



Florida Alliance  
Initiative

# Documenting Disparities in Florida's Health Care Education Pipeline and Workforce

Sponsored by:



June 18, 2007

Prepared by:





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# Overview of Presentation

- ◆ Introduction
- ◆ Florida's Health Care Workforce
- ◆ Education Pipeline
  - Nursing
  - Biology
  - Dentistry
  - Medicine
  - Other health areas (e.g., pharmacy, public health, health services/sciences)
- ◆ Conclusions



### Background

- ◆ The Sullivan Commission's report *Missing Persons: Minorities in the Health Professions* documented that:
  - Nationally, Blacks, Hispanics, and Native Americans make up approximately 25% of the population yet represent just 9% of nurses, 6% of physicians, and 5% of dentists.
- ◆ The Sullivan Alliance to Transform America's Health Professions was formed to increase minority representation in the health professions.
- ◆ The Florida Alliance Initiative was formed in 2007 to explore the possibility of collaborating with the national Sullivan Alliance.



# Background and Methodology

- ◆ To ensure its work would be guided by disparity trends in Florida, the Florida Alliance sponsored a report to document disparities in the state's:
  - Health care workforce.
  - Education pipeline.
- ◆ Methodology for Measuring Disparity
  - For the purposes of this report, minorities are Blacks, Hispanics, and Native Americans. Other minorities are not considered because they are not on average economically disadvantaged or underrepresented.
  - The Benchmark is racial diversity in Florida's population.
  - Data Sources: Census data, U.S. Department of Education, AAMC (Association of American Medical Colleges).



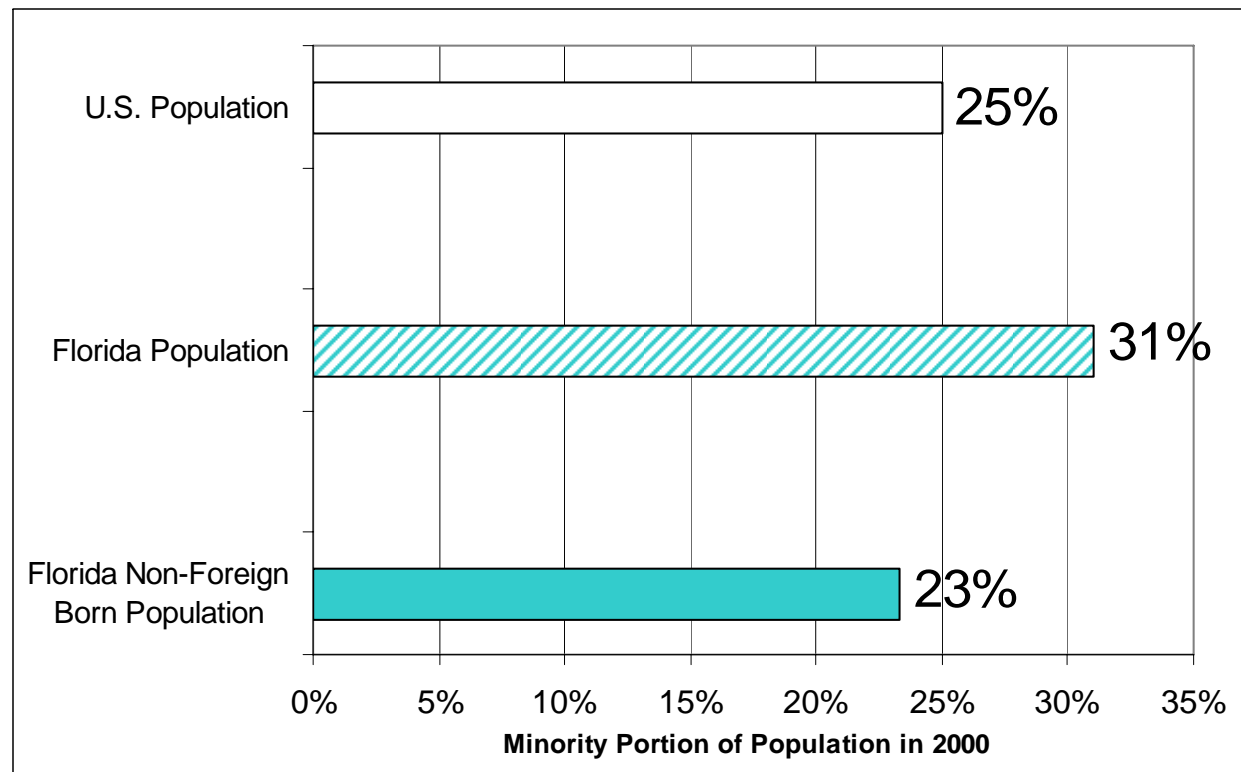
# Overview of Findings

- ◆ Race and gender disparities exist in Florida's health care workforce.
- ◆ Race and gender disparities exist in the college education pipeline:
  - Nursing
  - Biology
  - Dentistry
  - Medicine
- ◆ Some exceptions occur in other health disciplines (e.g., pharmacy, public health, health services).



## Minority Representation in the U.S. and Florida Population

- ◆ Florida has a larger portion of minority residents than the U.S. (31% vs. 25%).
- ◆ However, the diversity in Florida's non-foreign born population is similar to the U.S. (23% vs. 25%)

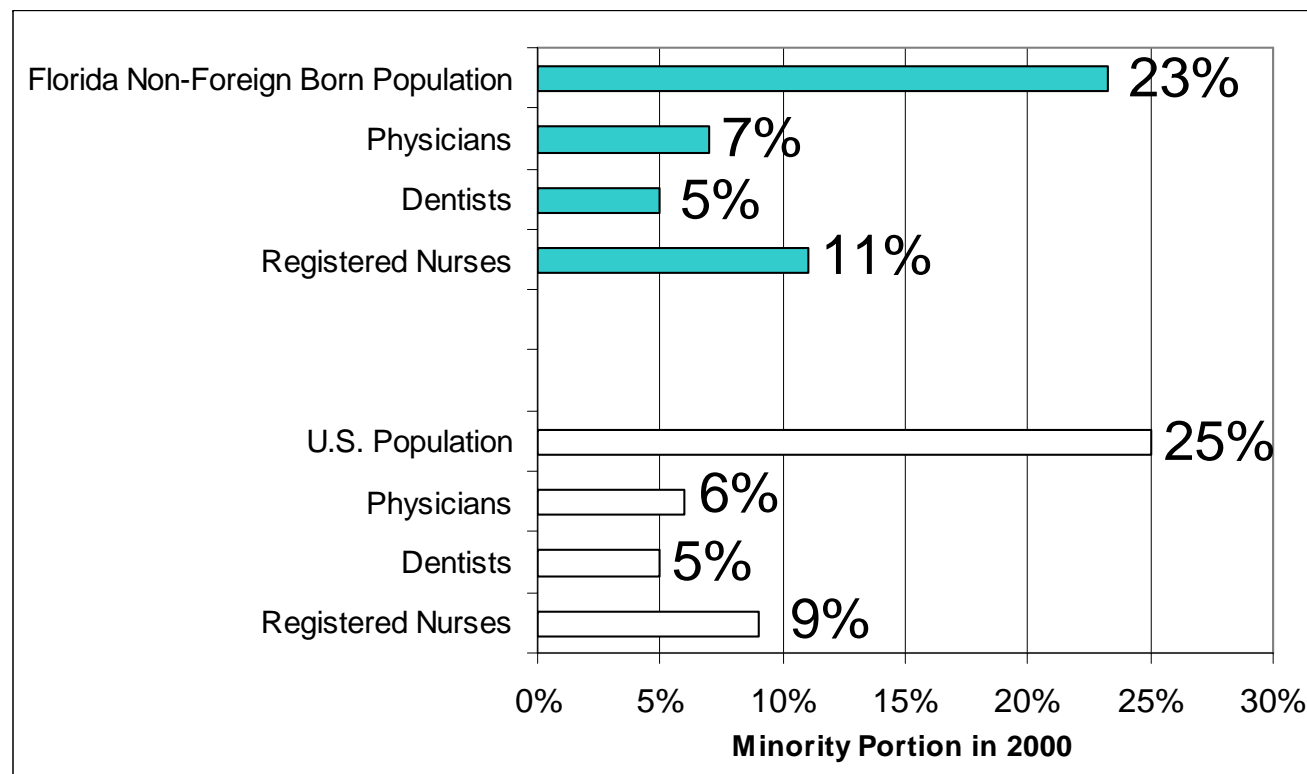


Source: Sullivan Commission Report, *Missing Persons: Minorities in the Health Professions* and U.S. Dept. of Commerce, Bureau of the Census, 2000 Census, 5% sample, ICPSR release.



## Minority Representation in Florida's non-foreign born Health Care Workforce

- ◆ Minorities are underrepresented among Florida's non-foreign born health care workforce.
- ◆ The levels of under representation parallel the national picture.

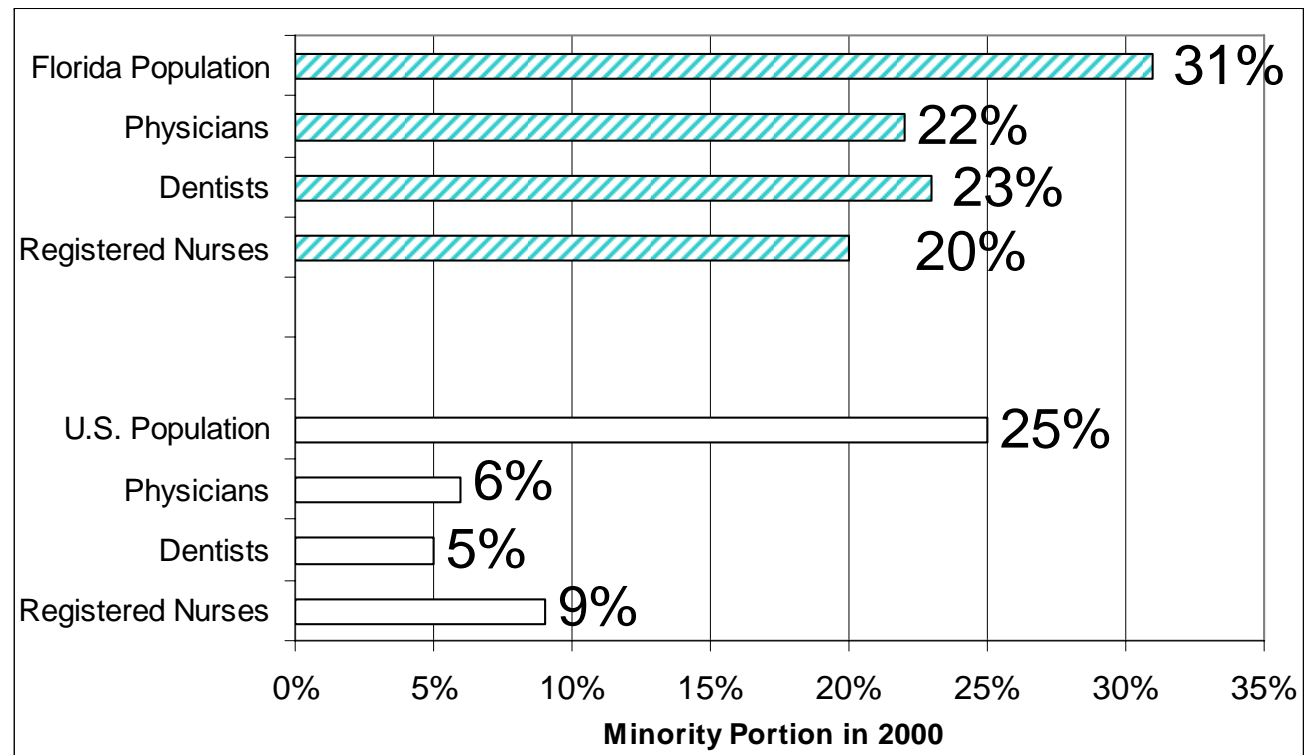


Source: Sullivan Commission Report, *Missing Persons: Minorities in the Health Professions* and U.S. Dept. of Commerce, Bureau of the Census, 2000 Census, 5% sample, ICPSR release.



## Minority Representation in Florida's Health Care Workforce

- ◆ Including foreign born health professionals increases minority representation dramatically, demonstrating Florida's dependence on an international health professional workforce.

