The Nursing Workforce: Navigating through Transformative Health System Change

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The RIBN Journey: Into the Future
Greensboro, North Carolina

March 17, 2015

This work is funded by grants from the Robert Wood Johnson Foundation and HRSA

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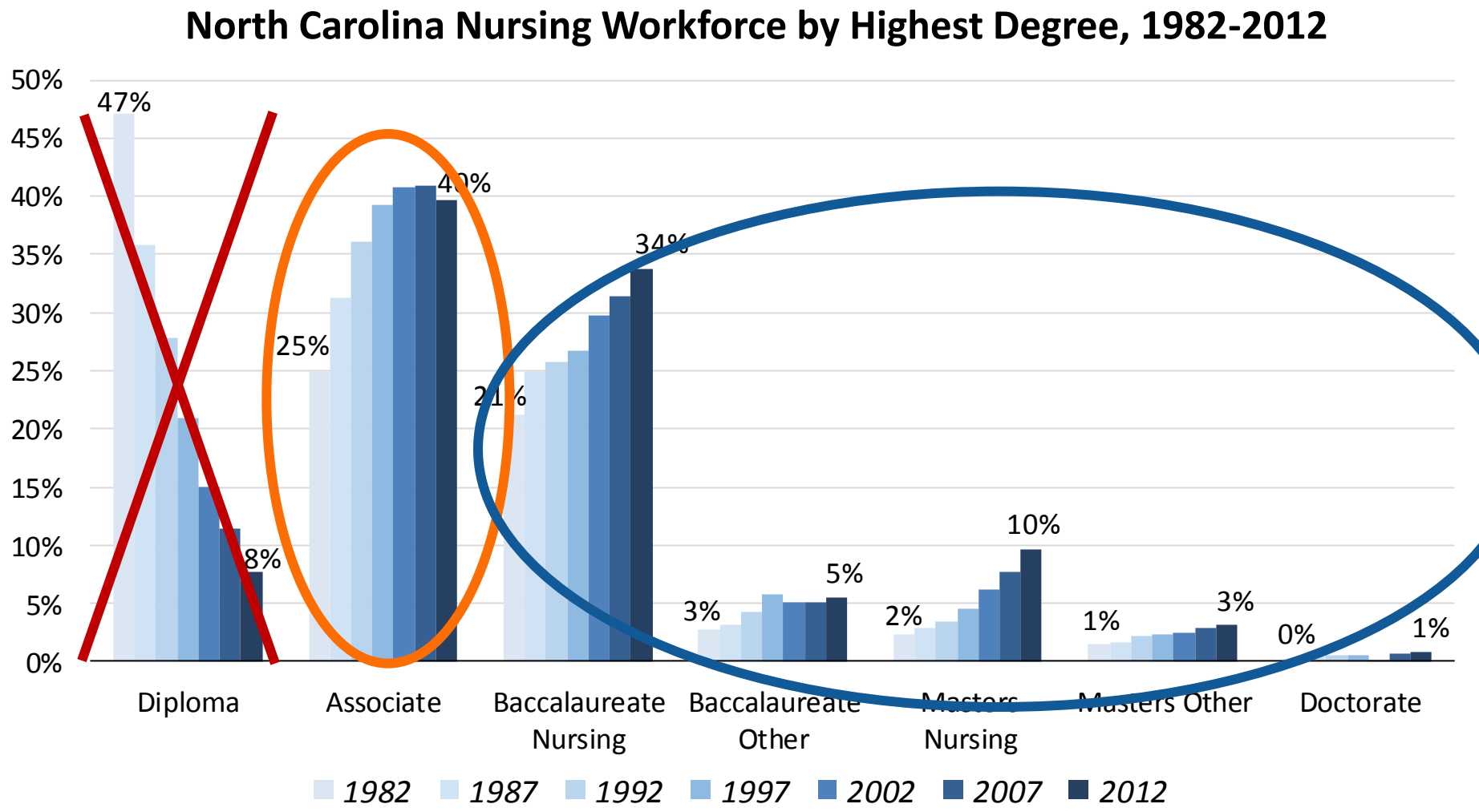
In honor of my Irish heritage and Shamrocks, this presentation has 3 parts

I will focus on educational challenges and opportunities facing North Carolina's:

- Current nursing workforce
- "Education mobility" nurses — those who entered workforce with ADN and have gone on to BSN or higher
- Future nursing workforce in a transformed system

The current workforce in North Carolina: how do ADN nurses differ from nurses with a baccalaureate or higher?

Highest Degree of North Carolina Nursing Workforce: 1982-2012



Note: Data include RNs who were actively practicing in North Carolina as of October 31 of the respective year. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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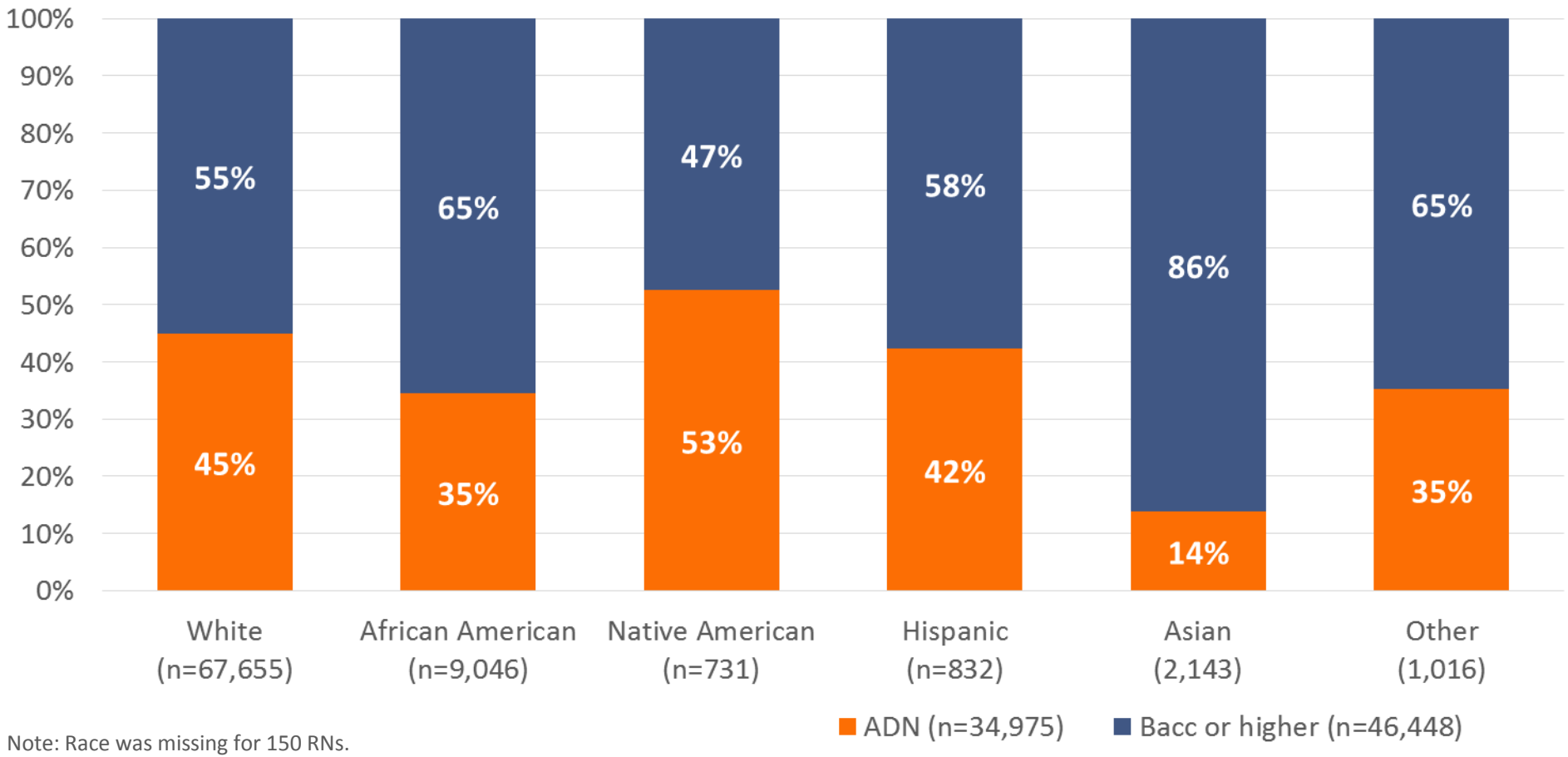
Our analytic sample

- 35,032 RNs with ADN as highest degree
- 46,541 with Baccalaureate or higher as highest degree

- *Sample excludes*
- 6,752 RNs with diploma as highest degree
- 8,897 RNs missing highest degree data

Asians, African Americans more likely to have baccalaureate or higher

North Carolina Nursing Workforce by Race/Ethnicity and Highest Degree, 2012



Note: Race was missing for 150 RNs.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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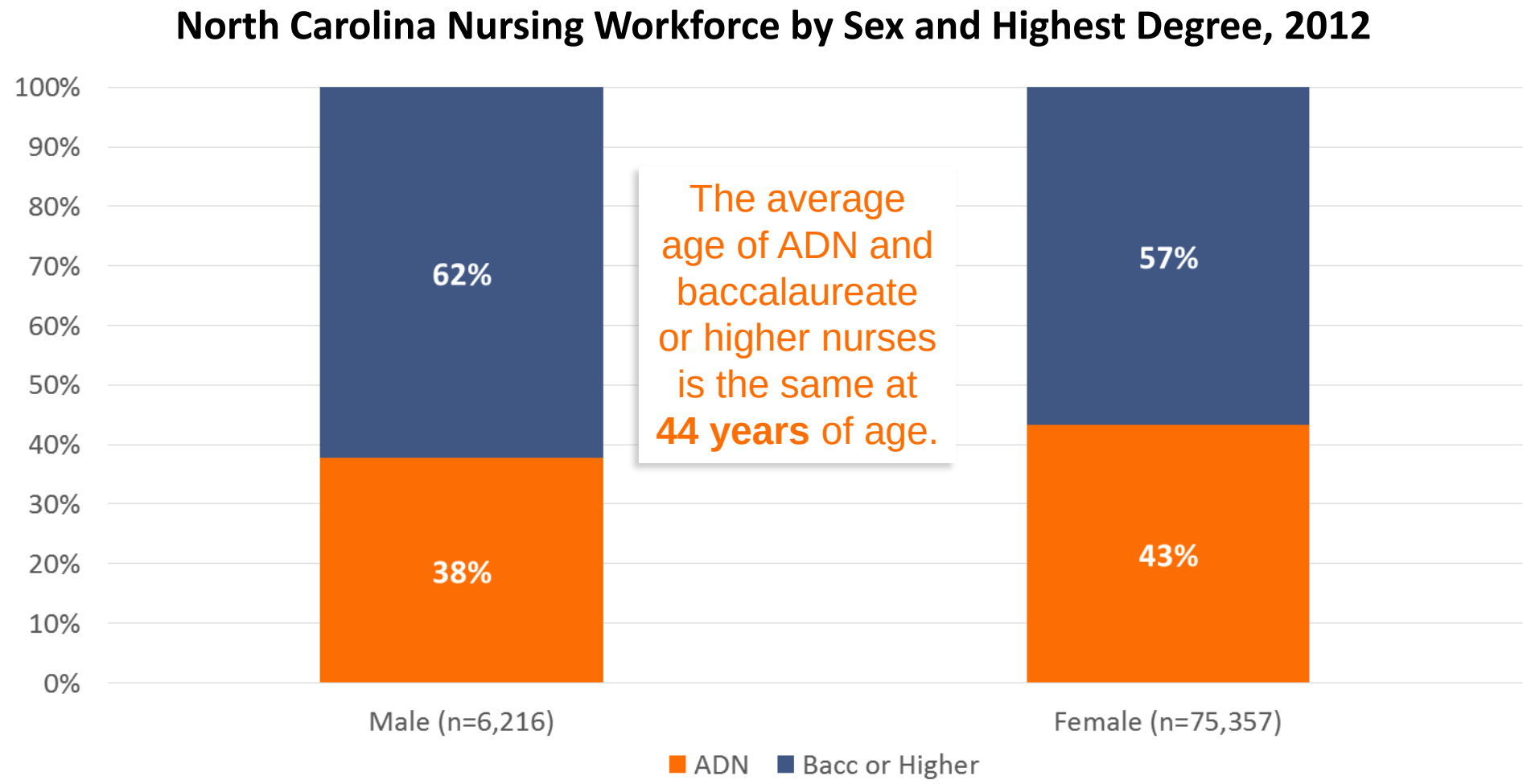
Male nurses more likely to have BSN



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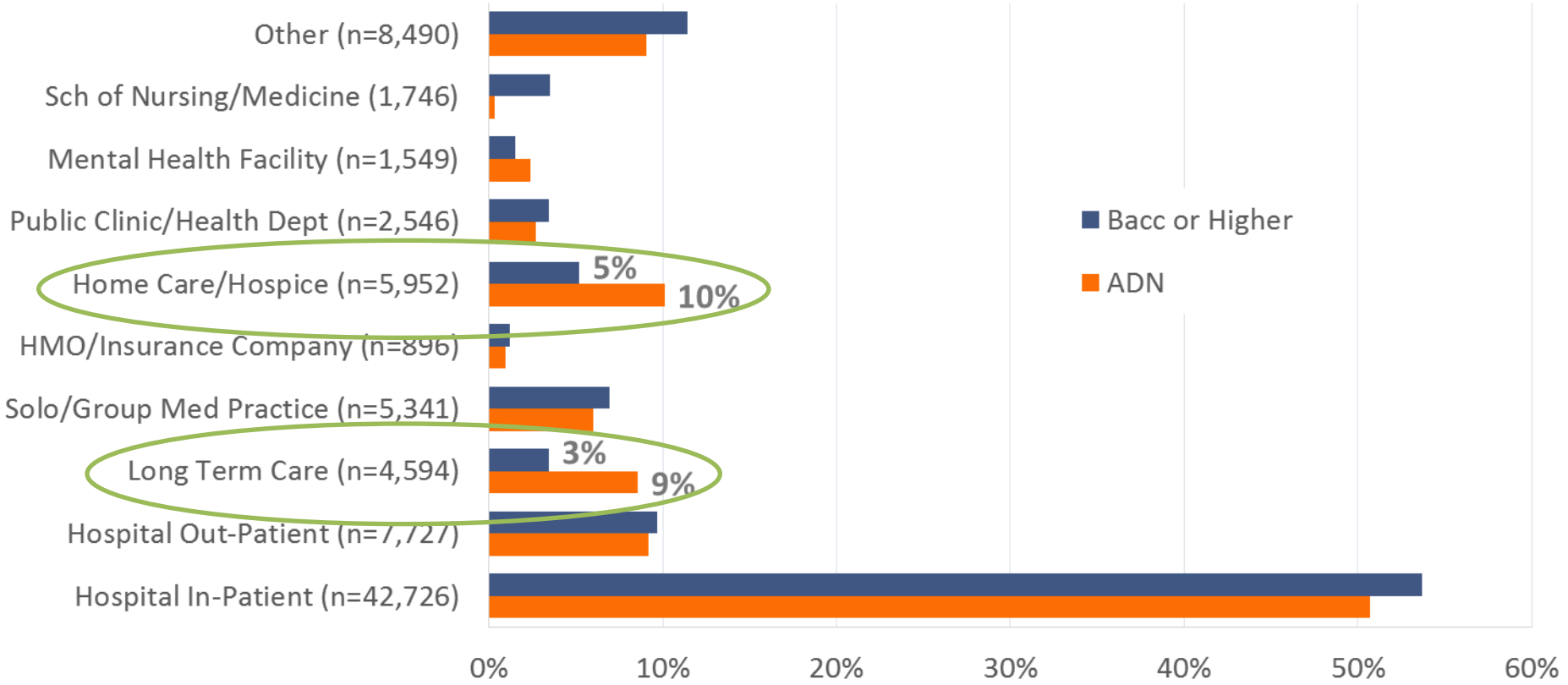
Most nurses work in hospitals but ADN nurses more likely to work in home care/hospice and long-term care

