



Comparison of Specialty Distribution of Nurse Practitioners and Physician Assistants in North Carolina, 1997-2013

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Background

- Expected increase in **demand** for healthcare services in the US
 - Primarily due to aging and chronic disease
 - Smaller impact of increased insurance coverage under the ACA
- Physician **supply** may not be adequate to meet demand under traditional models of care



Role of NPs and PAs

- Nurse practitioners (NPs) and physician assistants (PAs) might help fill supply-demand gaps
 - Primary care
 - Specialty care
- Estimates of this potential vary widely
 - Depending on assumptions
 - Continued growth in NP/PA numbers
 - Ratio for substitution used in models



Why NPs and PAs?

- NP and PA scope of practice overlaps that of physicians
- Training time is shorter for NPs and PAs than for physicians
- NP and PA specialty distribution can change



A flexible workforce?

- Both have generalist training
 - NPs train within broad areas
 - Family NP, pediatric NP, adult NP, etc.
 - PA training is general
- The specialty distribution of NPs and PAs can change
 - New graduates can choose different specialties than graduates in the past
 - Experienced NPs and PAs can change specialties mid-career



Other research on specialty transitions

- **Hooker & Cawley (2010):** examined specialty changes over 17 years
 - 50% of PAs change specialty
 - 25% change between specialty class
- **Morgan & Fraher (2009):** examined specialty changes between primary and specialty care over 11 years in NC (1997-2008) (unpublished)
 - 20% of PAs changed
 - 10% of NPs changed



NPs and PAs in North Carolina

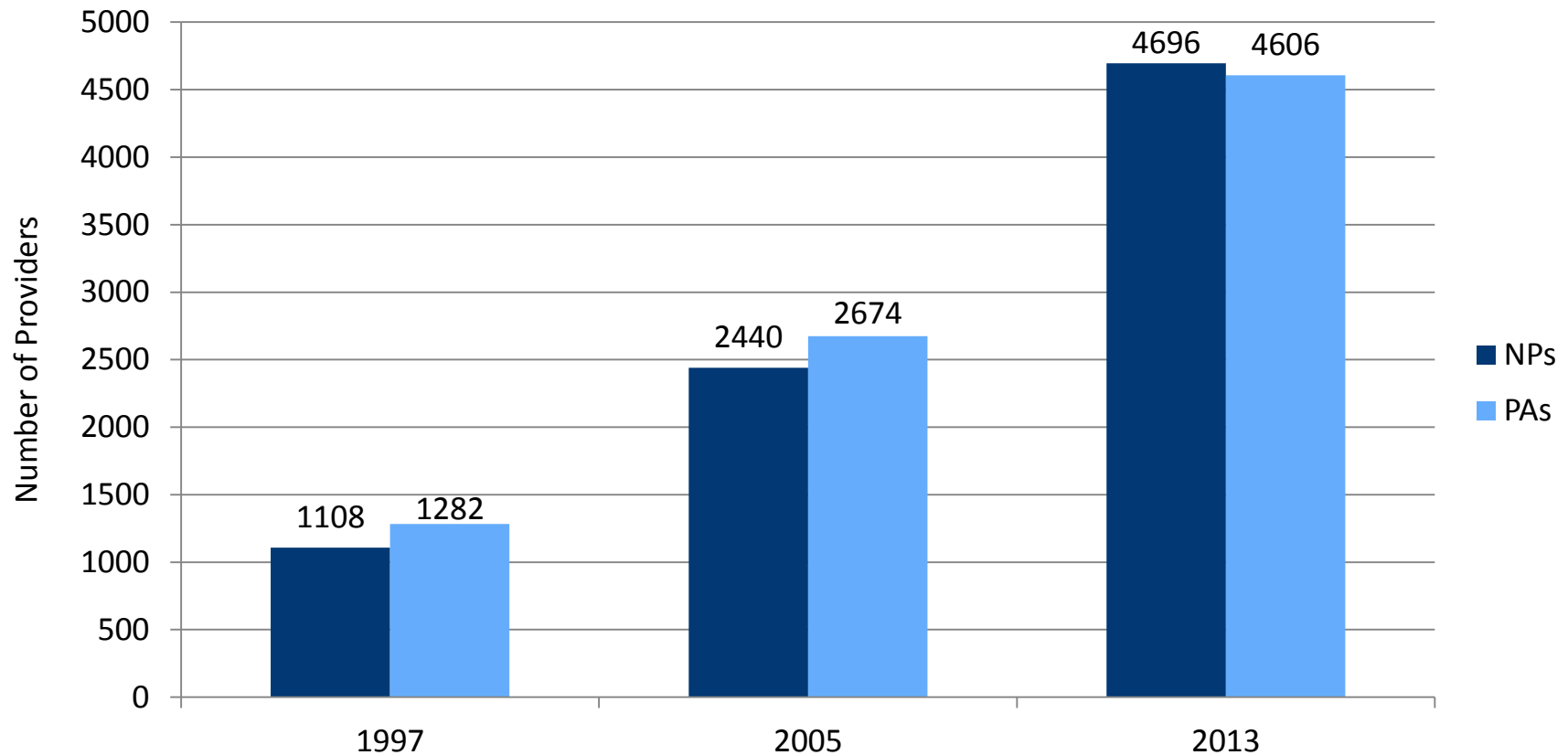
- NC has relatively large numbers of both NPs and PAs
- Scope of practice environment
 - PAs: NC has 5/6 key elements specified by American Academy of Physician Assistants (AAPA)
 - less restrictive SOP
 - NPs: **restricted** practice, requiring physician supervision
 - more restrictive SOP
 - Regulations are similar for NPs and PAs

