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Campaign for Action

Robert Wood Johnson Foundation

AARP
Real Possibilities

Assessing Progress on Increasing Diversity of the Nursing Workforce Using Existing Sources of Data

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Today's Webinar

- Learn how to find and use facts and statistics to assess and track the diversity within your states' nursing workforce and among graduates of nursing programs
- Learn how to develop a “diversity ratio”: comparing diversity among nurses in each state to the state's population. .



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- The Three Key Sources of Diversity Data
- The Diversity Index
- Measuring Change in Diversity at the National Level
2003-14
- State Level Analysis

Three Key Sources of Data

- Integrated Post-secondary Education Data System (IPEDS), US Education Department
- American Association of Colleges of Nursing (AACN)
- American Community Survey (ACS)

IPEDs Data

- IPEDS has data from almost every educational program in the nation
- This includes annual data on the number of graduates by school, by discipline/concentration, by degree type/level by race/ethnicity and by sex (Data on entrants too but not broken out by discipline/concentration)
- Annual data on nurse graduates receiving ADN and BSN. IPEDS BSN data does not separate out generic BSNs from those who have already received an ADN or diploma in nursing
- Data reported for each year and compiled for 3 year and 5 year periods
- For state level analysis, we use the three years dataset (2010/11 – 2012/13) to increase statistical strength of the results
- For national analysis we exclude US territories including Puerto Rico which has a significant number of Latinos and Hispanics

How to Use IPEDS Data

- Data files come from: <https://nces.ed.gov/ipeds/datacenter/>
- Click “DOWNLOAD SURVEY DATA FILE” on the left
- Click “provisional release” and “Continue”
- Using the drop down menus select the year of interest and “Institutional Characteristics”, then click on “Continue”.
- Download Stata data file named “HDXXXX_STATA” (it should be the first file listed, where XXXX is the year)
- Repeat step 1 to 4, but choose “Completions” rather than “Institutional Characteristics” and download Stata data file named “CXXXX_A_STATA”
- Merge two provisional released data together
- Stata code available from: **XXXXXXXXXXXXXXXXXXXXXXXXXXXX**

- Annual data on BSN graduates from surveys; separate data on generic BSN grads and RN to BSN grads
- Includes between 85% and 90% of actual graduates
- Includes data on race/ethnicity
- Publishes national data annually
- State and institution level can be purchased
- Publically available national data includes Puerto Rico which adds many Latino/Hispanic graduates

American Community Survey (ACS)

- National representative sample survey; about 1% of the nation every year. Best source of data on pop in state
- Conducted by US Census Bureau
- Nationally, the annual survey includes about 30,000 RNs
- Smaller states may need to use 3 or 5 year files to have an adequate sampling of nurses in state
- Use ACS to calculate percent of practicing nurses who are minorities
- Compare diversity of population from ACS to diversity of practicing nurses and nursing graduates

How to Use the ACS Data

- Available from: <https://usa.ipums.org/usa/>
 1. Open an account.
 2. Login in. Click “Select data”. Click “Person”. Select “Race, Ethnicity and Nativity” category. Select “RACE”, “HISPAN”. Then under the category “Demographic”, select “SEX” and “AGE”.
 3. Click “Household”, under “Geographic” select “STATEFIP”.
 4. After selecting variables, click “select sample”. When the selection is done, click “Submit sample selection” on the bottom of the page.
 5. A link will be sent to the registered email address after couple minutes. Using the link, download the personalized dataset into local computer.
 6. Read data into Stata. Code available from: **XXXXXXXXXXXXXXXXXXXXXXXXXX**

Cautions in Using the Data

- With IPEDS need to define which RN graduates you want to include in the analysis; file has numerous degree categories/names. We use CIP codes
- For ACS, we use the diversity of the population age 20 to 40 as the comparison unit; for consistency across states, we recommend using 20 to 40
- The AACN data includes between 85% and 90% of the graduates; this could be less at a state or local level and could be less representative

Diversity Index: Compares Diversity of Grads to Diversity of Pop Age 20 to 40

- Diversity of graduates: calculate percentage of graduates by race/ethnicity by type of degree awarded from IPEDS and/or AACN data
- Determine diversity of population for state or nation using ACS; calculate percentage by race/ethnicity
- We use diversity of population age 20 to 40 from 2013 ACS as a comparison for nursing graduates
- Divide diversity of graduates for each degree level by diversity of population by race/ethnicity

Example of Diversity Index: California BSNs: African American Ratio, 2013

- Total BSN Grads in CA: 16,658
- African American (AA) Grads in CA: 806
- Percent of grads that were African American: 4.84%

- Total population age 20 to 40 in CA: 11,496,970
- AA Age 20 to 40 in CA: 683,149
- Percent of population in CA 20 to 40 that were AA: 5.94%

- Diversity Index for BSNs in CA: 0.81 (4.84/5.94)

**Example of Diversity Index:
Maine BSNs: Hispanic Ratio, 2013**

Total BSN Grads in ME: 1342

Hispanic Grads in ME: 15

Percent of grads that were Hispanic: 1.12%

Total population age 20 to 40 in ME: 316,037

Hispanic Age 20 to 40 in ME: 4610

Percent of pop in ME 20 to 40 that were Hispanic: 1.46%

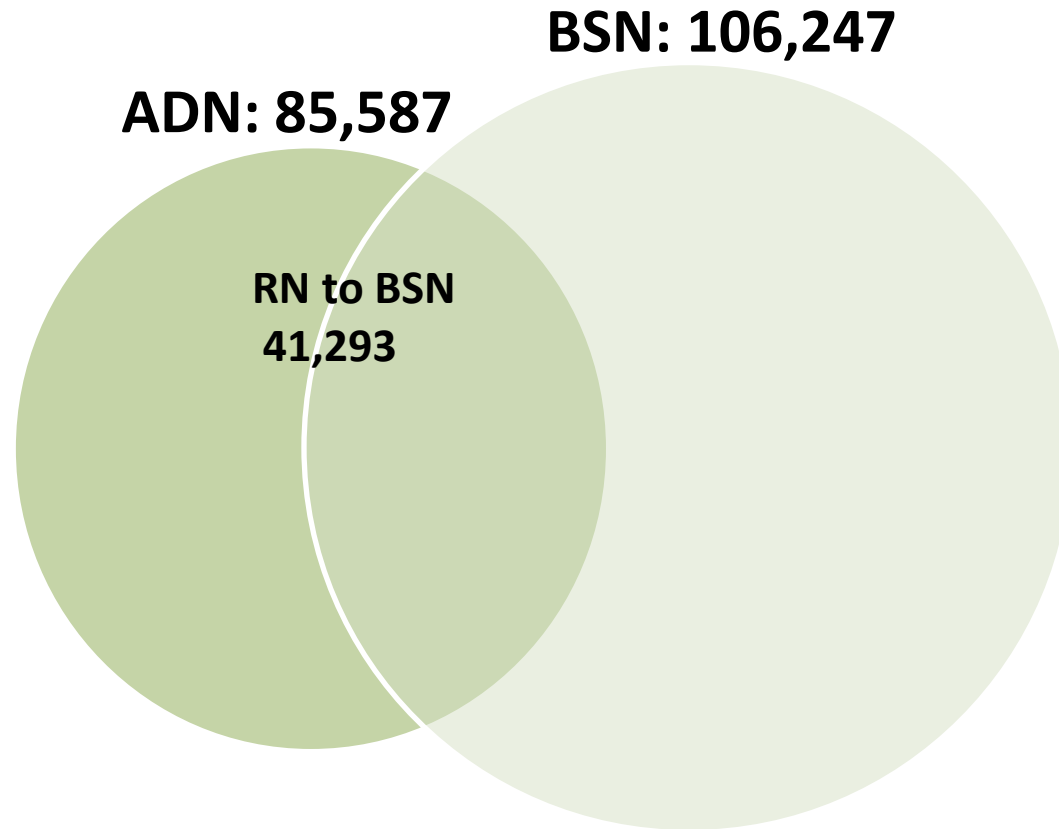
Diversity Index for BSNs in ME: 0.77 (1.12/1.46)