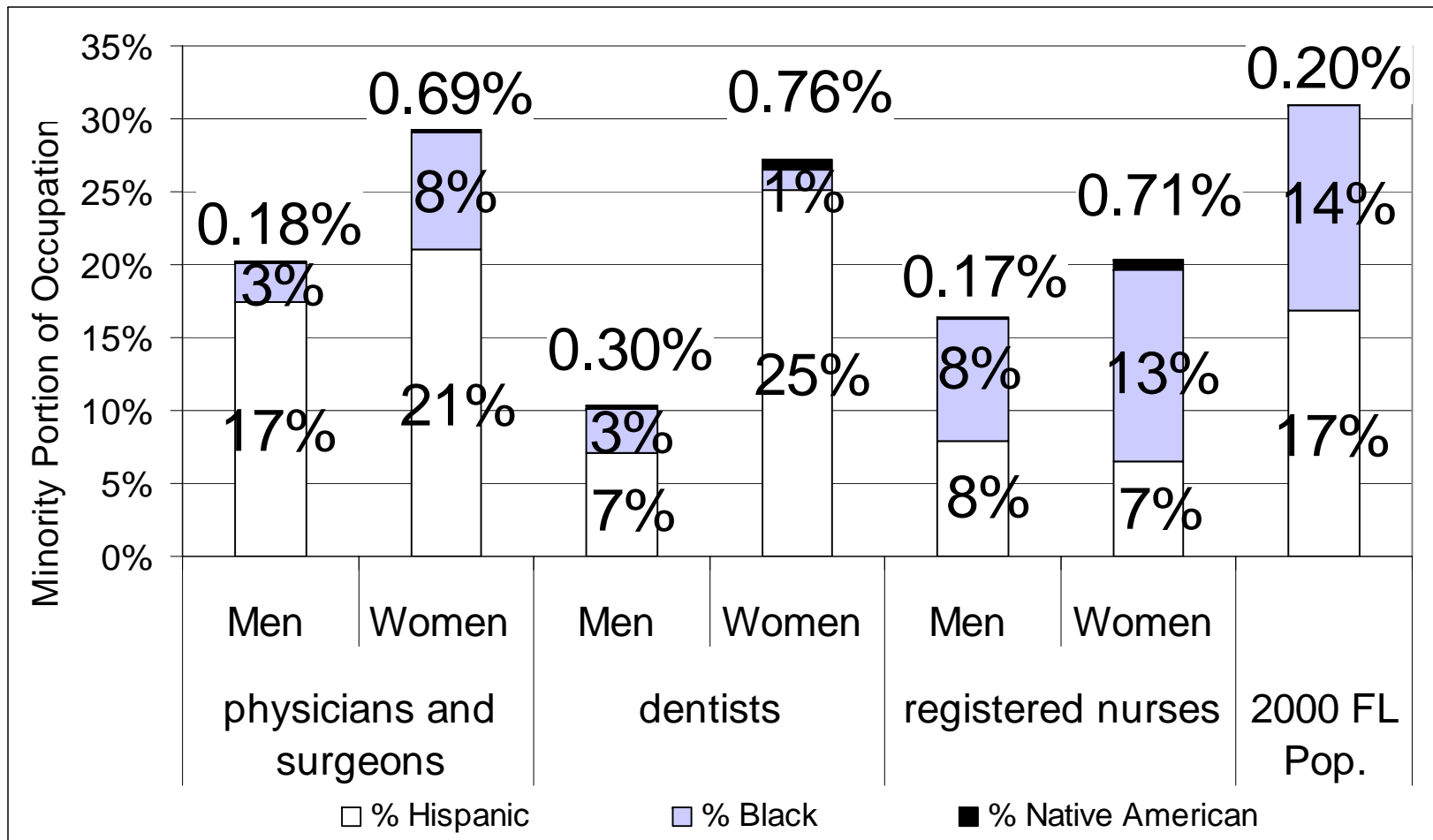


Source: Sullivan Commission Report, *Missing Persons: Minorities in the Health Professions* and U.S. Dept. of Commerce, Bureau of the Census, 2000 Census, 5% sample, ICPSR release.



# Diversity in Florida Health Care Workforce

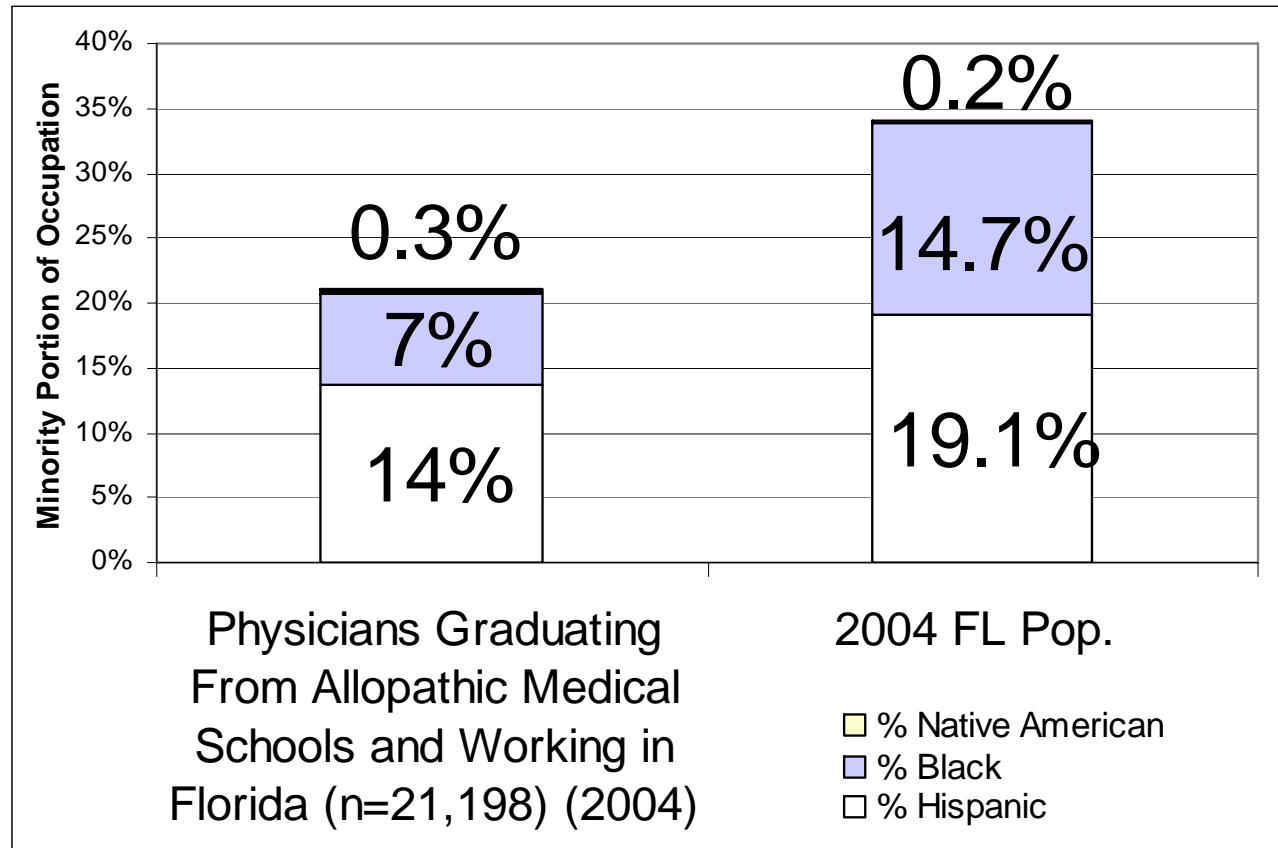
- ◆ Minority representation is lower among male physicians and dentists than among females.





## Diversity Among Florida Physicians, 2004

- ◆ Under-representation among physicians continues in Florida, 2004.
- ◆ Blacks are more under-represented than Hispanics.

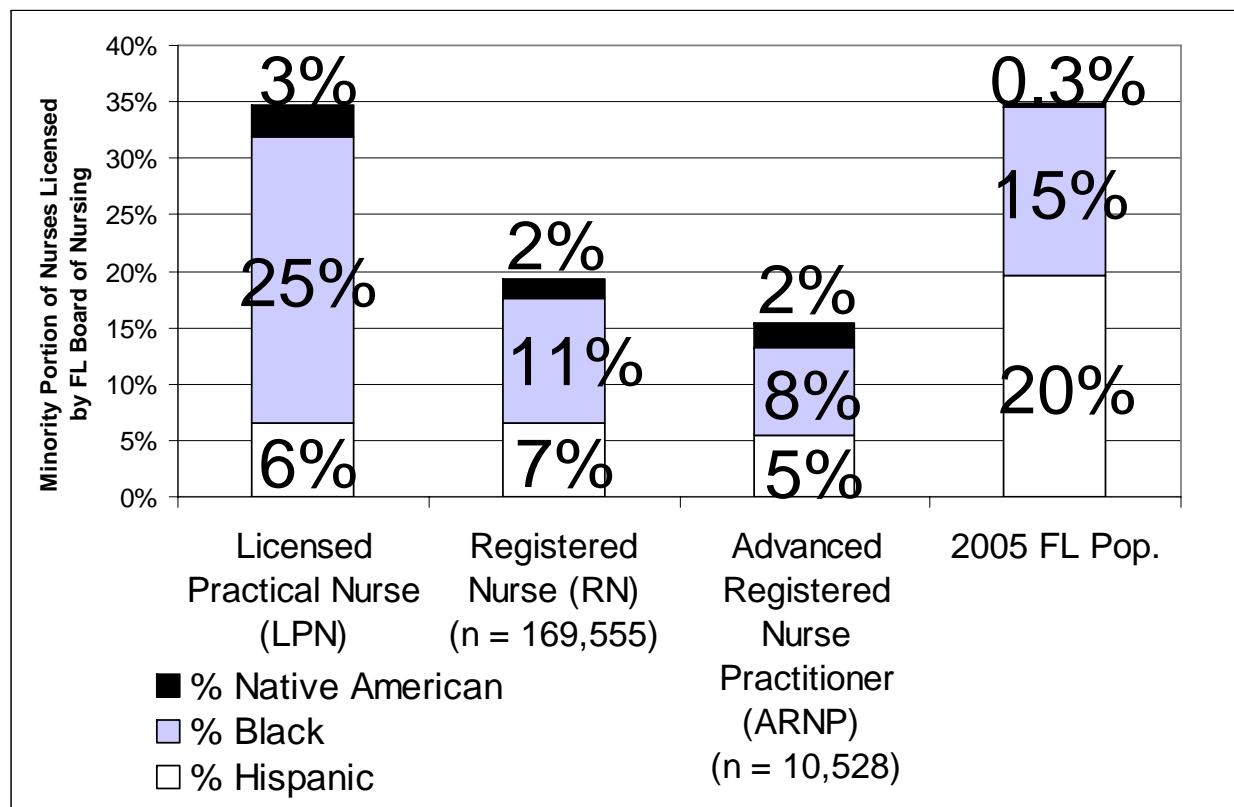


Source: AAMC Minority Physician database. Population--U.S. Census Bureau.



# Diversity Among Florida Nurses, 2007

- ◆ Under-representation in nursing continues, 2007.
- ◆ Under-representation is greater at more advanced nursing levels (RN and ARNP vs. LPN).



Source: Florida Center for Nursing, January 2007. Population--U.S. Census Bureau.