Methods

- Data:
 - Licensure data from the NC Health Professions Data System
 - Self-reported specialty for active, licensed NPs and PAs in NC
 - Missing specialty data was high for NPs, especially in 2013 (33%)
- Primary care was defined as family medicine, general practice, general internal medicine, general pediatrics, and general geriatrics
- Analysis:
 - Descriptive

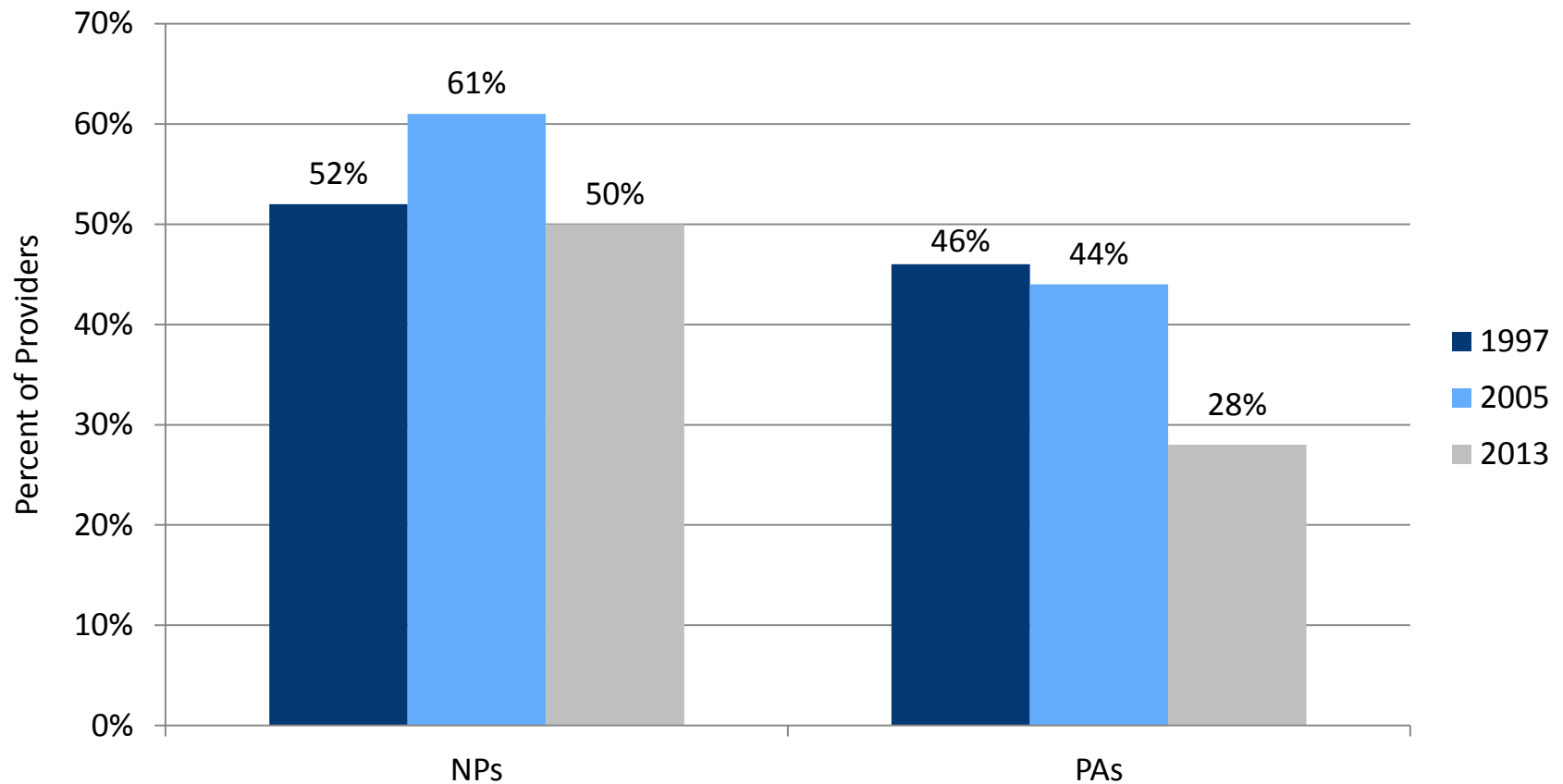


Number of clinically active NPs and PAs in North Carolina