MEASURING CHANGES IN DIVERSITY AT THE NATIONAL LEVEL 2004 - 2013

Extent of Progress Depends on How Your
Measure Progress

Nursing Degrees in 2013

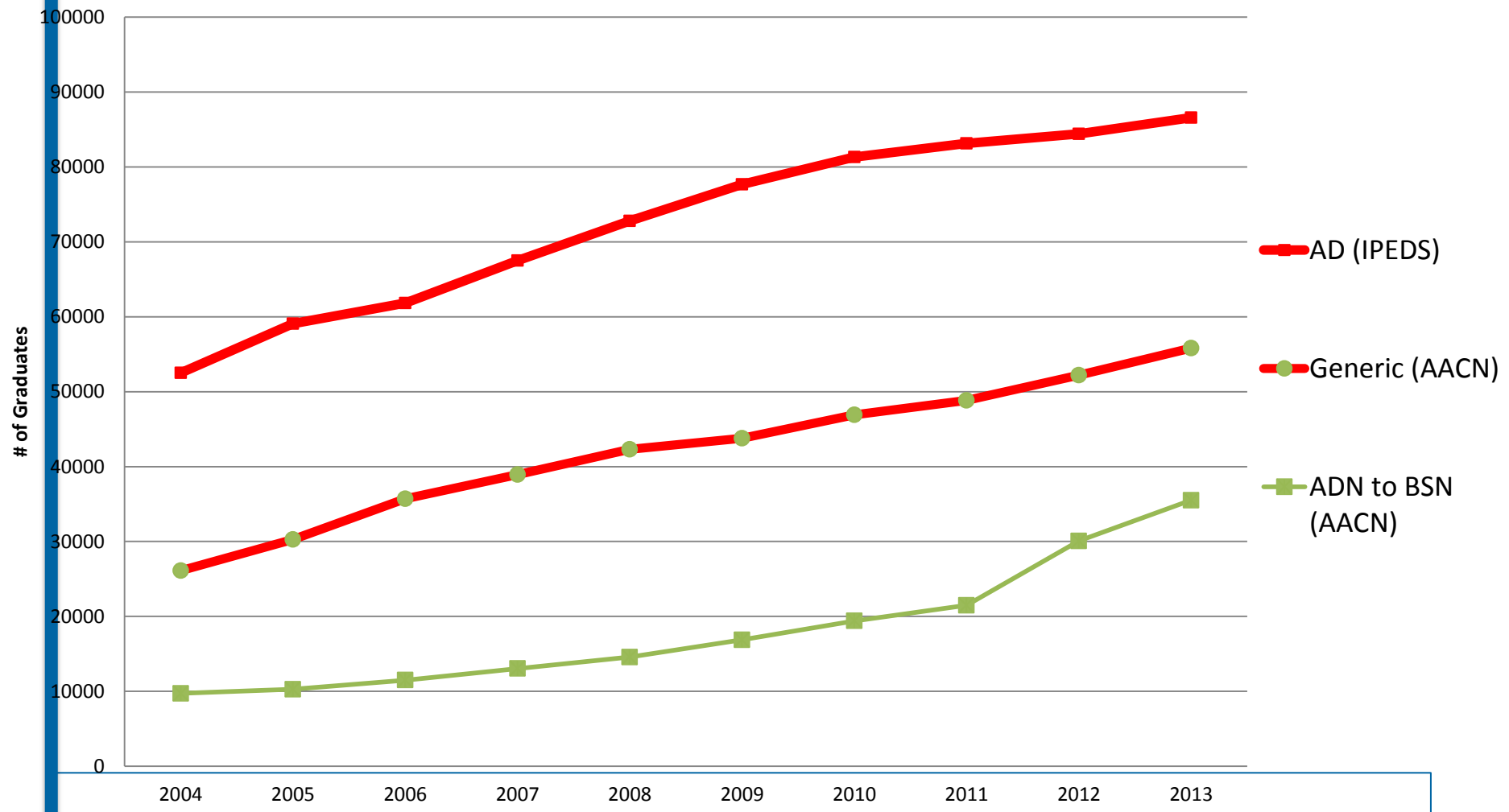
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ADN and BSN Numbers from IPEDs
RN to BSN from AACN adjusted for non-respondents

Annual NUMBER of ADN, Generic BSN and RN to BSN Graduates, 2004-2013

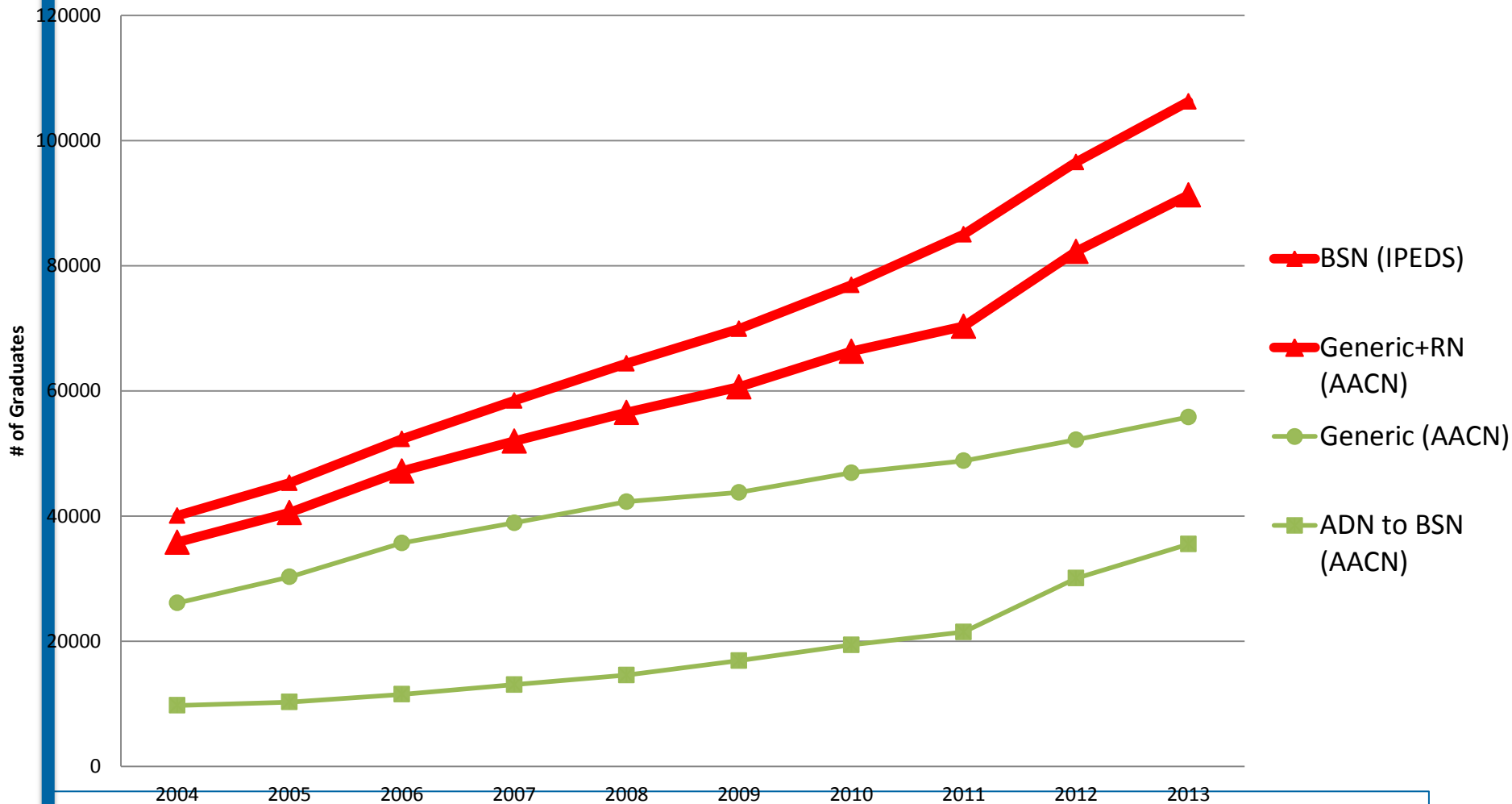
New entrants into nursing (in red)