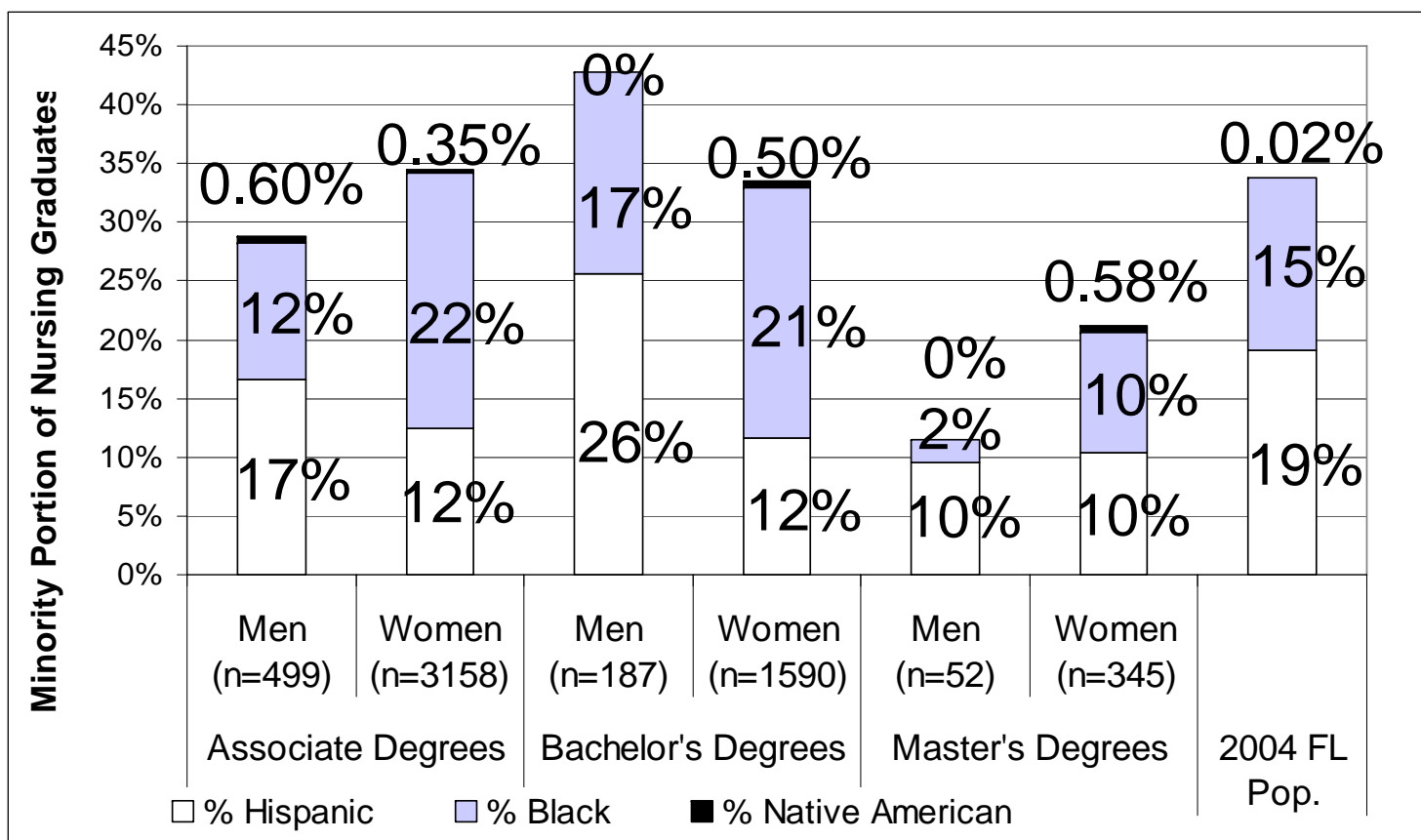
## Education Pipeline

- ◆ To address disparities in the workforce, disparities in the education pipeline must first be examined.
- ◆ Data submitted by Florida universities and colleges to the U.S. Department of Education provide a glimpse of disparity in:
  - Nursing.
  - Biological sciences (traditional majors leading to health profession degrees).
  - Professional degrees (dentistry, MD, DO).



## Degrees Awarded in Nursing

- ◆ Black representation was at or near state population percentages at the associate and bachelor's degree levels, but lagging at the master's level in 2004.
- ◆ Hispanics were consistently underrepresented at all three levels.

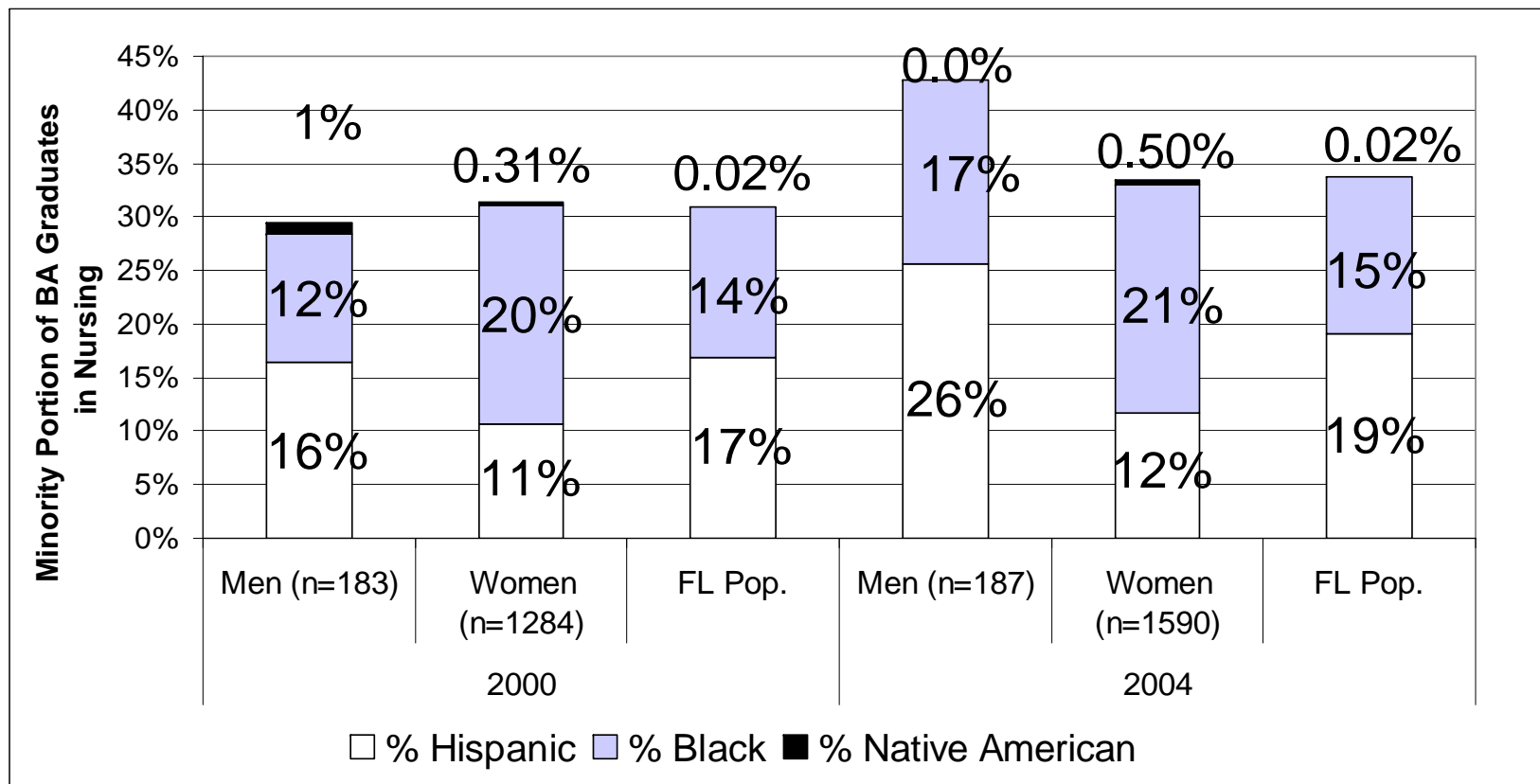


Source: U.S. Department of Education; U.S. Census Bureau.



## Bachelor's Degrees in Nursing

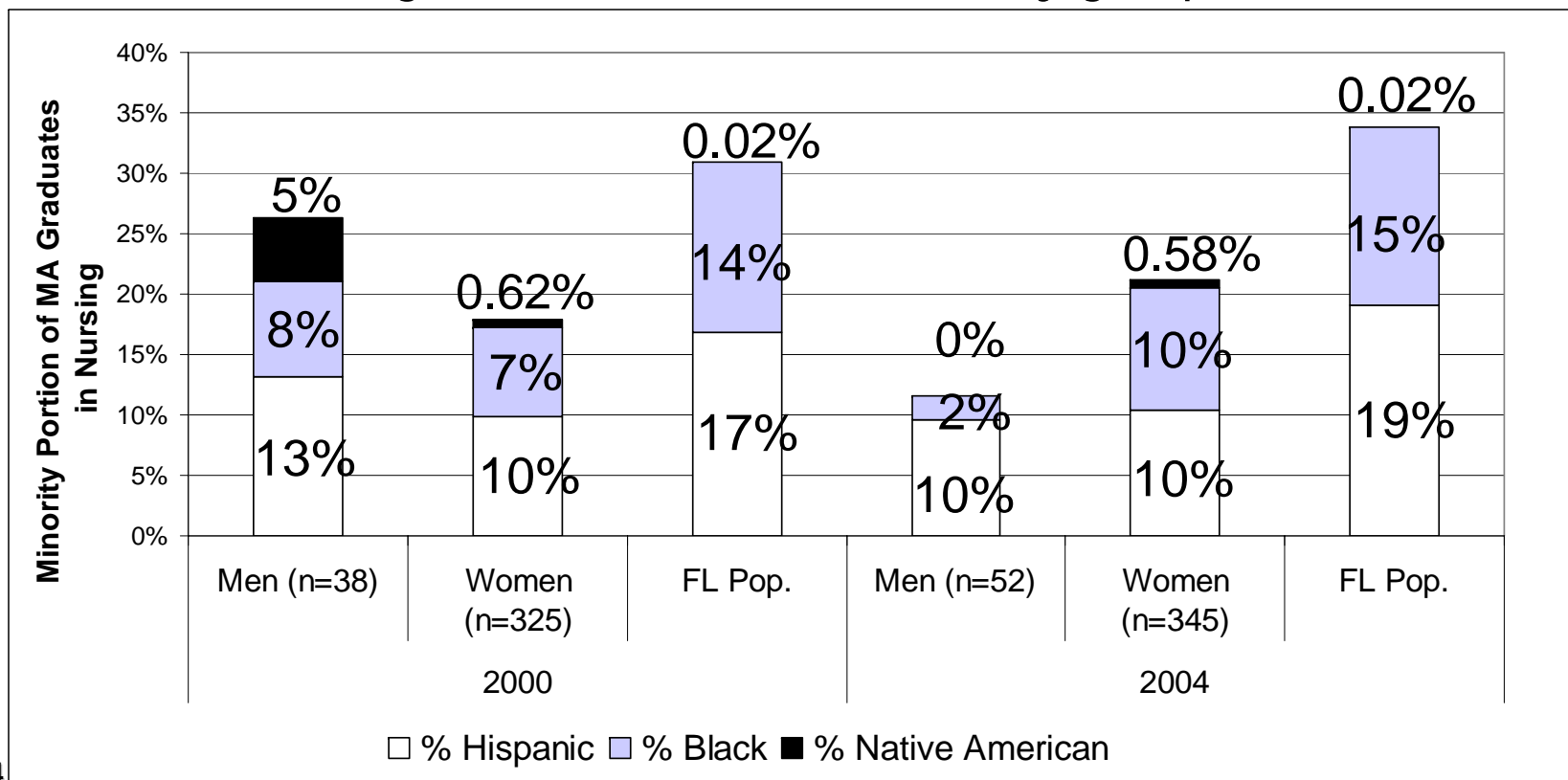
- ◆ Most graduates were women. Black women were slightly overrepresented, and Hispanic women were underrepresented.
- ◆ Among women, trends were generally consistent from year to year.





