



Accessing HRSA Health Workforce Data

NACNEP meeting

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Steve Pegula

Economist, National Center for Health Workforce Analysis

Bureau of Health Workforce (BHW)

Vision: Healthy Communities, Healthy People



Agenda

- ▶ Introduction
- ▶ Workforce projections dashboard
- ▶ Area Health Resources Files (AHRF) dashboard
- ▶ National Sample Survey of Registered Nurses (NSSRN)
- ▶ Questions and contact

Workforce Projections Dashboard

- ▶ Workforce projections are available in an easy-to-use dashboard
- ▶ Comes from NCHWA's established Health Workforce Simulation Model
- ▶ No effects of COVID-19 in the projections

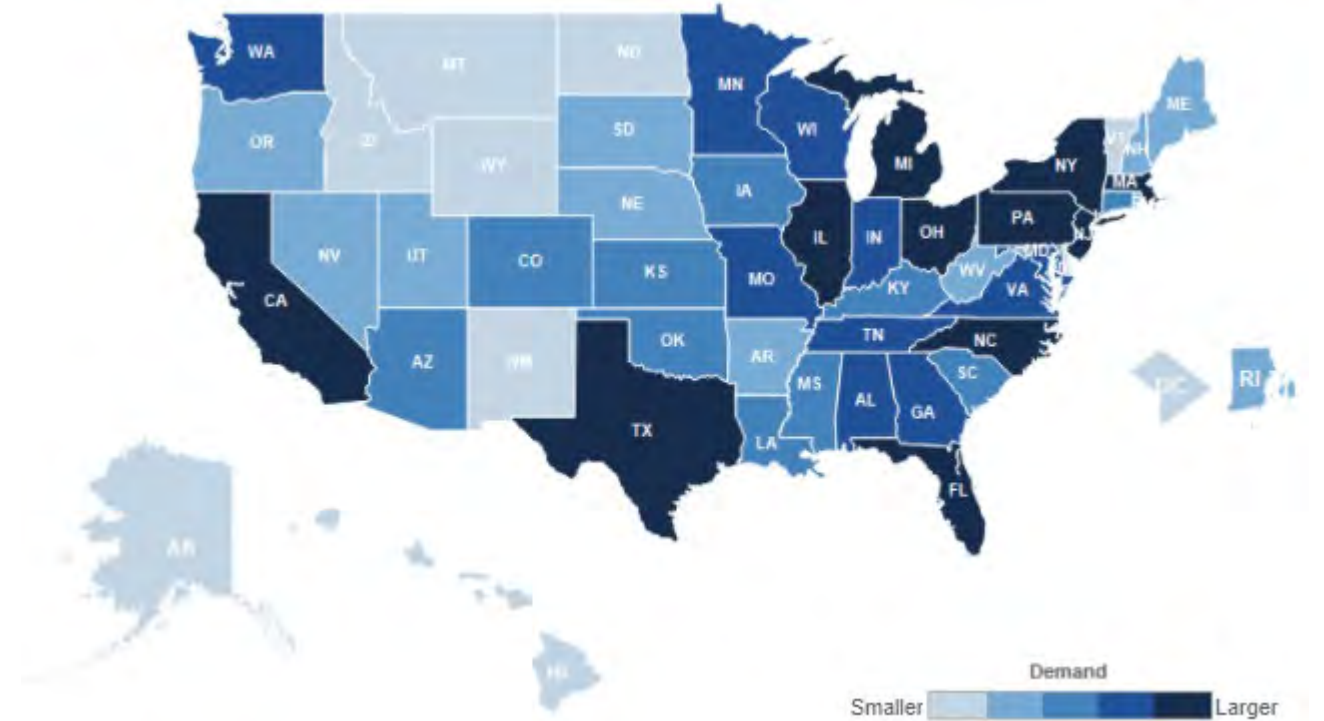
Workforce Projections

The National Center for Health Workforce Analysis helps public and private organizations understand how changes in population will affect future workforce demands. By estimating supply, demand, and distribution of health care workers, we inform policy to help prevent shortages and surpluses.



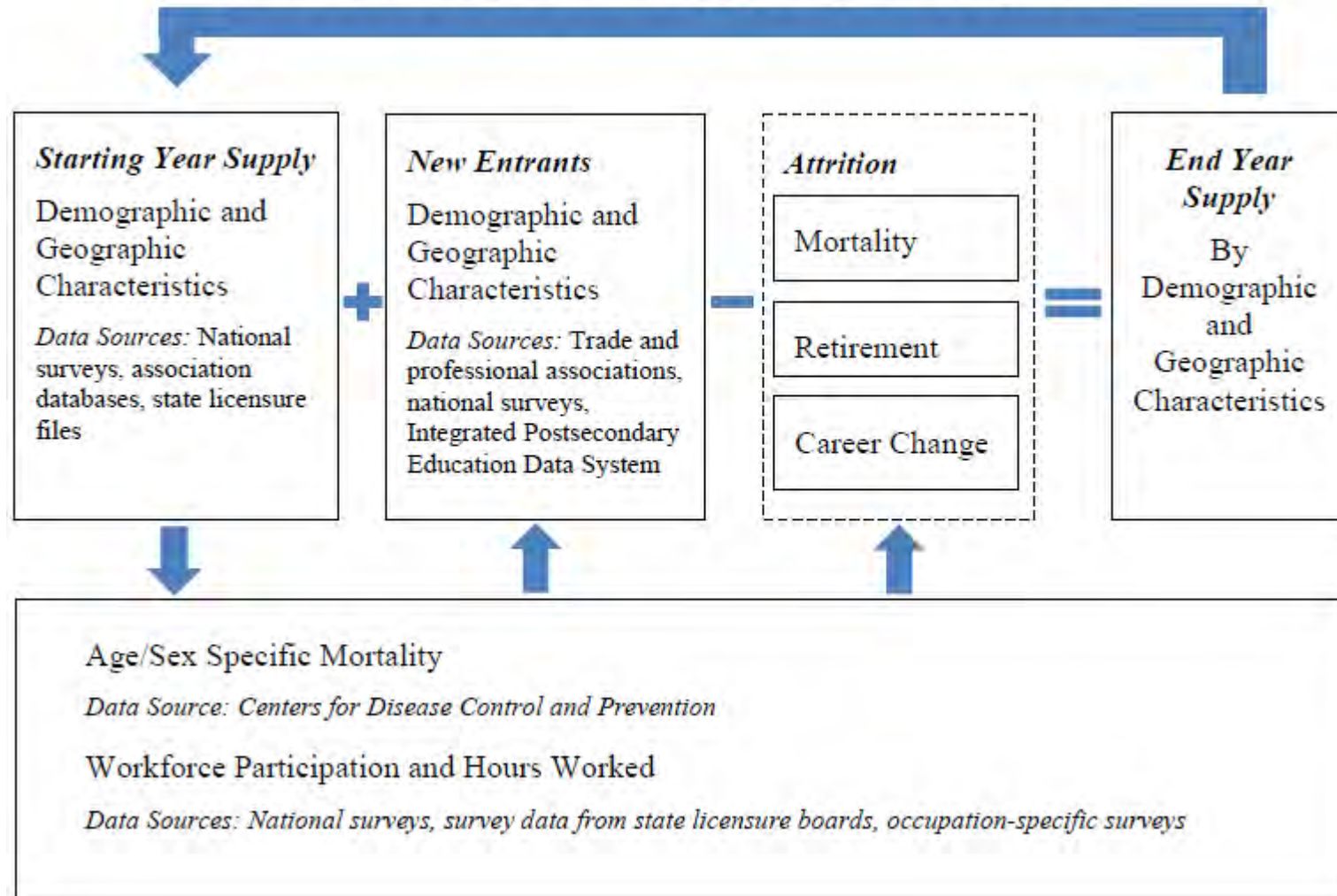
Workforce Projections Dashboard by the Numbers

- ▶ Over 14,000 data points
- ▶ 54 geographic areas
- ▶ 46 unique occupations
- ▶ 16 years of data
- ▶ 9 “What if?” scenarios



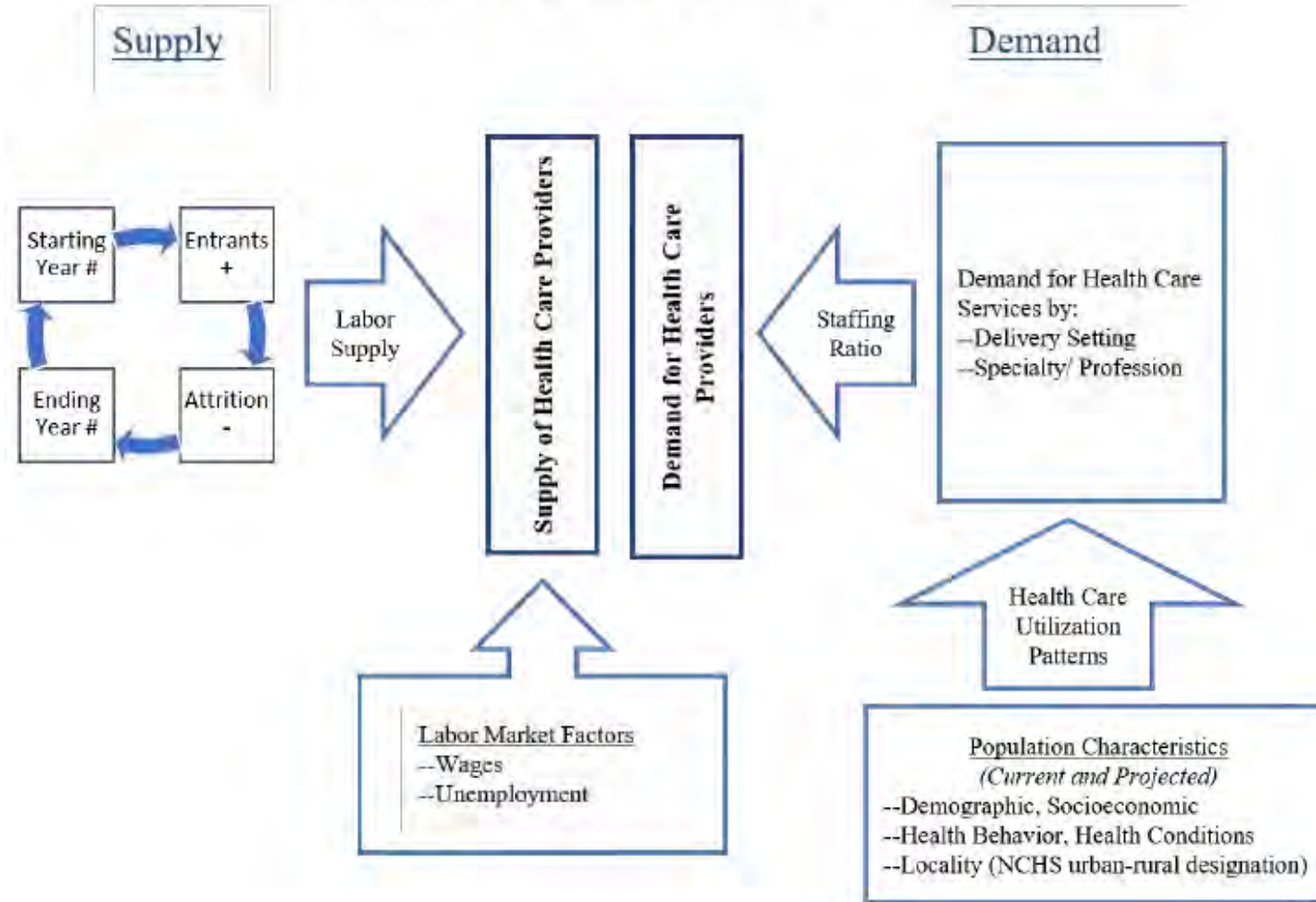
Supply and Demand

Exhibit 3: Flow Diagram for the Supply Component of HWSM



Supply and Demand

Exhibit 1: HRSA's Health Workforce Simulation Model



Accessing the dashboard and projections

- [Workforce projections dashboard](#) also includes a downloadable dataset
- [Webinar](#) showcases how to use the dashboard
- [Full documentation](#) of the HWSM is available

Area Health Resources Files (AHRF) Background

➤ What is AHRF?

- Comprehensive data on a number of health topics
- Established in 1975 and contains historical data

Area Health Resource Files

The Area Health Resource Files (AHRF) include data on Health Care Professions, Health Facilities, Population Characteristics, Economics, Health Professions Training, Hospital Utilization, Hospital Expenditures, and Environment at the county, state and national levels, from over 50 data sources

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AHRF Background

- What is in AHRF?
 - Nearly 8,000 variables from over 50 data sources
 - ✓ American Medical Association
 - ✓ American Hospital Association
 - ✓ U.S. Census Bureau
 - ✓ Centers for Medicare & Medicaid Services
 - ✓ Bureau of Labor Statistics
 - ✓ CDC's National Center for Health Statistics



What is in AHRF?

- ