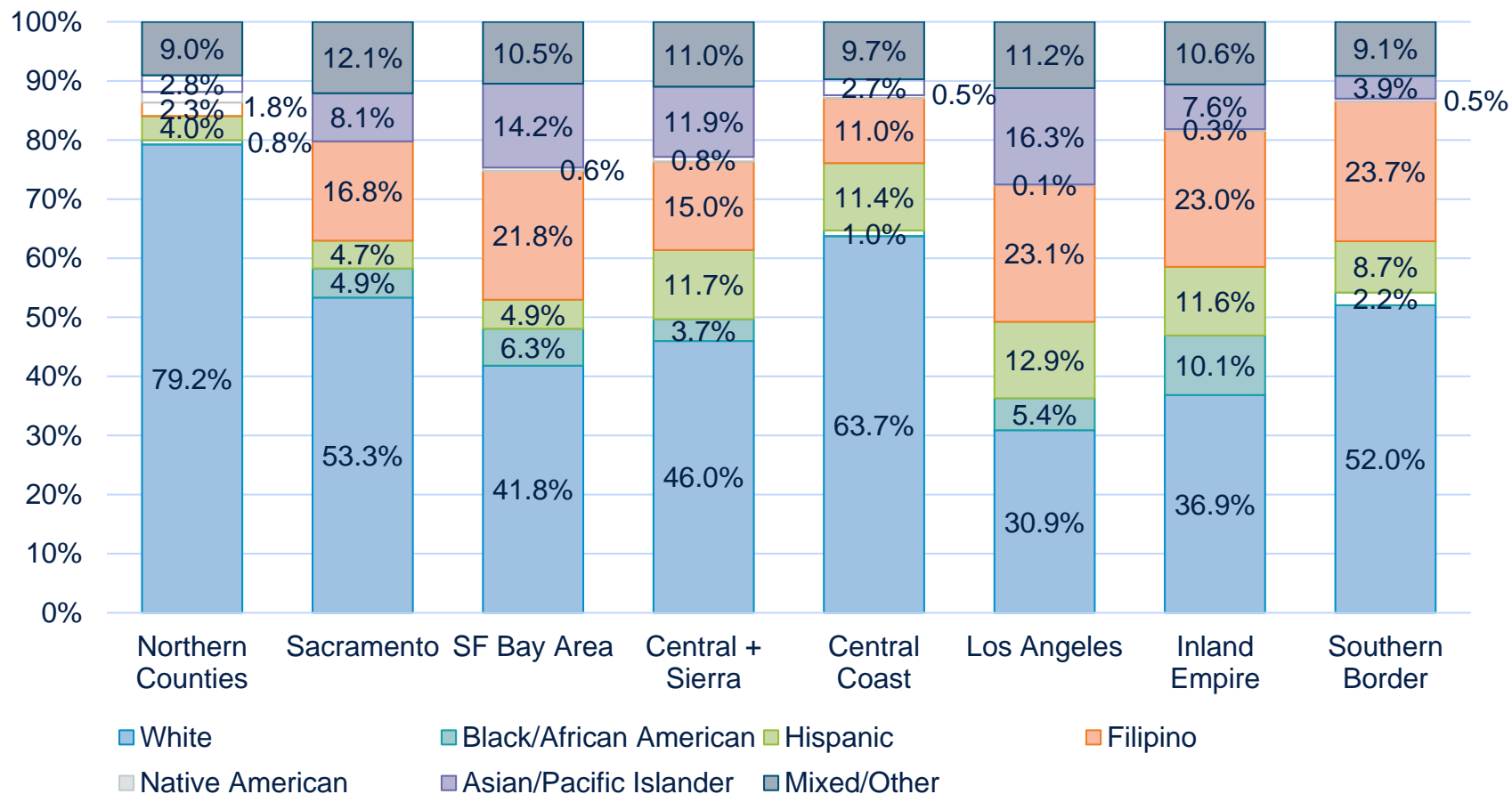


# Racial/ethnic composition of employed RNs by age group



Note: There were not enough Native American RNs to calculate age groups.

# Racial/ethnic composition of employed RNs by region

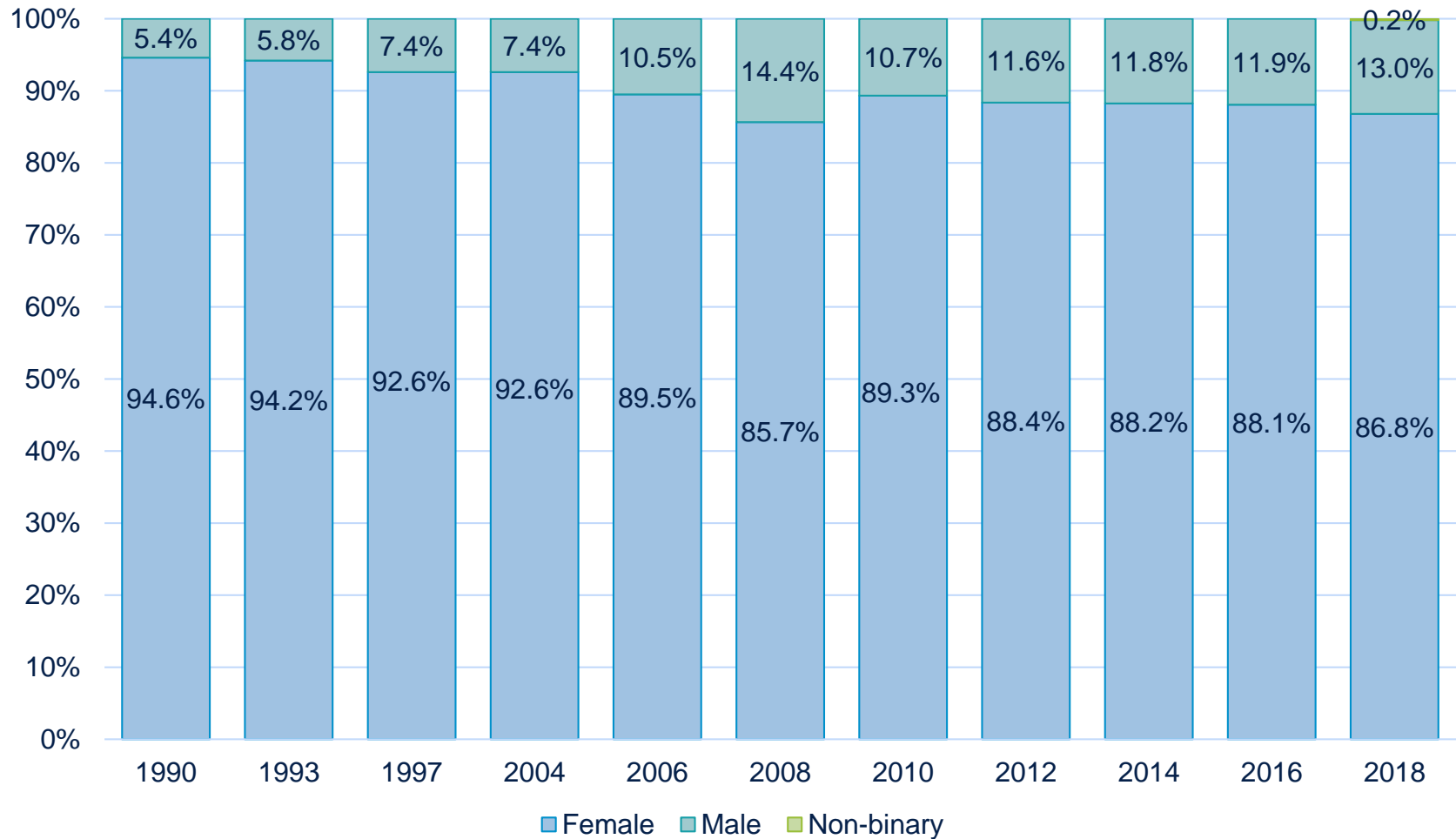


N = 3,439  
p-value = 0.0000

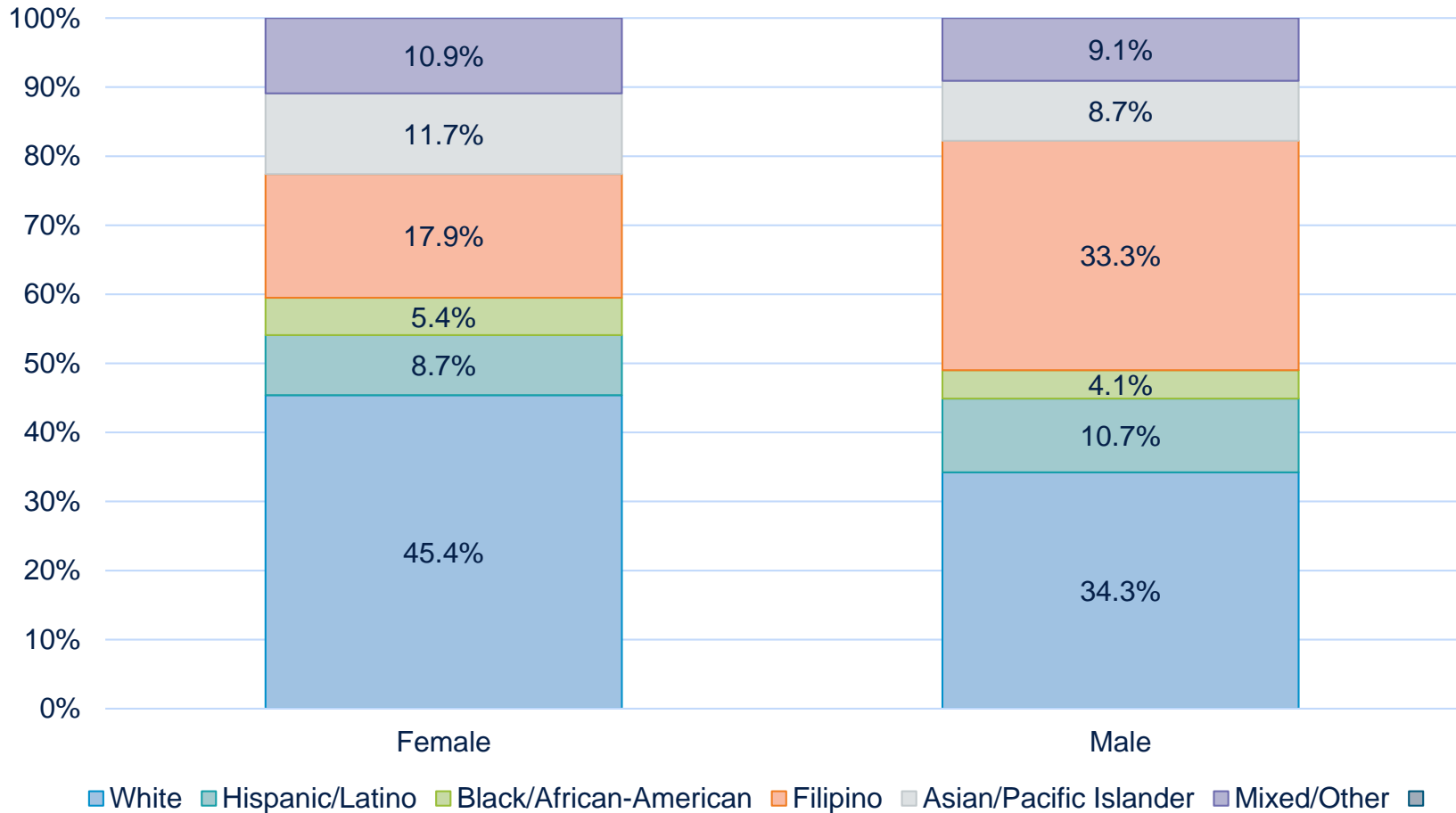
# Gender composition of RNs in California

- The percentage of male RNs has been stable over the past decade, at approximately 11% to 14%.
  - Only 5.4% of RNs were male in 1990.
- Male nurses are more often Filipino (33.3%) than female nurses (17.9%).
  - Male nurses are also more often Hispanic (10.7% vs. 8.7%).
- The gender composition of the RN workforce is similar across regions, with no statistically significant difference.

# Gender composition of employed RNs over time



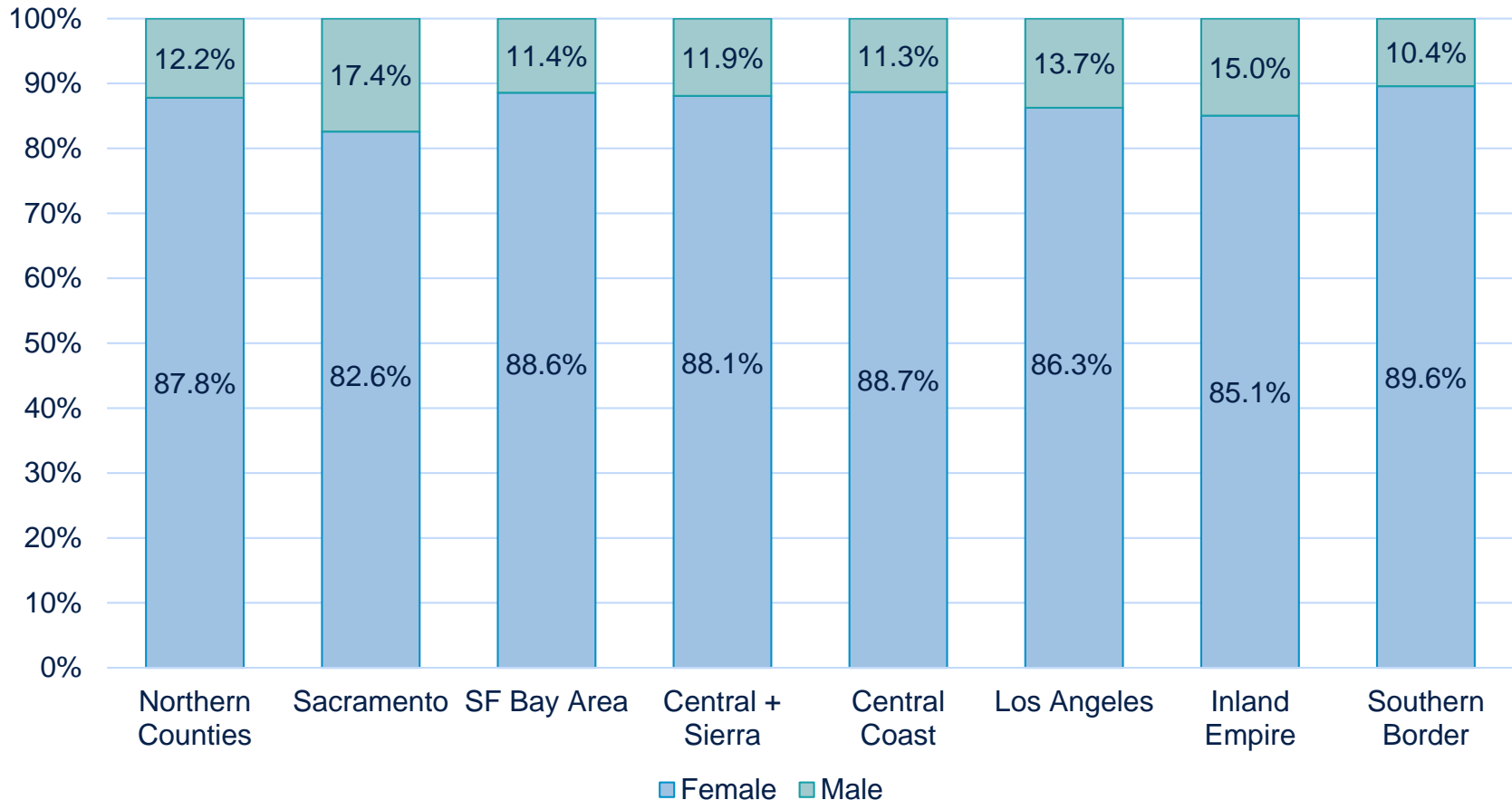
# Racial/ethnic composition of employed RN workforce, by gender



Note: There were not enough Native American RNs to calculate gender groups.



# Gender composition of employed RNs by region



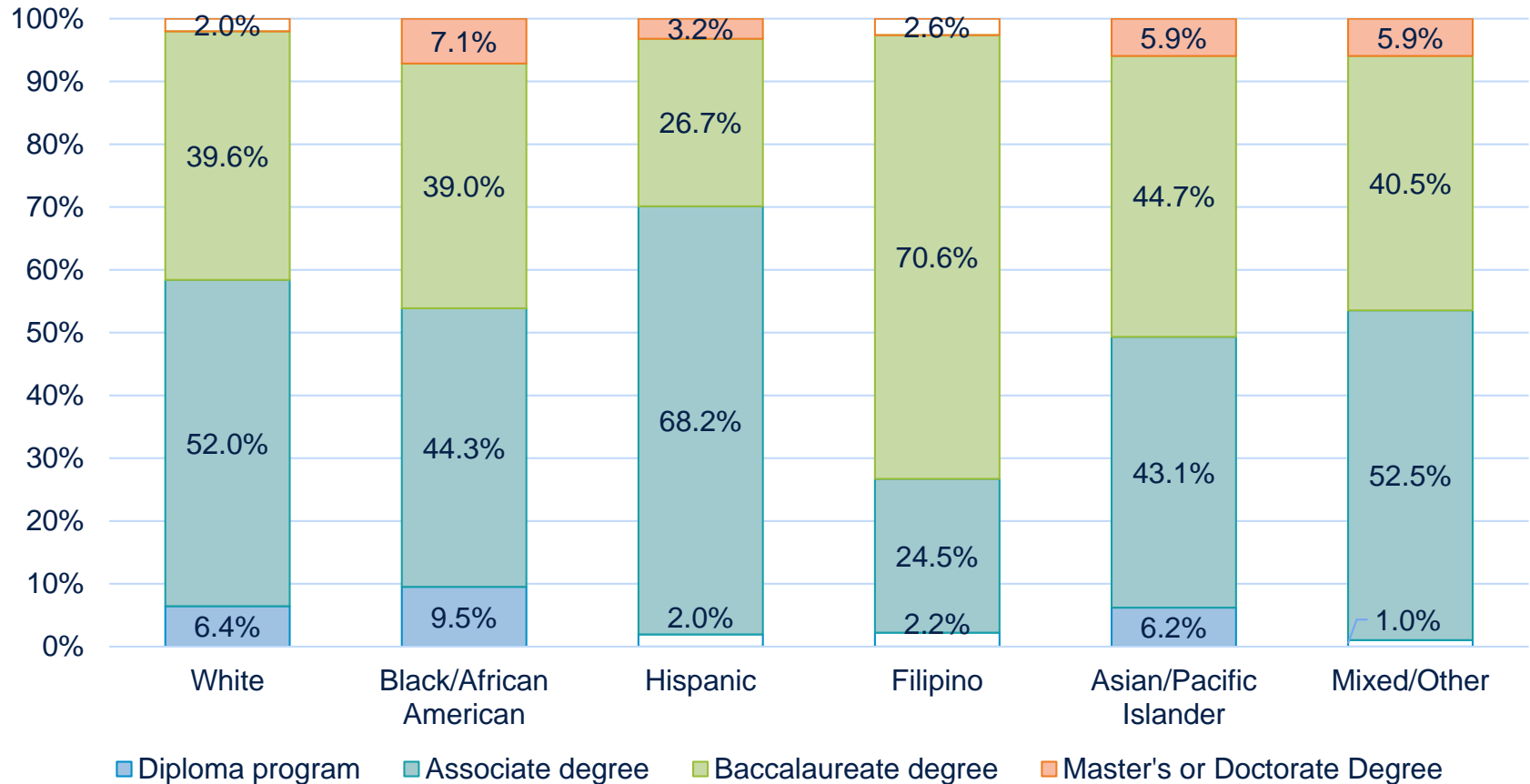
N = 3,501  
p-value = 0.3162

# Initial nursing education of RNs in California

# Initial RN education of the RN workforce by race/ethnicity

- Hispanic RNs were most likely to have obtained an associate degree in nursing (ADN) as their initial RN education (68.2%), followed by Mixed/Other RNs (52.5%) and Whites (52%).
  - Filipino RNs were least likely to have obtained an ADN as their initial education (24.5%).
- Filipino RNs were most likely to have obtained a bachelor's degree in nursing (BSN) as their initial RN education (70.6%), followed by Asian/Pacific Islanders (44.7%).
  - Hispanic RNs were least likely to have obtains a BSN as their initial education (26.7%).
- Black/African-American RNs were most likely to have obtain a entry-level master's degree (ELM) as their initial RN education (7.1%).