## Master's Degrees in Nursing

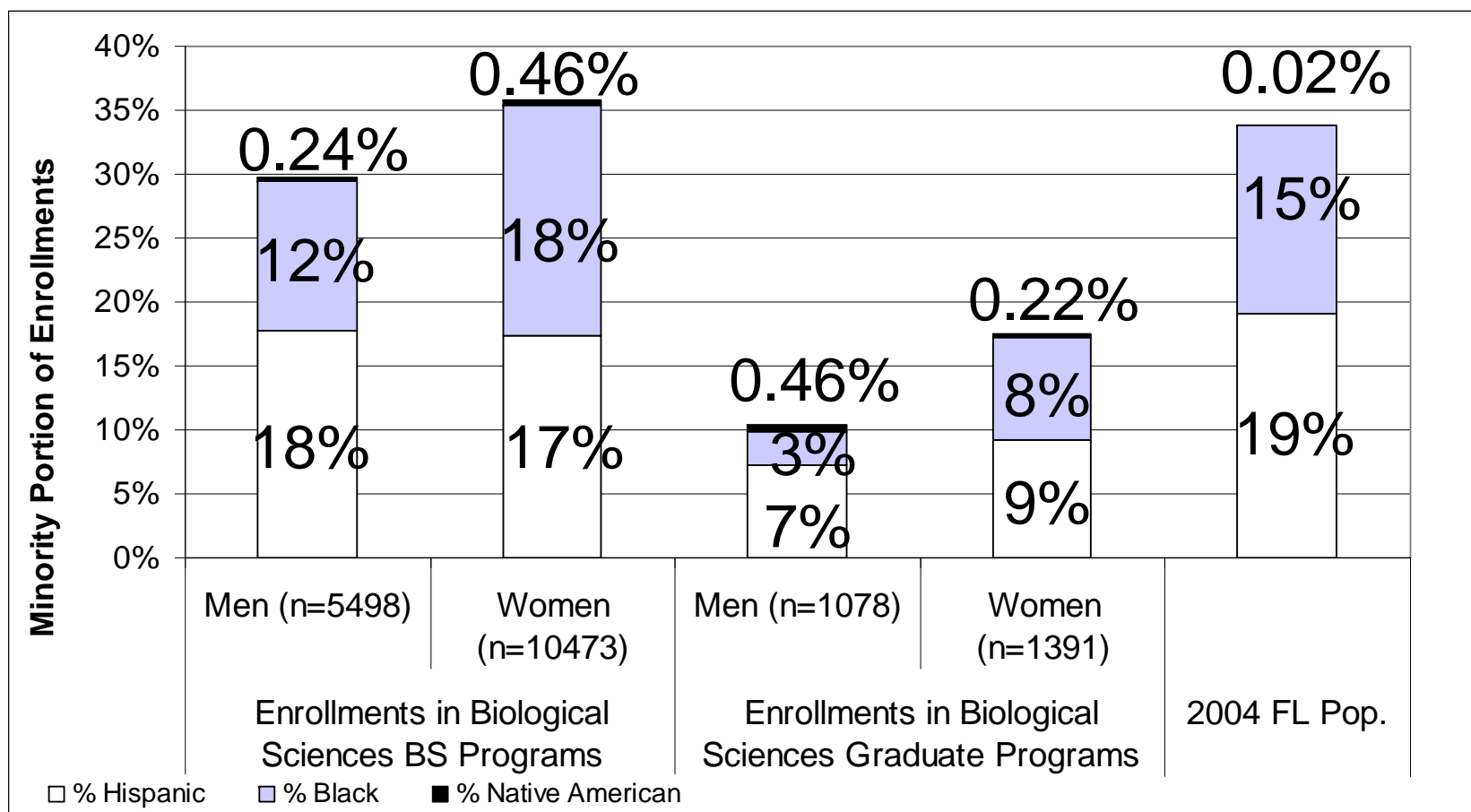
- ◆ Unlike their counterparts earning bachelor's degrees, both Black and Hispanic women were underrepresented among master's graduates.
- ◆ There were also 23 graduates that earned doctorates in 2000, 2002, 2004. Five of the graduates were from minority groups (22%).





# Enrollment in Biology Programs

- ◆ There were greater gender and racial disparities for Blacks and Hispanics at the graduate level than at the bachelor's degree level in 2004.

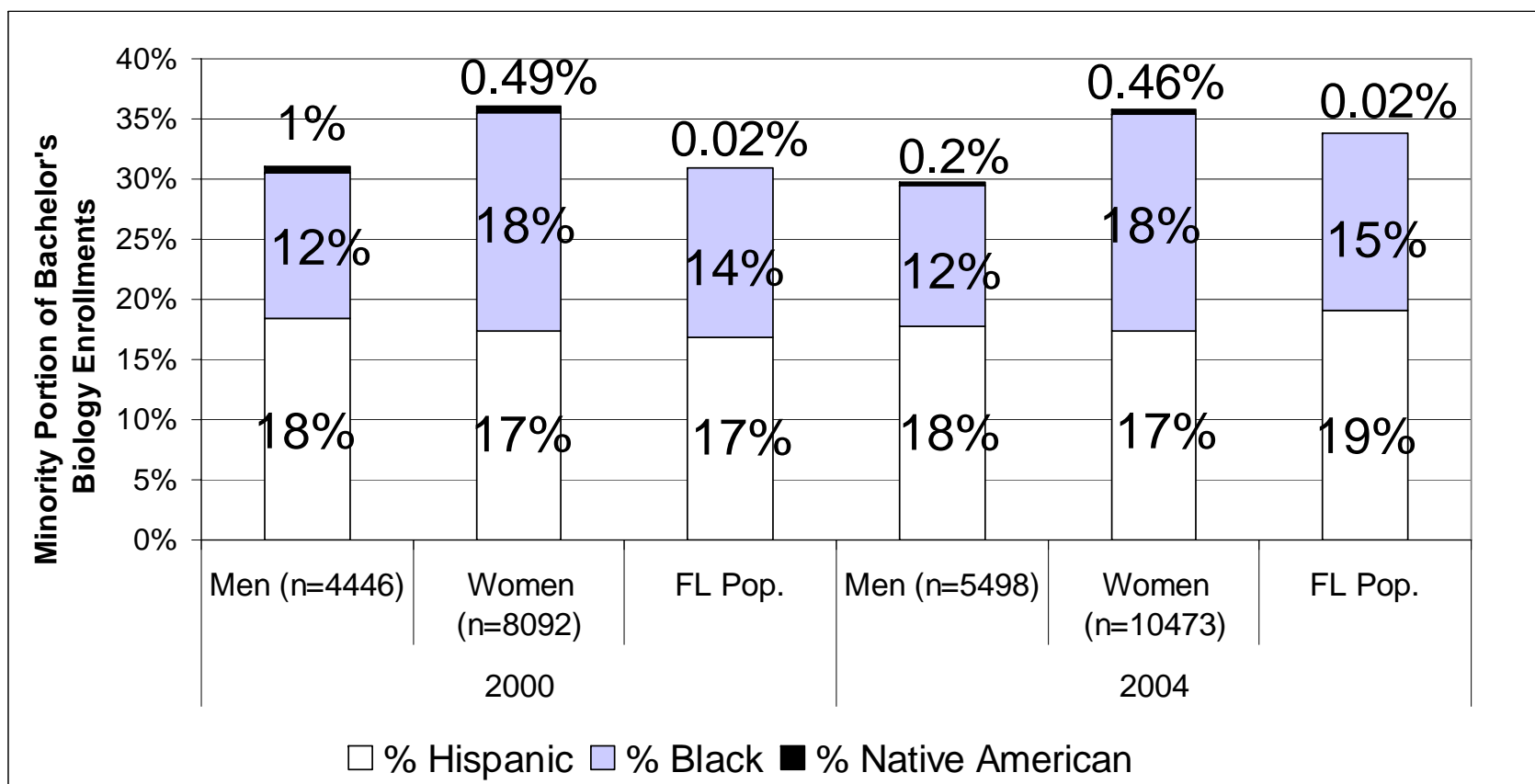


Source: U.S. Department of Education; U.S. Census Bureau.



# Bachelor's Programs in Biology, Enrollments

- ◆ Black men were underrepresented, whereas Black women and Hispanic men and women were represented nearly or more than proportionately.

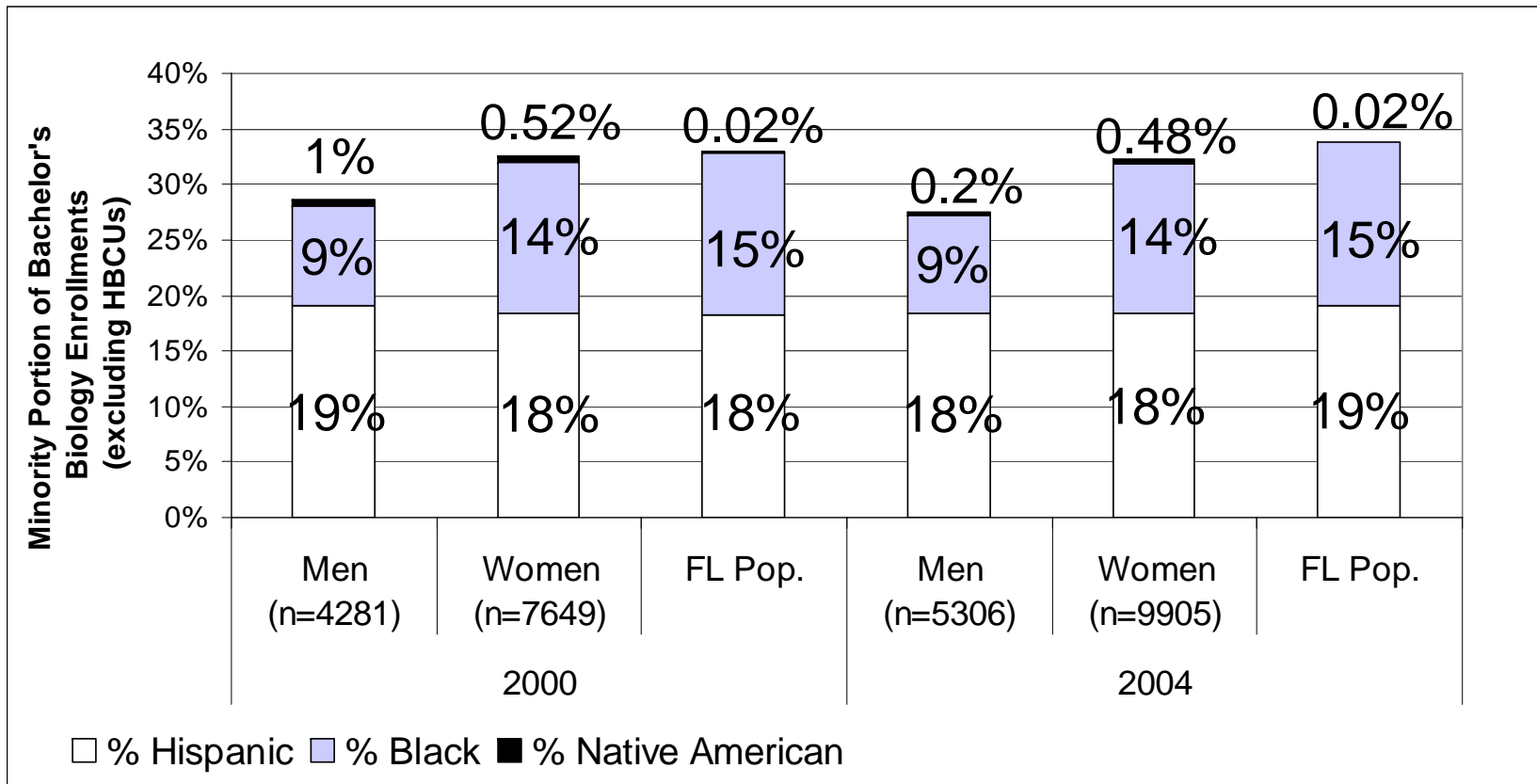


Source: U.S. Dept. of Education; U.S. Census Bureau.