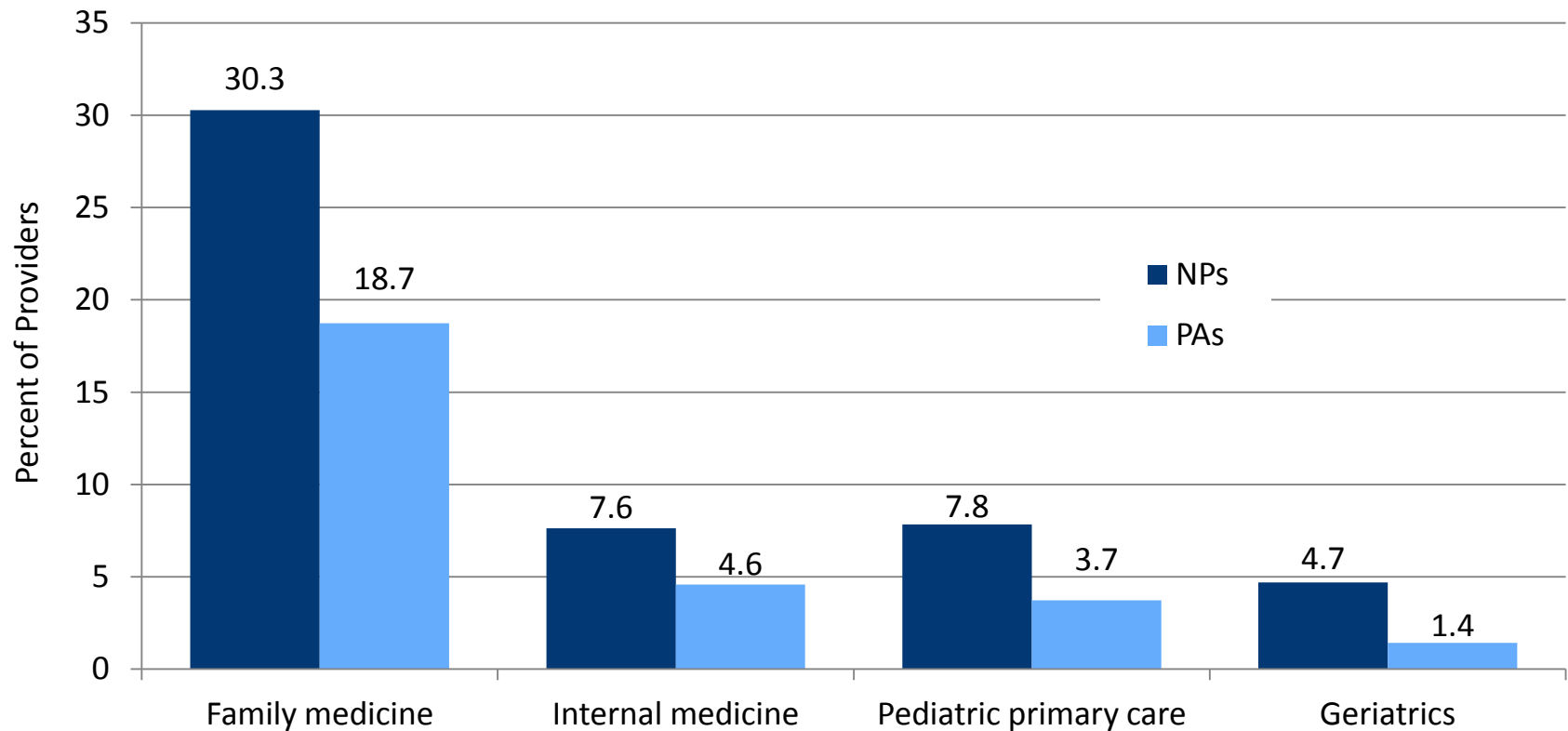


Percent of active NPs and PAs in North Carolina practicing in primary care by year





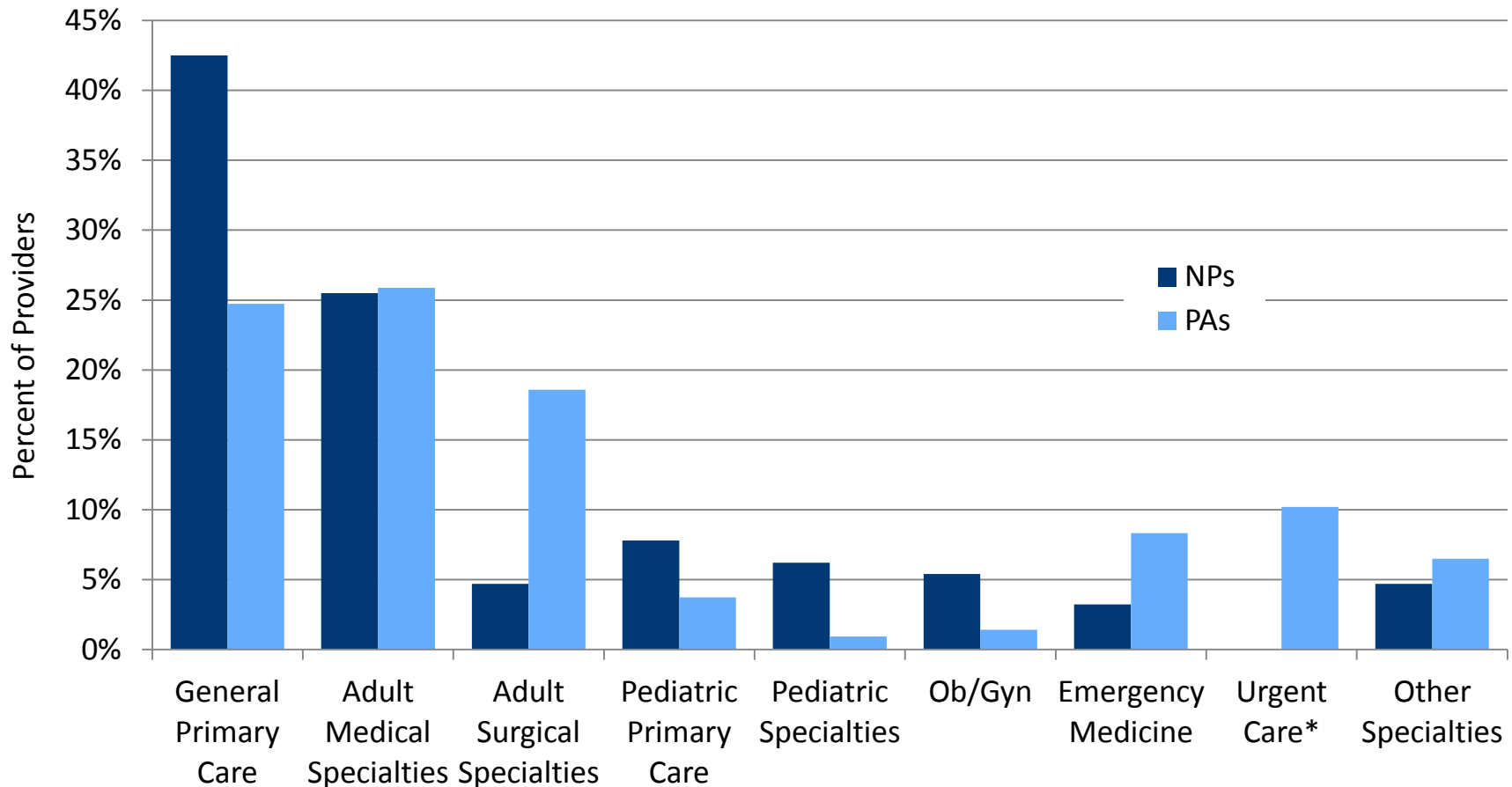
Percent of active NPs and PAs in North Carolina in each primary care specialty, 2013