North Carolina Nursing Workforce by Employment Setting and Highest Degree, 2012



Note: Employment setting was missing for 6 RNs.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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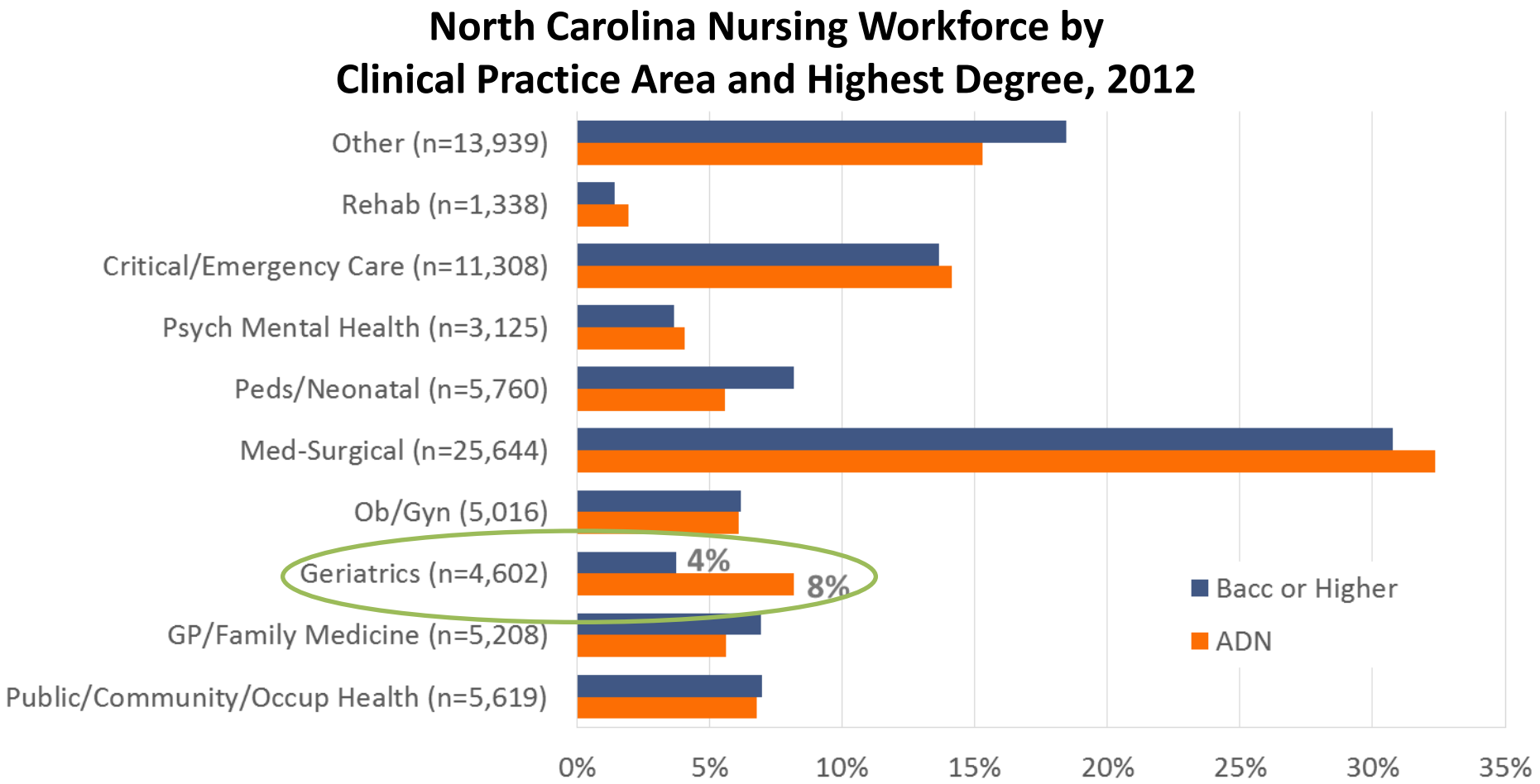
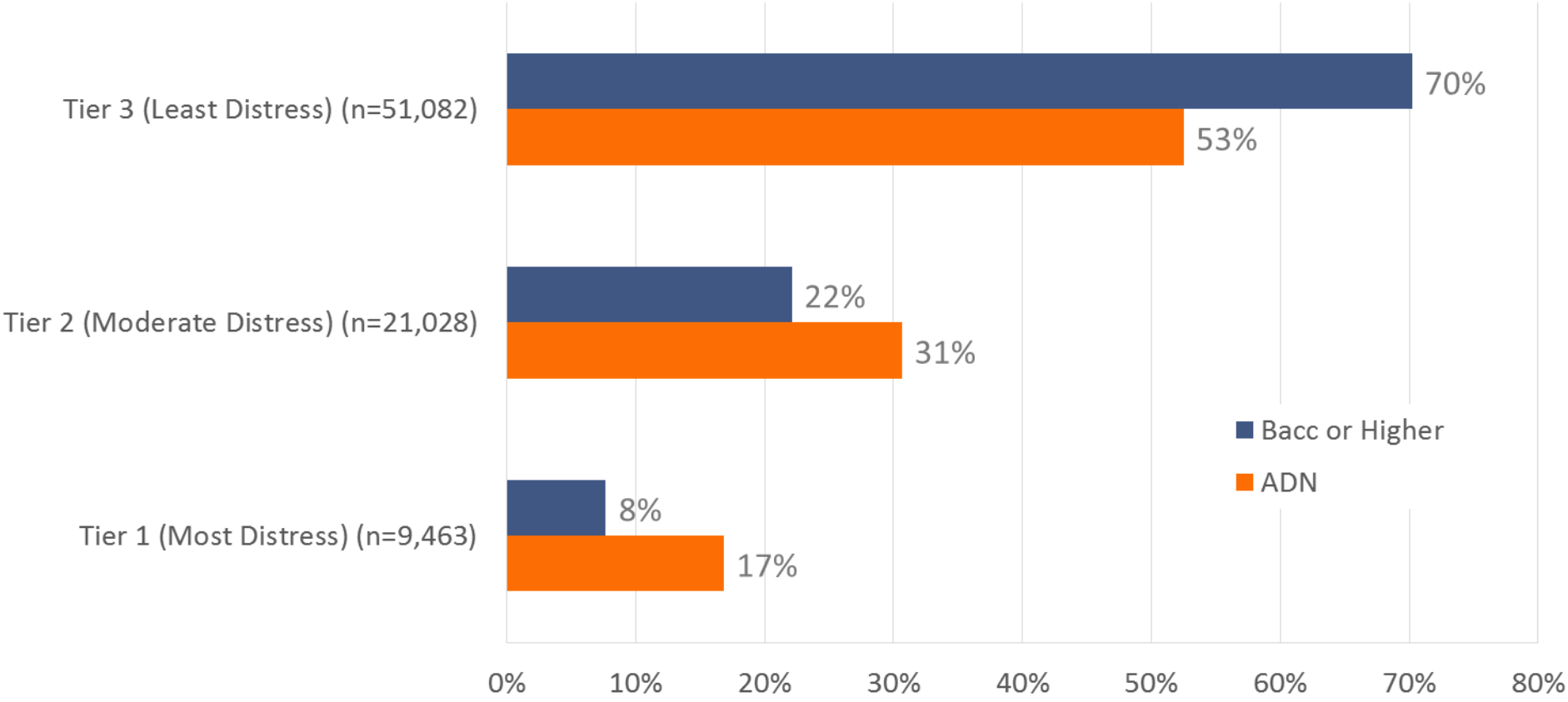
Similar distributions by clinical practice area but ADN nurses more likely to work in geriatrics



Note: Specialty was missing for 14 RNs.

ADN nurses twice as likely to work in most economically distressed (Tier 1) counties

North Carolina Nursing Workforce by Economic Tier and Highest Degree, 2012



Source for economic tiers: http://www.nccommerce.com/research-publications/incentive-reports/county-tier-designations. Retrieved 5/12/14.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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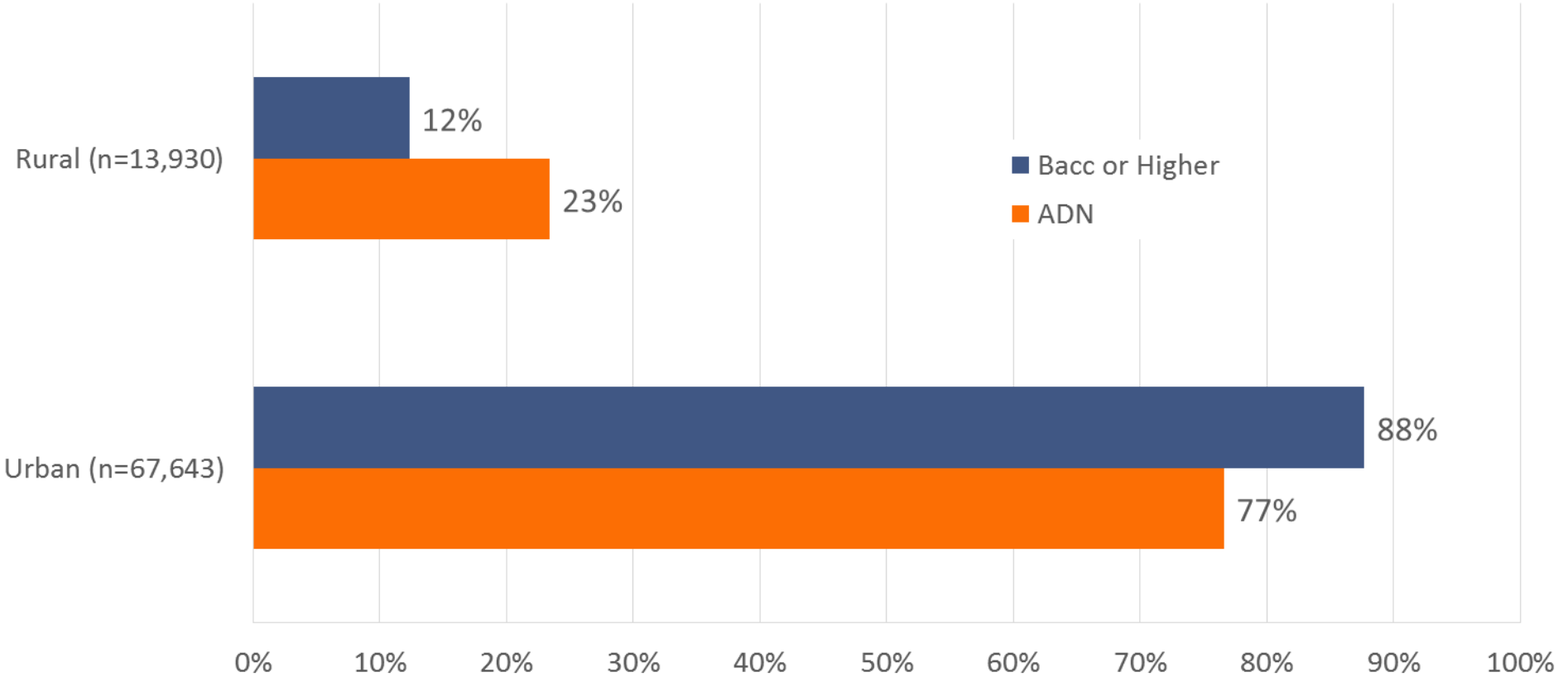
ADN nurses nearly twice as likely to work in rural counties

North Carolina Nursing Workforce by Rural Status and Highest Degree, 2012

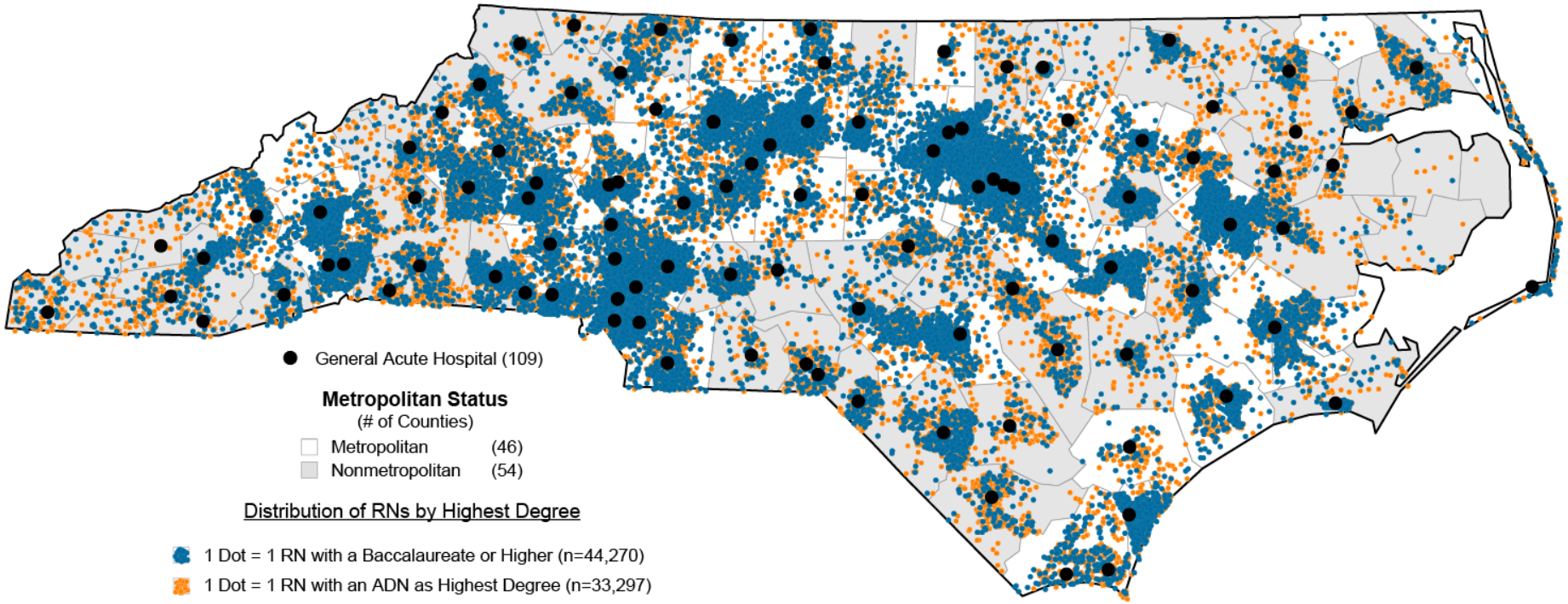


Rural source: US Census Bureau and Office of Management and Budget, March 2013. "Core Based Statistical Area" (CBSA) is the OMB's collective term for Metropolitan and Micropolitan Statistical areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

ADNs are better distributed across state while baccalaureate+ nurses cluster around hospitals

Distribution of ADNs and Baccalaureate or Higher RNs Actively Practicing in North Carolina in 2012



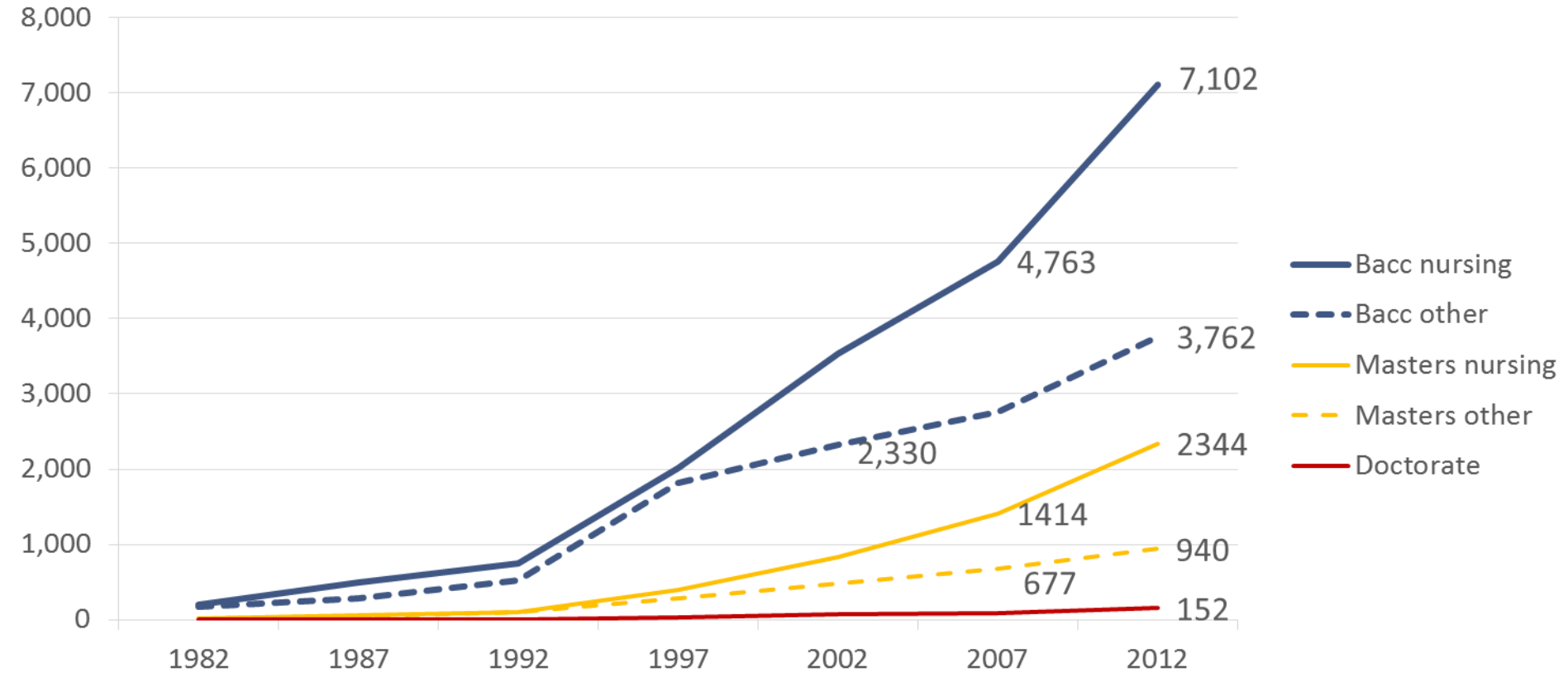
Note: Dots are scattered randomly within ZIP code areas. Data include RNs who were actively practicing in North Carolina who have an ADN as their highest degree or who have a BSN or higher as their highest degree. Data exclude 377 RNs with inadequate zip codes for mapping purposes.
Source: North Carolina Health Professions Data System, with data derived from the North Carolina Board of Nursing, 2012. Hospital locations derived from NC DHHS as of January 1, 2015 at http://www.ncdhhs.gov/dhsr/data/hllist.pdf and NCHA member hospital list at https://www.ncha.org/about/member-hospitals, retrieved 1/7/14.
Produced by: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Rural source: US Census Bureau and Office of Management and Budget, March 2013. "Core Based Statistical Area" (CBSA) is the OMB's collective term for Metropolitan and Micropolitan Statistical areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs.

Do nurses who entered the workforce with an ADN and have a baccalaureate or higher degree in nursing behave more like ADNs or baccalaureate+ nurses?

Number of nurses with ADN as entry degree and baccalaureate+ as highest degree has increased dramatically

Number of North Carolina Nurses Entering with ADN as Entry Degree Who Have Baccalaureate or Higher Degree, 1982-2012



Note: Missing data ranged from 0.5% in 1982 to 11.5% in 2007

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What might our workforce look like if all ADN nurses went on to higher nursing education?

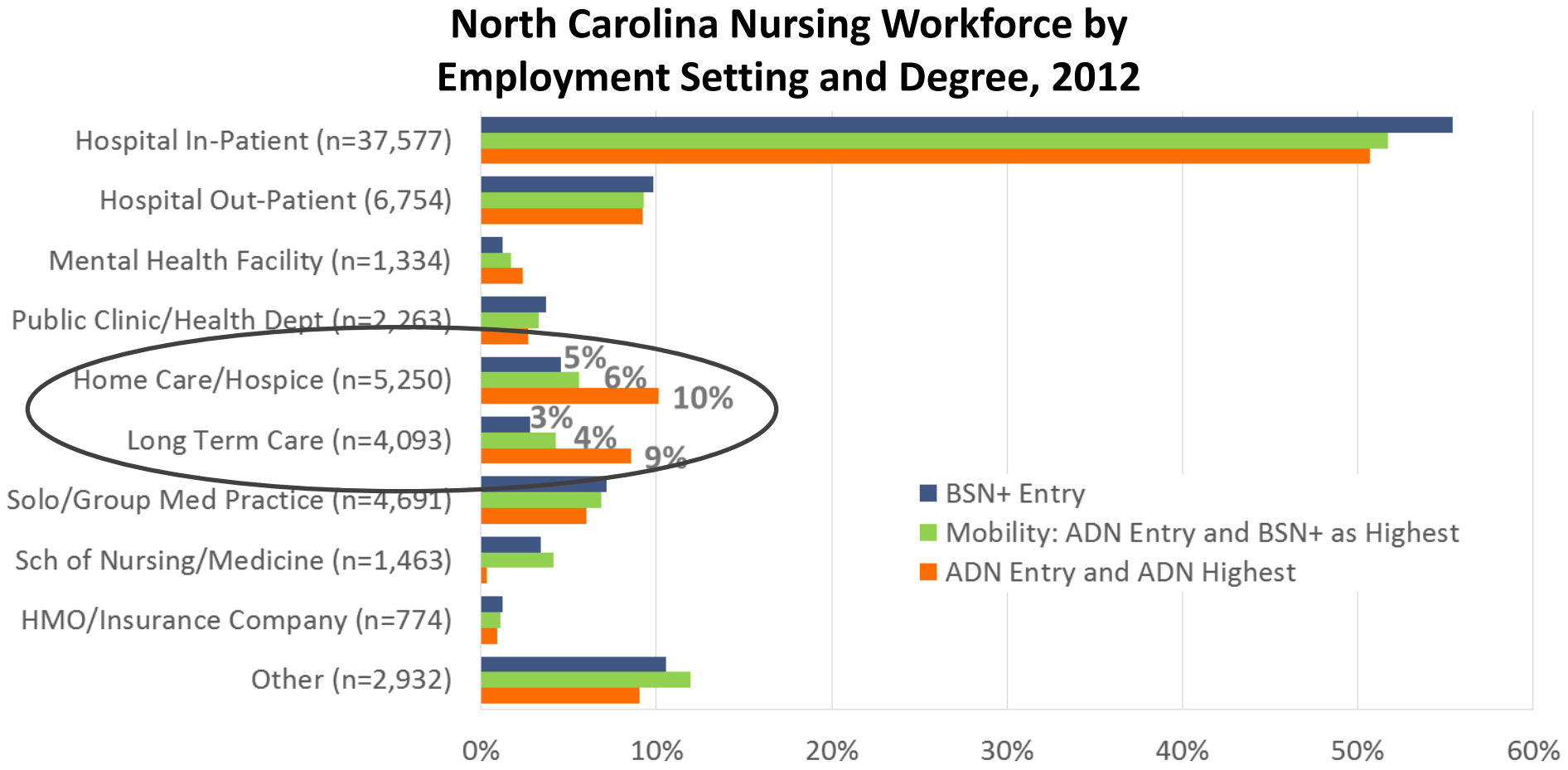
In 2012, 14,300 nurses had ADN for entry degree and baccalaureate or higher as highest degree:

- 9,516 nurses entered with ADN and have baccalaureate or higher ***in nursing*** as highest degree—the "education mobility" nurses
- 4,784 nurses entered with ADN and have baccalaureate or higher ***outside nursing***—the "career mobility" nurses

Our analysis compares:

- **The education mobility group**—the 9,516 nurses who went on to pursue additional nursing education
- **No education mobility group**—34,058 nurses who entered with ADN and still have ADN as highest degree
- **BSN+ entry group**—the 31,189 nurses who entered with a BSN (or higher)

Mobility nurses less likely to practice in home care/hospice and long-term care than ADN nurses without additional education



Note: Employment setting was missing for 3,420 RNs.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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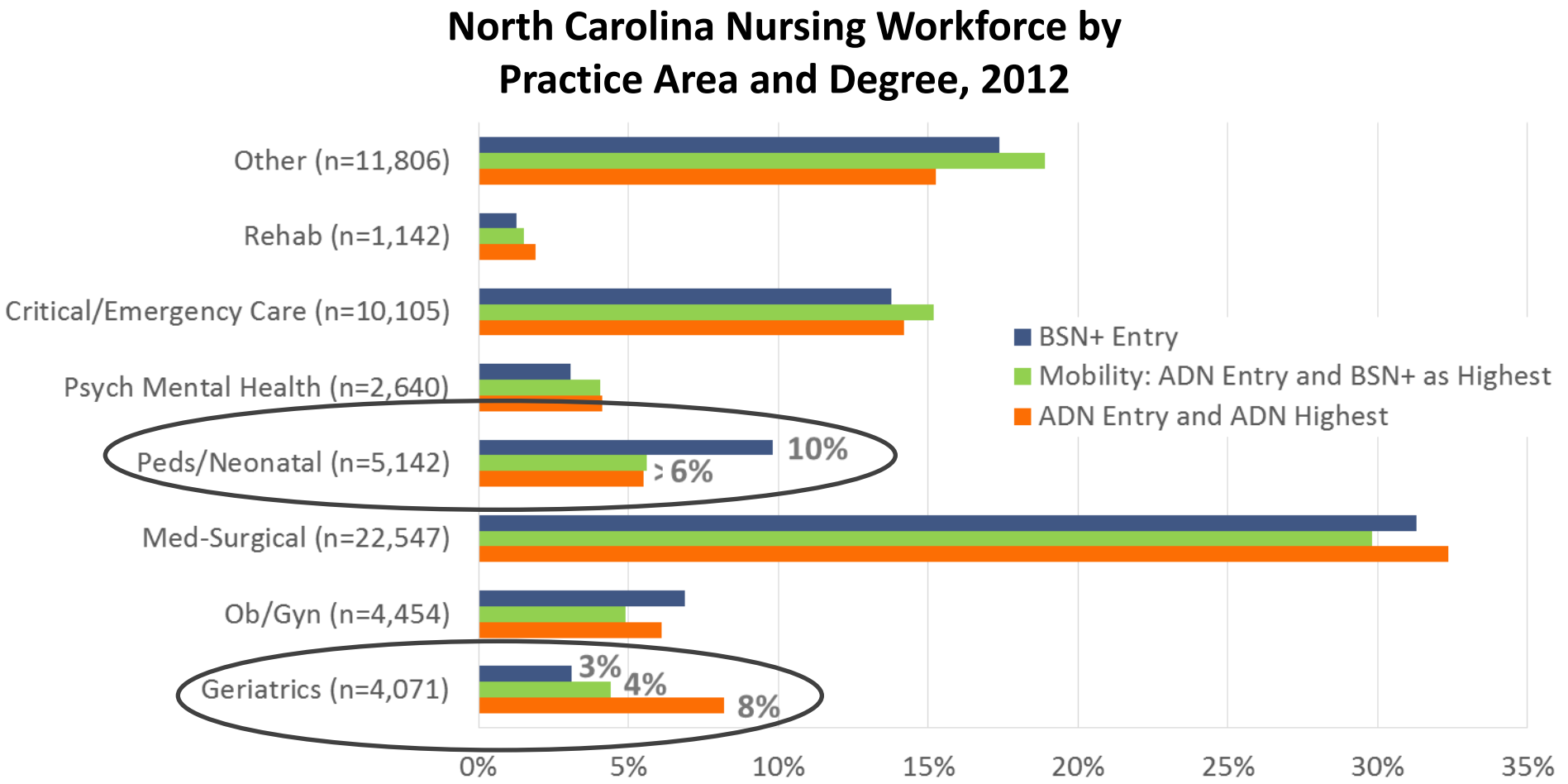
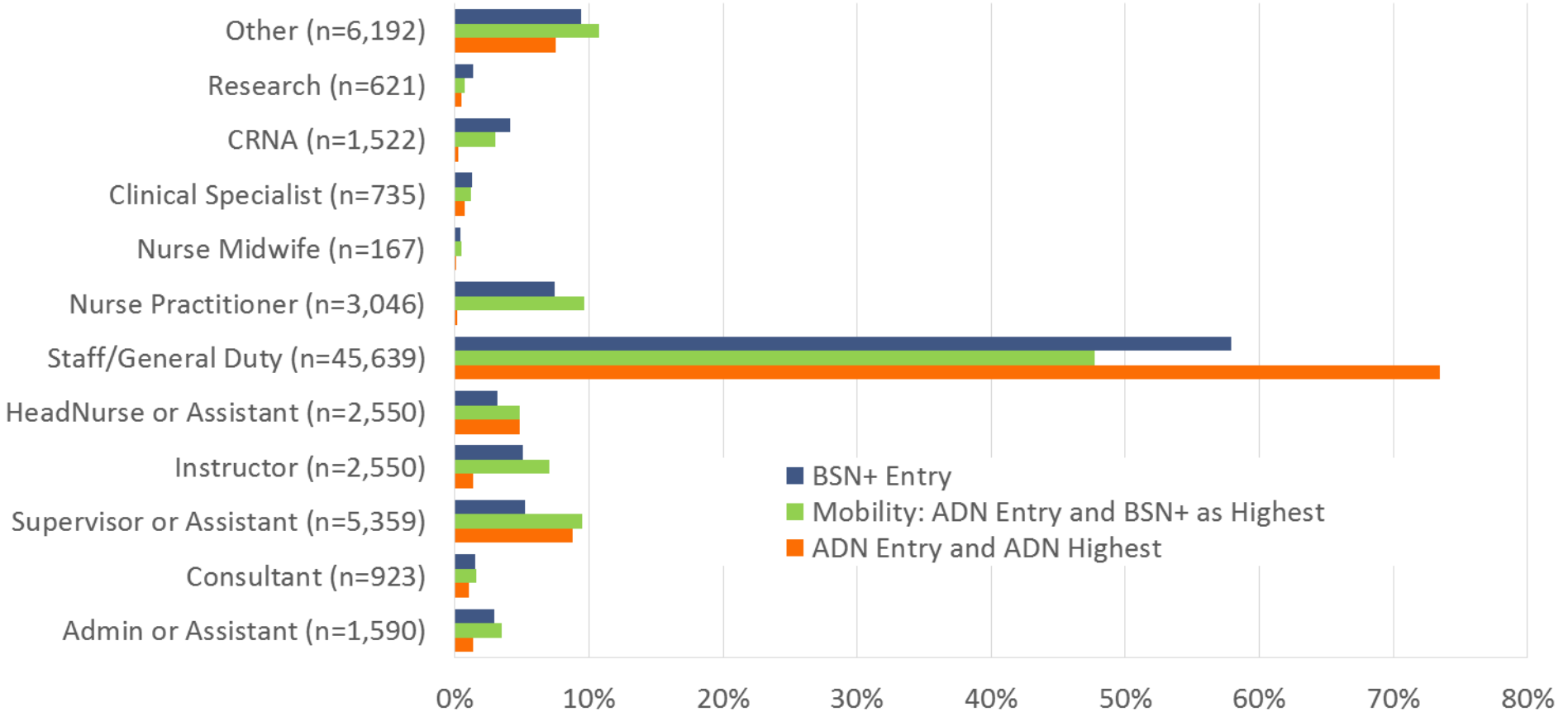
Mobility nurses less likely to practice in geriatrics than ADN nurses without additional education. Nurses with BSN+ at entry more likely to practice in pediatrics



Note: Specialty was missing for 3,428 RNs.

Mobility nurses less likely to practice as staff/general duty nurses

NC Nursing Workforce by Position Type and Degree, 2012



Note: Position type was missing for 3,417 RNs.

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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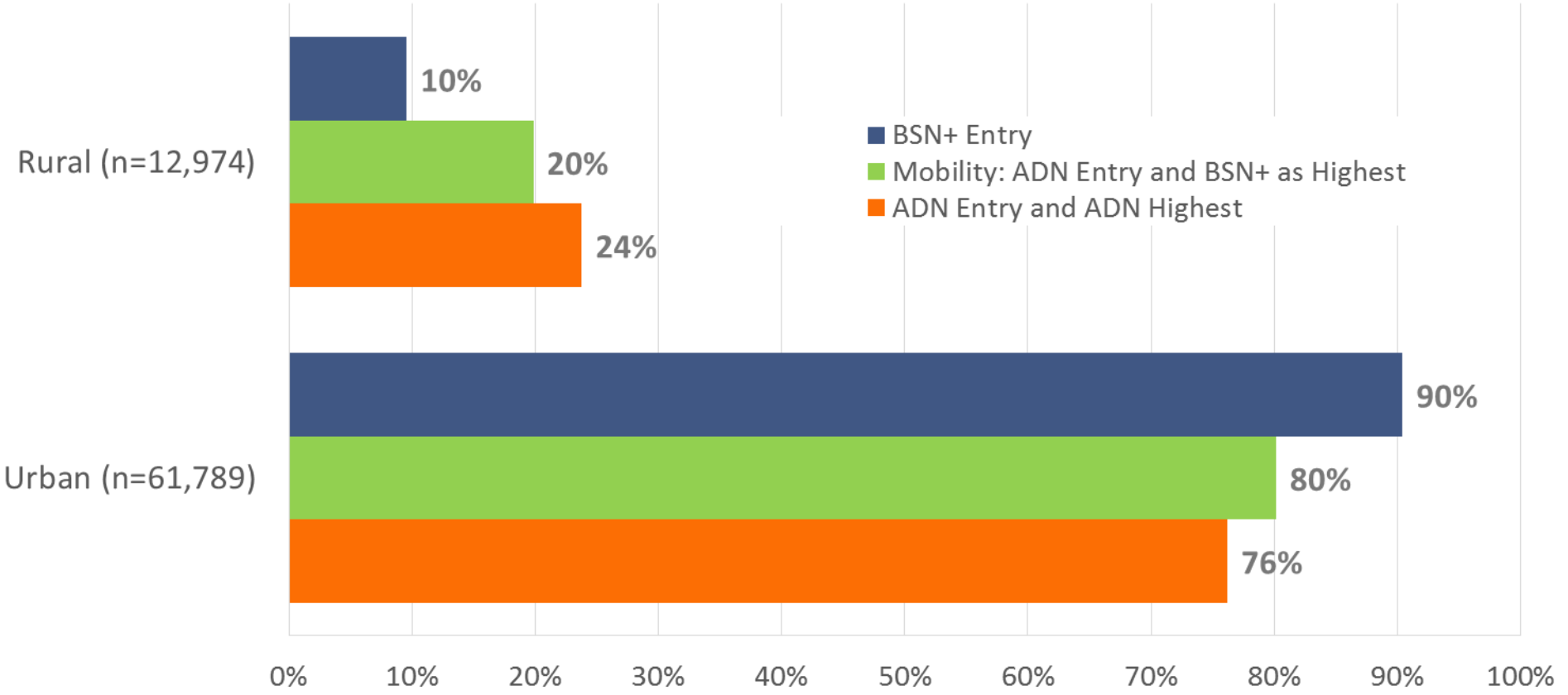
Mobility nurses twice as likely as BSN+ nurses to practice in rural counties

North Carolina Nursing Workforce by Rural/Urban Setting and Degree, 2012



Rural source: US Census Bureau and Office of Management and Budget, March 2013. "Core Based Statistical Area" (CBSA) is the OMB's collective term for Metropolitan and Micropolitan Statistical areas. Here, nonmetropolitan counties include micropolitan and counties outside of CBSAs.

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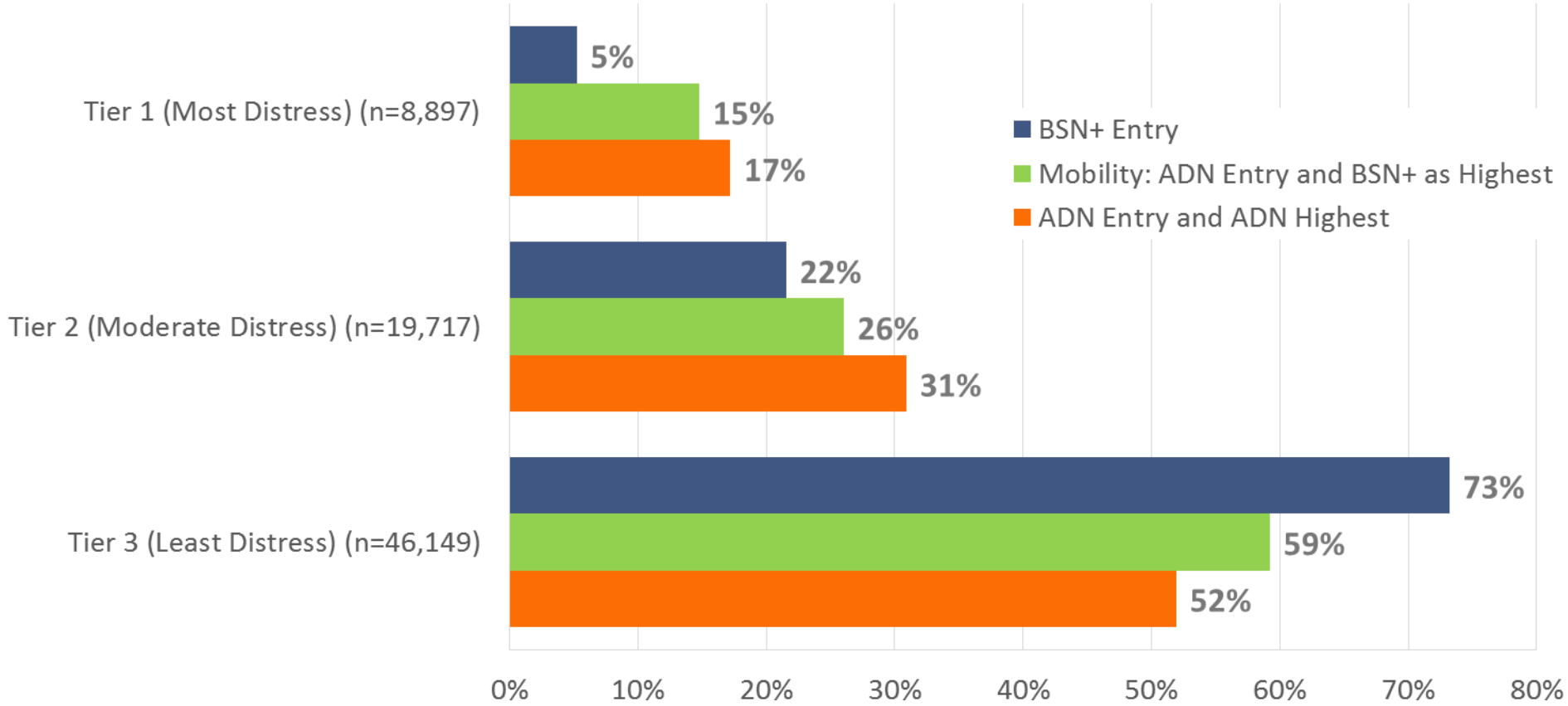
Mobility nurses 3 times more likely to practice in NC's most distressed counties compared to BSN entry nurses

NC Nursing Workforce by Economic Tier of Practice Location and Degree, 2012



Economic tier designations are from the North Carolina Department of Commerce: http://www.nccommerce.com/research-publications/incentive-reports/county-tier-designations

Note: Data include RNs who were actively practicing in North Carolina as of October 31, 2012. **Source**: North Carolina Health Professions Data System, with data derived from the NC Board of Nursing, 2012. **Produced by**: Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, UNC-CH.

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So … do mobility nurses behave more like ADNs or baccalaureate+ nurses? It depends

After seeking additional education, mobility nurses behave:

More like BSN+ nurses in terms of specialty and setting

- Less likely to practice in home care, hospice, long-term care and geriatrics

More like ADN nurses in terms of geographic dispersion. Compared to BSN entry nurses:

- Twice as likely to practice in rural
- Three times more likely to practice in NC's Tier 1 counties

Like neither group in terms of job title

- Less likely to be in staff/general duty positions

Implications for education

- Need more rotations outside of hospital—in home health, long-term care, hospice, public health and other community-based settings
- Continue to diffuse BSN+ education out to ADNs in rural and underserved areas
- There are over 8,000 ADNs practicing in rural counties who have not pursued additional education in nursing
- But it's not just a numbers game…..we need to think about new roles for nurses

The future nursing workforce in North Carolina: new roles in a transformed health system

The nursing shortage narrative…

- A “shortage narrative” exists—belief that growing, aging population with increasing chronic disease and expanded health insurance coverage will demand more care than can be provided by nursing workforce
- Federal nursing projections produced by the Health Resources and Services Administration (HRSA) in December 2014 suggest:
  - an oversupply of nurses nationally; and
  - a shortage of 12,900 nurses in North Carolina
- I agree with HRSA’s national projections
- I’m not convinced North Carolina will face a shortage

Our analyses suggest there won't be a shortage, but state faces more pressing challenges

- Thanks to the NC Board of Nursing, we have better data than the feds
- Our analyses suggest we do not face a nursing shortage now, nor are we likely to face one in the future
- Focusing on whether we have a nursing shortage distracts us from a more important question:

Will we have the right mix of nurses in the right locations, specialties and practice settings with the skills and competencies needed to meet the demands of a transformed health care system?

Let 1,000 flowers bloom: ongoing experiments in health system transformation

- Growing number of patient centered medical homes, accountable care organizations and integrated delivery systems
- CMS actively funding demonstration projects
- Secretary Burwell recently announced 50% of Medicare payments tied to value by 2018

New models of care: key characteristics

- Goal: provide patients with more comprehensive, accessible, coordinated and high quality care at lower costs
- Emphasis on primary, preventive and “upstream” care
- Care is integrated between:
  - medical sub-specialties, home health agencies and nursing homes
  - health care system and community-based social services
- EHRs used to monitor patient and population health—increased use of data for risk-stratification and hot spotting
- Interventions focused at both patient- and population-level
- Payment based on value, not volume

Intense focus on payment and care delivery models, less focus on workforce changes needed to staff new models

- Undertook study to synthesize evidence on workforce implications of new models of care
- Funded through HRSA Cooperative Agreement U81HP26495-01-00: Health Workforce Research Centers
- Collaborators: **Rachel Machta, BS**, PhD student at UNC-CH and **Jacqueline Halladay, MD MPH**, Associate Professor in the Department of Family Medicine at UNC-CH
- Our findings suggest need to shift from “old school” to “new school” workforce planning

Reframe #1: From numbers to content

Old School

- Will we have enough nurses?

New School

- Does the nursing workforce have the skills and competencies needed to function in new models of care?

How do nurses fit in new models of care?

- PCMHs and ACOs emphasize care coordination, population health management, patient education, health coaching, data analytics, patient engagement, quality improvement etc.
- Early evaluations suggest new models of care not showing expected outcomes
- Could be because: 1. education system not adequately preparing graduates to practice in new models of care and/or 2. existing workforce not retooled with new skills and competencies
- Workers with the right skills and training are integral to the ability of new models of care to constrain costs and improve care (Bodenheimer and Berry-Millett, 2009)

Reframe #2:
From provider type to provider role

Old School

- How many of x, y, z health professional type will we need?

New School

- What roles are needed and how can different skill mix configurations meet patients' needs in different geographies and practice settings?

Many new roles emerging to provide enhanced care functions

- May be filled by existing staff or new hires
- It's complicated:
  - Some roles have similar functions but different titles
  - Other roles have different functions but same name
  - Depending on setting and patient population, roles are often filled by different types of providers
- Two of most common:
  1. Roles that focus on coordinating care within health care system
  2. "Boundary spanning" roles that coordinate patient care between health care system and community-based settings

Care coordination within health care system is big and getting bigger

- Increased incentives to keep patients out of hospital
- In January 2015, Medicare began paying $42/month for managing care for patients with two or more chronic conditions
- Nurses most often taking on roles as care coordinators, case managers and transition specialists
- Nurses increasingly part of team with pharmacists, social workers, dieticians and others

Boundary spanning roles growing quickly

- Increasing number of staff focused on roles that shift focus from visit-based to population-based strategies
- Two examples:

Panel Managers	Health Coaches
Assume responsibility for patients between visits. Use EHRs and patient registries to identify and contact patients with unmet care needs. Often medical assistants but can be nurses or other staff	Improve patient knowledge about disease or medication and promote healthy behaviors. May be medical assistants, nurses, health educators, social workers, community health workers, pharmacists or other staff

Reframe #3: From focus on pipeline to focus on retooling existing workforce

Old School	• Redesigning curriculum for nursing students in the pipeline
New School	• Retooling the 100,000 nurses already employed in NC's health care system

Workforce already employed in the system will be the ones to transform care

- To date, most workforce policy focus has been on redesigning educational curriculum for students in the pipeline
- **But it is the nearly 100,000 nurses already in the system who will transform care**
- Rapid health system change requires not only producing “shiny new graduates” but also upgrading skills of existing workforce
- Need to identify and codify emerging health professional roles and then redesign pipeline and continuing education programs to train nurses to take on these roles

Workforce is shifting from acute to community settings

- Changes in payment policy and health system organization:
  - Shift from fee-for-service toward bundled care payments, risk- and value-based models
  - Fines that penalize hospitals for readmissions
- Will increasingly shift health care — *and the health care workforce* — from expensive inpatient settings to ambulatory, community and home-based settings
- But we generally educate nurses in inpatient settings
- Current workforce not adequately prepared to work in ambulatory settings and patients' homes

Existing workforce will also need more career flexibility

- Rapid and ongoing health system change will require a nursing workforce with “career flexibility”
- “Clinicians want well-defined career frameworks that provide flexibility to change roles and settings, develop new capabilities and alter their professional focus in response to the changing healthcare environment, the needs of patients and their own aspirations” (NHS England)
- Need better and seamless career ladders to allow nurses to retrain for deployment in different settings, services and patient populations

Reframe #4: From health workforce planning to planning for workforce for health

Old School

- Health workforce planning

New School

- Planning for a workforce for health

Planning to support a workforce for health, not a health workforce

Increased boundary spanning roles require:

- Workforce planning efforts that include workers who typically practice in community and home-based settings
- Embracing role of social workers, patient navigators, community health workers, home health workers, mental health workers, dieticians and other community-based workers
- Integrating health workforce and public health workforce planning
- Robert Wood Johnson funding 24 public health nurse leaders to work with state action coalitions to address population health and social determinants of health

Retooling:
How do we get there from here?

It's not just about retooling the workforce. We need to retool the system that supports the workforce: education, reimbursement and regulation needs to be more responsive to changes in front-line health care delivery

We need to better connect education to practice

> *"Revolutionary changes in the nature and form of health care delivery are reverberating backward into…education as leaders of the new practice organizations demand that the educational mission be responsive to their needs for practitioners who can work with teams in more flexible and changing organizations…"*

- But education system is lagging because it remains largely insulated from care delivery reform
- Need closer linkages between health care delivery and education systems—four year, two year and continuing education

Source: Ricketts T, Fraher E. Reconfiguring health workforce policy so that education, training, and actual delivery of care are closely connected. *Health Aff* (Millwood). 2013 Nov;32(11):1874-80.

On education side: redesign curriculum to prepare nursing workforce for new roles

- Need to redesign education system so nurses can flexibly gain new skills and competencies
- Training must be convenient – timing, location, and financial incentives must be taken into consideration
- Need to prepare faculty to teach new roles and functions
- Clinical rotations need to include “purposeful exposure” to high-performing teams

Source: Ladden et al. The Emerging Primary Care Workforce. Preliminary Observations from the Primary Care Team: Learning from Effective Ambulatory Practices Project”. Academic Medicine; 1013, 88(12): 1830-1835.

On practice side: redesign human resource infrastructure to support new roles

- Need to minimize role confusion by clearly defining and training for new functions
- Job descriptions have to be rewritten or created
- Work flows have to be redesigned
- Lack of standardized training and funds to support training is big obstacle
- Existing staff won't delegate or share roles if don't trust other staff members are competent
- Time spent training is not spent on billable services

Regulatory system needs to be restructured

> *"The workforce innovations needed to implement ACA programs require an adaptable regulatory system capable of evolving with the health care environment. The health profession regulation system in place today does not have the flexibility to support change."*

To create a more dynamic regulatory system, we need:

- to develop evidence to support regulatory changes, especially for new roles
- better evaluation of pilot workforce interventions to understand if interventions improve health, lower costs and enhance satisfaction
- to establish a national clearinghouse to provide up-to-date and reliable information about scope of practice changes in other states

Source: Dower C, Moore J, Langelier M. It is time to restructure health professions scope-of-practice regulations to remove barriers to care. *Health Aff* (Millwood). 2013 Nov;32(11)

Who is going to pay for all this retooling we need to do?

- Adequate and sustainable payment models to retool and redeploy the workforce are lacking
- Many workforce innovations are supported by one-time funds. If payment models don't change rapidly enough, will these interventions be sustainable?
- 1,000 flowers are blooming but are adequate dollars available to conduct research and evaluations necessary to develop evidence base needed to support workforce redesign?

Why the nursing workforce is critical to health system transformation

- With over 97,000 nurses in active practice, nursing is **by far** largest licensed health profession (4x as many nurses as physicians)
- Nursing care linked to quality and satisfaction measures that will increasingly be tied to value-based payments
- Nurses provide whole-person care across health and community based settings
- Nurses are the ultimate “flexible” workforce taking on new roles in transformed health system

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