# Initial RN education of the RN workforce by race/ethnicity



N = 2,968

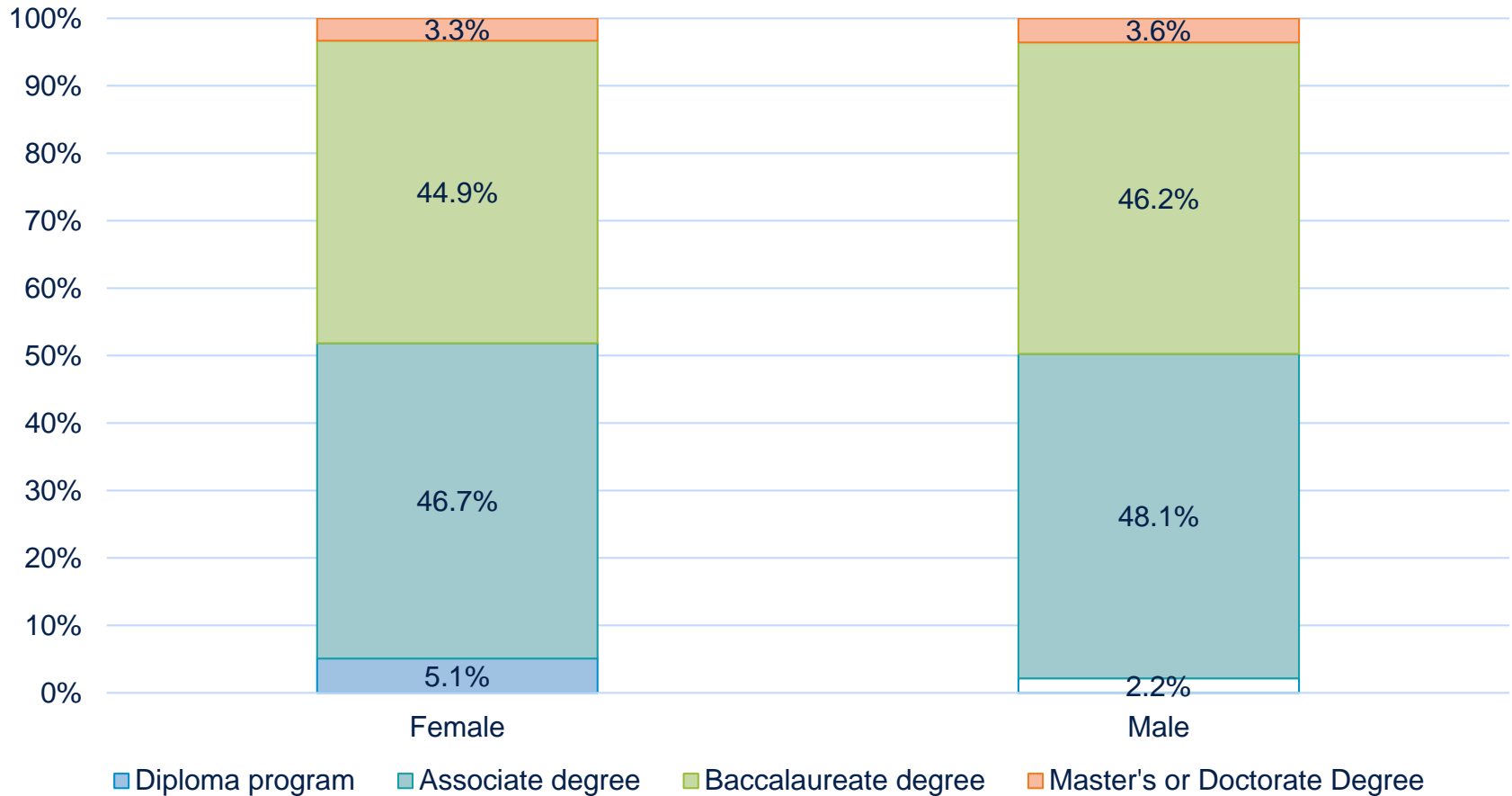
p-value = 0.0000.

Note: There were not enough Native American RNs to calculate initial education.

# Initial RN education of the RN workforce by gender

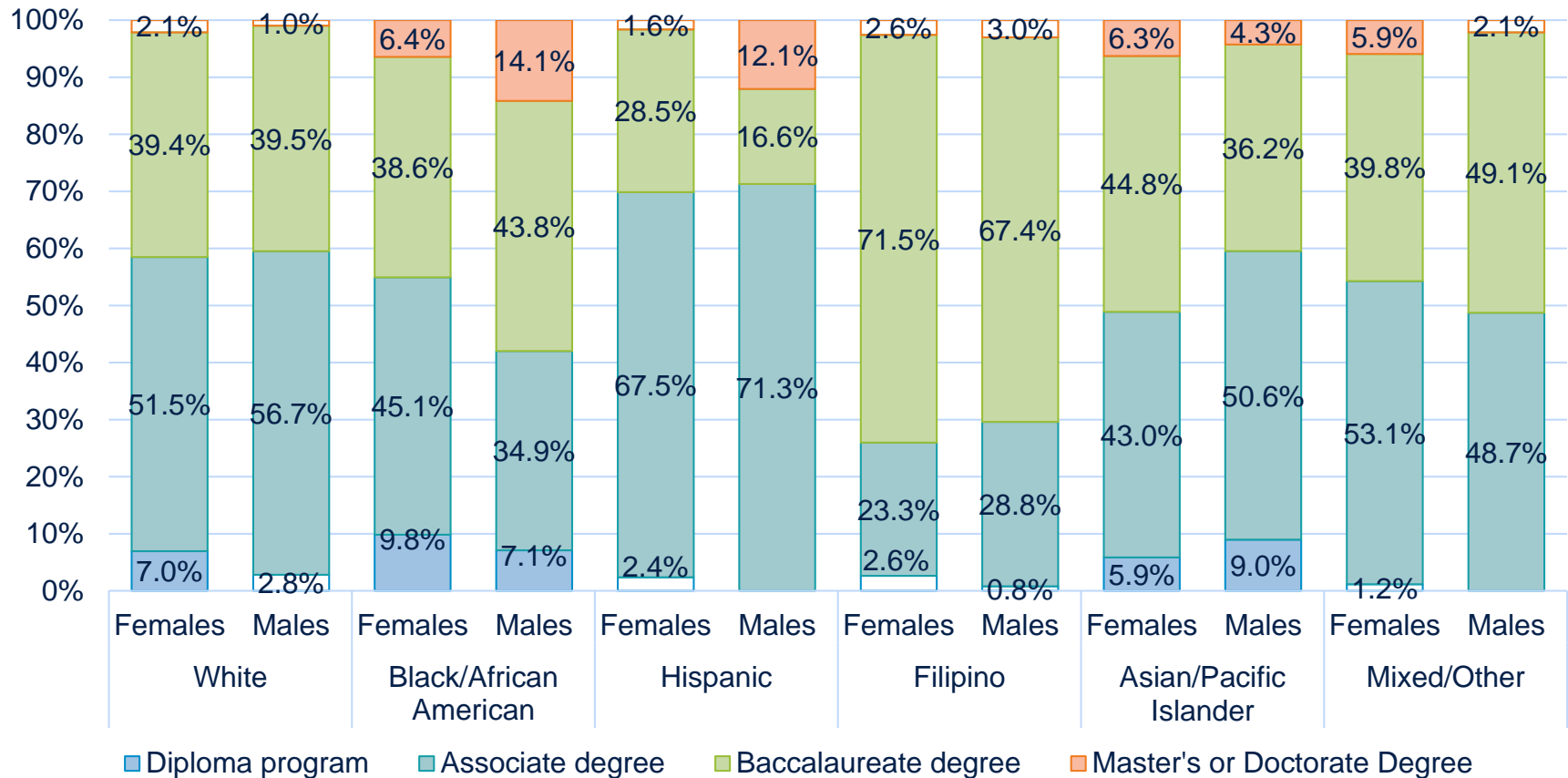
- Male and female RNs were equally likely to have completed each type of initial RN education.
- Initial RN education patterns were similar for males and females for White, Black, and Filipino RNs.
- Black male nurses were more likely to complete an initial BSN or ELM program than female nurses.
- Asian male nurses were less likely to complete an initial BSN or ELM program than female nurses.

# Initial RN education of the RN workforce by gender



N = 3,024  
p-value = 0.3264

# Initial RN education of the RN workforce by gender and race/ethnicity



N = 2,578 females, 374 males

p-value = 0.0000 for females, 0.0013 for males.

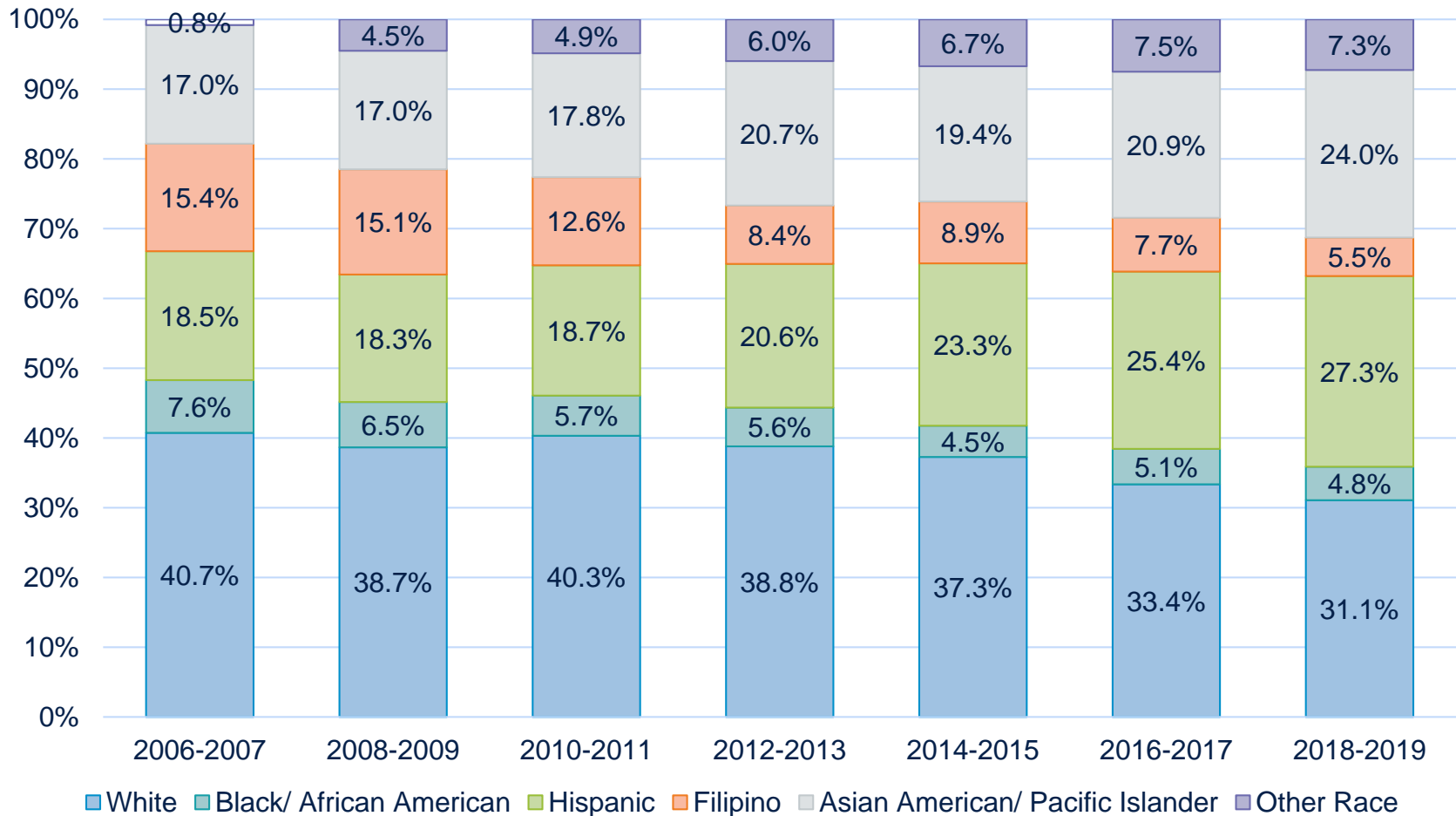
Note: There were not enough Native American RNs for calculations.

# Diversity of California's newly enrolled RN students

- The diversity of California's newly enrolled RN students has changed between 2006-2007 and 2018-2019.
  - The percent of White enrollments has **decreased** from 40.7% to 31.1% during this period.
  - The percent of Hispanic enrollments has **increased** from 18.5% to 27.3%.
  - The percent of non-Filipino Asian American/Pacific Islander enrollments has **increased** from 17.0% to 24.0% during this period.
  - The percent of Filipino enrollments has **decreased** from 15.4% to 5.5%.
  - The percent of Other Race/Mixed enrollments has **increased** from 0.8% to 7.3%.
  - The percent of Black/African American enrollments has **decreased** from 7.6% to 4.8% during this period.



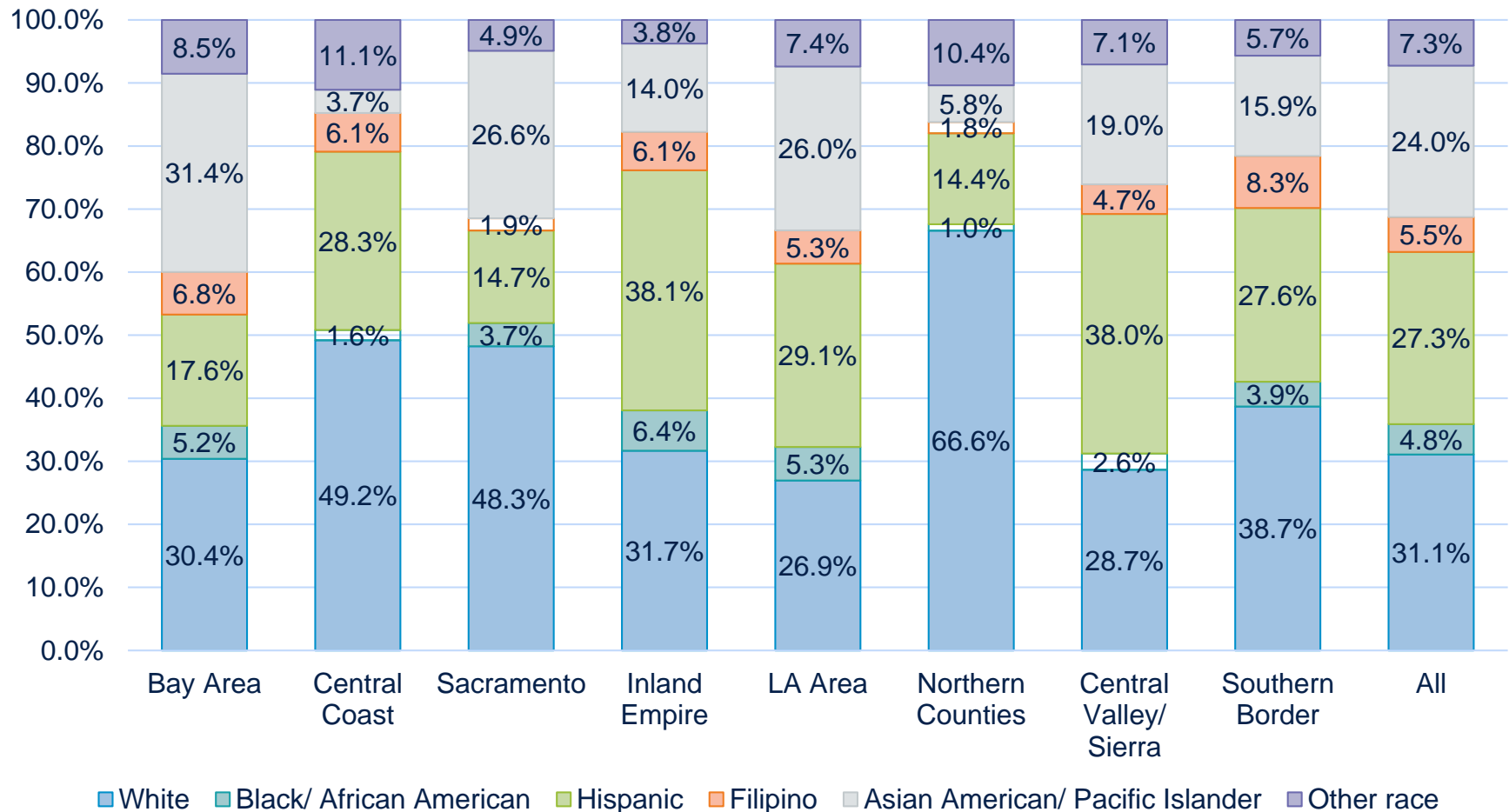
# Diversity of California's newly enrolled RN students



# Diversity of California's newly enrolled RN students

- Diversity of newly enrolled students varies markedly across regions of California:
  - The least diverse region is the Northern Counties region, where 66.6% newly enrolled students are White.
  - The regions with the largest percentages of Hispanic enrollments are Inland Empire (38.1%), Central Valley/Sierra (38.0%), and the Los Angeles region (29.1%).
  - The regions with the largest percentages of Black enrollments are the Inland Empire (6.4%), Los Angeles region (5.3%), and the San Francisco Bay area (5.2%).
  - The regions with the largest percentages of Filipino enrollments are the Southern Border (8.3%) and the Bay Area (6.8%).
  - The regions with the largest percentages of Asian/Pacific Islander enrollments are the San Francisco Bay Area (31.4%), the Sacramento Area (26.6%), and the Los Angeles Area (26.0%).

# Diversity of California's newly enrolled RN students, by region

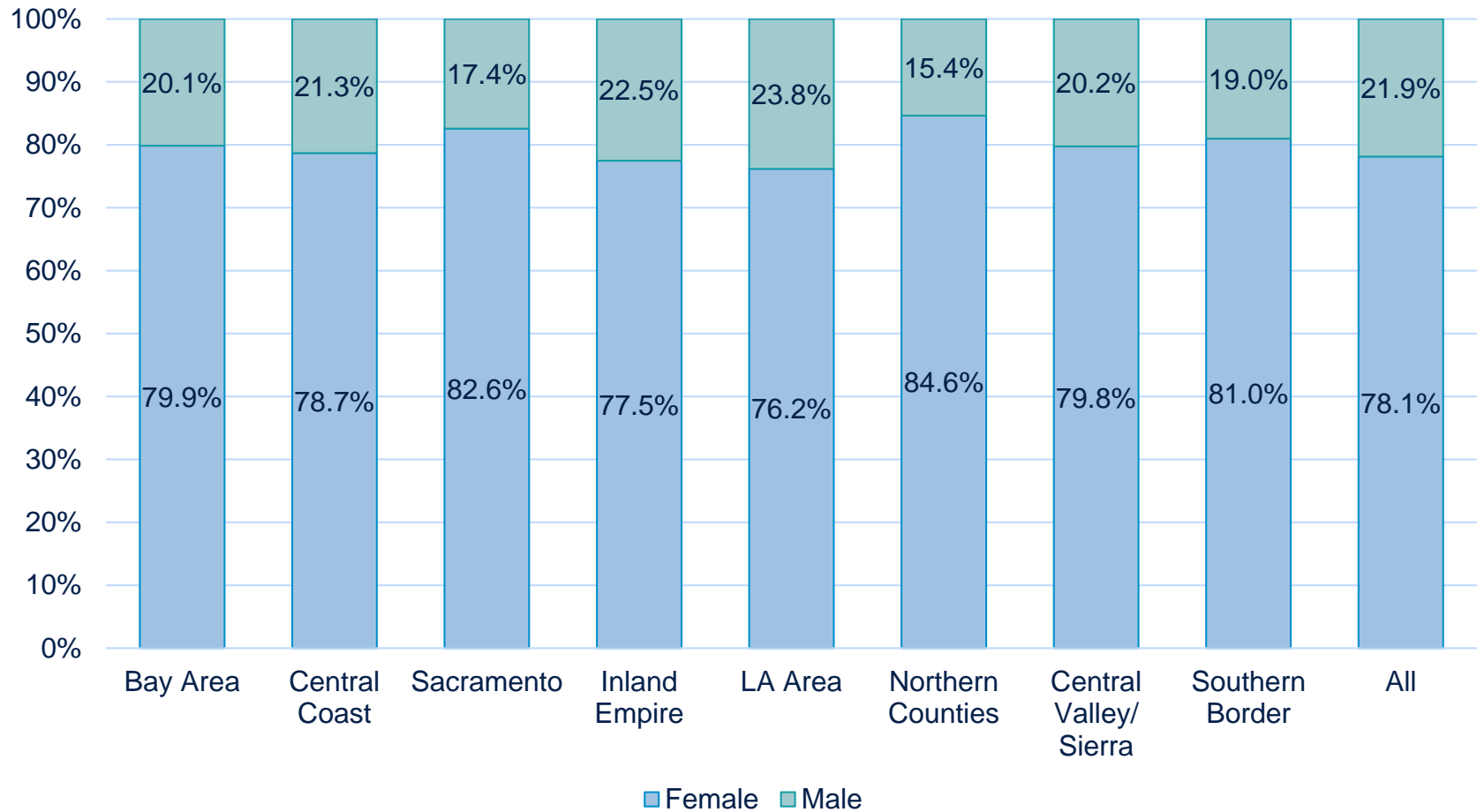


N = 14,729 (not including 462 unknown)