**Figures are % of active NPs and PAs reporting a specialty in 2013.*



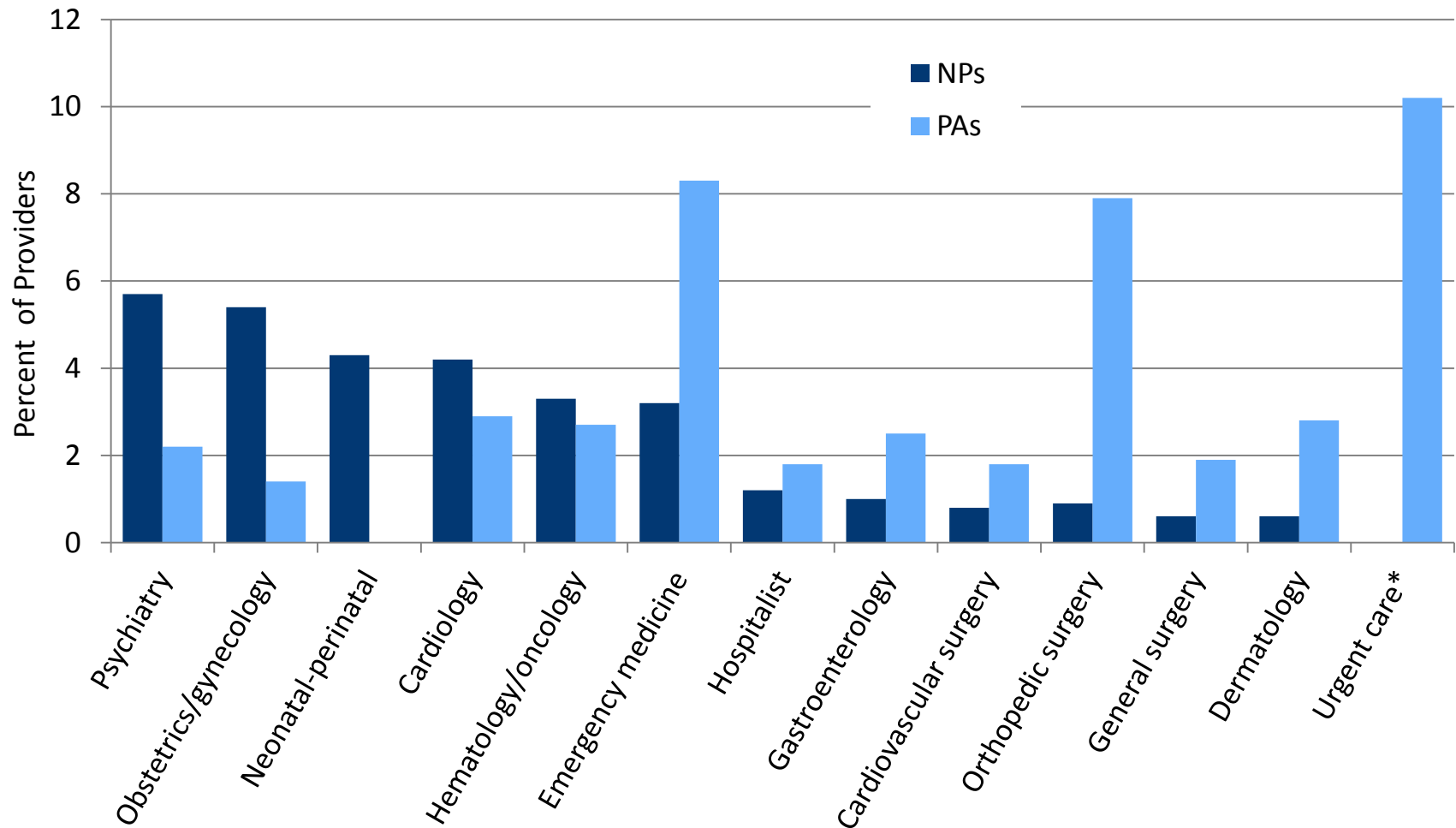
Percent of active NPs and PAs by area of practice, 2013



Figures are % of active NPs and PAs reporting a specialty in 2013. *Urgent care category was not available for NPs to select.