Annual Number of ADN, Generic BSN and RN to BSN Graduates, 2004-2013

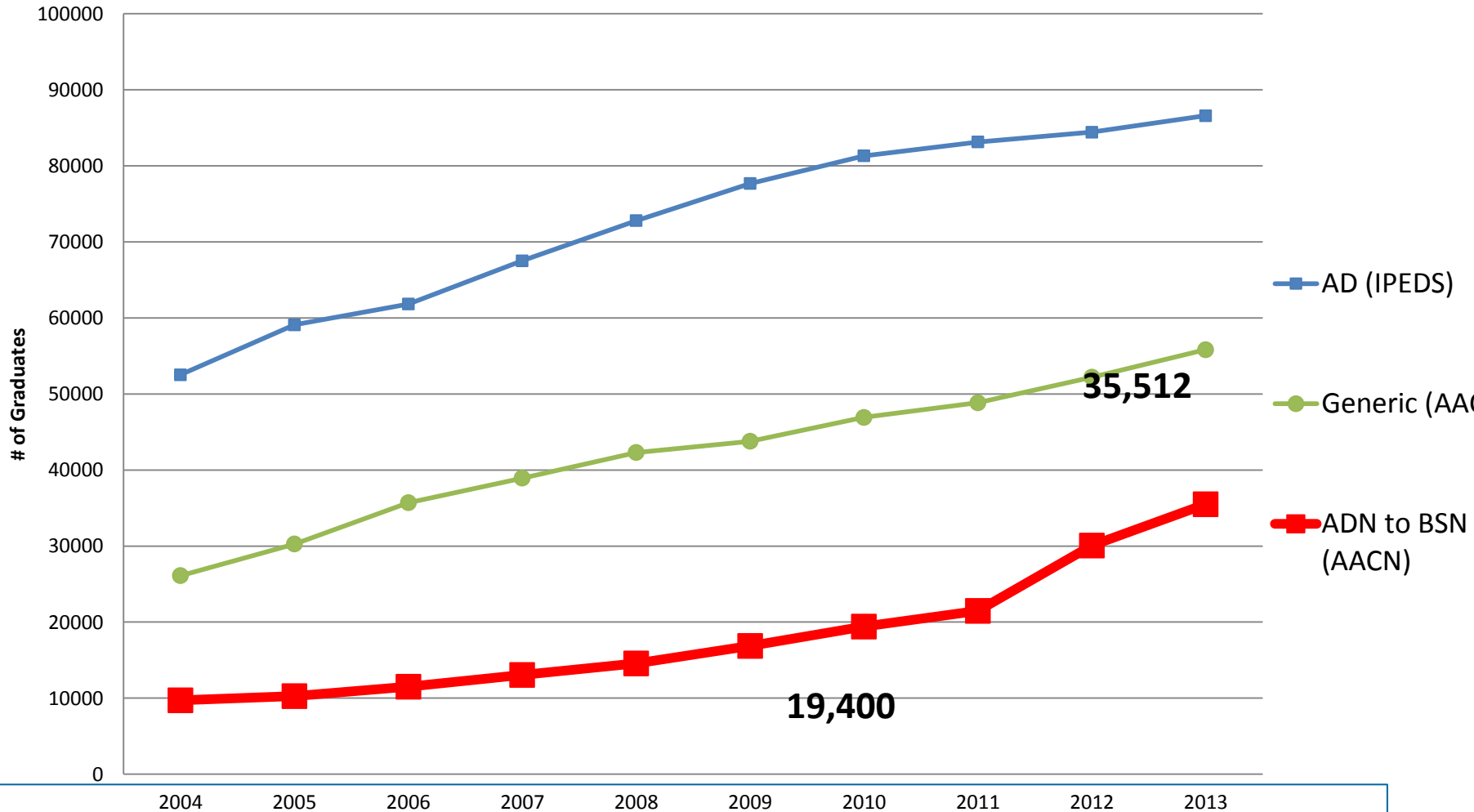
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Difference Between IPEDS and AACN

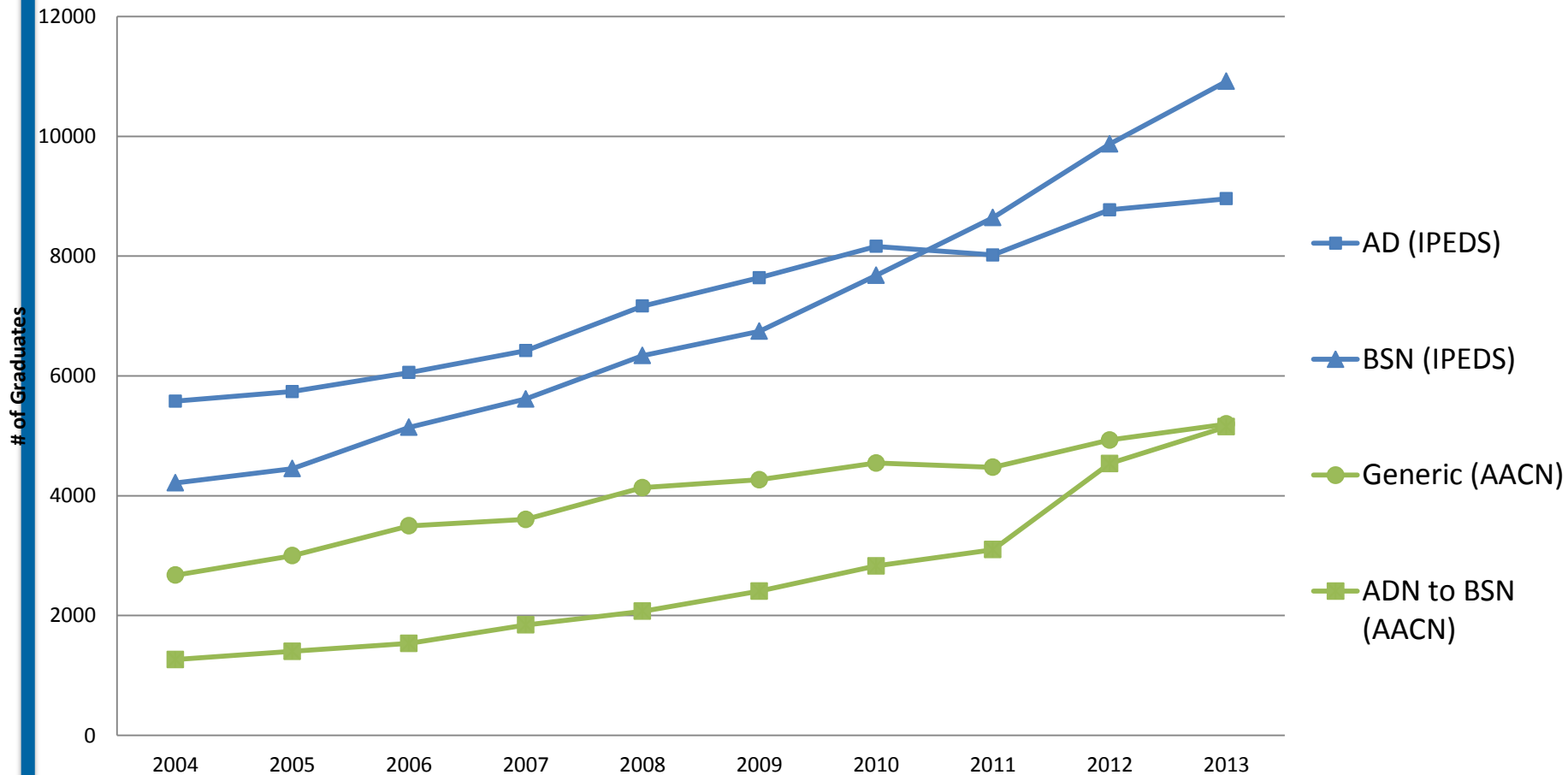


Annual Number of ADN, Generic BSN and RN to BSN Graduates, 2004-2013

Growth of RN to BSN Degrees

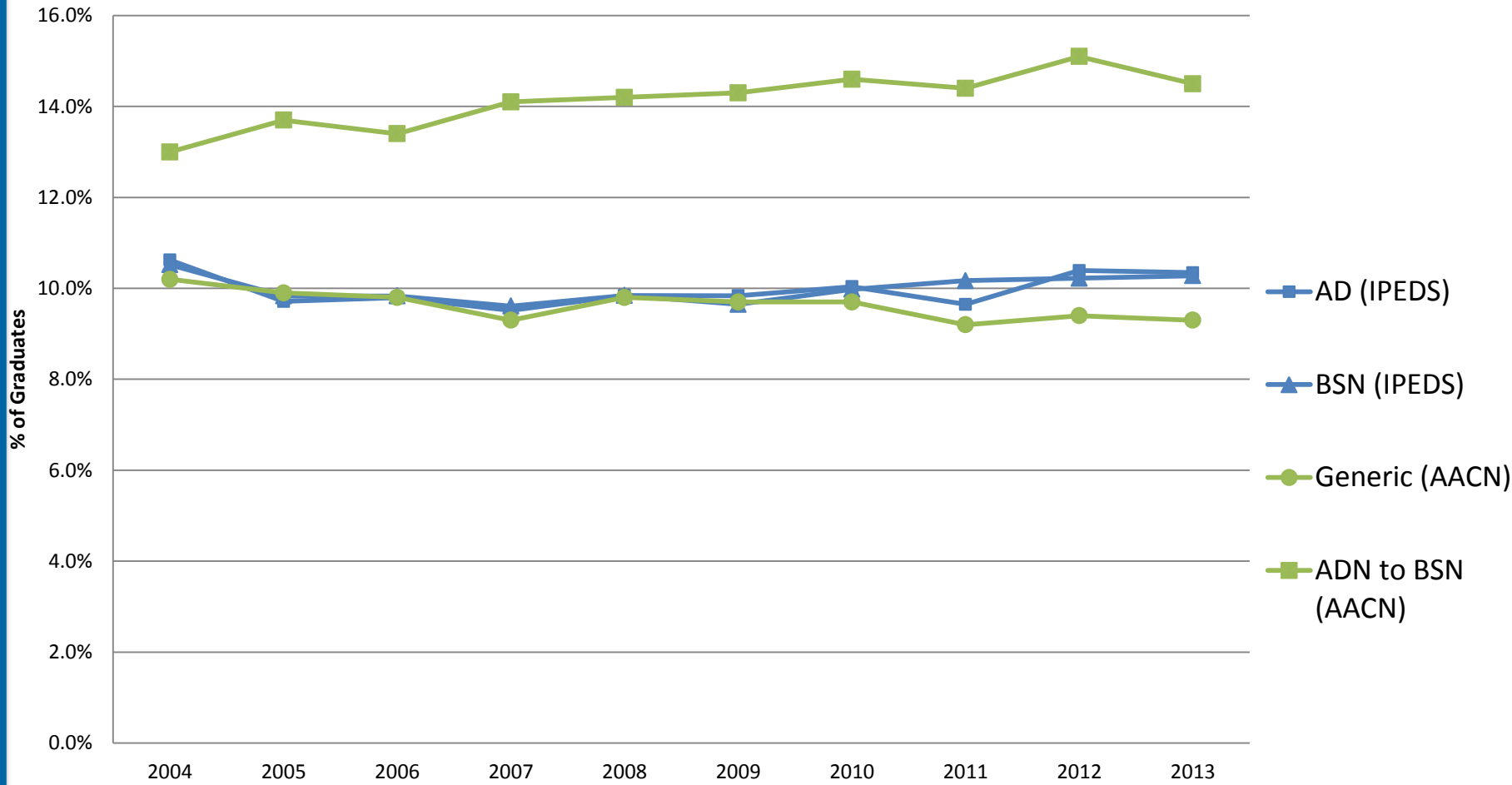


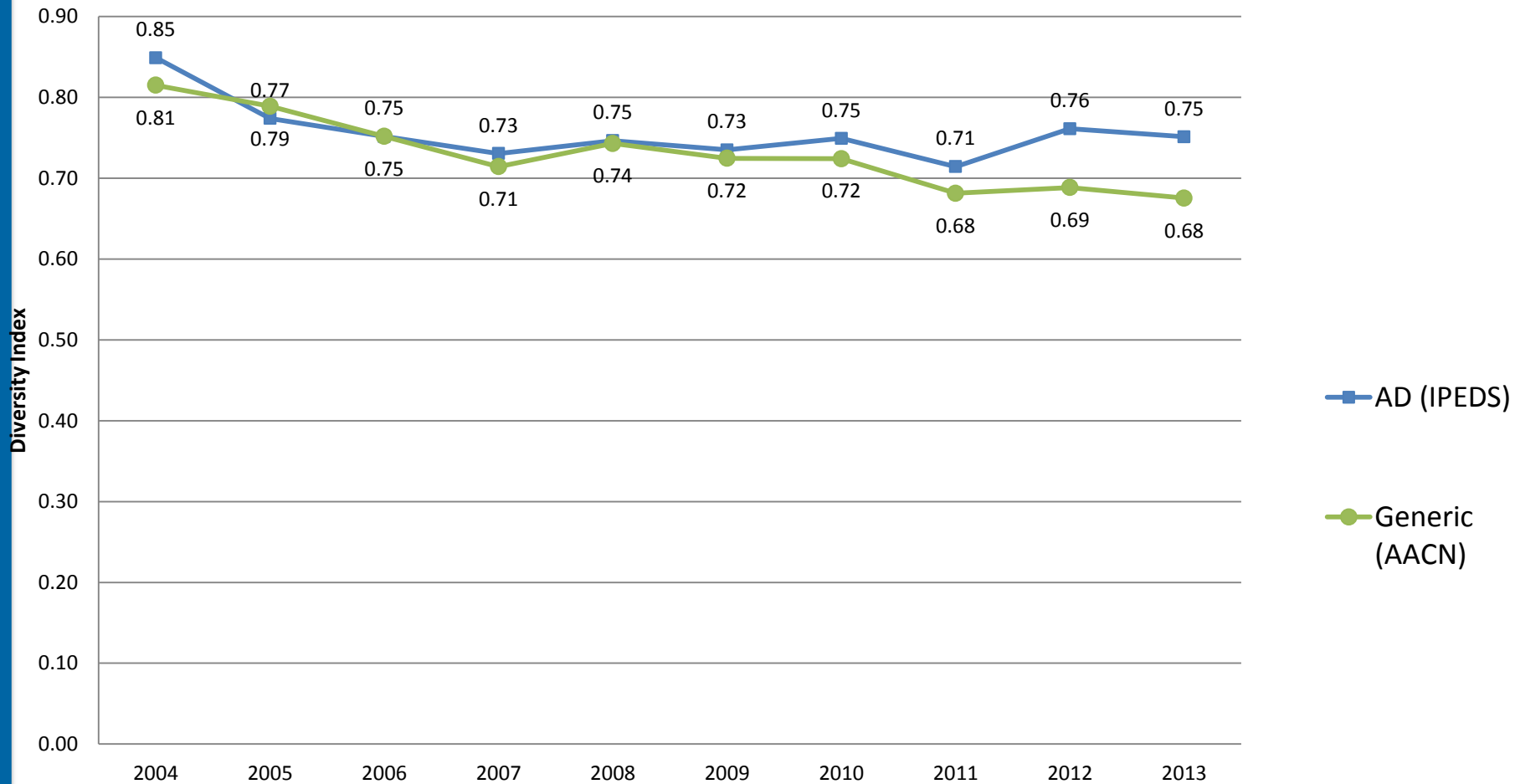
Annual NUMBER of Black/African American ADN, Generic BSN and RN to BSN Graduates, 2004-2013



PERCENT of ADN, Generic BSN and RN to BSN Grads That Were Black/African American, 2004-2013

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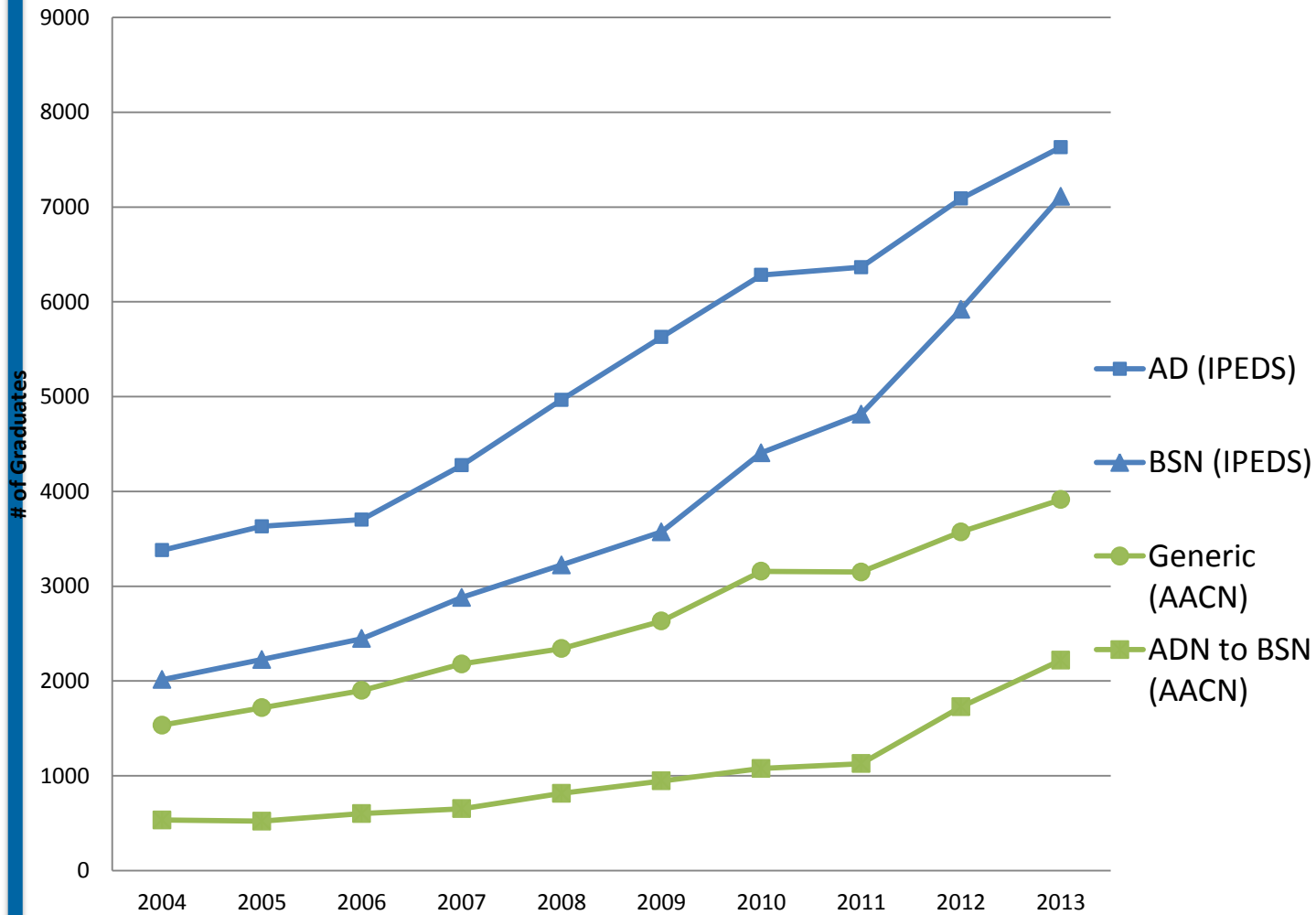


Number and % of Graduates Who Were Black/African American, 2004-13

African American/Black						
	ADN (IPEDS)		Generic BSN (AACN)		RN to BSN (AACN)	
	#	%	#	%	#	%
2004	5580	10.6%	2674	10.2%	1265	13.0%
2005	5739	9.7%	3000	9.9%	1403	13.7%
2006	6057	9.8%	3497	9.8%	1536	13.4%
2007	6422	9.5%	3605	9.3%	1844	14.1%
2008	7167	9.8%	4135	9.8%	2071	14.2%
2009	7641	9.8%	4268	9.7%	2408	14.3%
2010	8162	10.0%	4546	9.7%	2829	14.6%
2011	8020	9.6%	4476	9.2%	3099	14.4%
2012	8774	10.4%	4931	9.4%	4537	15.1%
2013	8958	10.3%	5197	9.3%	5151	14.5%

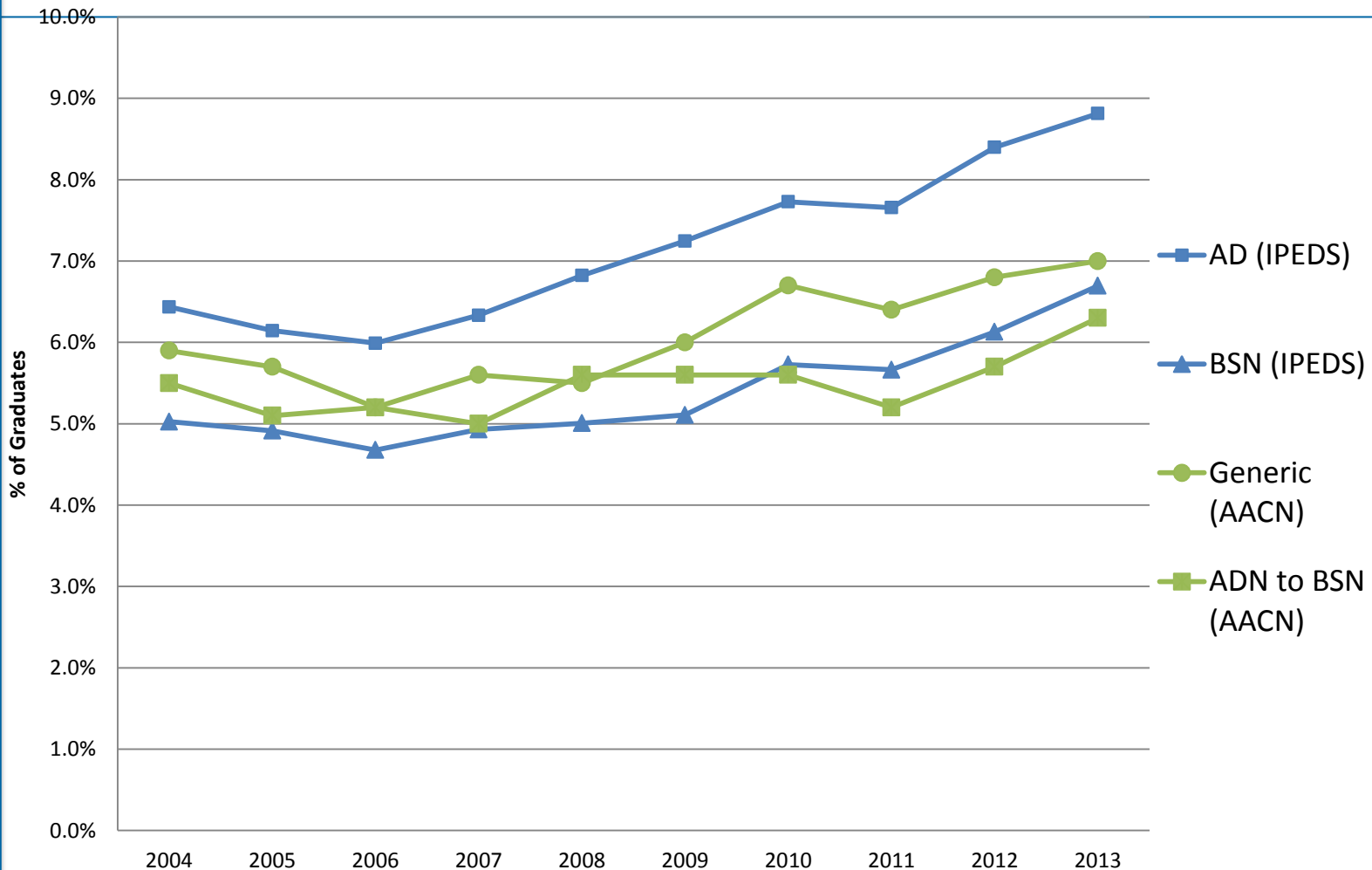
% shows African-American graduates as a percent of all graduates

NUMBER of Hispanic/Latino ADN, Generic BSN and RN to BSN Graduates, 2004-2013

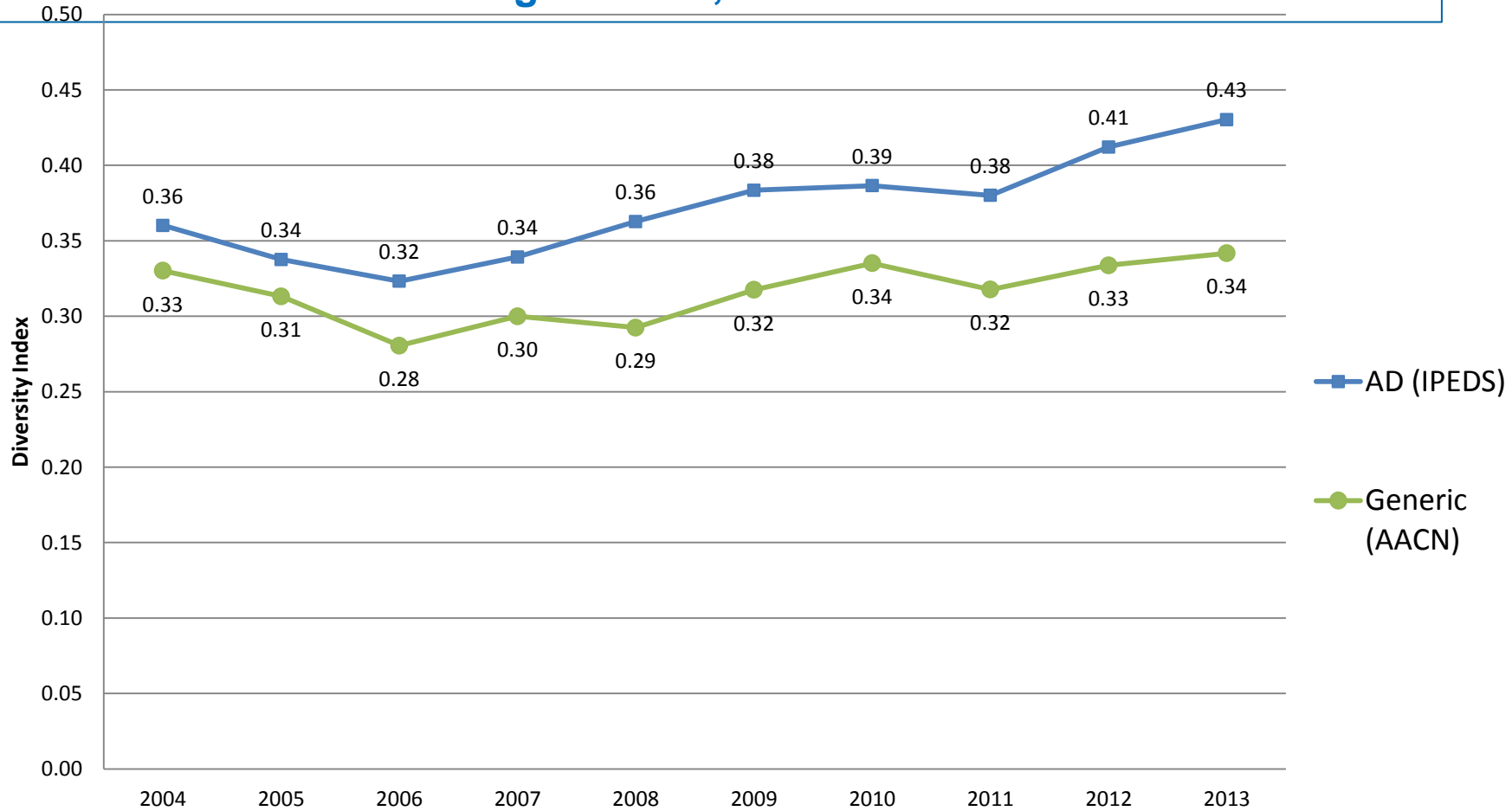


PERCENT of ADN, Generic BSN and RN to BSN Graduates Who Were **Hispanic or Latino**, 2004-2013

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Hispanics/Latino: DIVERSITY INDEX for ADN, Generic BSN graduates, 2004-2013



Number and % of Hispanic-Latino Graduates 2004 - 2013

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	Hispanics					
	ADN (IPEDS)		Generic BSN (AACN)		RN to BSN (AACN)	
	#	%	#	%	#	%
2004	3380	6.4%	1534	5.9%	532	5.5%
2005	3631	6.1%	1717	5.7%	521	5.1%
2006	3703	6.0%	1900	5.2%	600	5.2%
2007	4276	6.3%	2180	5.6%	652	5.0%
2008	4966	6.8%	2341	5.5%	813	5.6%
2009	5628	7.3%	2632	6.0%	945	5.6%
2010	6284	7.7%	3157	6.7%	1077	5.6%
2011	6366	7.7%	3150	6.4%	1127	5.2%
2012	7090	8.4%	3573	6.8%	1727	5.7%
2013	7632	8.8%	3914	7.0%	2220	6.3%

% shows Hispanic graduates as a percent of all graduates

Change in **Number** of African-American/Black and Hispanic/Latinos Entering Nursing 2004-13

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	<u>African American/Black</u>	<u>Hispanic/Latino</u>
• ADN Grads	60.5%	96.7%
• Generic BSN	94.4%	155.1%
• RN to BSN	307.2%	317.3%

General Findings

- Number of African-Americans and Hispanics/Latinos graduating has increased significantly over the past decade
- However, due to the very large increase in overall graduates , the percent of total graduates that are African-Americans has not increased. The percent that are Hispanics/Latinos has been rising.
- When adjusted for the change in their representation in the population, there has not been an increase in African-Americans representation , and the increase in Hispanics/Latinos has been limited.
- Hispanics/Latinos while making progress are still very under-represented among nursing graduates.
- Number of Native American graduates has been limited compared to the overall growth in graduates leading to a decrease in relative representation among graduates and in the diversity score.

Nursing Graduates Diversity Index FUTURE OF NURSING™ National Averages 2011-13 Campaign for Action*

Summary Table for National Average

	AD	Ratio (AD/ACS)	BSN	Ratio (BSN/ACS)
Black or African American Alone	10.1%	0.74	10.2%	0.75
Native American or Alaska Native Alone	0.7%	0.83	0.6%	0.64
Hispanics	8.3%	0.41	6.2%	0.31
Male	14.0%	0.28	11.8%	0.23

Source: US Department of Education, IPEDS;

Note: BSN includes generic and ADN to BSN graduates; also does not include US Territories

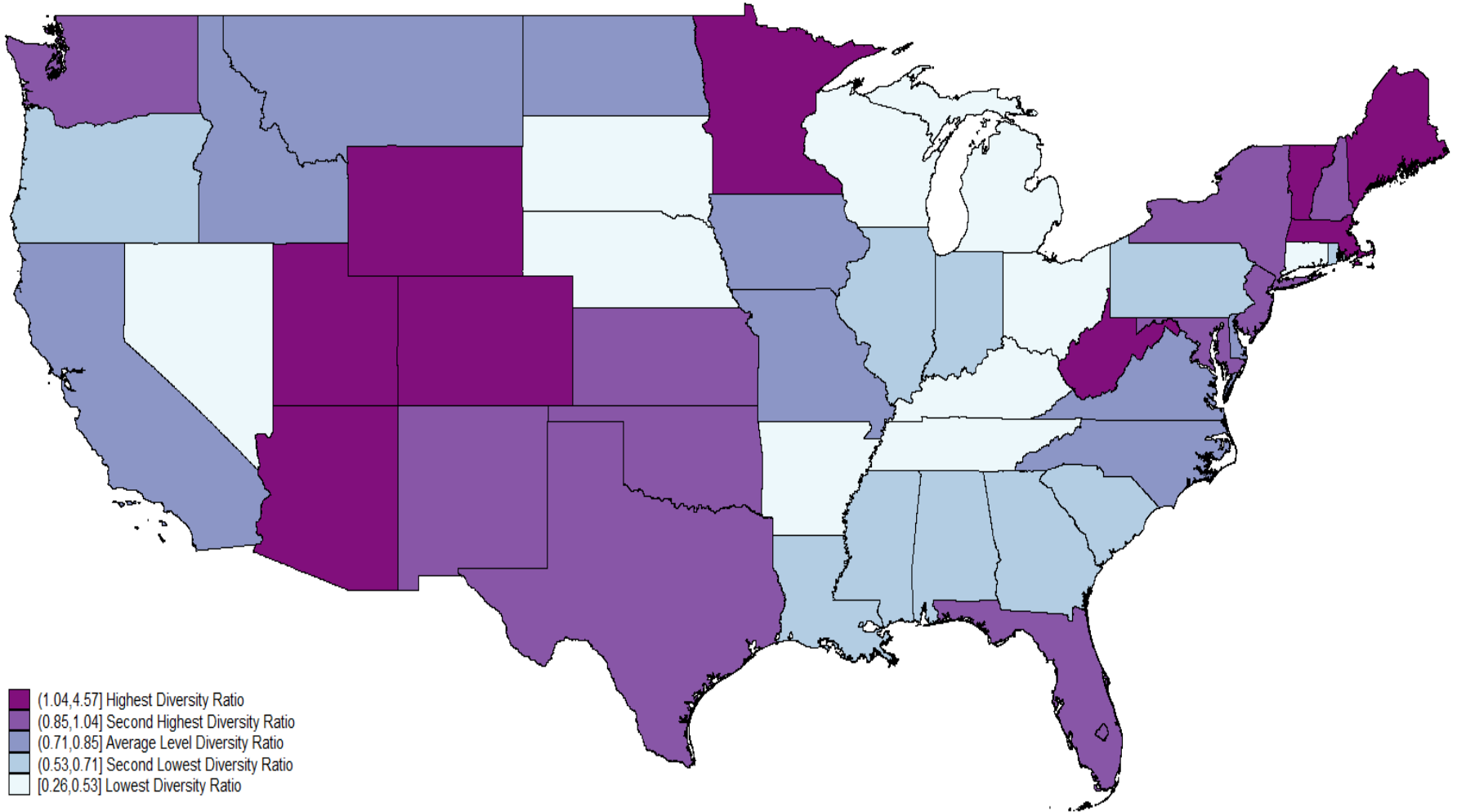
STATE LEVEL ANALYSIS

Using ACS and IPEDS Data

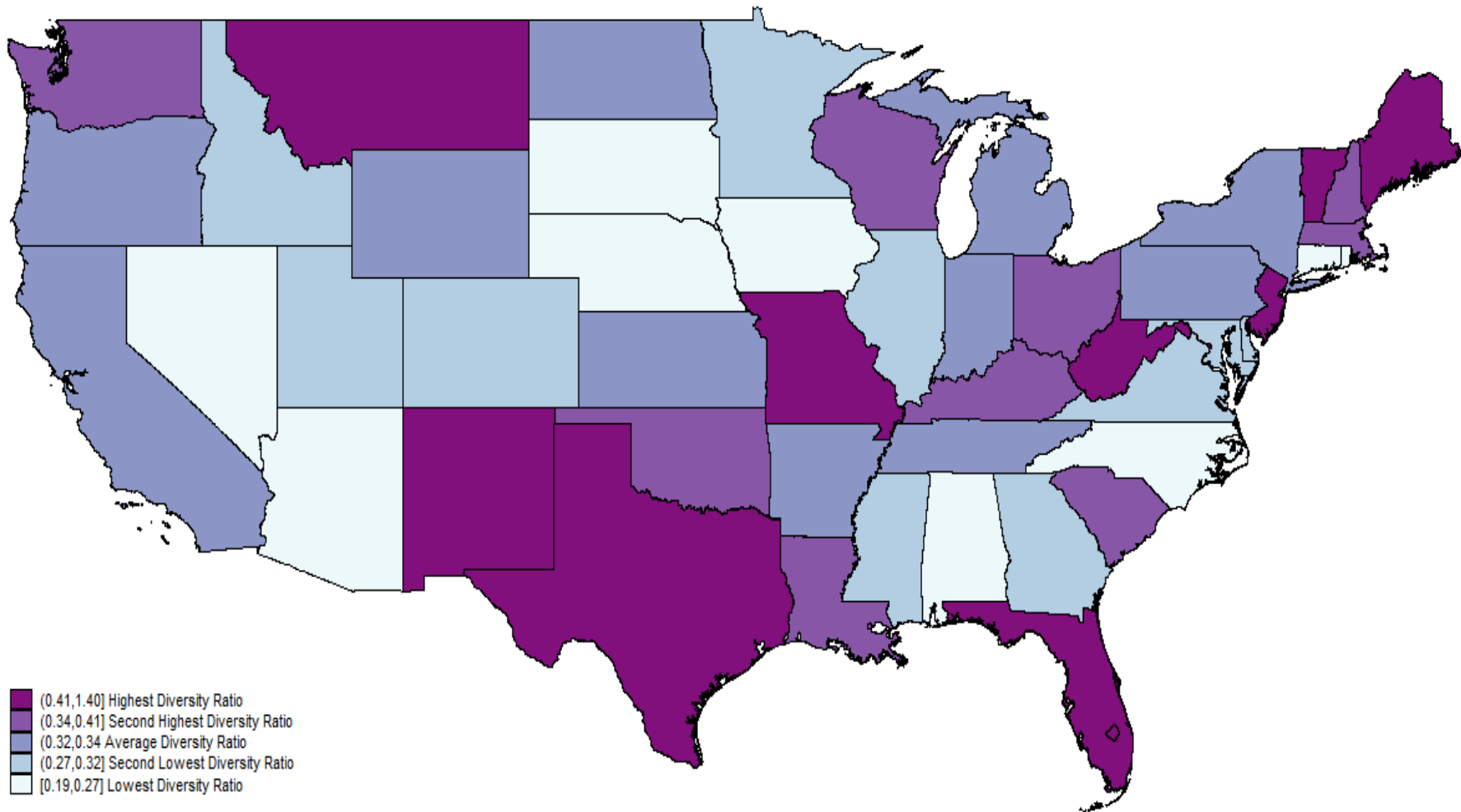
(See Handouts for Tables of State Data)

- ✓ Some states are very large geographically and state-level analysis can miss important intra-state variations
- ✓ Many independent schools recruit students from around the country; national data on diversity may be more appropriate benchmark than the state data.
- ✓ States with many independent schools may argue they have no influence over these schools and, therefore, should not be held accountable for their performance
- ✓ Some states have very few minorities in population and/or in nursing programs: problem of small numbers