# Gender of California's newly enrolled RN prelicensure students

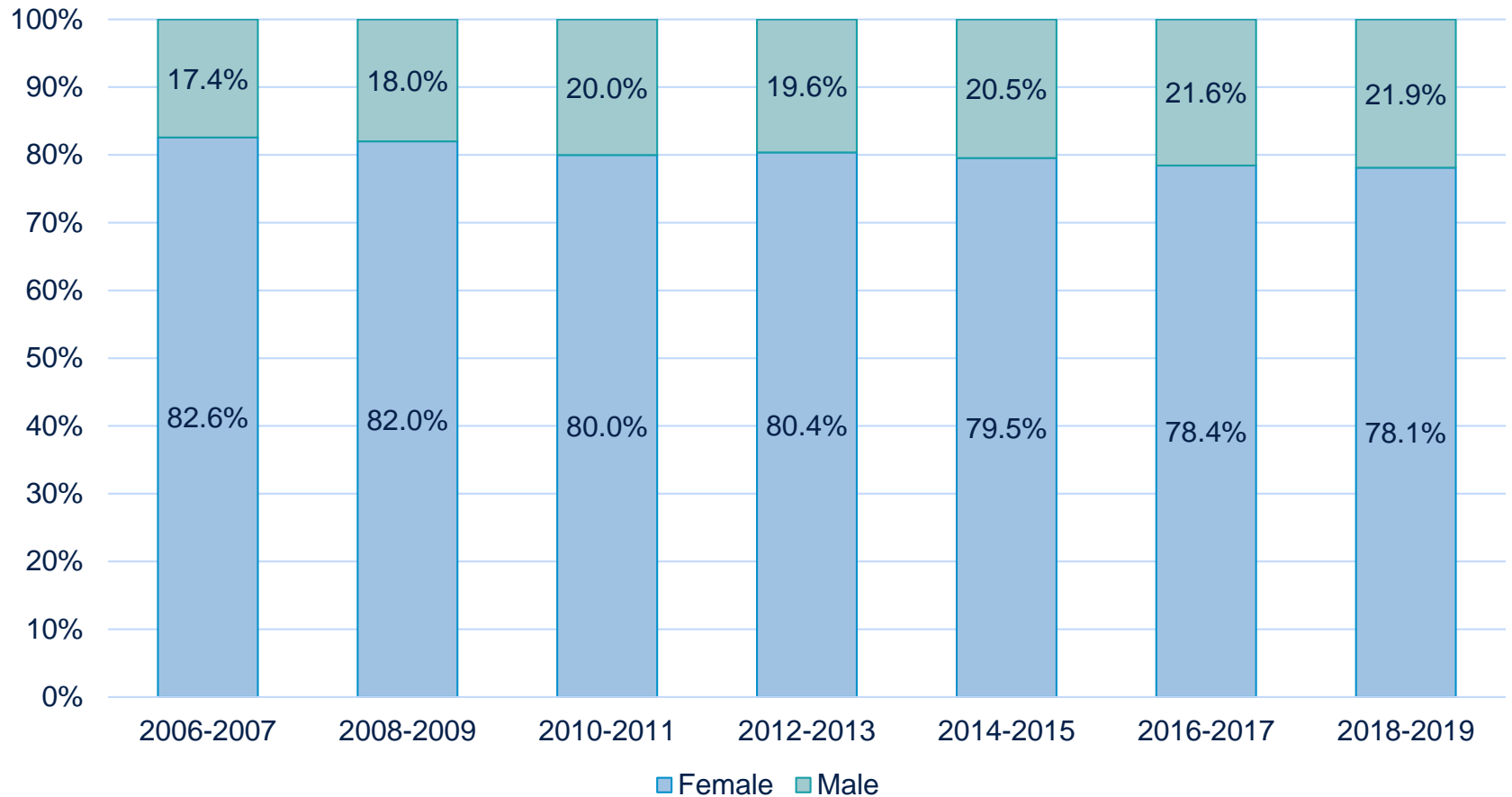
- The majority of newly enrolled RN prelicensure students is female (78.1%):
  - The Los Angeles area (23.8%) and the Inland Empire (22.5%) areas have the largest proportions of male enrollments.
  - The Northern Counties region has the smallest proportion of male enrollments (15.4%).
- The gender balance of completing students has changed over time:
  - The proportion of male enrollments has grown from 17.4% in 2006-07 to 21.9% in 2018-19.

# Gender of California's newly enrolled RN prelicensure students, by region



N = 15,114 (not including 77 unknown)

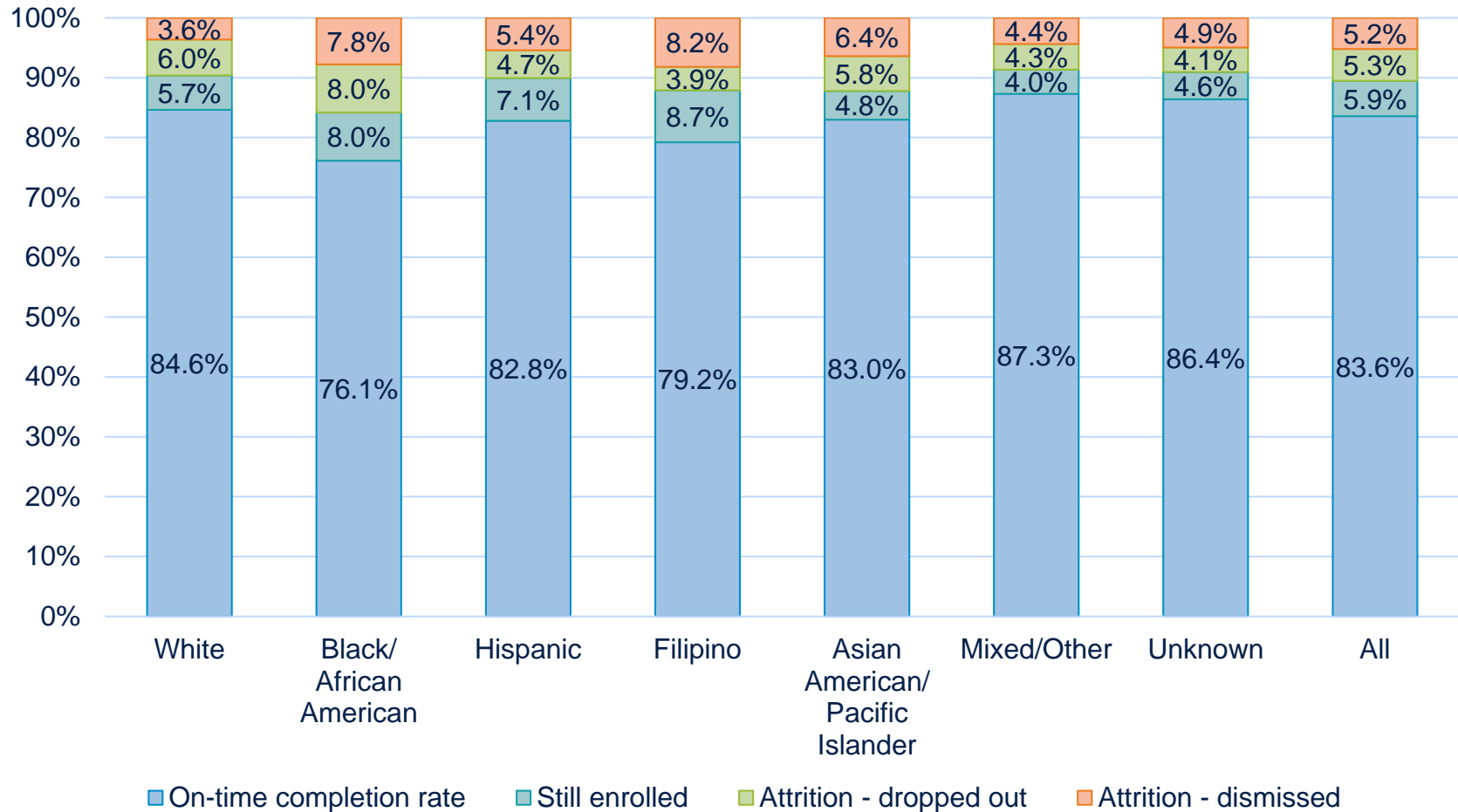
# Gender of California's newly enrolled RN prelicensure students, by year



# Attrition and Completion

- Attrition and on-time completion rates vary by race and ethnicity.
  - Mixed race (87.3%), Unknown race (86.4%), and White students (84.6%) had the highest on-time completion rates.
  - Black/African American students (8.7%) and Filipino students (8.0%) had the highest rates of still being enrolled past scheduled completion time.
  - Mixed race students (8.7%) had the lowest attrition rate and Black/African American students had the highest attrition rate (15.8%).

# Prelicensure attrition and completion by race/ethnicity



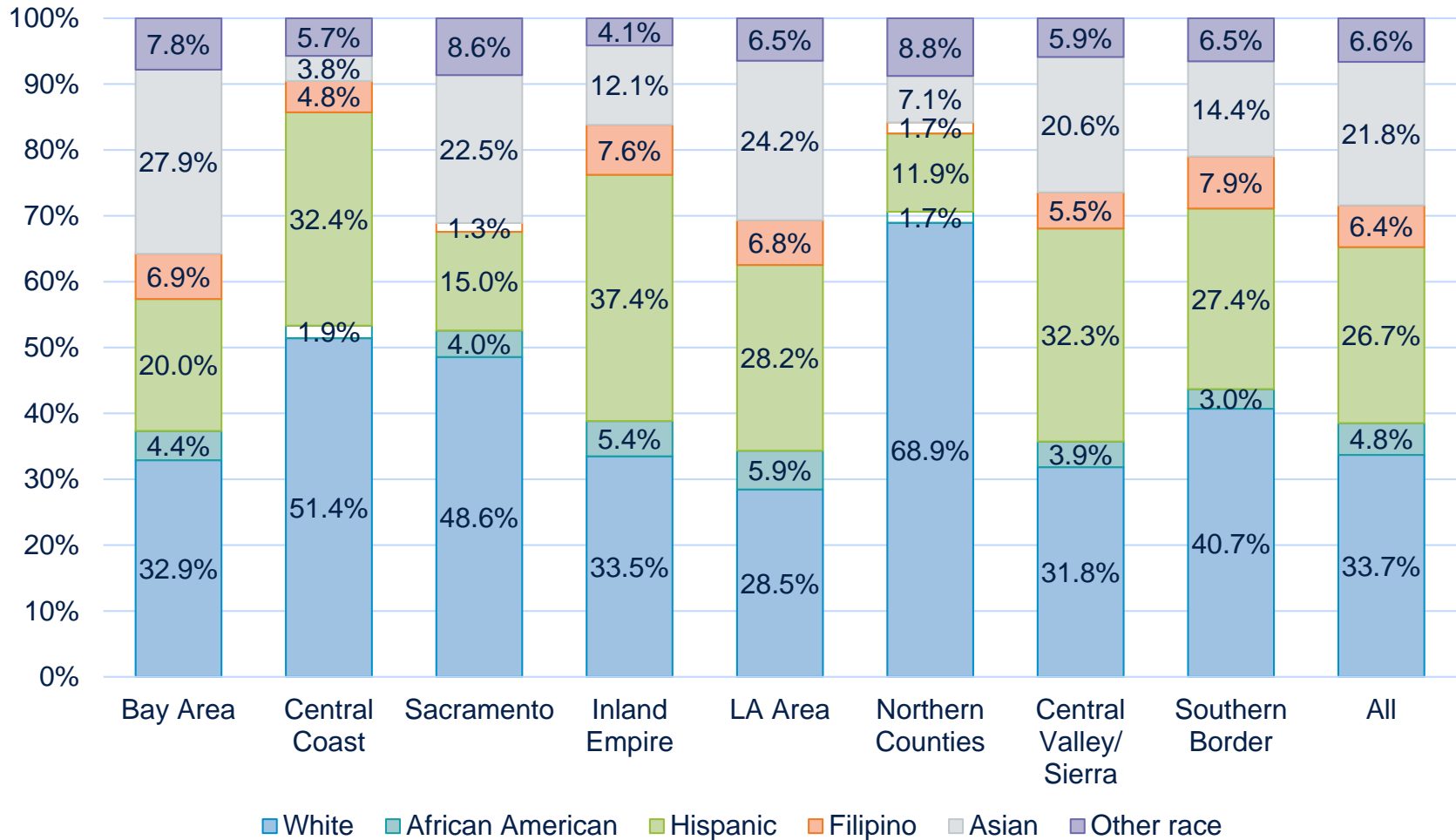
Students scheduled to complete  
N = 14,949



# Diversity of California's completing RN students

- Diversity of completing students varies markedly across regions of California.
  - The least diverse region is the Northern Counties region, where 68.9% graduating students are White.
  - The regions with the largest percentages of Hispanic completions are Inland Empire (37.4%), the Central Coast (32.4%), and the Central Valley/Sierra (32.3%).
  - The regions with the largest percentages of Black completions are the LA Area (5.9%) and Inland Empire (5.4%).
  - The regions with the largest percentages of Filipino completions are the Southern Border (7.9%) and Inland Empire (7.6%).
  - The regions with the largest percentages of Asian/Pacific Islander completions are the San Francisco Bay Area (27.9%), Los Angeles (24.2%), and the Sacramento Area (22.5%).

# Diversity of California's completing RN students, by region

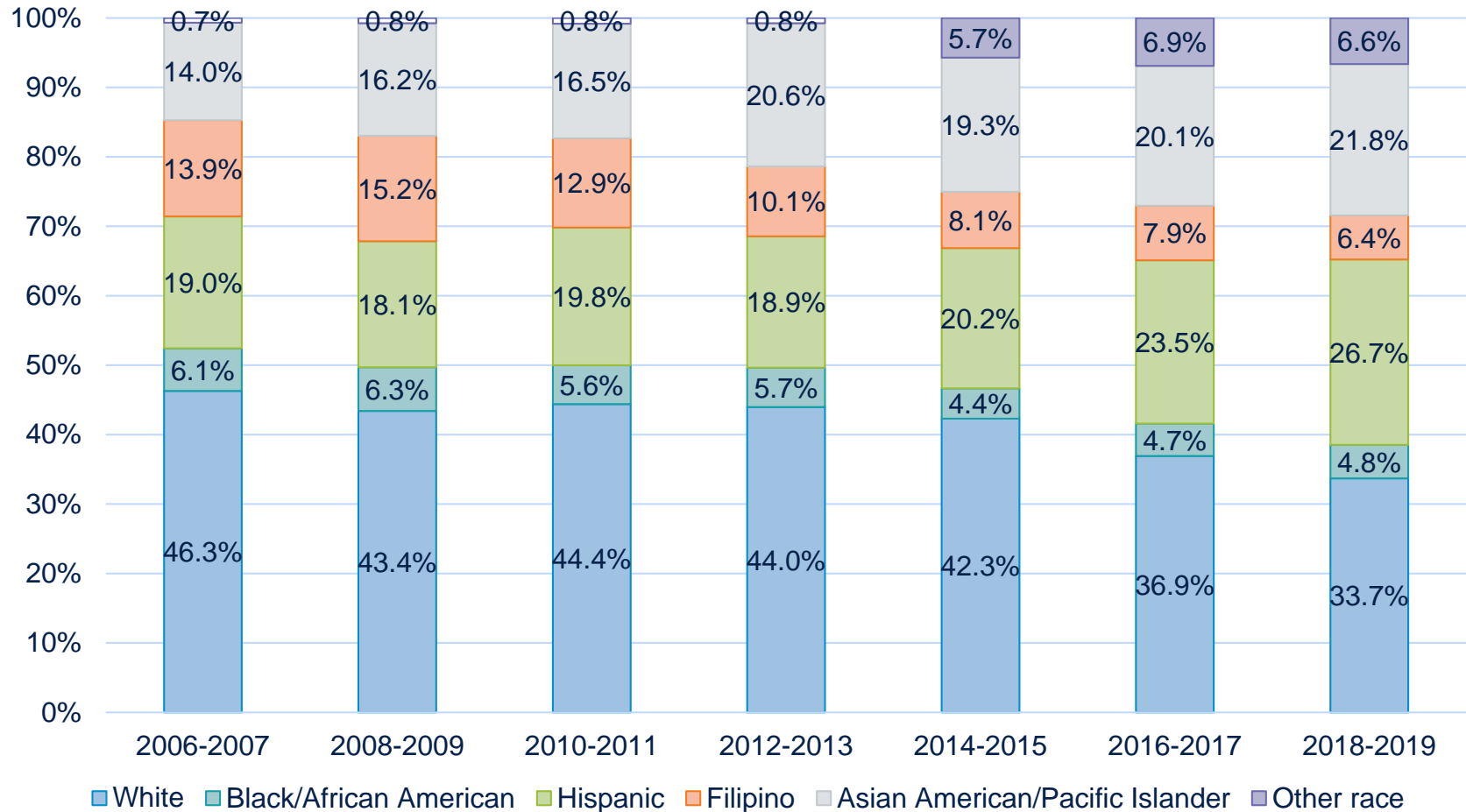


N = 11,116 (not including 741 unknown)

# Diversity of California's completing RN students

- The diversity of California's completing RN students has changed between 2006-2007 and 2018-19.
  - The percent of White completions has **decreased** from 46.3% to 33.7% during this period.
  - The percent of Filipino completions has **decreased** from 13.9% to 6.4%.
  - The percent of Black/African American completions has **decreased** from 6.1% to 4.8%.
  - The percent of Asian American/Pacific Islander completions has **increased** from 14.0% to 21.8% during this period.
  - The percent of Hispanic enrollments has **increased** from 19.0% to 26.7%.
  - The percent of Other Race completions has **increased** from 0.7% to 6.6%.

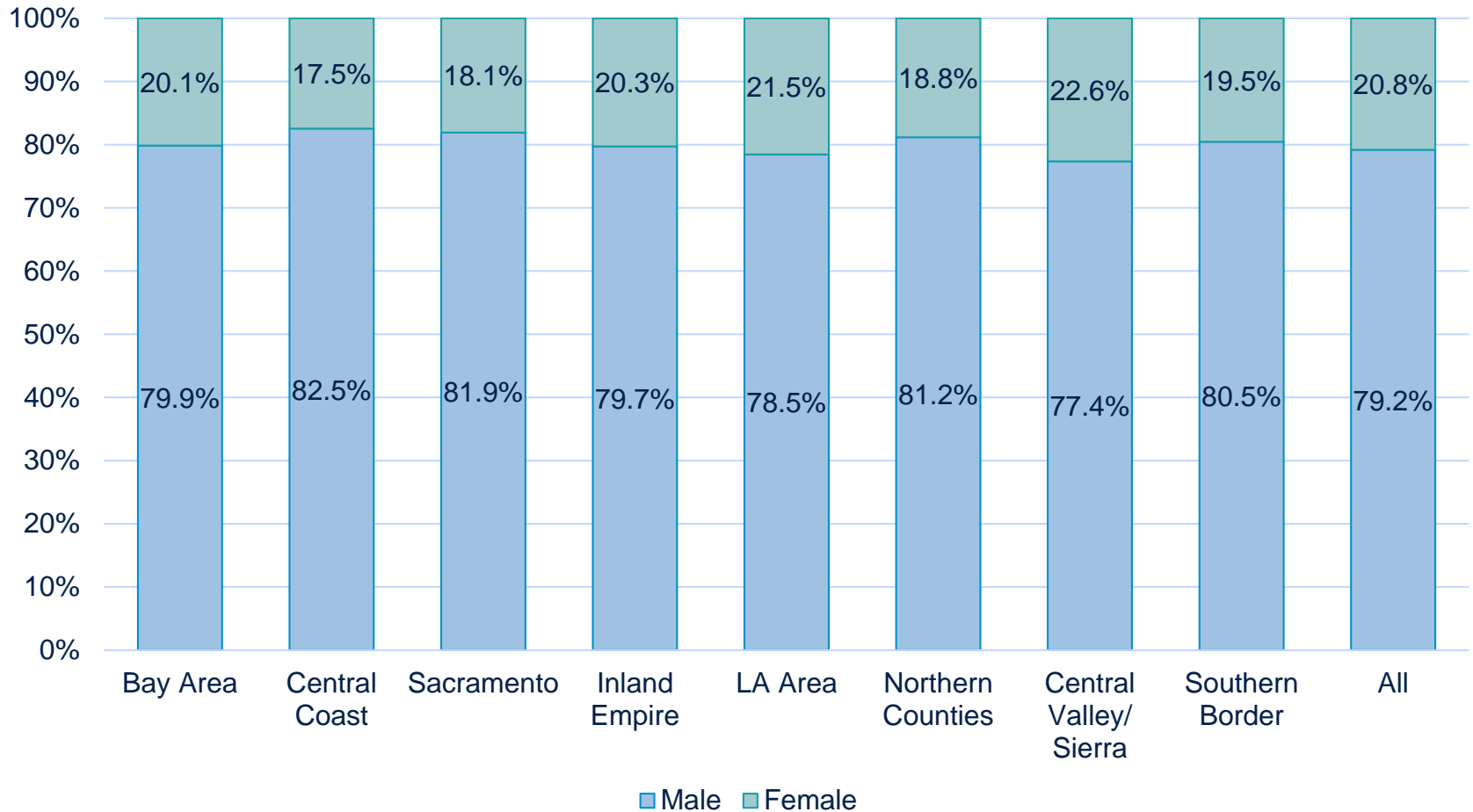
# Diversity of California's completing RN students, by year



# Gender of California's completing RN prelicensure students

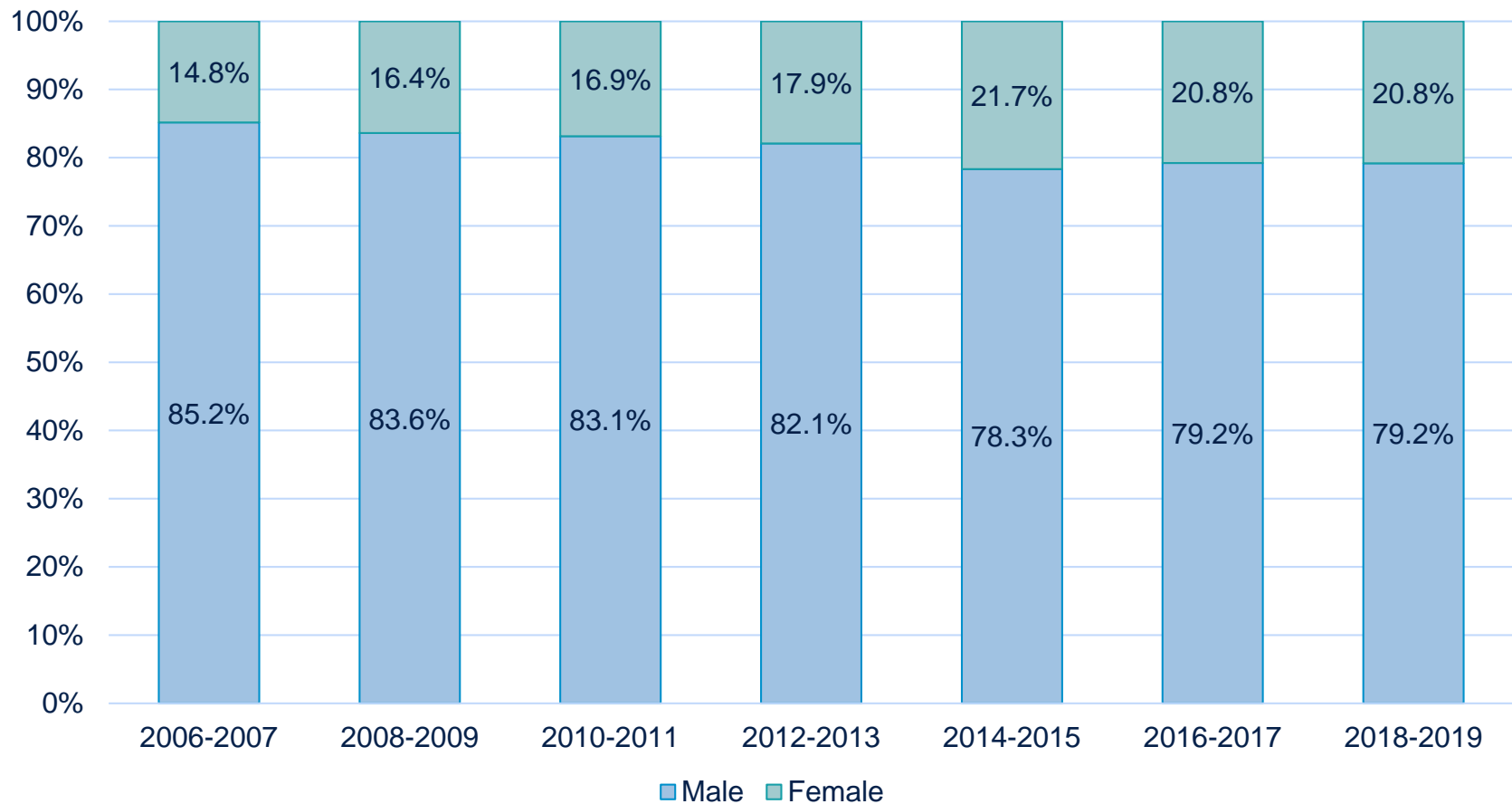
- The majority of completing RN prelicensure students is female (79.2%):
  - The Central Valley/Sierra and Los Angeles areas have the largest proportions of male completions (22.6 % and 21.5% respectively).
  - The Central Coast region has the smallest proportion of male completions (17.5%).
- The gender balance of completing students has changed over time:
  - The proportion of male completions had grown from 14.8% in 2006-07 to 20.8% in 2018-19.

# Gender of California's completing RN prelicensure students, by region



N = 11,634 (not including 256 unknown)

# Gender of California's completing RN prelicensure students, by year



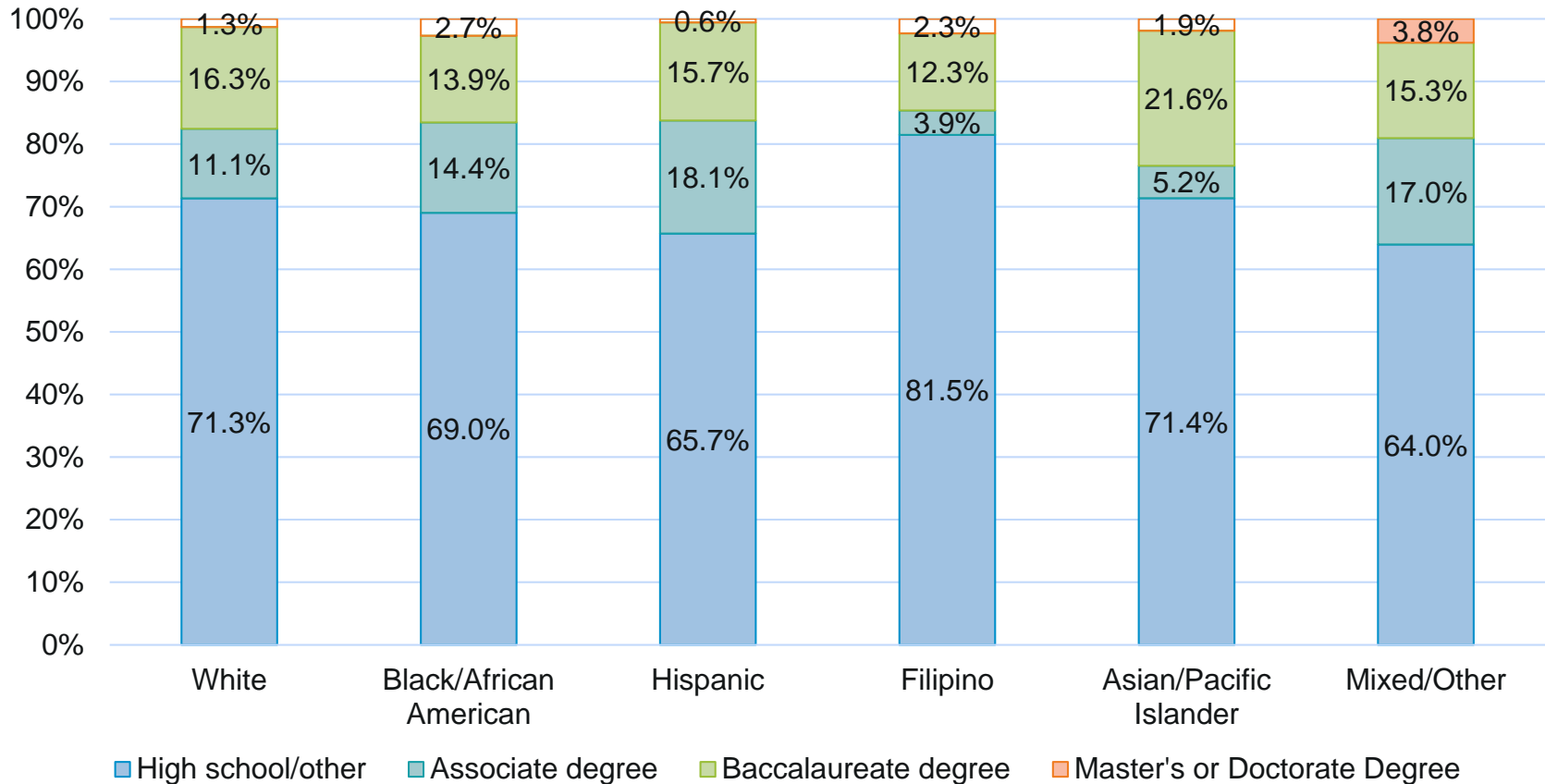
# Education completed prior to RN education



# Education completed prior to initial RN education by race/ethnicity and gender

- Many nurses have completed some post-secondary education prior to beginning their RN education.
- Filipino nurses were more likely than other groups to begin their RN education after completing a high school degree (81.5%).
- Hispanic nurses were more likely than other groups to begin their RN education after completing an associate degree in another field (18.1%).
- Asian/Pacific Islander nurses were more likely than other groups to begin their RN education after completing a bachelor's degree in another field (21.6%).
- Male nurses were more likely than female nurses to begin their RN education after completing an associate or bachelor's degree in another field.
- Female nurses were more likely than male nurses to begin their RN education after completing a graduate degree in another field.

# Education completed prior to initial RN education by race/ethnicity

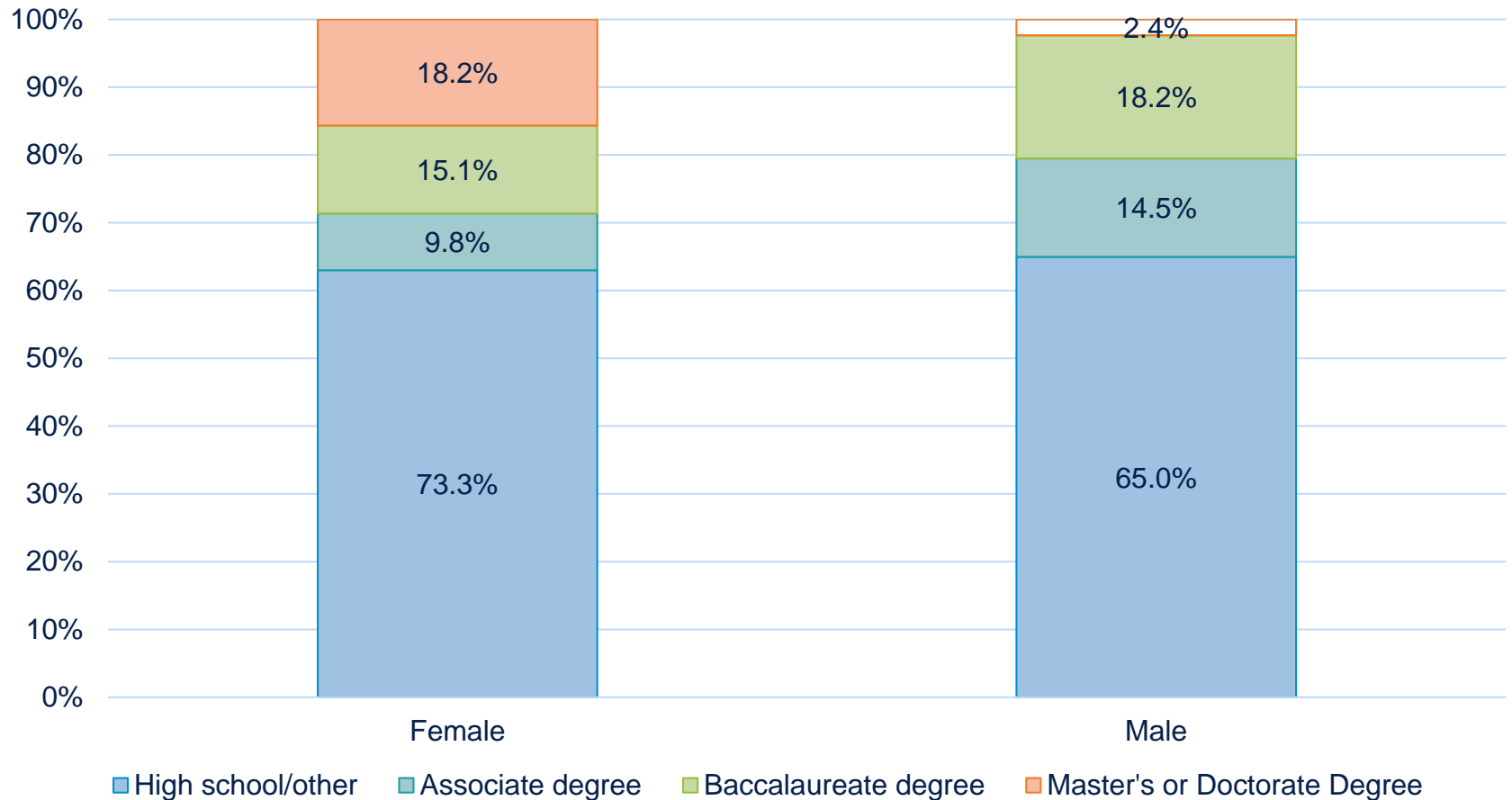


N = 3,030

p-value = 0.0000.

Note: There were not enough Native American respondents to calculate education.

# Education completed prior to initial RN education by gender



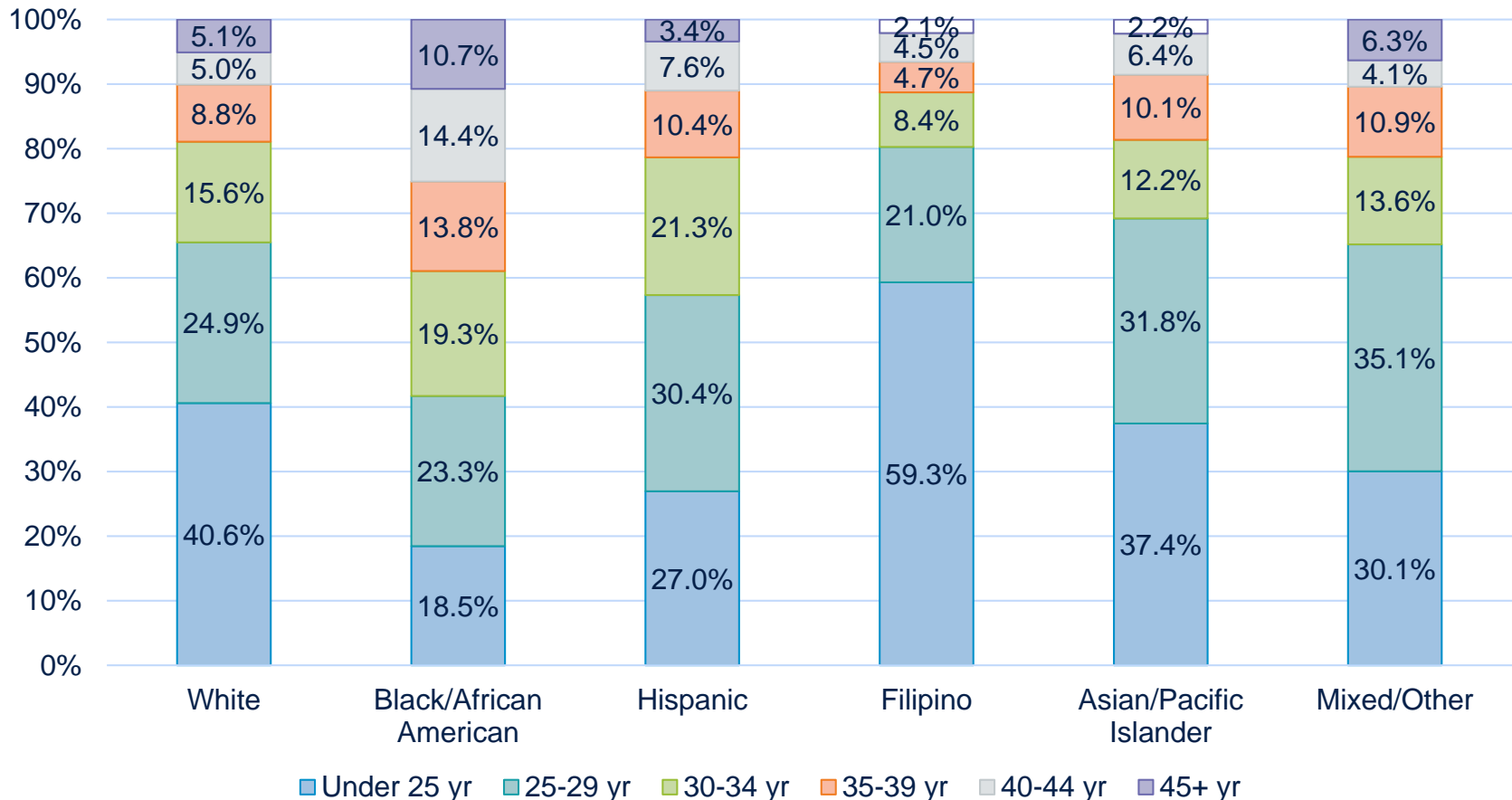
N = 884  
p-value = 0.6181

# Age at graduation from pre-licensure program of employed RNs who reside in California

# Age at graduation from pre-licensure RN education by race/ethnicity and gender

- Filipino RNs were more likely than RNs in other groups to complete their initial RN education at younger ages.
- Black RNs were more likely than RNs in other groups to complete their initial RN education at older ages.
- Female RNs were more likely to complete their initial RN education at younger ages than male RNs.
  - Female RNs were much more likely to complete their initial RN education before age 30 years than males among Black RNs (43.8% vs. 21%), Mixed/Other RNs (67.1% vs. 45.5%), and White RNs (67% vs. 50.6%).
  - Male Asian/Pacific Islander RNs were slightly more likely to complete their initial RN education before age 30 years than females (71.8% vs. 68.7%).

# Age at graduation from pre-licensure RN education program by race/ethnicity

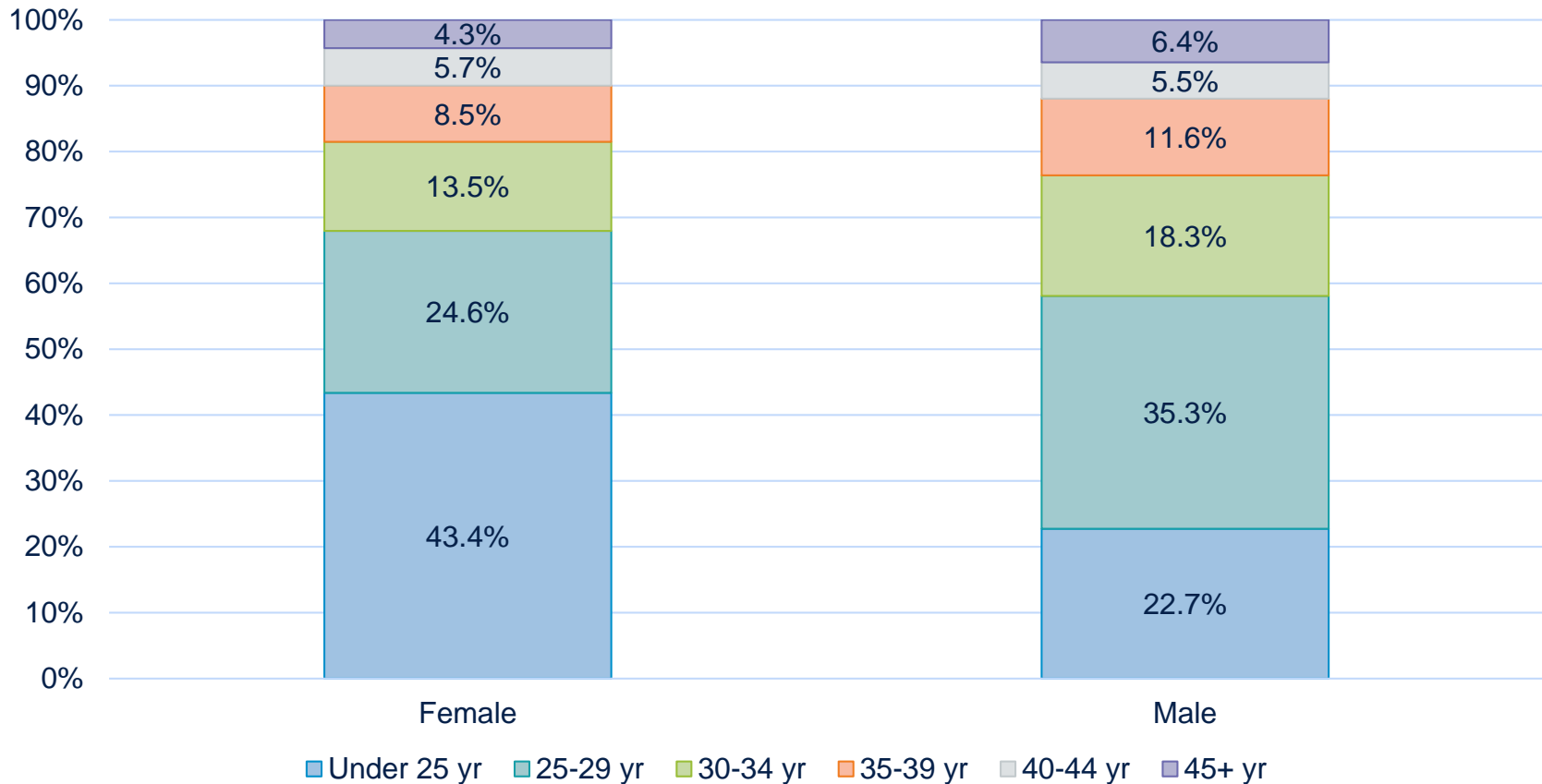


N = 2,959

p-value = 0.0000.

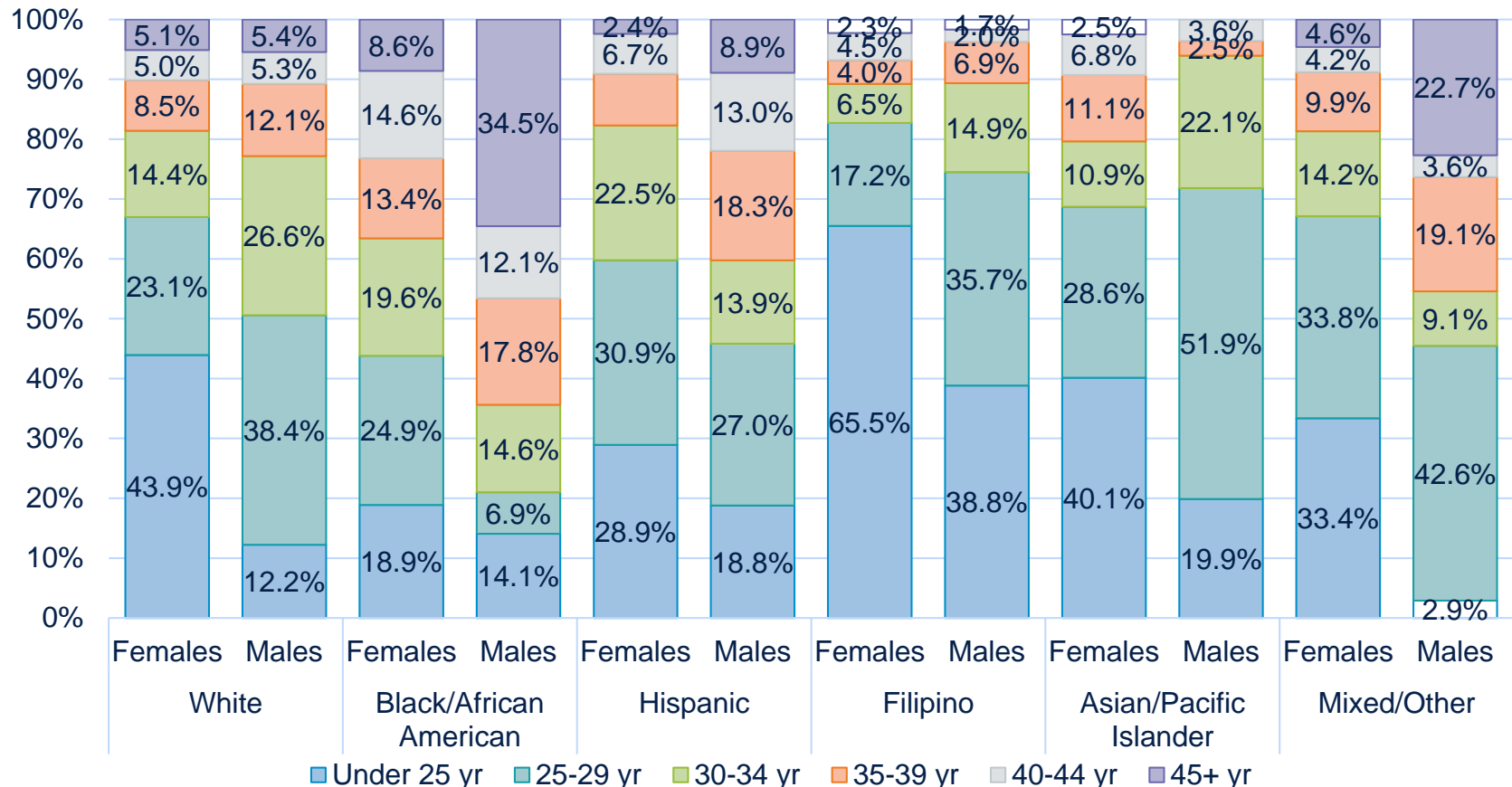
Note: There were not enough Native American respondents to calculate education

# Age at graduation from pre-licensure program by gender



N = 3,013  
p-value = 0.0000

# Age at graduation from pre-licensure RN education program by race/ethnicity & gender



N = 2,563 females, 380 males

p-value = 0.0000 for males & females.

Note: There were not enough Native American respondents to calculate education.

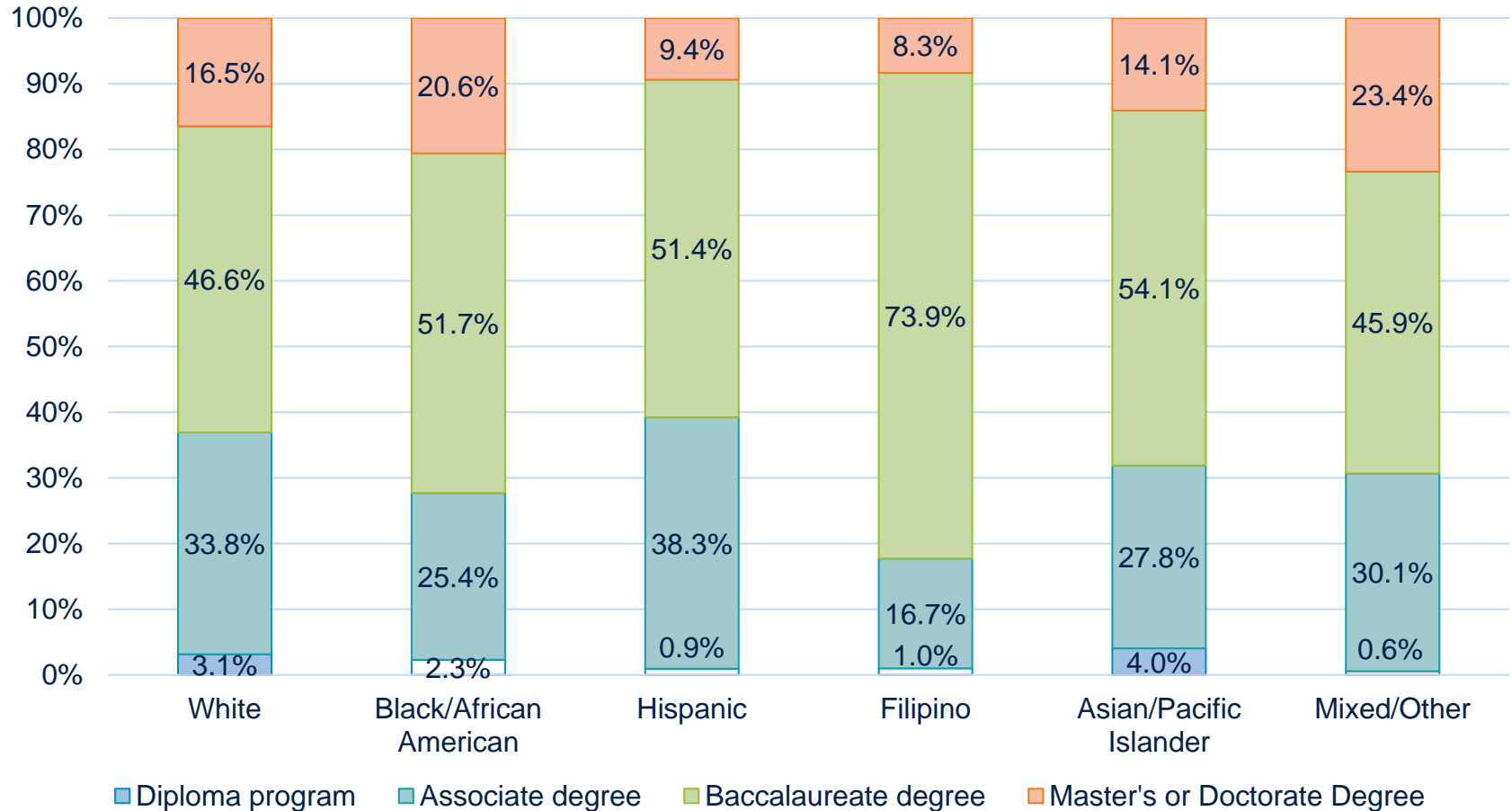


# Highest nursing degree completed by employed RNs

# Highest nursing degree by race/ethnicity and gender

- The racial/ethnic groups most likely to have graduate nursing degrees are Black RNs (20.6%), Mixed/Other RNs (23.4%), and White RNs (16.5%).
- The racial/ethnic groups most likely to report an Associate Degree is their highest education are Hispanic RNs (38.3%), White RNs (33.8%), and Mixed/Other RNs (30.1%).
- There was no statistically significant difference in the highest education attained by male vs. female RNs.
- Male-female education patterns were similar for most racial/ethnic groups.
  - Black male RNs were notably more likely to have a bachelor's or graduate degree compared with Black female RNs .

# Highest nursing degree by race/ethnicity

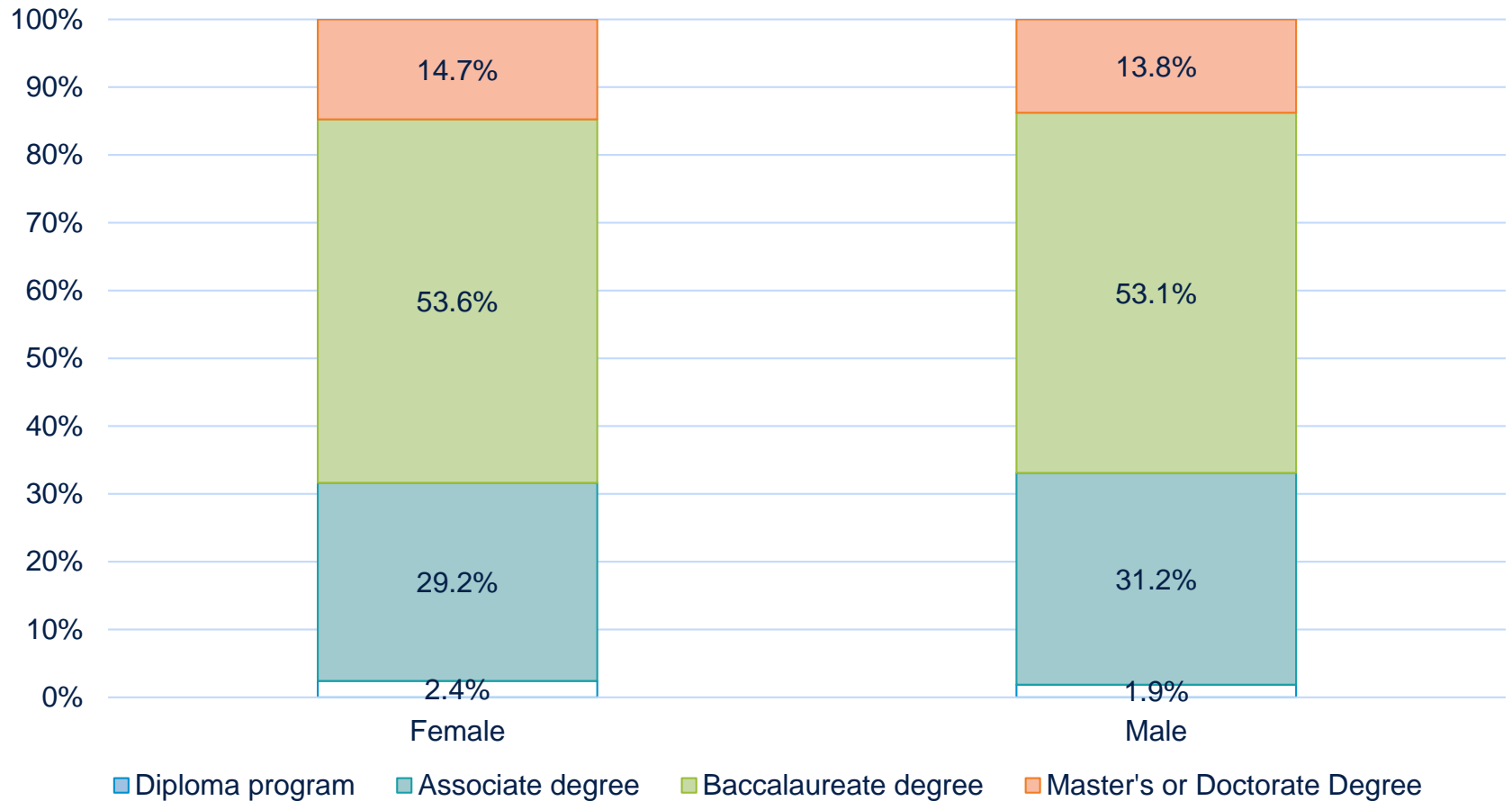


N = 3,008

p-value = 0.0000

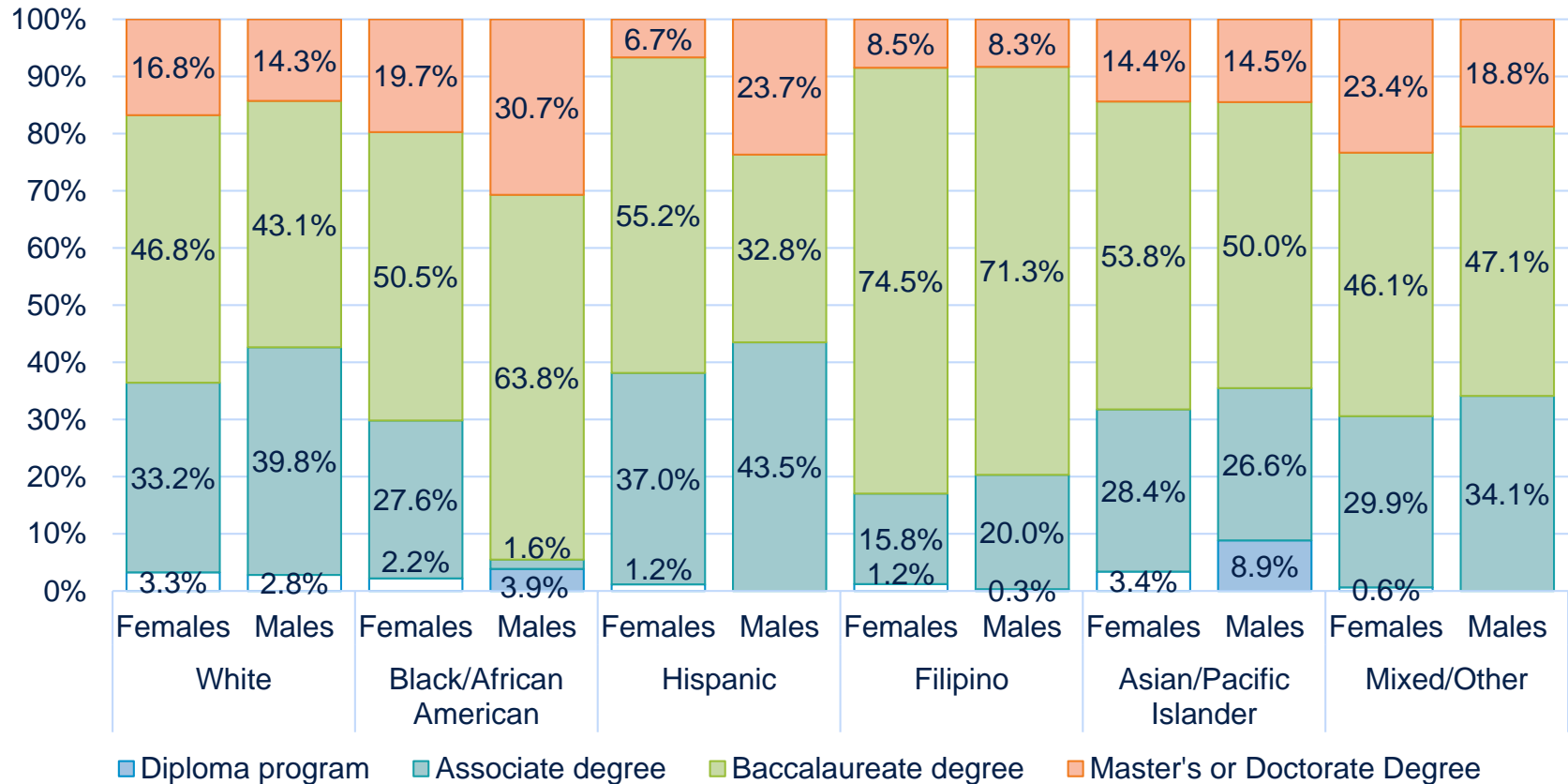
Note: There were not enough Native American respondents to calculate education.

# Highest nursing degree by gender



N = 3,063  
p-value = 0.8893

# Highest nursing degree by race/ethnicity and gender



N = 2,609 females, 382 males

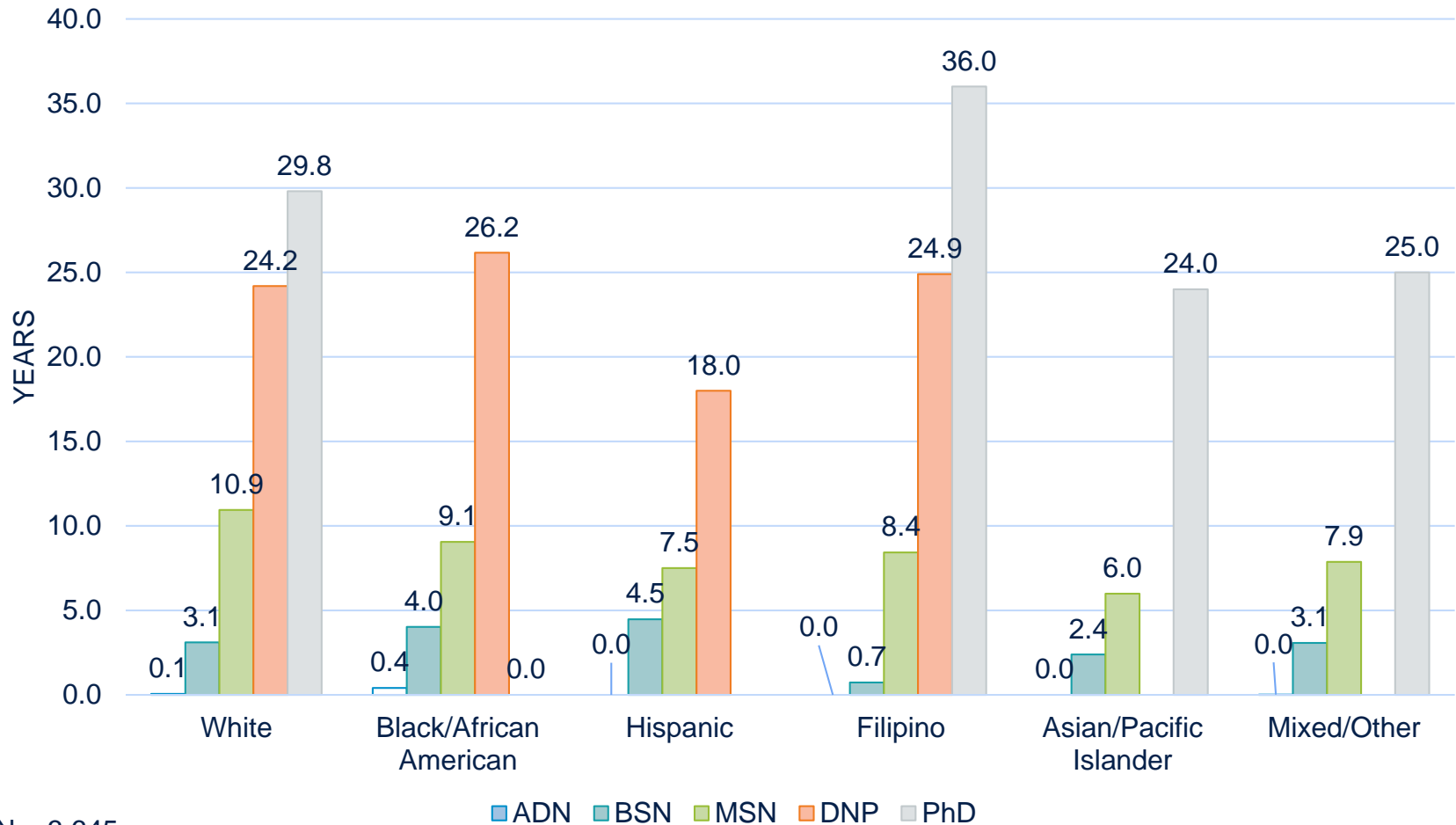
p-value = 0.0000 for females, 0.0112 for males.

Note: There were not enough Native American respondents to calculate education.

# Average number of years between initial RN education and post-licensure education by race/ethnicity and gender

- The shortest times between initial education and completion of a post-licensure bachelor's degree were observed for Filipino RNs (0.7 years) and Asian/Pacific Islander RNs (2.4 years).
- The shortest times between initial education and completion of a post-licensure master's degree were observed for Asian/Pacific Islander RNs (6 years) and Hispanic RNs (7.5 years).
- Male RNs completed post-licensure nursing education more rapidly than female RNs.

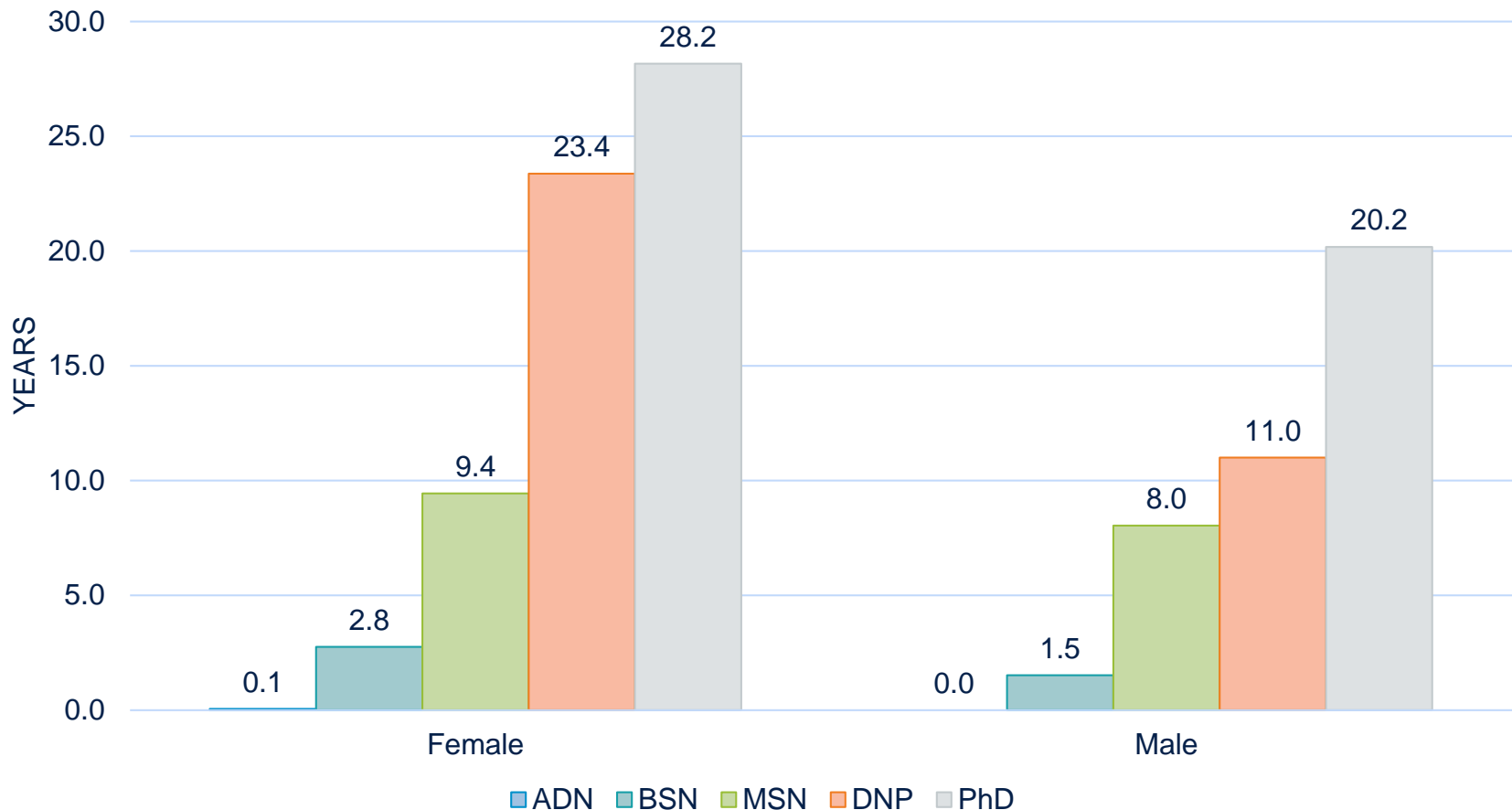
# Average number of years between initial RN education and post-licensure education by race/ethnicity



N = 3,645

Note: There were not enough Native American respondents to calculate education data.

# Average number of years between initial RN education and post-licensure education by gender



N = 3,715

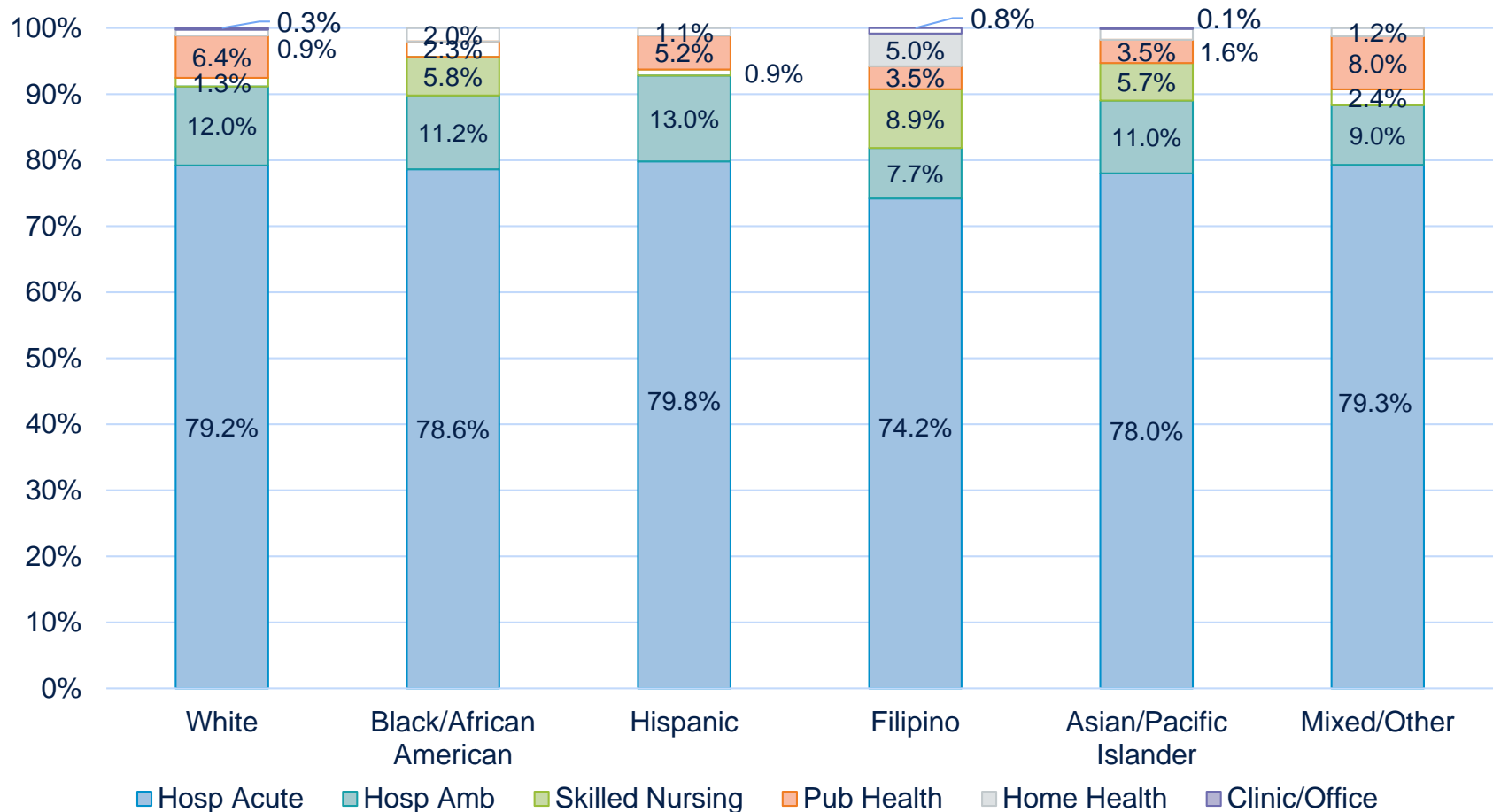


# Employment settings of RNs

# Employment settings by race/ethnicity

- Filipino RNs were less likely to be employed in hospital acute care departments than RNs from other groups.
- Filipino RNs were more likely to work in skilled nursing facilities than other RNs.
  - Black RNs and Asian/Pacific Islander RNs were more likely to work in skilled nursing facilities than White, Hispanic, or Mixed/Other RNs.
- Mixed/Other RNs, White RNs, and Hispanic RNs were more likely to work in public/community health than other RNs.
- Filipino RNs were more likely to work in home health than other RNs.

# Employment settings by race/ethnicity



N = 1,946

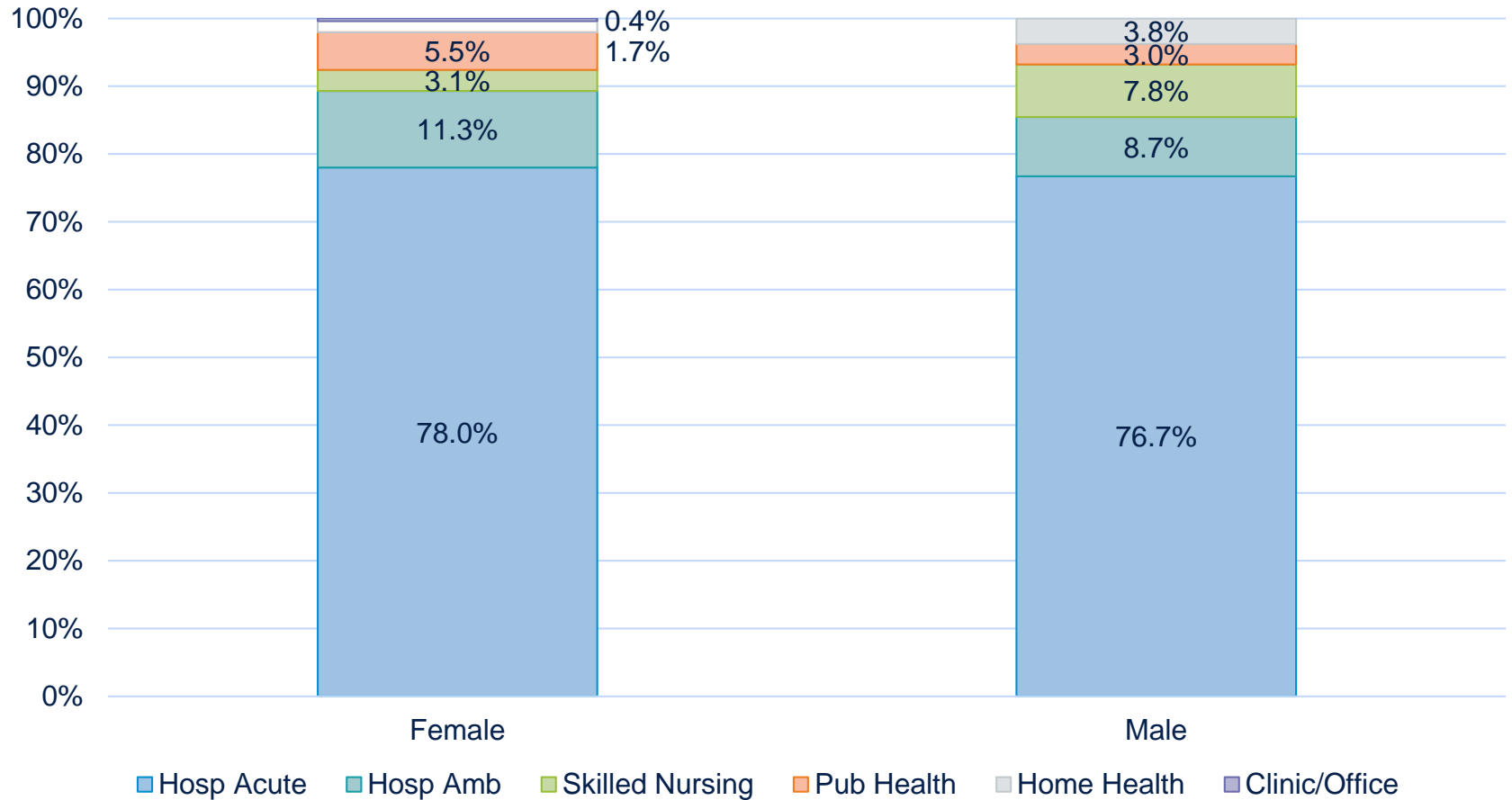
p-value = 0.0004.

Note: There were not enough Native American respondents to calculate employment settings.

# Employment settings by gender

- Male RNs were more likely to work in skilled nursing facilities than female RNs.
- Male RNs were more likely to work in home health than female RNs.
- Female RNs were more likely to work in ambulatory care settings than male RNs.
- Female RNs were more likely to work in public health than male RNs.

# Employment setting by gender



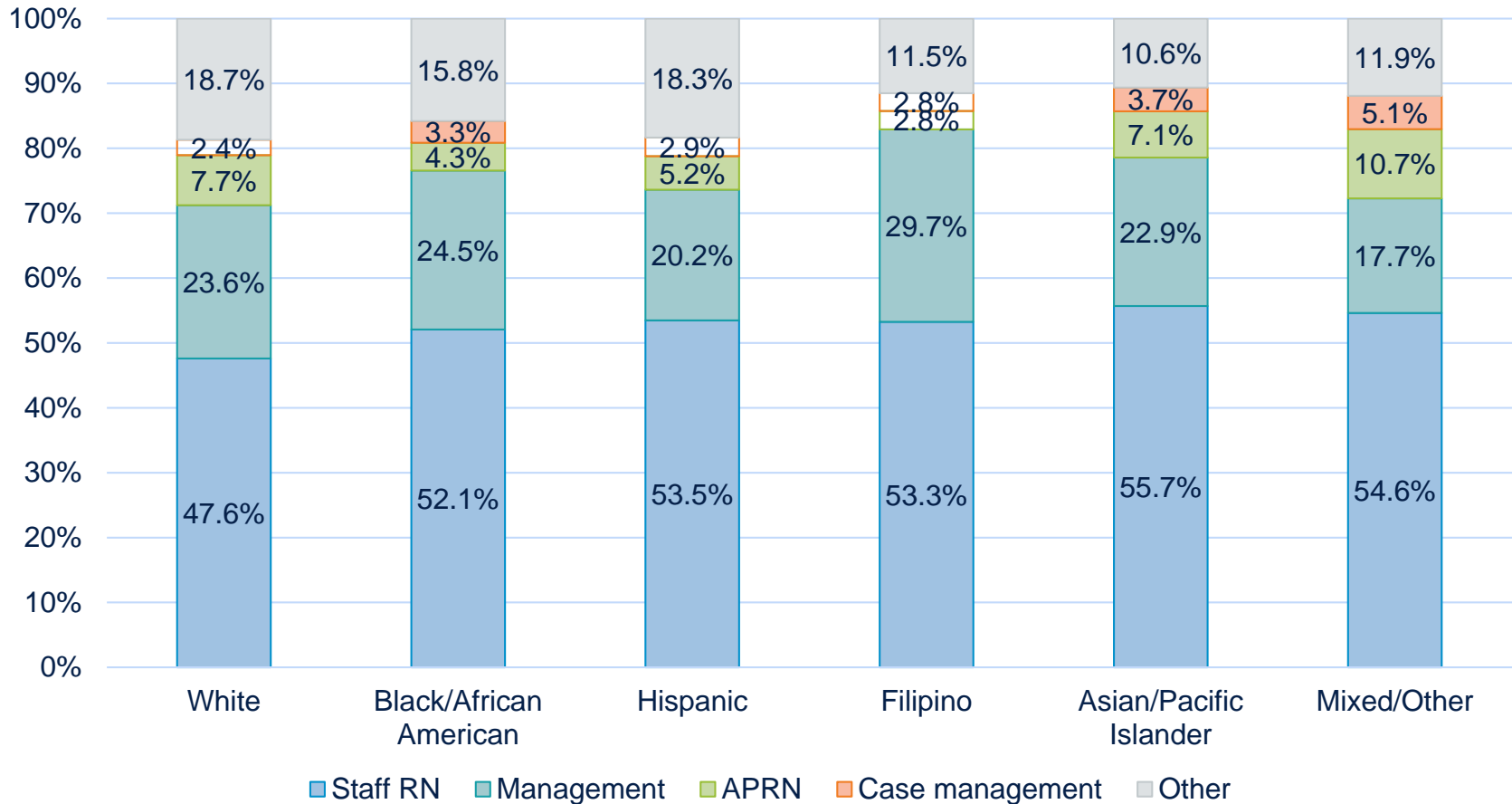
N = 1,988  
p-value = 0.0147

# Job titles of employed RNs who reside in California

# Job titles by race/ethnicity and gender

- Staff nurse was the job title for more than half of most racial ethnic groups and for 47.6% of White RNs.
- Filipino RNs were more likely to have a management job title than other RNs.
- Mixed/Other RNs, White RNs, and Asian/Pacific Islander RNs were more likely to have an advanced practice RN job title than other RNs.
- There were no statistically significant difference in job titles between male and female RNs.

# Job titles by race/ethnicity



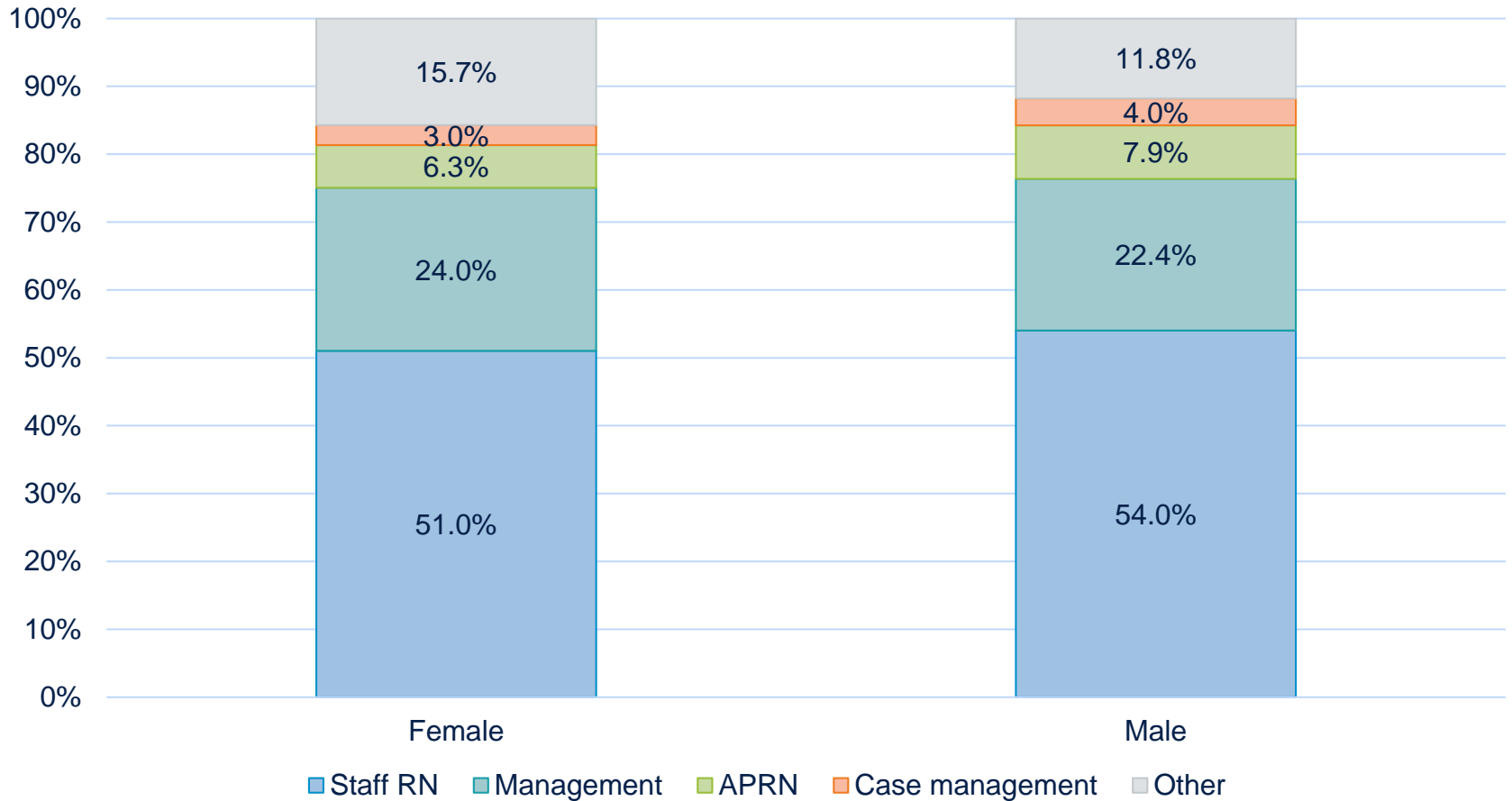
N = 3,009

p-value = 0.0009

Note: There were not enough Native American respondents to calculate employment data.



# Job titles by gender



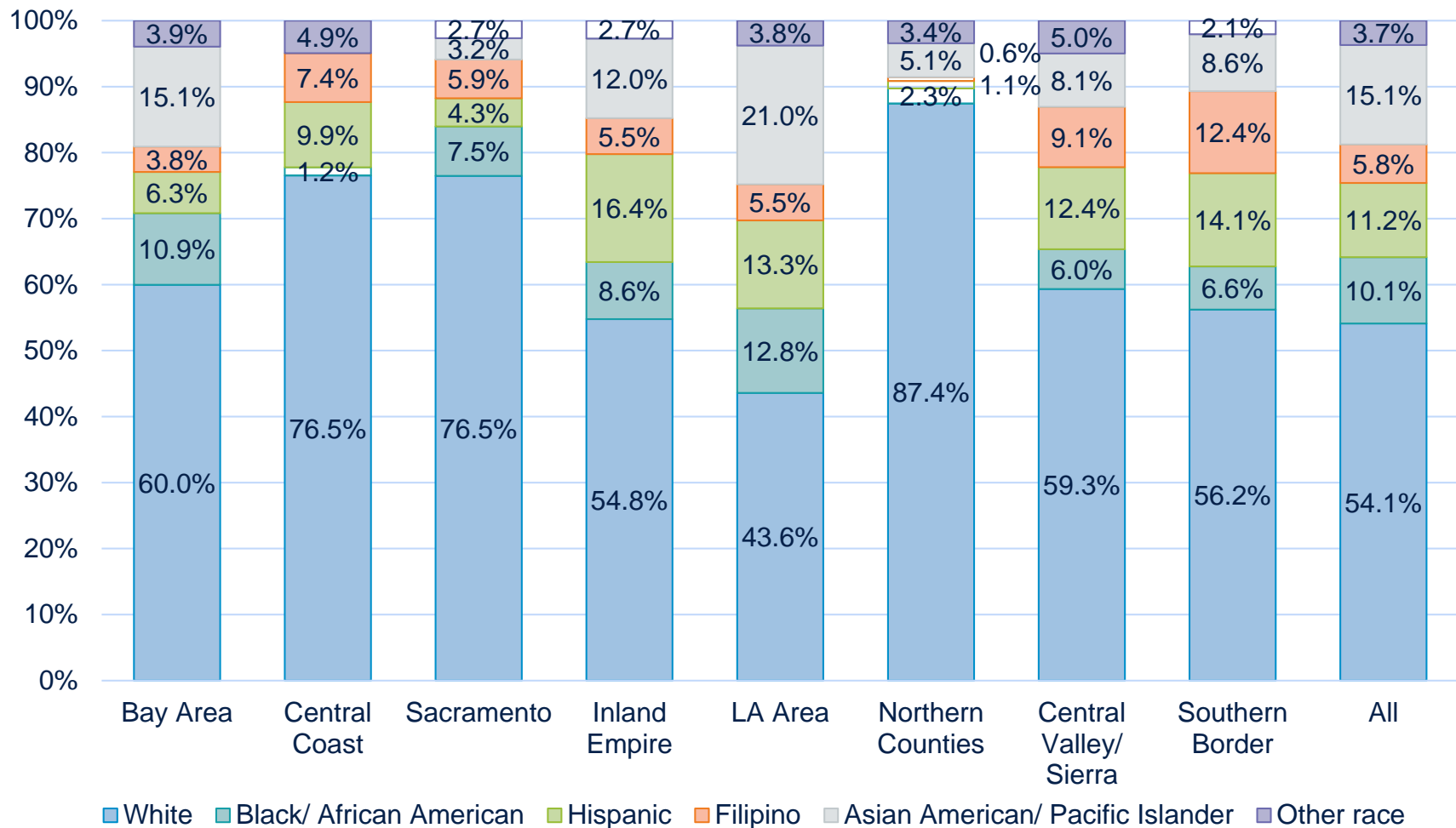
N = 3,065  
p-value = 0.3879

# Diversity of California's RN Faculty

# Diversity of California's prelicensure RN faculty

- Diversity of faculty varies markedly across regions of California:
  - The Northern Counties region has the highest percentage of White faculty (87.4%) while the LA Area has the smallest percentage (43.6%).
  - The regions with the largest percentages of Hispanic faculty are Inland Empire (16.4%), Southern Border (14.1%), and Los Angeles (13.3%).
  - The regions with the largest percentages of African American faculty are the Los Angeles Area (12.8%) and the San Francisco Bay Area (10.9%).
  - The regions with the largest percentages of Filipino faculty are the Southern Border (12.4%) and the Central Valley/Sierra region (9.1%).
  - The regions with the largest percentages of Asian/Pacific Islander faculty are the Los Angeles Area (21.0%), the San Francisco Bay Area (15.1%), and the Inland Empire (12.0%).

# Prelicensure faculty by race/ethnicity, by region

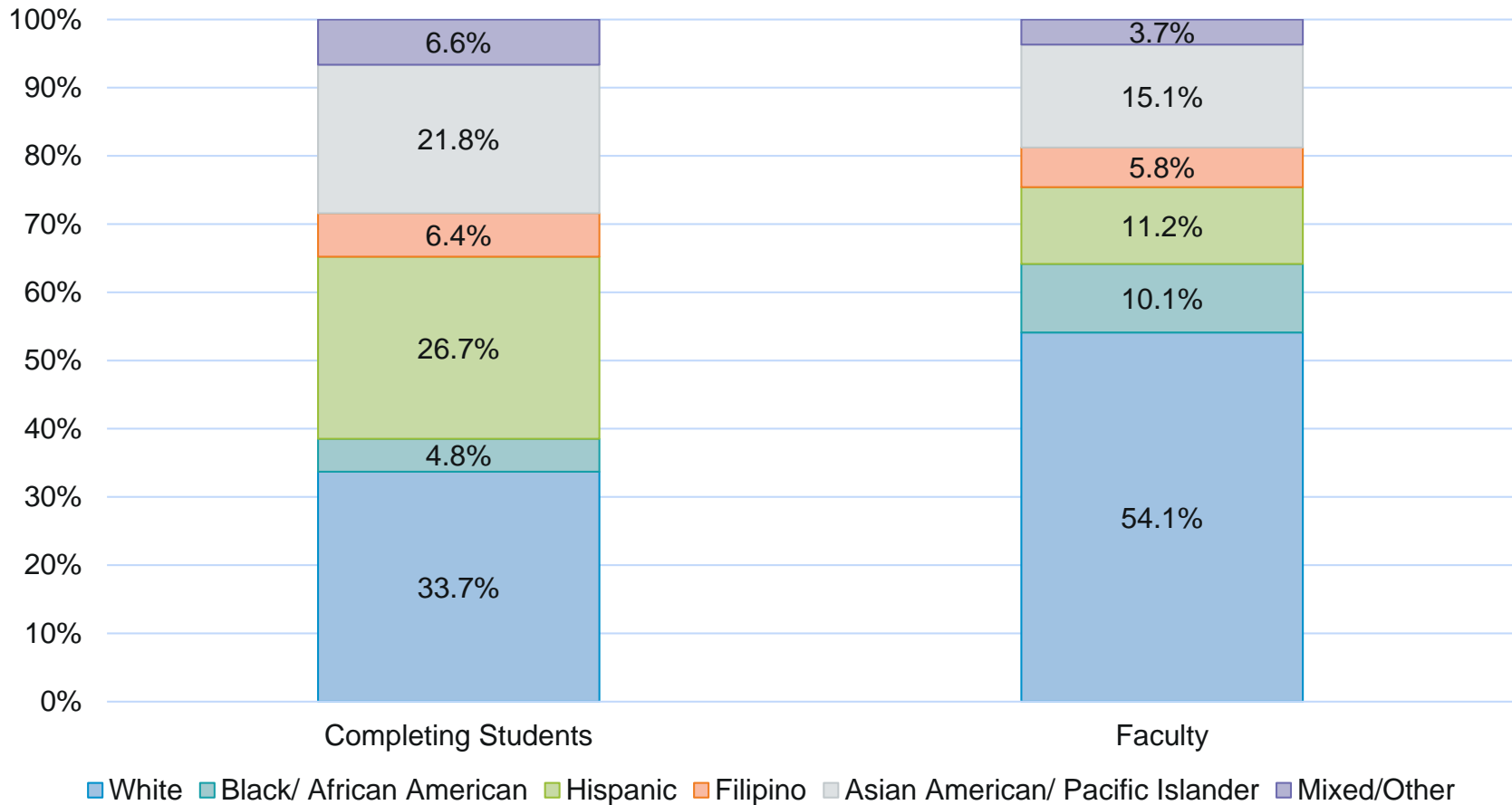


N = 4,526 (not including 833 unknown)

# Diversity of California's prelicensure RN faculty

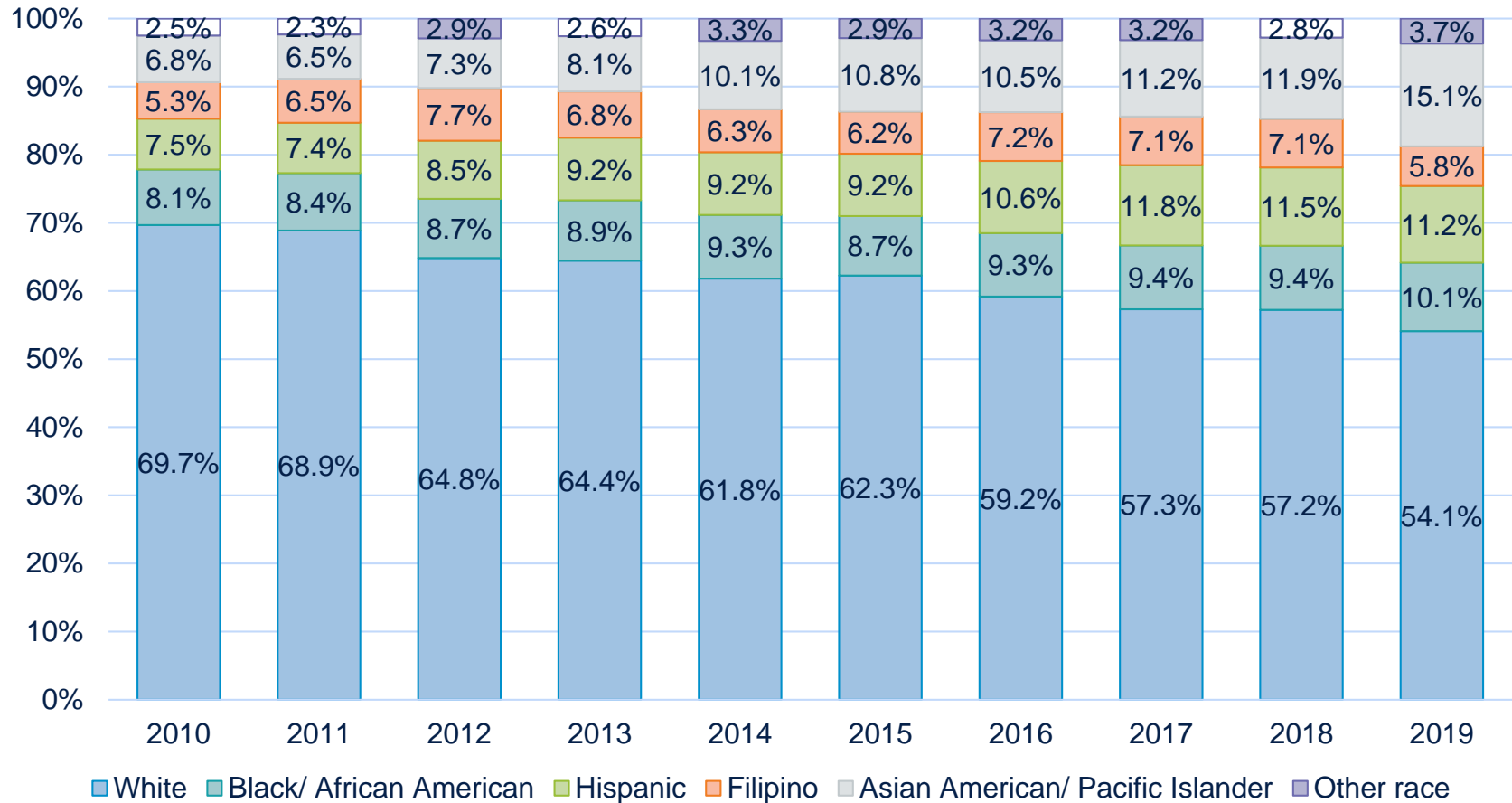
- The majority of California's RN prelicensure faculty is White (54.1%) compared to 33.7% of completing prelicensure students.
- The diversity of RN prelicensure faculty among faculty has changed over the last decade:
  - The percentage of White faculty has decreased from 69.7% in 2010 to 54.1% in 2019.
  - The percentage of African American faculty has increased from 8.1% to 10.1%.
  - The percentage of Hispanic faculty has increased from 7.5% to 11.2% in this period.
  - The percentage of Asian/Pacific Islander faculty has more than doubled from 6.8% to 15.1% in this period.
  - The percentage of Filipino faculty has fluctuated during this period.

# Comparison of race/ethnicity of prelicensure students and faculty



Faculty N = 4,526 (not including 833 unknown)  
Student N = 11,116 (not including 741 unknown)

# Prelicensure faculty by race/ethnicity, by year



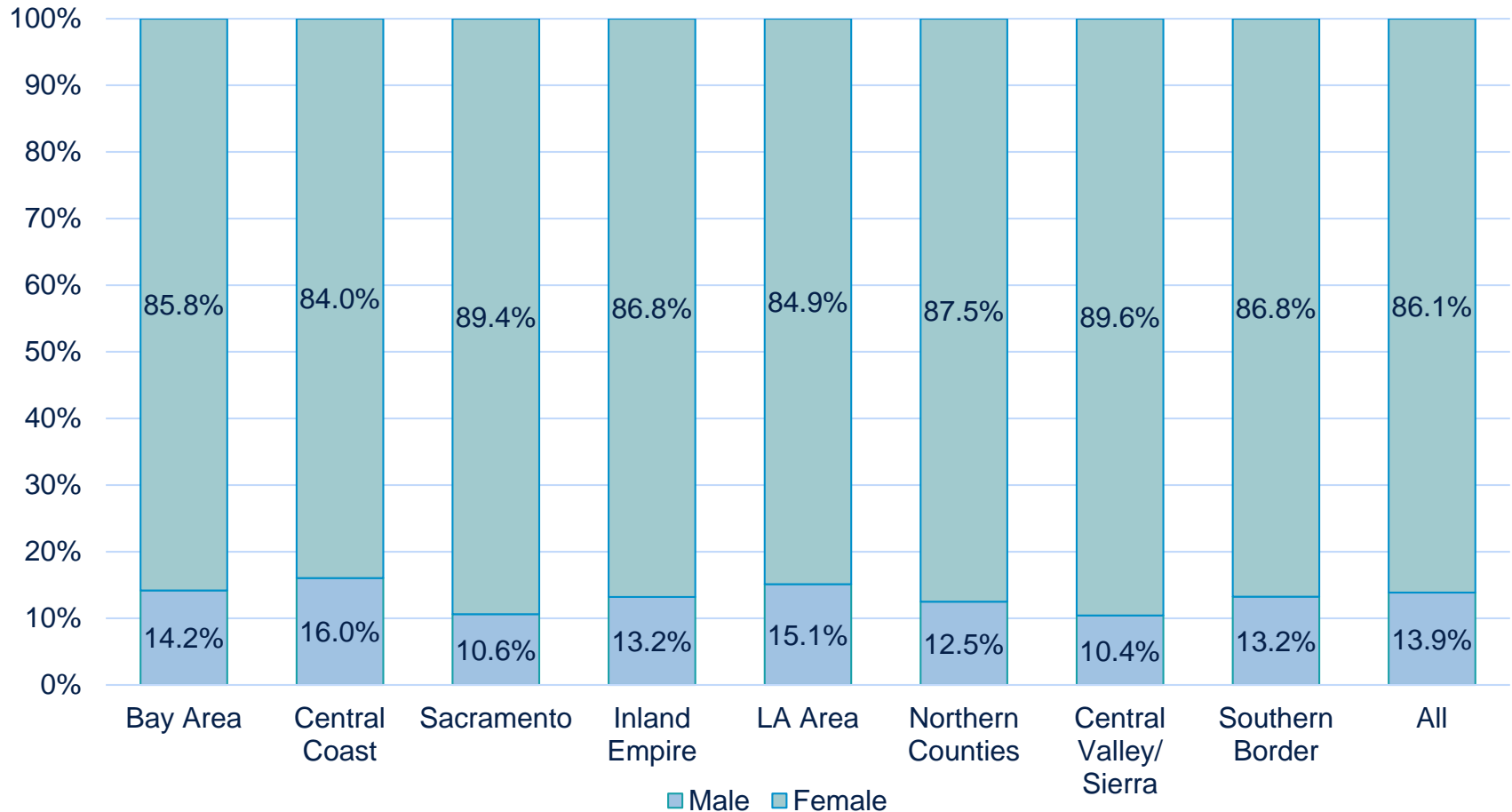
N = 4,138 (not including 801 unknown)

# Gender composition of California's RN faculty

- The majority of RN prelicensure faculty is female (86.1%).
- The gender balance among faculty varies between regions:
  - The Central Coast region reported the largest percentage of male faculty (16.0%).
  - The Central Valley/Sierra region has the lowest percentage of male faculty (10.4%).
- The gender balance among faculty has changed over the last decade:
  - The percentage of male faculty has increased from 9.0% in 2010 to 13.9% in 2019.