# Bachelor's Programs in Biology, Enrollments

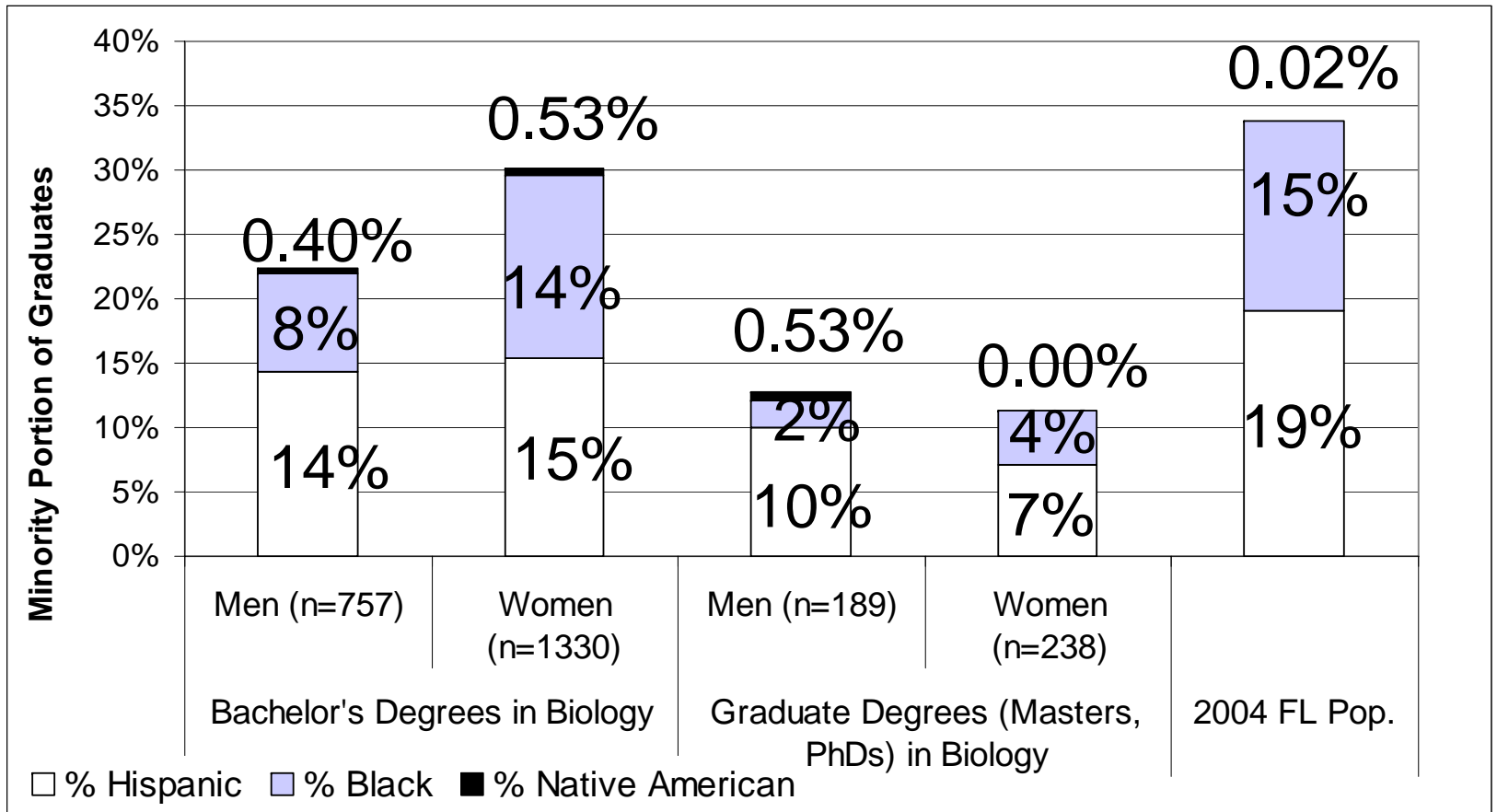
- ◆ When enrollees from historically Black colleges and universities (HBCUs) are removed, the portion of minorities in the biological sciences falls.





# Degrees Awarded in Biology, 2004

- ◆ There was greater underrepresentation of minorities among those earning graduate degrees than among those earning bachelor's degrees. The patterns were similar to those seen in enrollments.

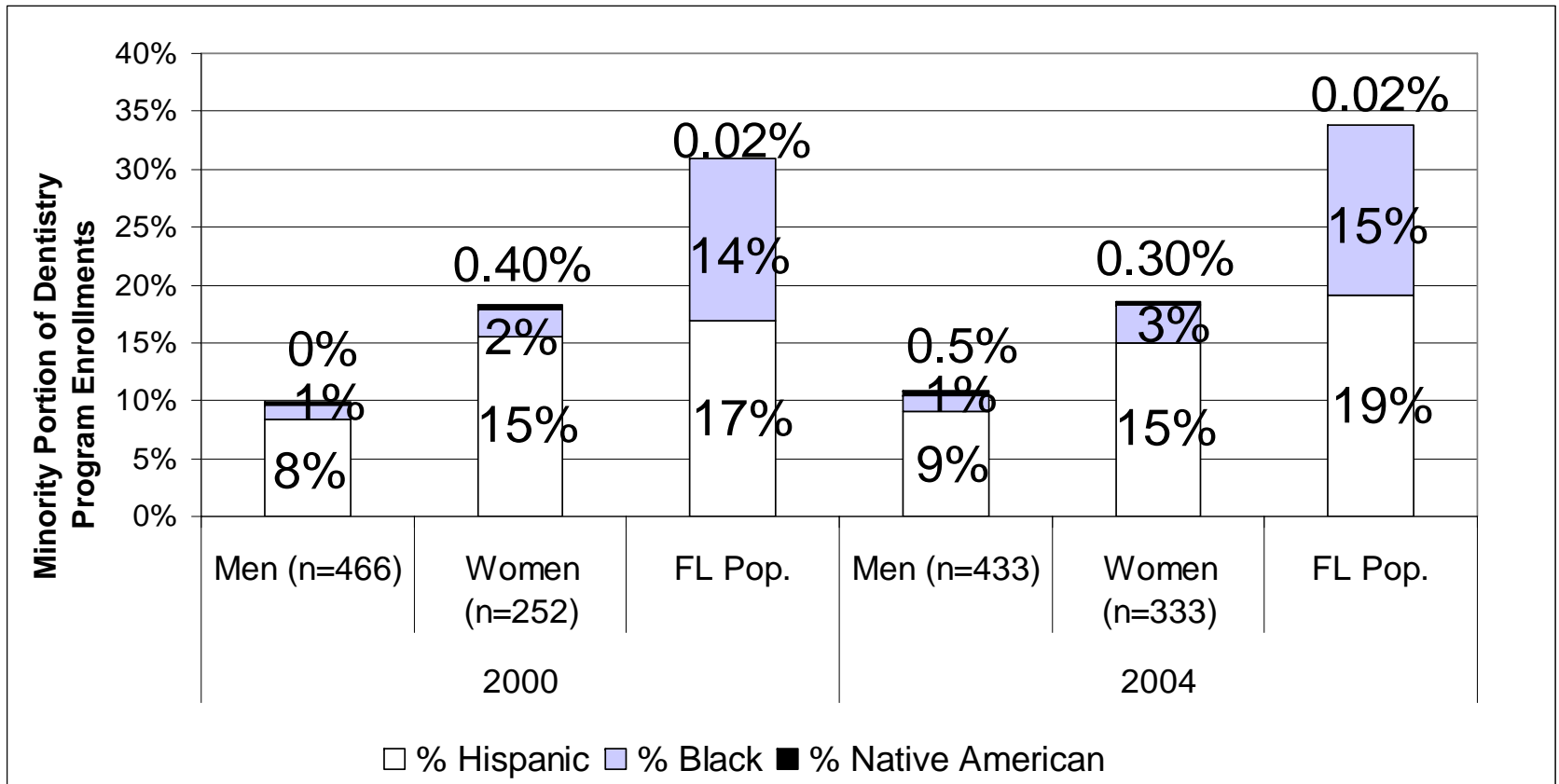


Source: U.S. Department of Education; U.S. Census Bureau.



## Enrollment in Dentistry Programs

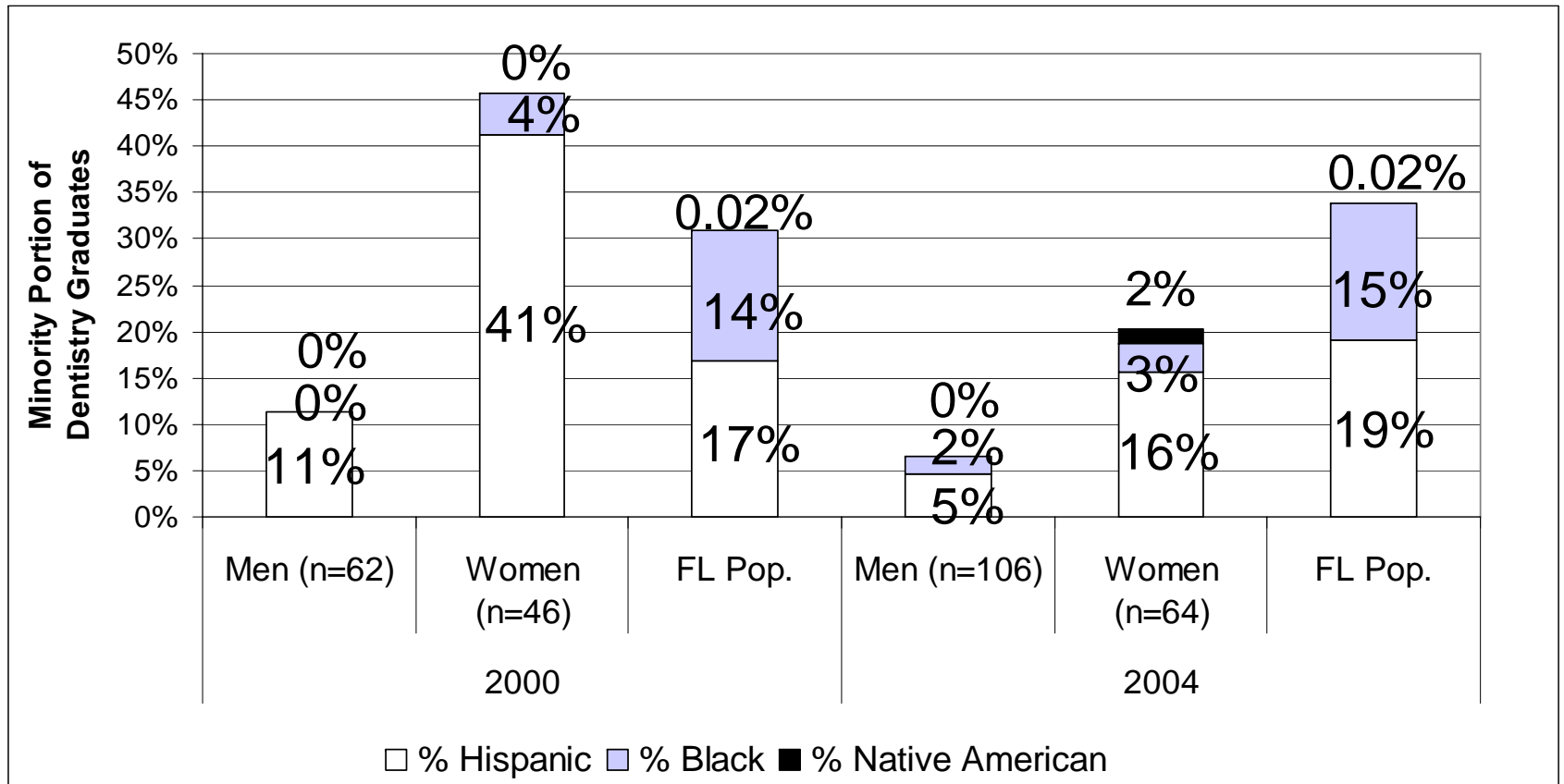
- ◆ In 2000 and 2004, all racial and gender groups were underrepresented among enrollees at dental schools.
- ◆ Underrepresentation was greater for Blacks than for Hispanics.





## Dentistry Degrees

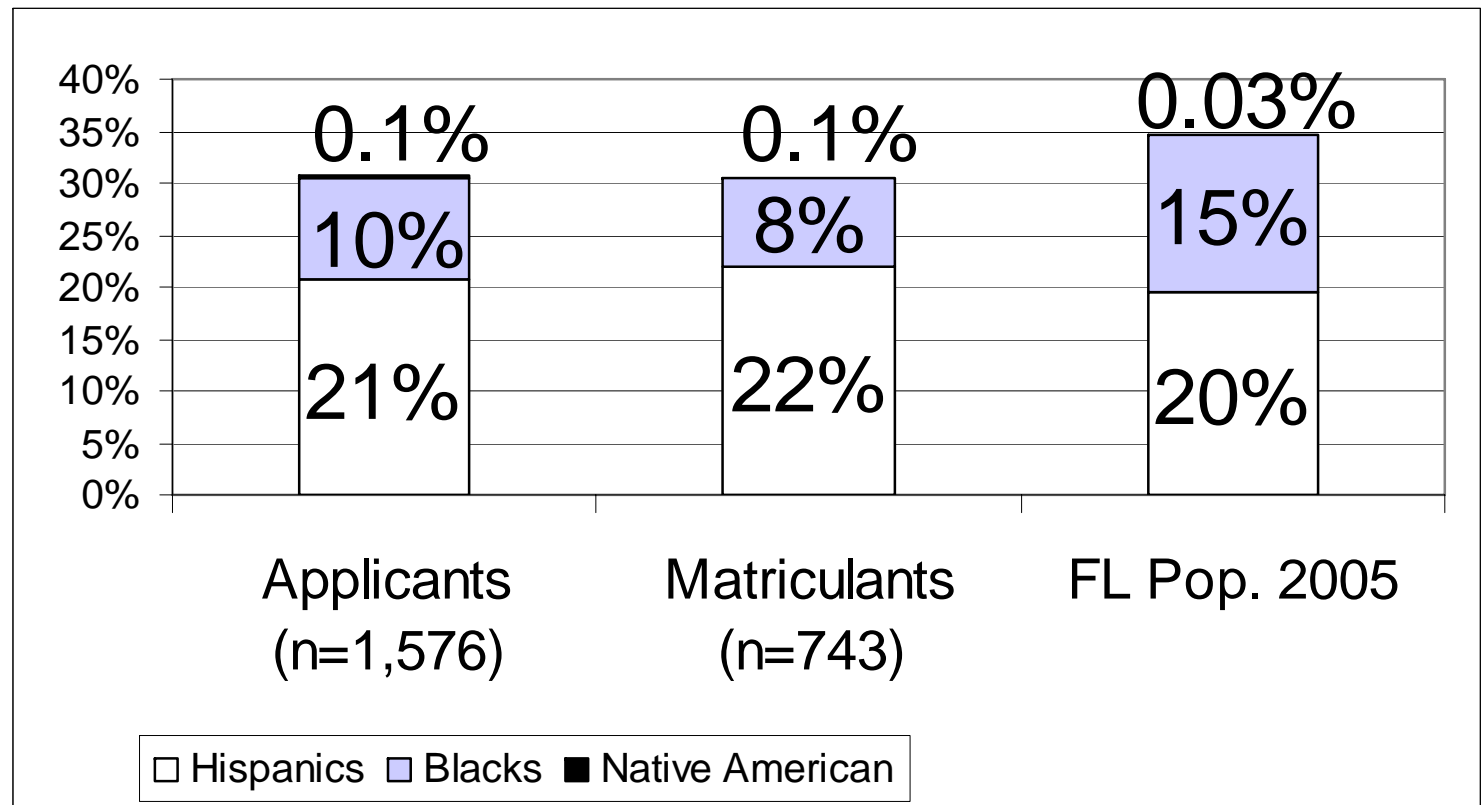
- ◆ Most minority groups were underrepresented among graduates of professional dentistry programs in Florida. Exceptions included Hispanic women in 2000 and Native American women in 2004.





## Applicants and Matriculants to Florida Medical Schools

- ◆ Hispanics were well represented and Blacks underrepresented among applicants and matriculants to Florida's allopathic medical schools in 2006.
- ◆ A matriculant is someone who both applied and was accepted.

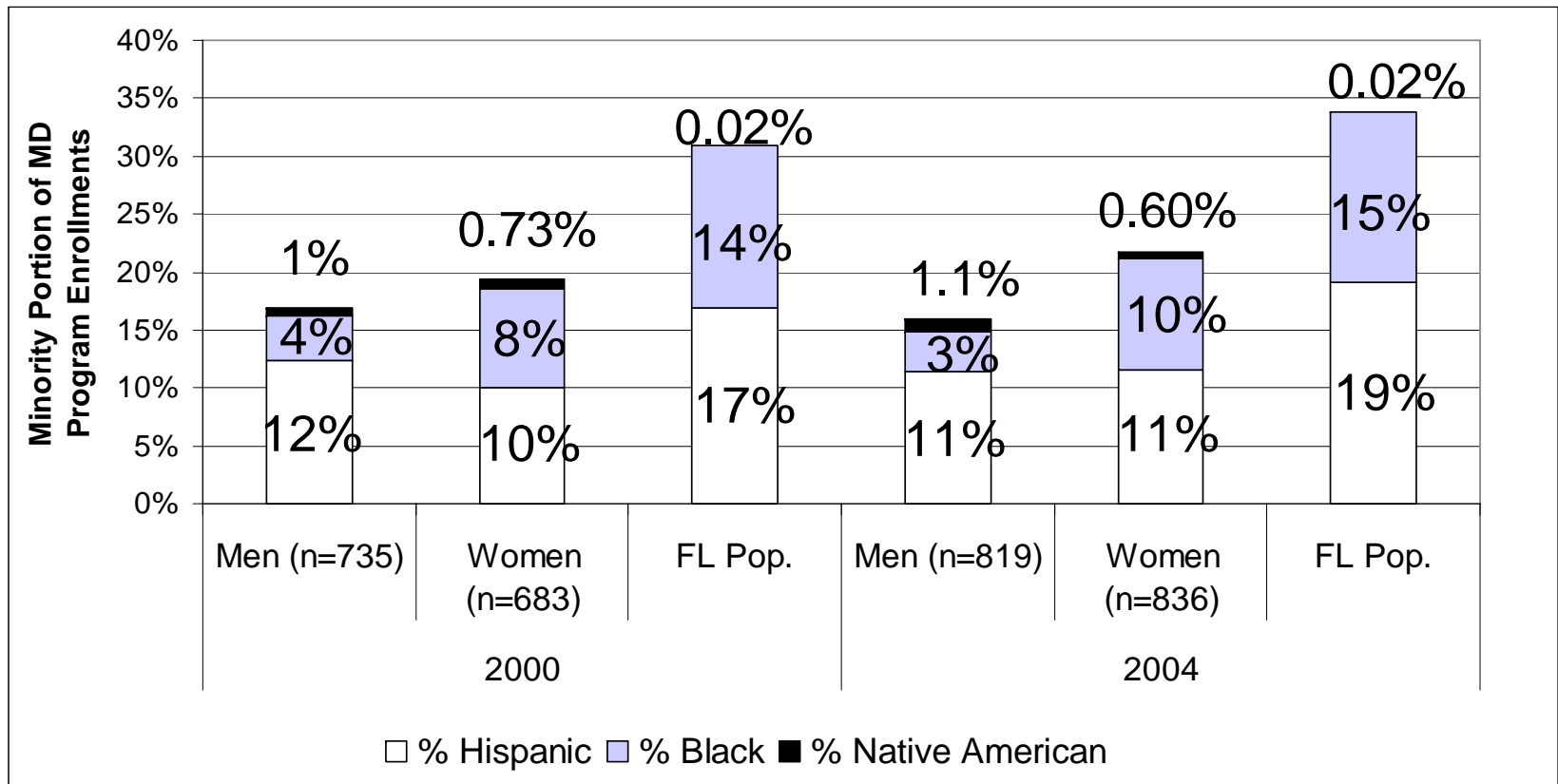


Source: AAMC applicant and matriculant data 2005; U.S. Census Bureau.



# Enrollments at Florida MD Programs

- ◆ Hispanics and Blacks were underrepresented in 2000 and 2004. The underrepresentation was greatest for Black males.
- ◆ Enrollment difference relative to matriculant trend is likely due to students applying and being accepted to many schools.

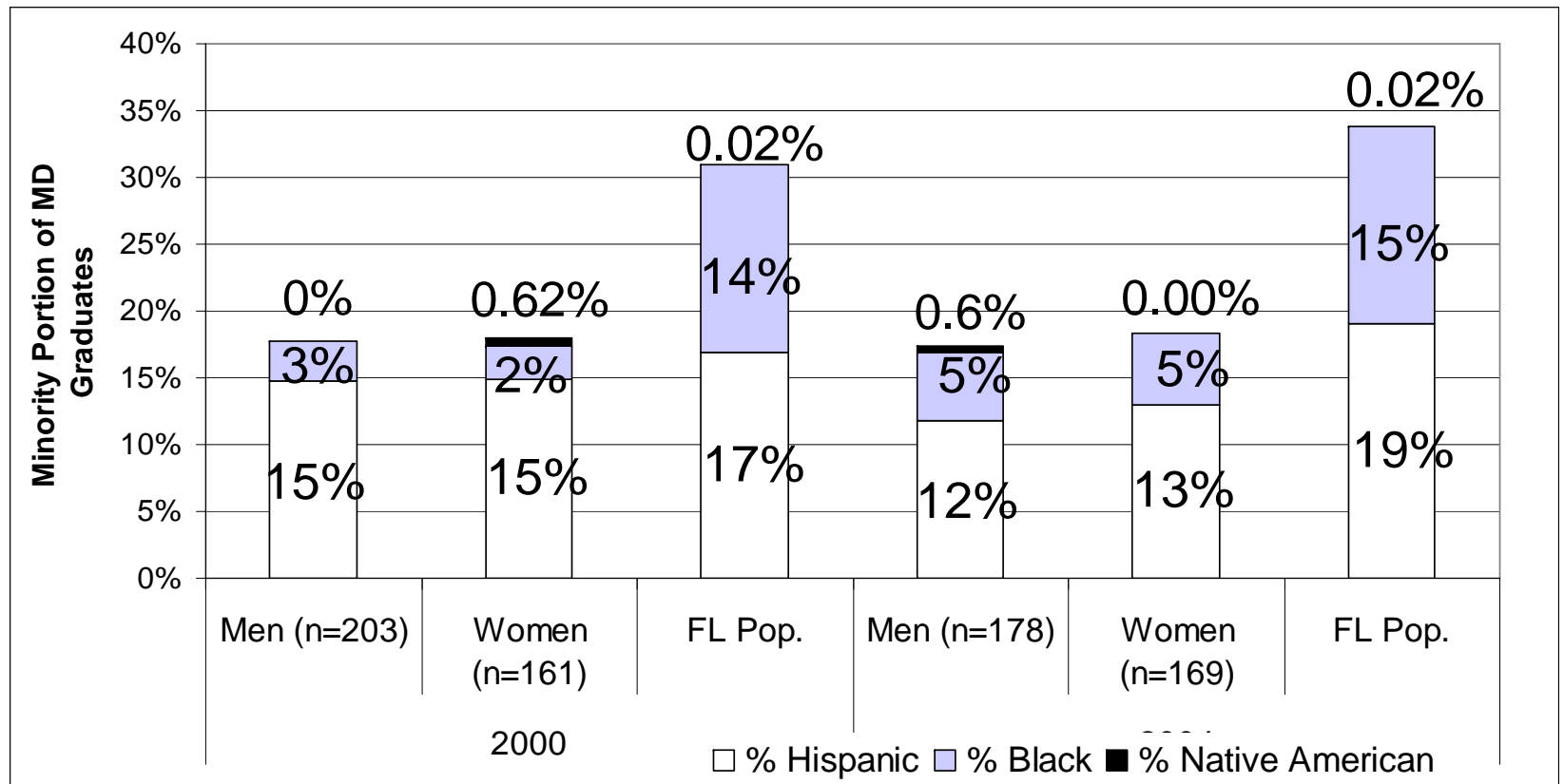


Source: U.S. Dept. of Education; U.S. Census Bureau.



# MD Degrees Awarded 2000 and 2004

- ◆ Most racial and gender groups were underrepresented among MD graduates.
- ◆ There was greater disparity for Blacks than for Hispanics among MD graduates.

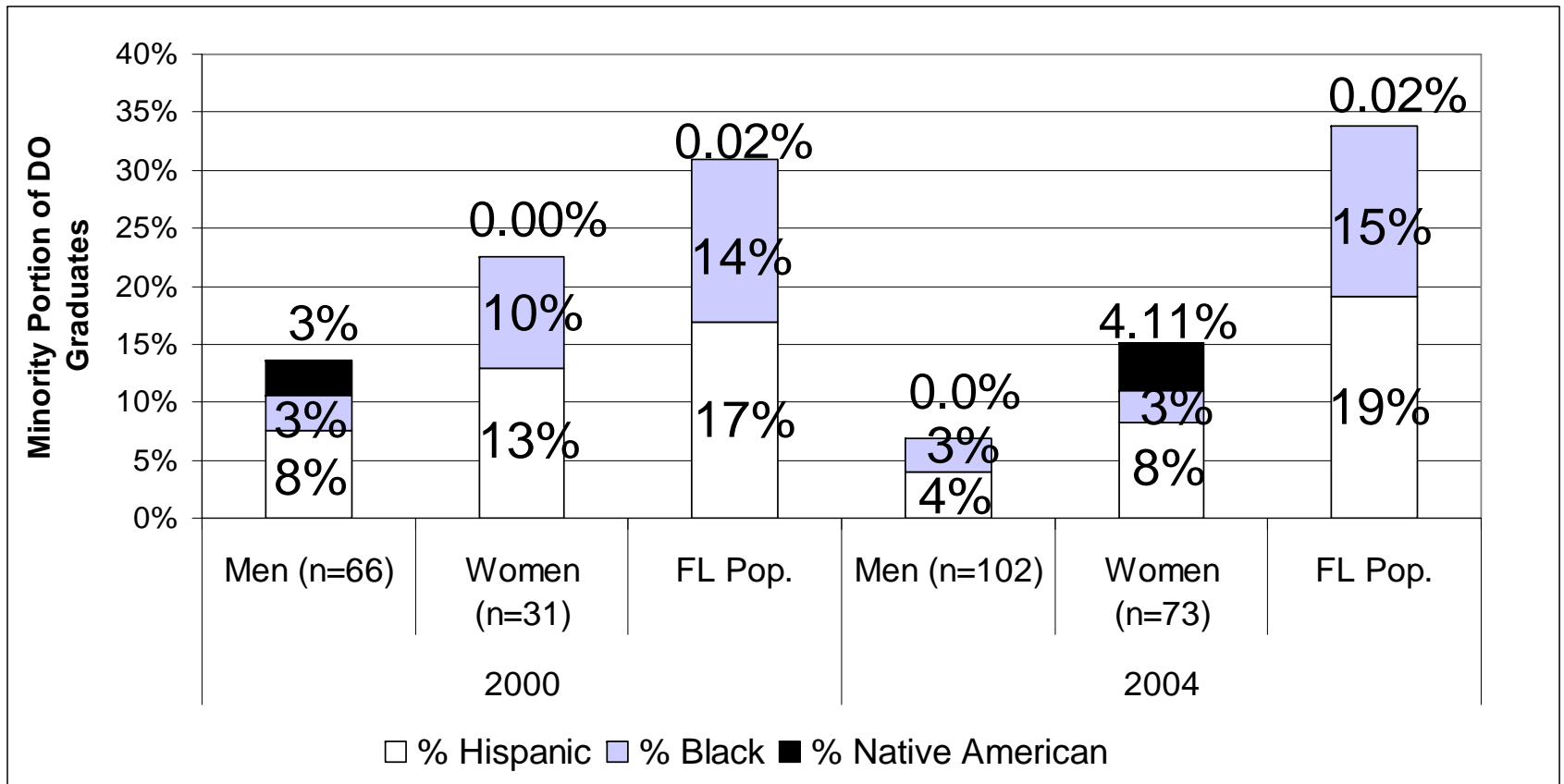


Source: U.S. Dept. of Education; U.S. Census Bureau.



# DO Degrees Awarded 2000 and 2004

- ◆ Most racial and gender groups were underrepresented among DO graduates.
- ◆ There was some fluctuation between 2000 and 2004.

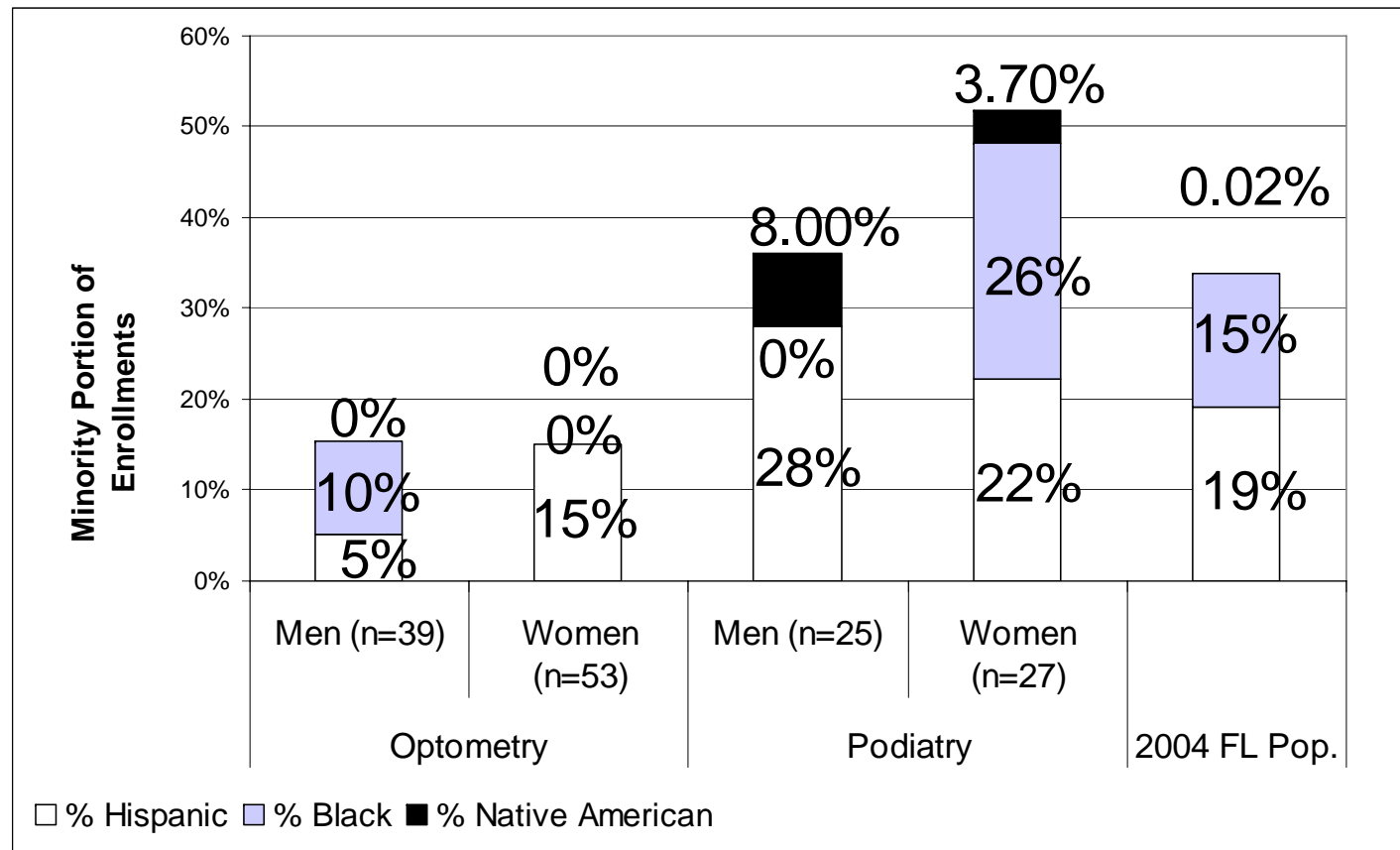


Source: U.S. Dept. of Education; U.S. Census Bureau.



# Optometry and Podiatry Degrees Awarded, 2004

- ◆ Minorities were underrepresented among the small number of graduates earning degrees in optometry and podiatry in 2004 with the exception of women obtaining degrees in podiatry in 2004. Similar trends occurred in 2000.



Source: U.S. Department of Education; U.S. Census Bureau.

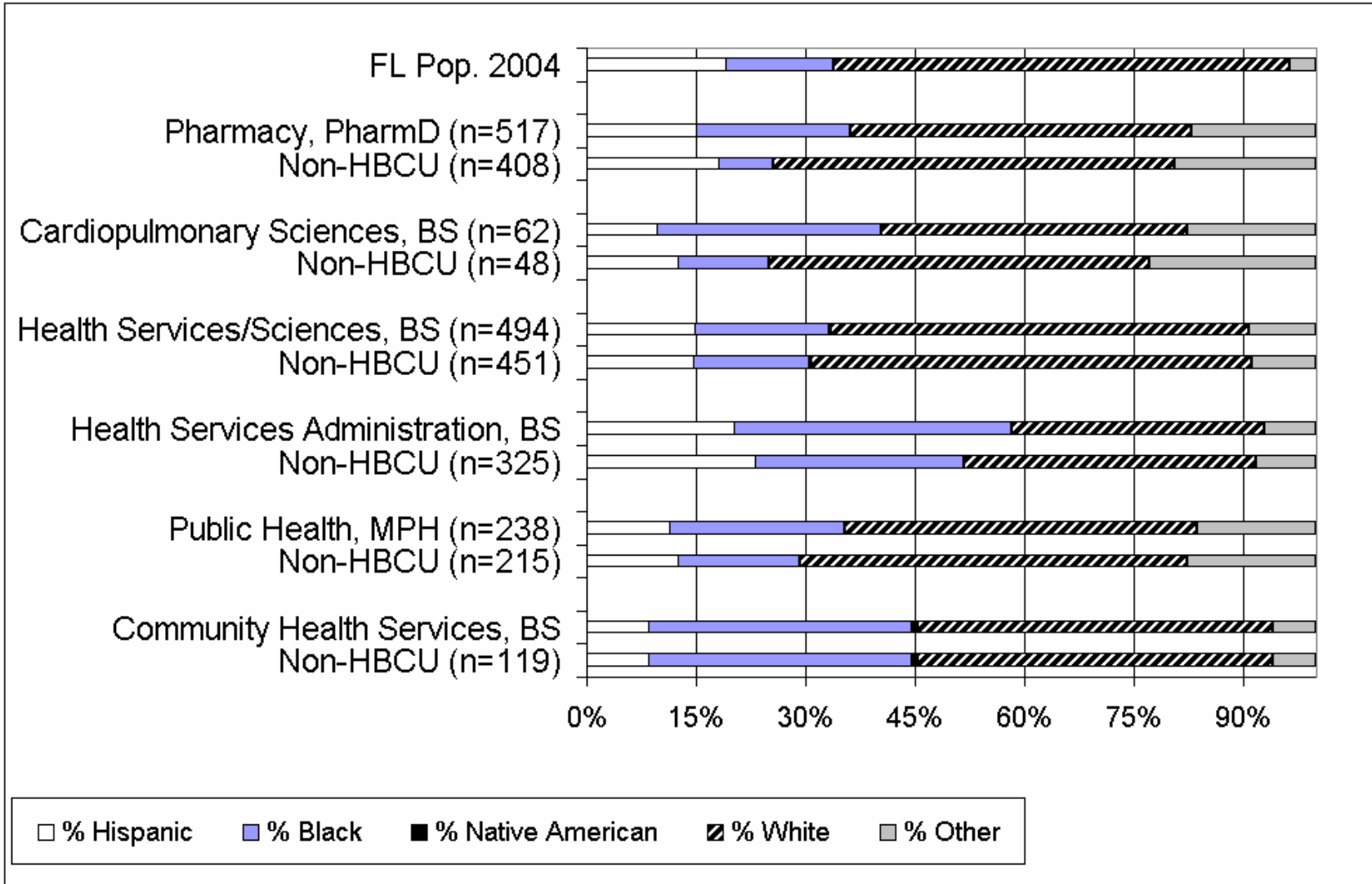


### Degrees Awarded in Other Health Areas

- ◆ Black men and women were well represented as graduates in the fields below:
  - Pharmacy
  - Health Services/Sciences
  - Health administration
  - Public health, and community health
- ◆ Hispanics were well represented among graduates in occupational therapy, physical therapy, and health services administration.
- ◆ The small number of graduates in some of these areas limits the generalizations that can be made.

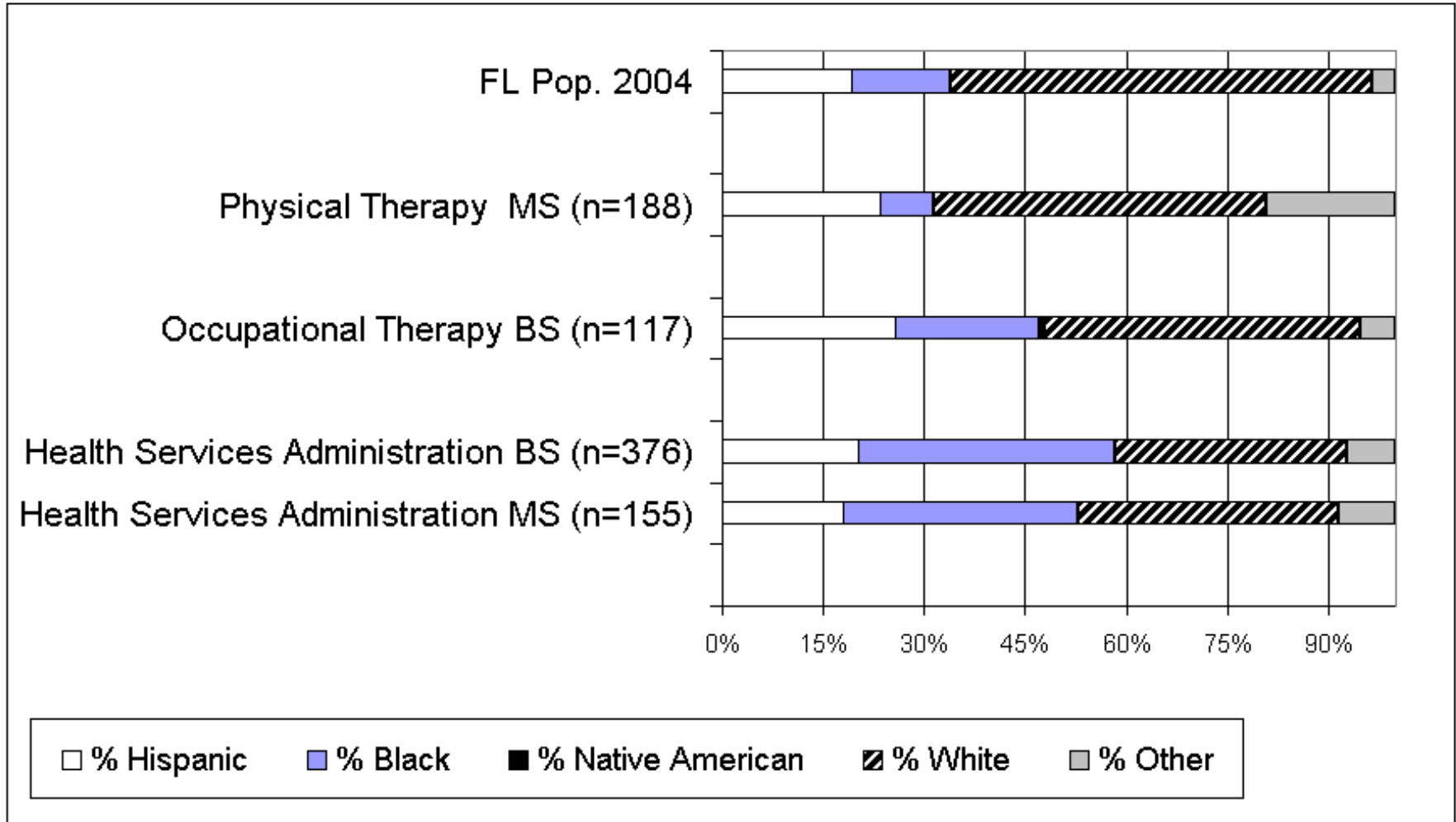


## Areas in Which Blacks Were Well Represented





## Areas in Which Hispanics Were Well Represented





## **Conclusions**

- ◆ Representation is strongest in positions requiring education up through a bachelor's degree, i.e., in areas such as Health Services and Health Administration.
- ◆ Representation is less in the medical and dental professions.

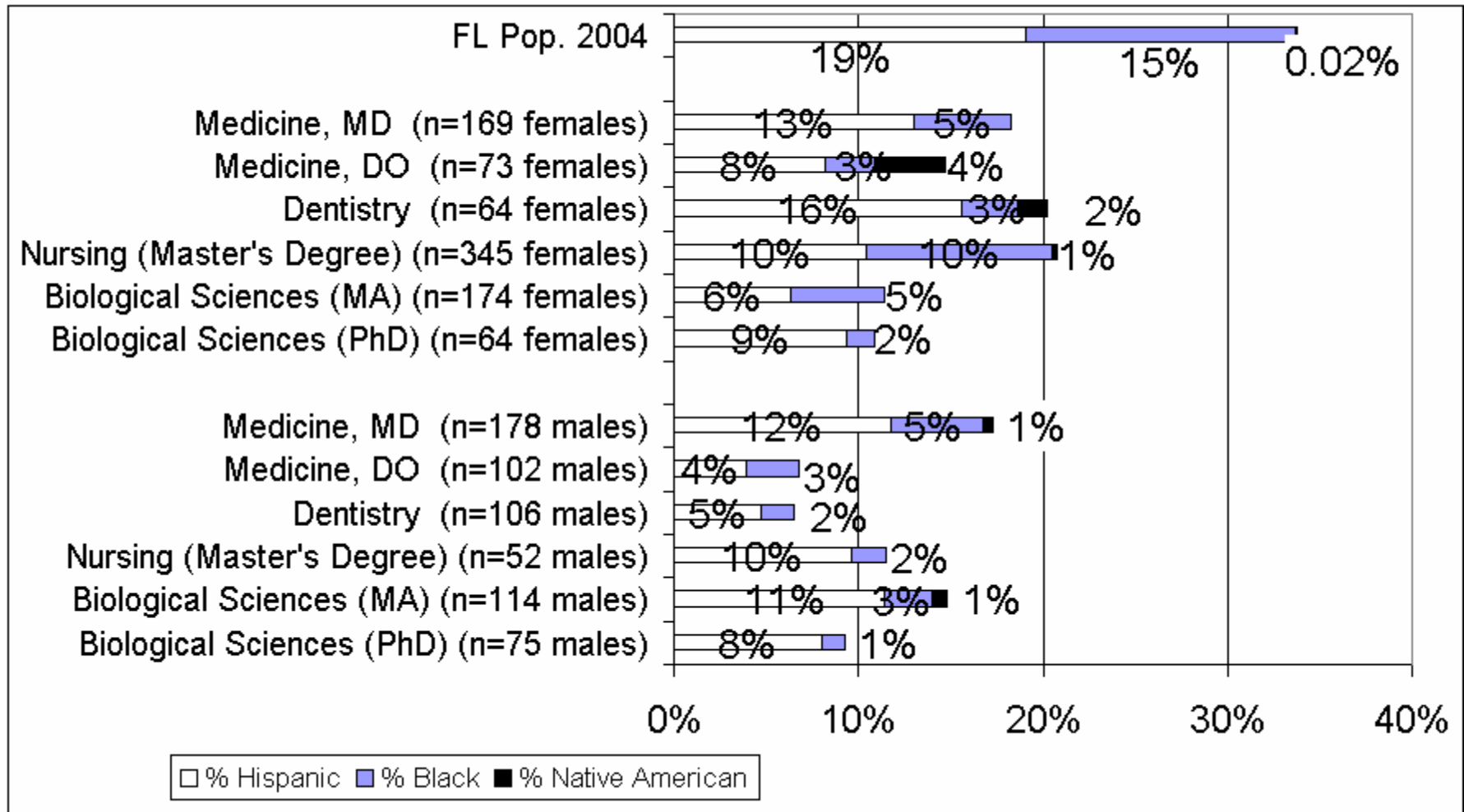


## Conclusions

- ◆ Blacks and Hispanics are not well represented in the following medical professions:
  1. Medicine (MD, DO).
  2. Dentistry (doctoral degrees).
  3. Nursing (master's degrees).
  4. Biology (master's and doctoral degrees).



## Conclusions



Source: U.S. Department of Education; U.S. Census Bureau.



## Conclusions

- ◆ What can colleges and health profession schools do to address the disparity?
  - The Sullivan Commission's report notes that increasing minority representation in the health professions must be guided by three principles.



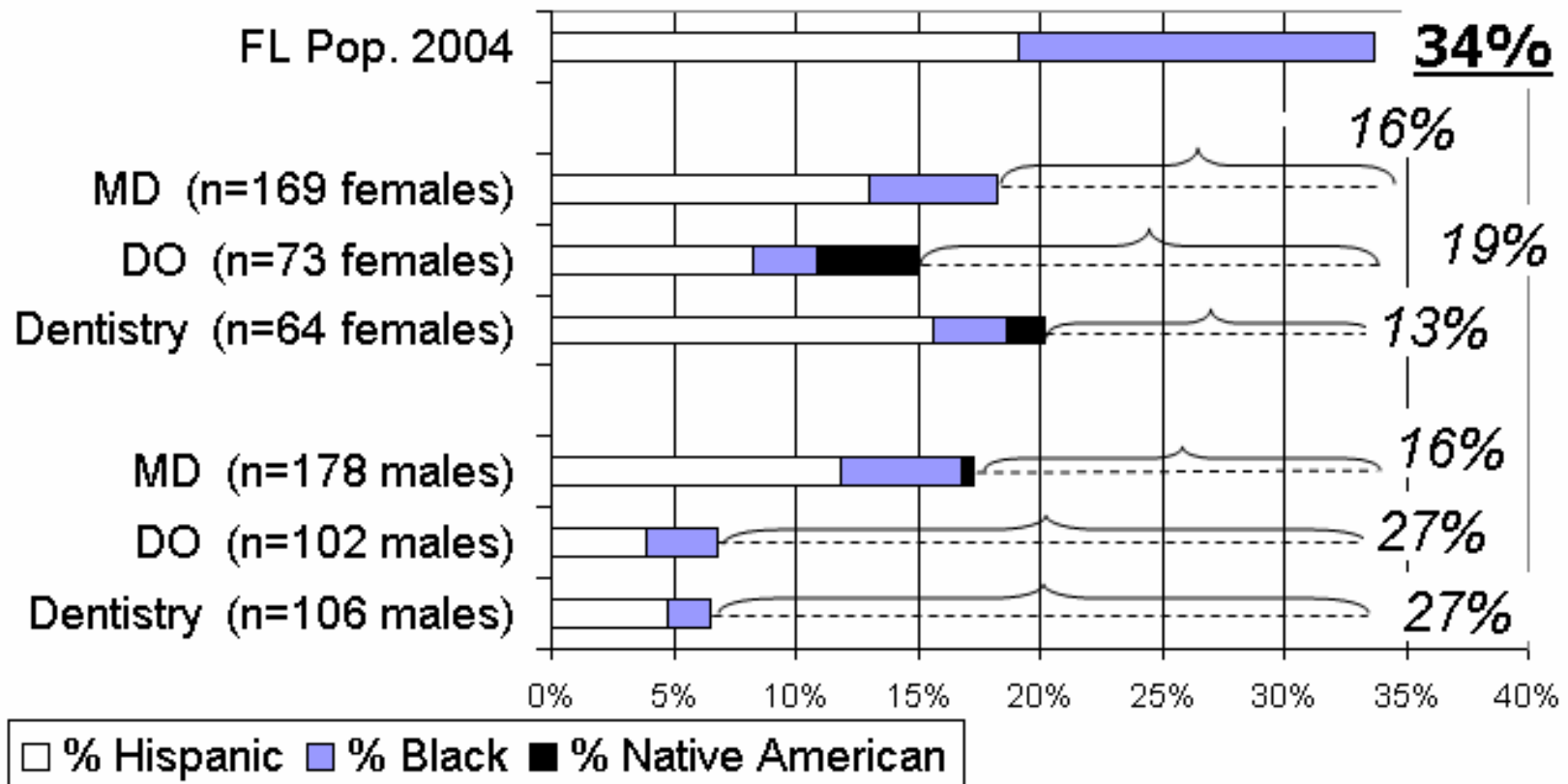
## **Sullivan Report's Three Principles:**

1. To increase diversity in the health professions, the culture of health professions schools must change.
2. New and non-traditional paths to the health professions should be explored.
3. Commitments must be at the highest levels.



## Looking Ahead

- ◆ Approximately how much growth is needed?



Source: U.S. Dept of Education; U.S. Census Bureau.



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# Discussion