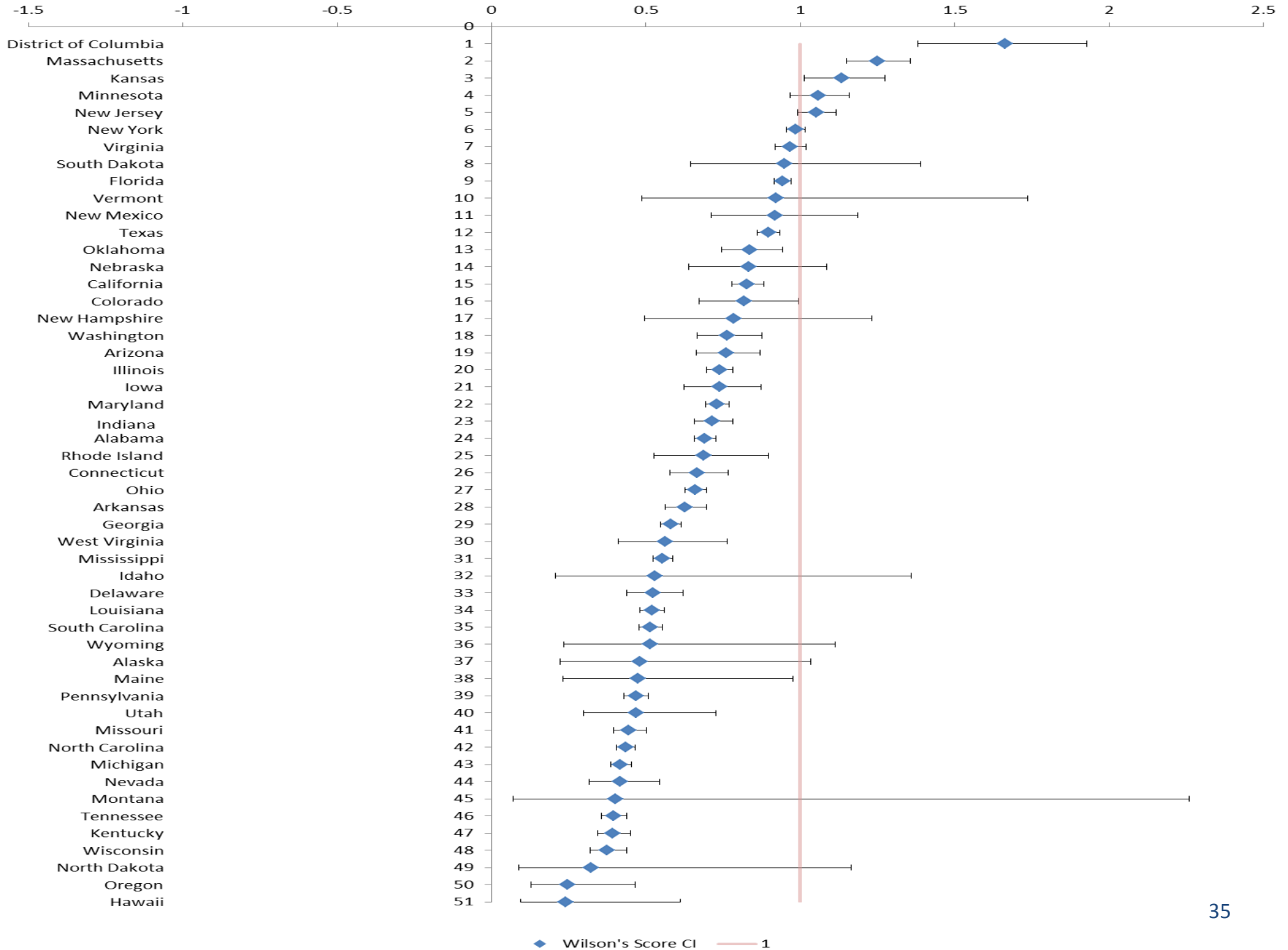
State Level Diversity for African American BSN



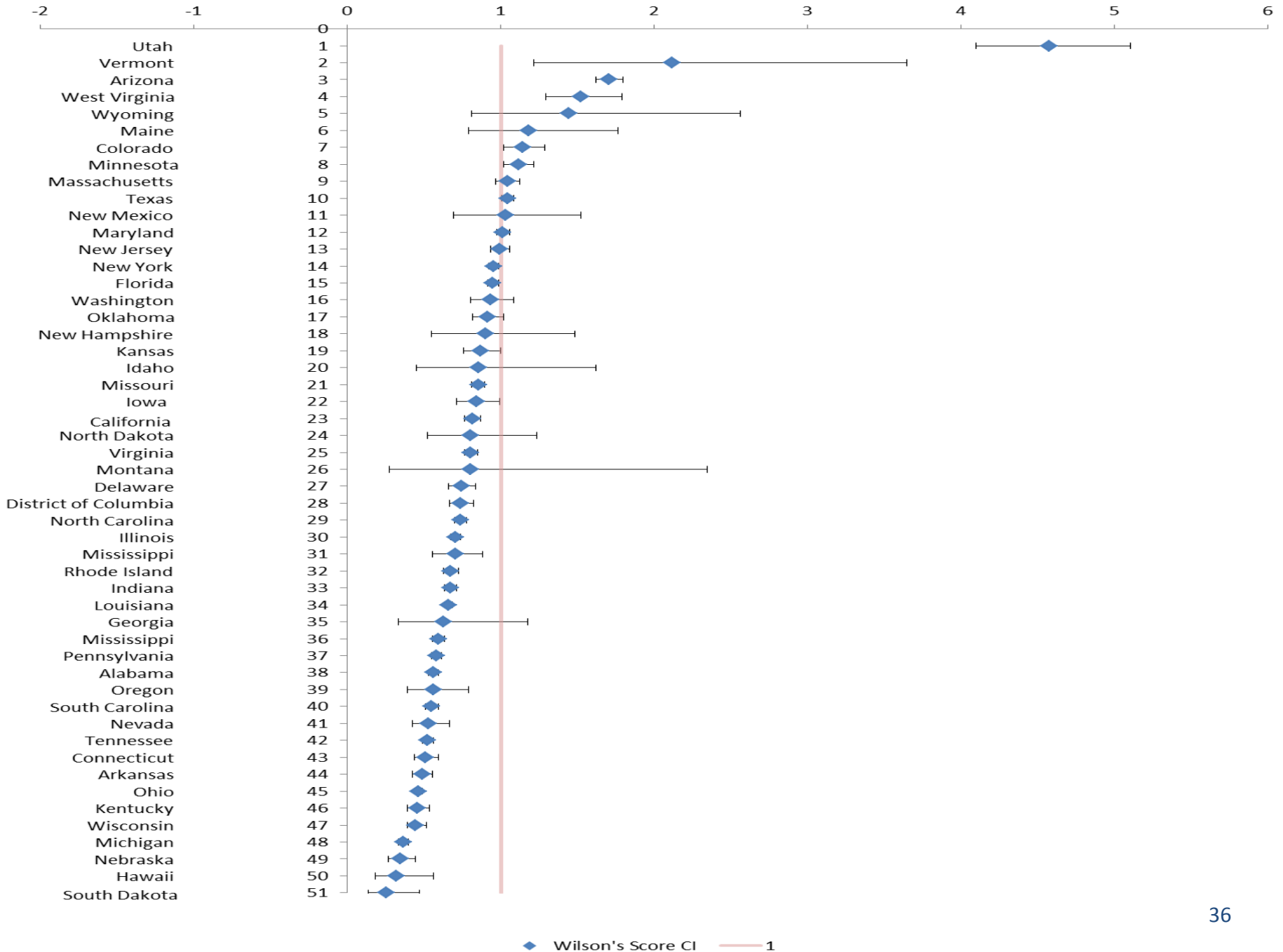
State Level Diversity for Hispanics BSN



African American AD



African American BSN



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**Press *1 on your telephone key pad to ask a question
OR
Use the “chat” feature to send “everyone” a question.**

You can find the recording, webinar summary, and additional resources by going to: www.campaignforaction.org/webinars.

Upcoming Webinars

Diversity Learning Collaborative WebEx
Every 3rd Wednesday of Month

Next Webinar on Wednesday, December 16
Time 3:00 PM ET – 4:00 PM ET

Topic: *"Holistic Admissions Criteria: Promising Approaches"*

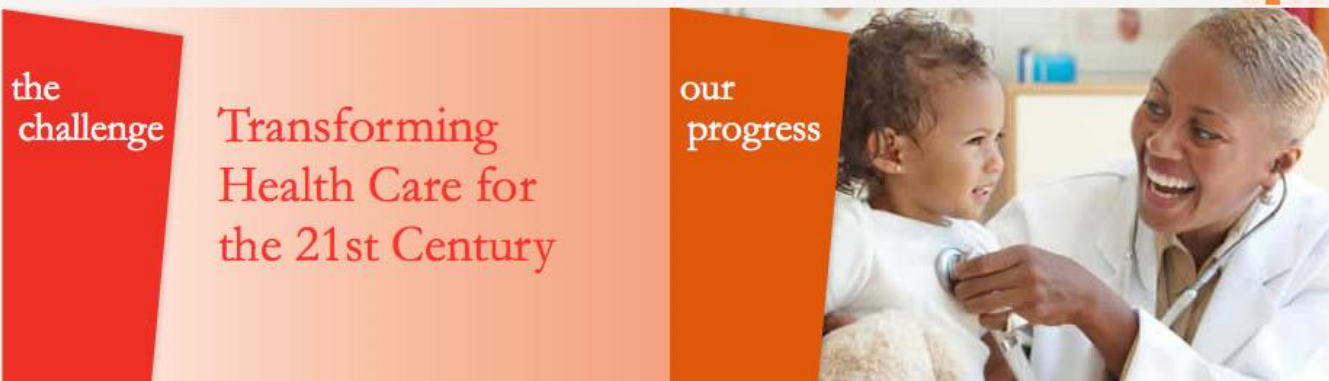
Campaign Resources

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