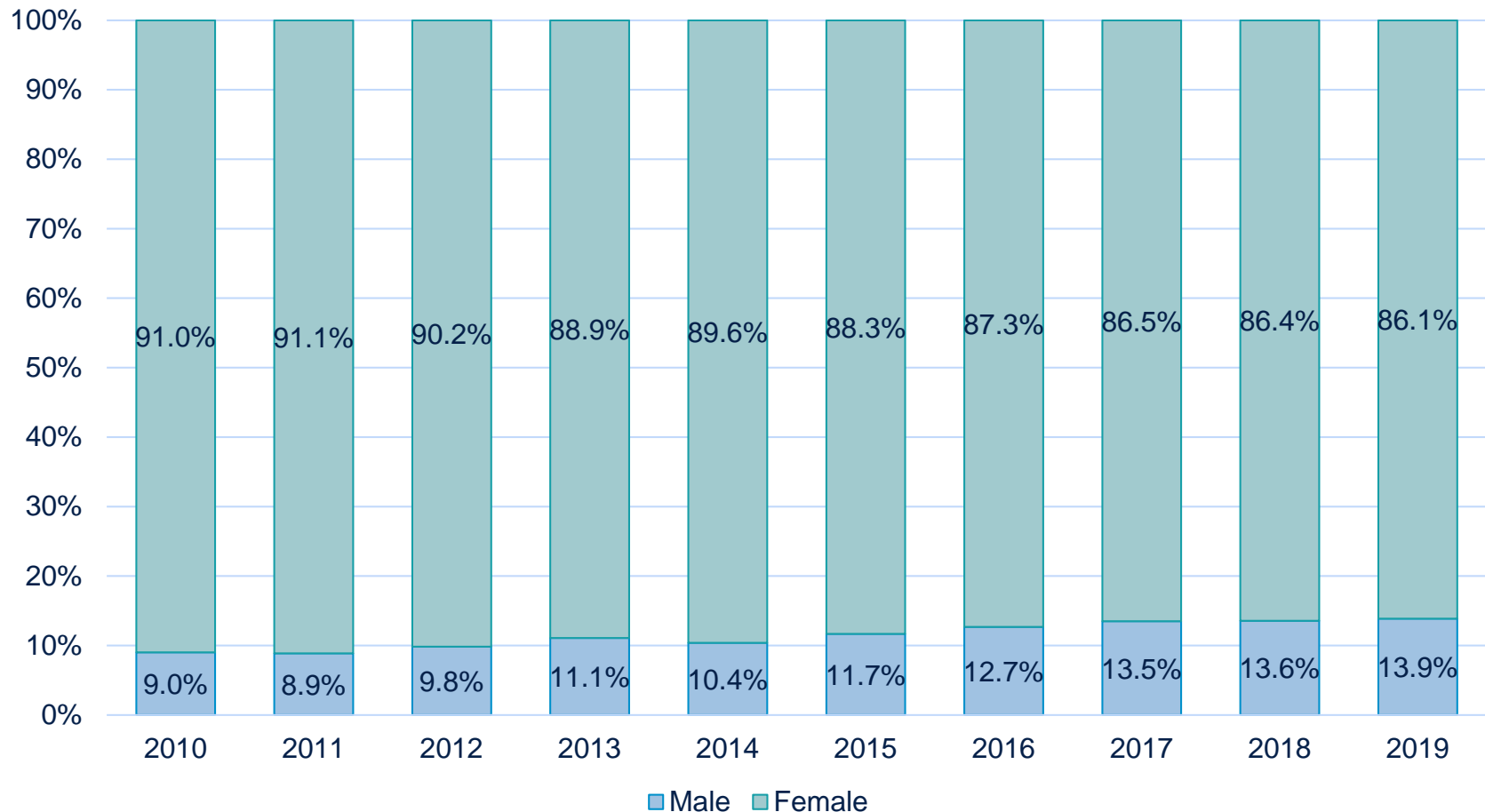
# Prelicensure faculty by gender, by region



N = 4,930 (not including 429 unknown)

Note: in 2017 the “other” category was added. No faculty were identified as “other” in 2019

# Prelicensure faculty by gender, by year



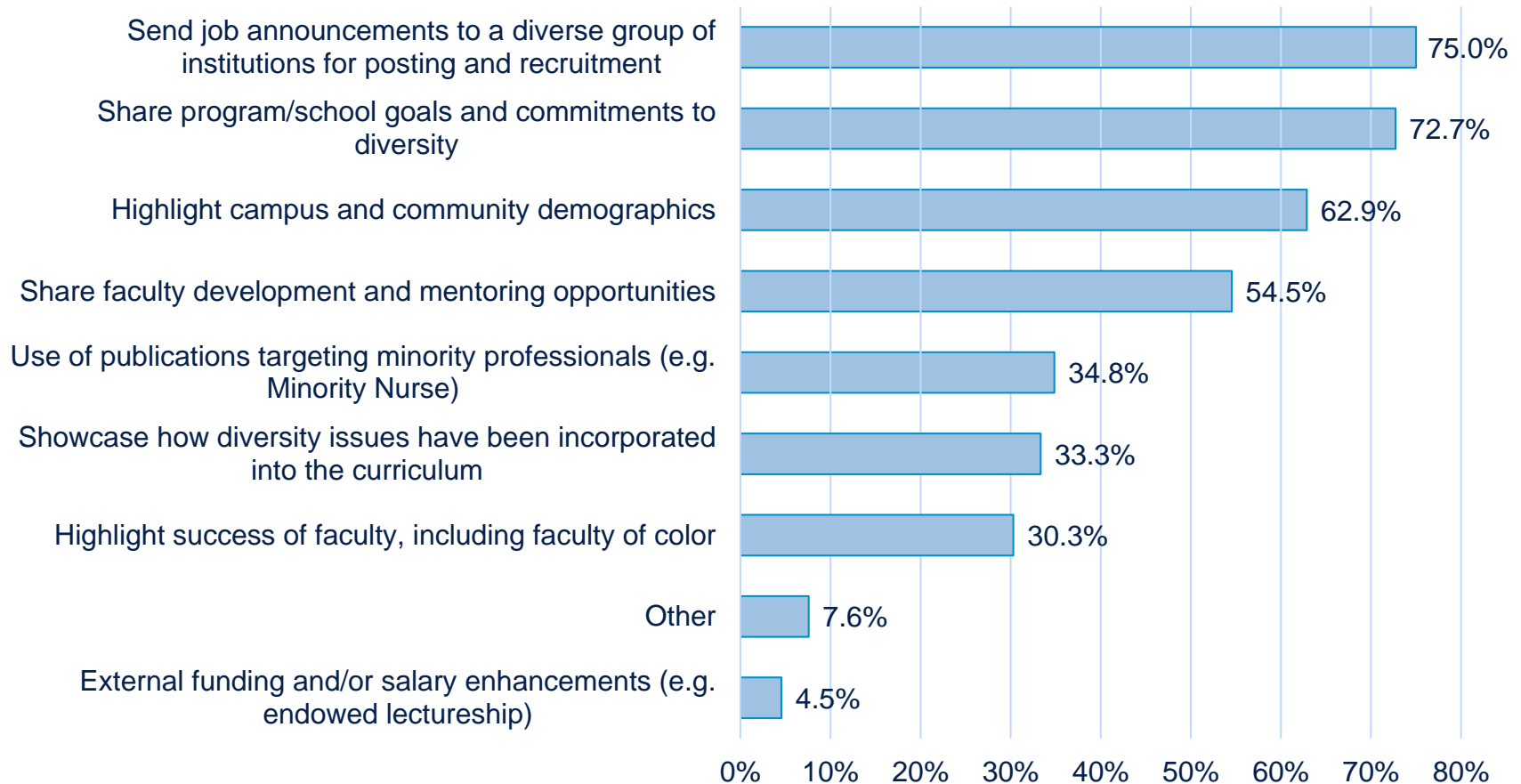
Note: in 2017 the “other” category was added. Two faculty were identified as “other” gender in 2018.

# RN Schools' Strategies to Enhance Faculty & Student Diversity

# Diversity Strategies

- California's prelicensure RN programs employ a number of strategies to diversify their faculty and to recruit, retain, and support a diverse group of students.
- **Recruiting Faculty**
  - Sending job announcements to diverse institutions and organizations for posting and recruitment is the most common way that schools attempt to recruit diverse faculty (75.0% of schools).
  - Sharing program/school goals and commitments to diversity (72.7%) and highlighting campus and community demographics (62.9%) were also commonly used.

# RN schools' strategies for recruiting diverse faculty



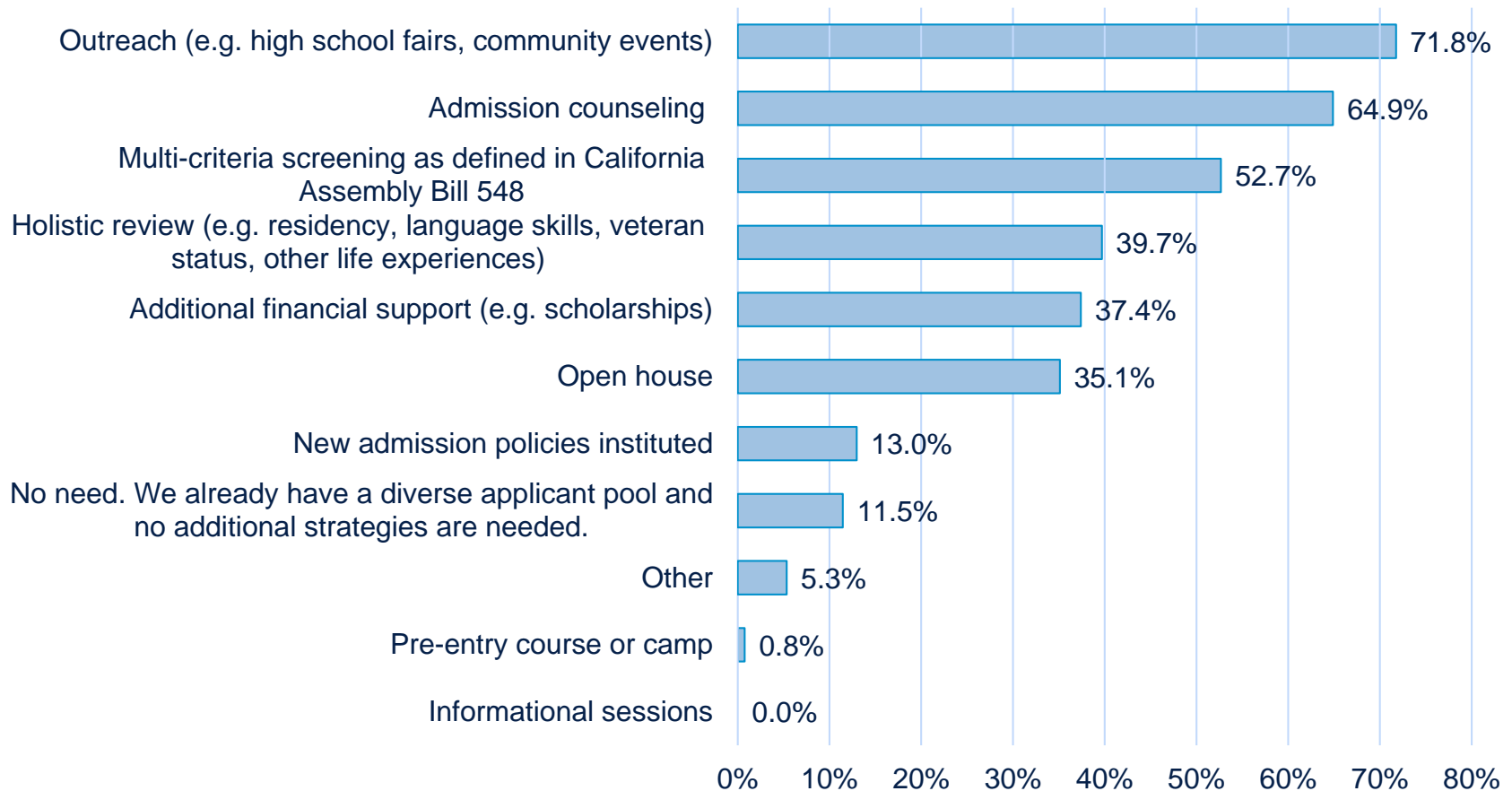
N = 132 schools

# Diversity Strategies

## ▪ **Recruiting and Admitting Underrepresented Students**

- Top strategies to recruit and admit underrepresented students included outreach at community events like high school fairs (71.8%), admission counseling (64.9%), and multi-criteria screening (52.7%)
- CA AB 548 (multi-criteria screening) only applies to community colleges.
  - 69.2% of community colleges reported using this tool to recruit and admit underrepresented students.
  - AB 548 allows colleges to use work and volunteer experience, life experiences such as veteran or refugee status, language proficiency, and other factors in conjunction with GPA and other academic factors to select students.

# RN schools' strategies to recruit & admit underrepresented prelicensure students



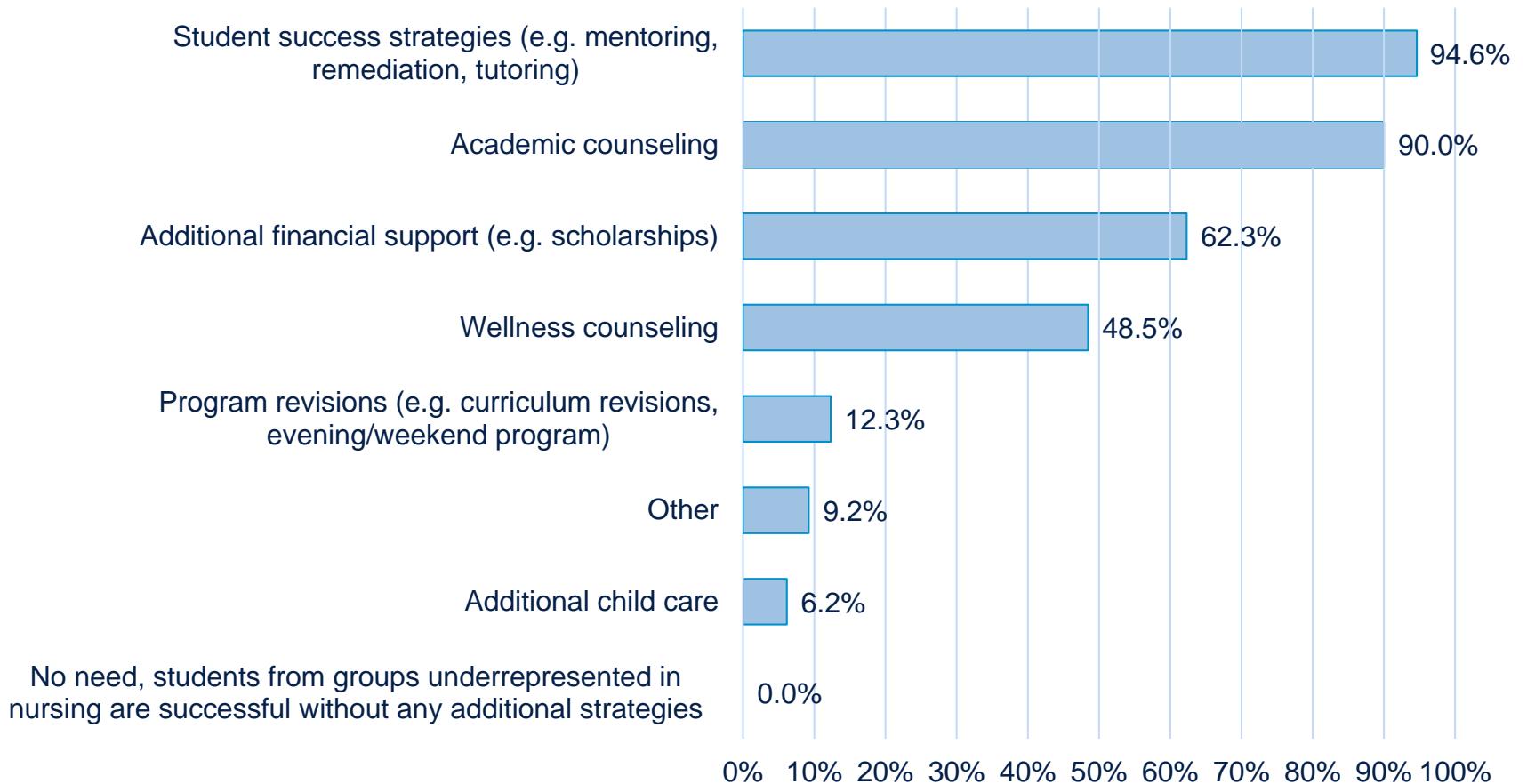
N = 131 schools

# Diversity Strategies

- **Supporting and Retaining Underrepresented Students**
  - Almost all schools reported using student success strategies like mentoring, tutoring, and remediation to support and retain underrepresented students (94.6%).
  - Academic counseling (90.0%) was also common.
  - More than half provided financial support like scholarships (62.3%).
- **Faculty Training to Support At-Risk Students**
  - Nearly all schools (94.3%) reported using faculty development and orientation to train faculty to support at-risk students.
  - Training on disabilities and accommodations (75.2%) and faculty mentoring and peer mentoring were also common strategies (73.3%) .

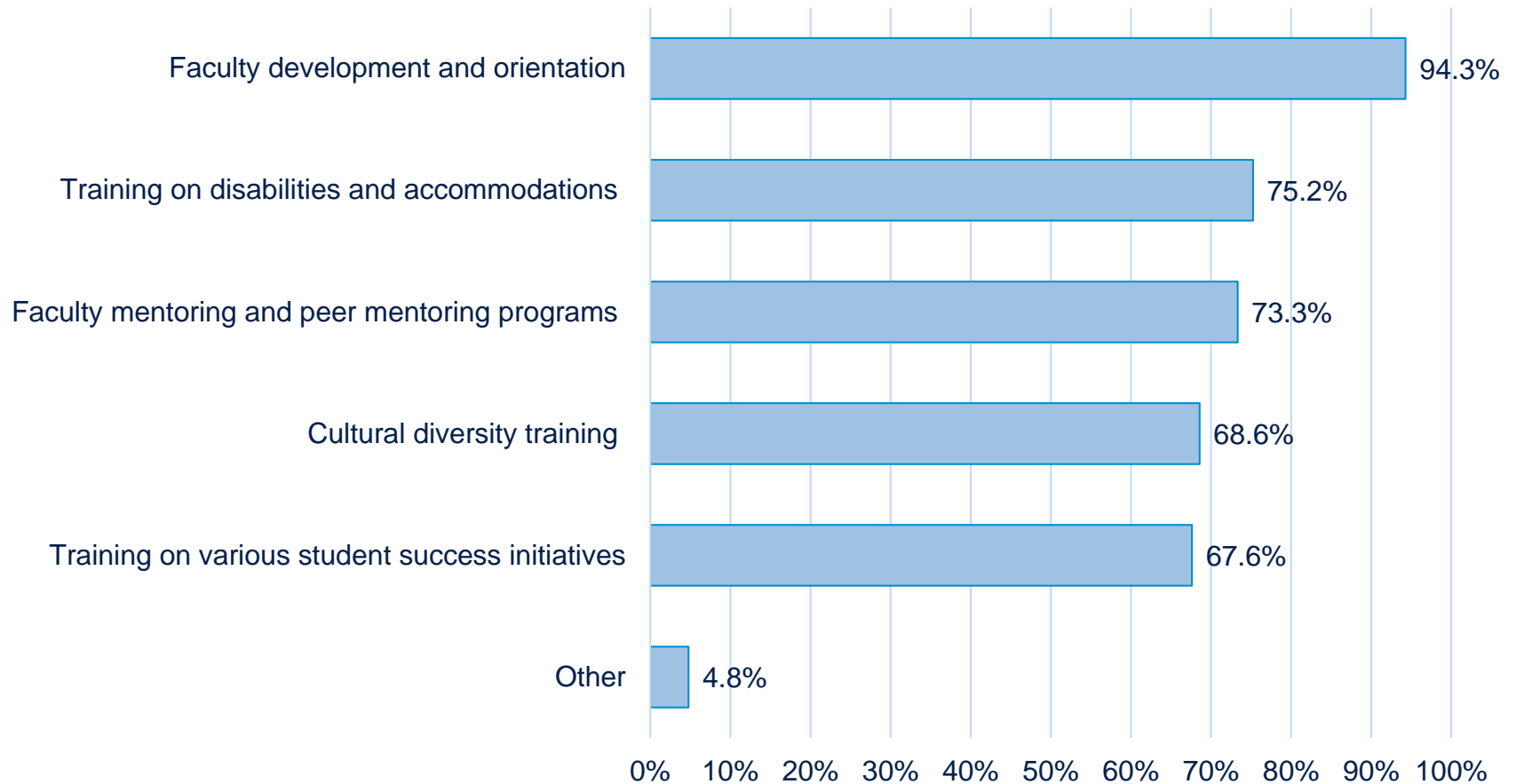


# RN schools' strategies to support & retain underrepresented students



N = 130 schools

# Faculty training provided by RN schools to support the success of at-risk students



N = 105 schools



University of California  
San Francisco