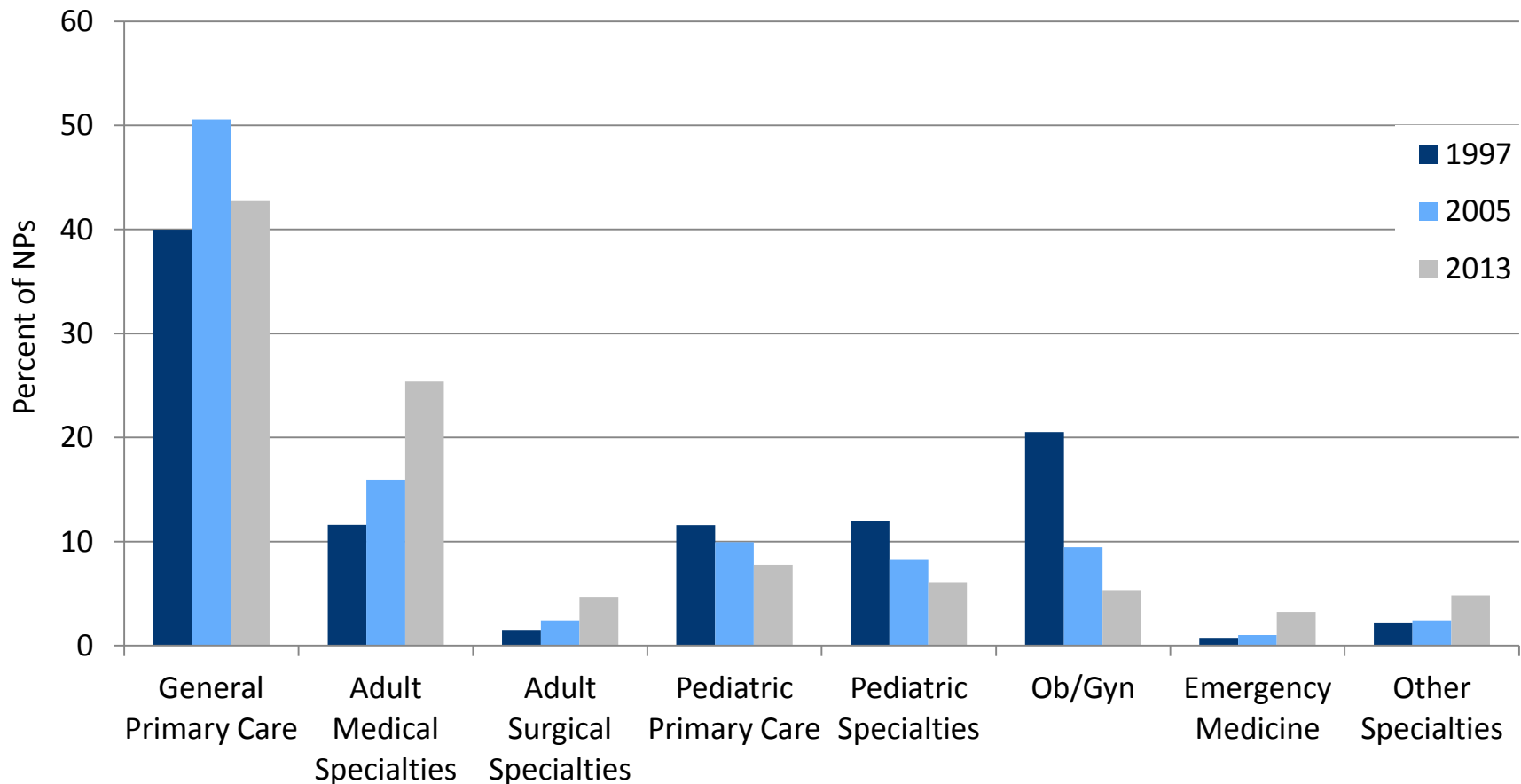
Distribution of NPs and PAs among common subspecialties in North Carolina, 2013



*Urgent care category was not available for NPs to select. Figures are % of active NPs and PAs reporting a specialty in 2013.



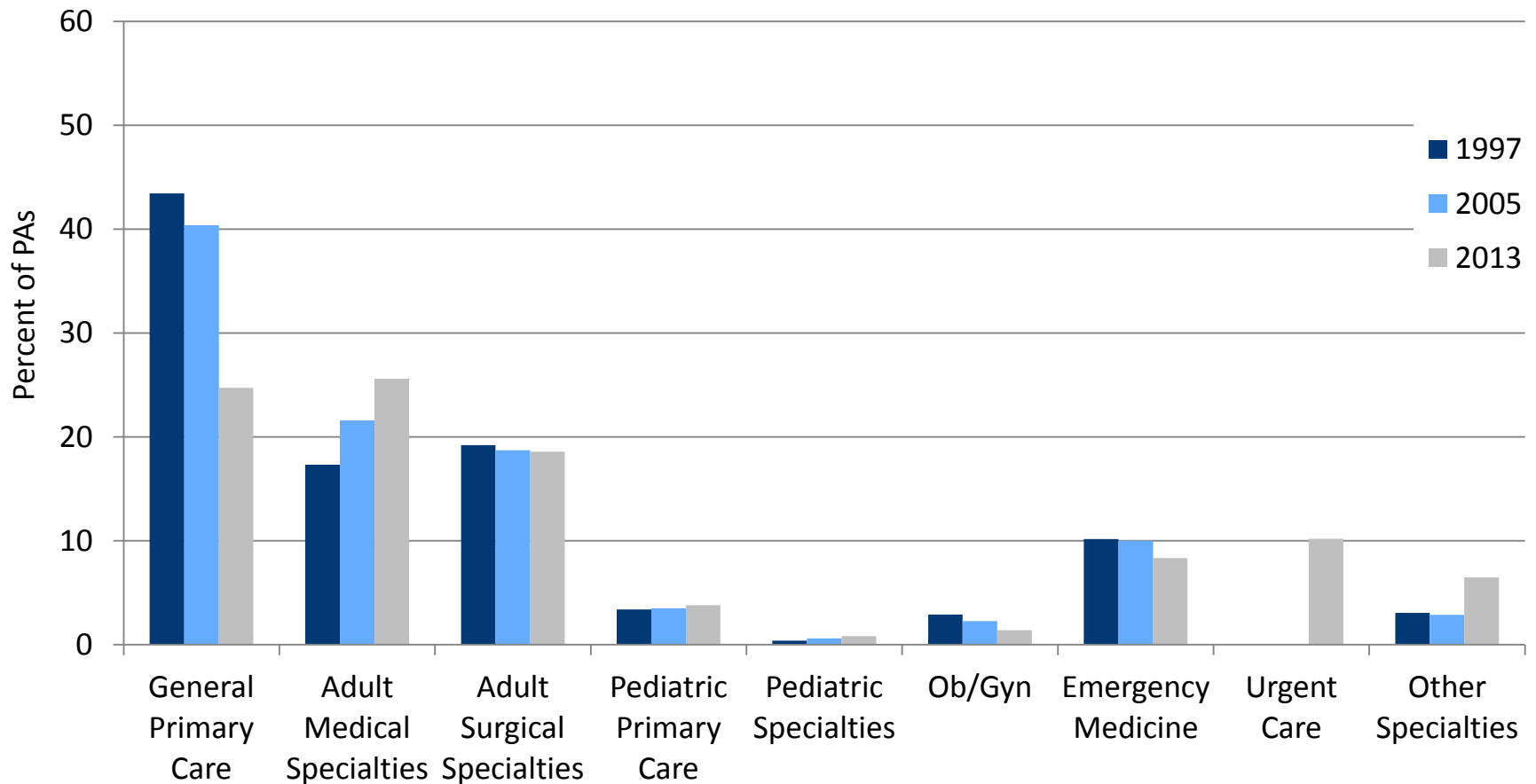
Distribution of specialty types reported by active **NPs** in North Carolina in 1997, 2005 and 2013



Figures are % of active NPs reporting a specialty. Those reporting a specialty of "hospitalist" are included with adult medical specialties.



Distribution of specialty types reported by active **PAs** in North Carolina in 1997, 2005 and 2013



Figures are % of active PAs reporting a specialty. Those reporting a specialty of "hospitalist" are included with adult medical specialties.



Summary of findings:

- Large growth in both professions led to larger numbers of NPs and PAs in most specialties
- Specialty distribution changed over time for both NPs and PAs
- NP proportions
 - Increased in medical subspecialties
 - Decreased in pediatrics and Ob/gyn
- PA proportions
 - Decreased in primary care
 - Increased in medical subspecialties
 - Are high in urgent care (2013)



Limitations

- Missing specialty data

<u>NPs</u>	<u>PAs</u>
1997: 16%	3%
2005: 15%	7%
2013: 34%	4%

- Those missing specialty were similar to those not missing specialty with regard to age, race/ethnicity and graduation year

- Changing specialty categories/inconsistent data collection techniques



Discussion: What affects specialty distribution?

- **Supply:** factors affecting individual provider specialty choice
 - Individual (demographics, interest)
 - Training program emphasis (Title VII and VIII)
 - Loan forgiveness programs (NHSC)
 - Attractive salary or lifestyle
- **Demand:** factors inducing organizations to hire NPs/PA
 - Growth in specialty service demand (patient demographics, emerging fields)
 - Potential for practice profit
 - Physician acceptance



Implications

- NPs and PAs are a growing and flexible workforce available to meet emerging healthcare needs
- Important similarities and differences between NPs and PAs should be considered in workforce design
- Policies designed to affect specialty distribution of NPs and PAs should attend to both supply and demand factors



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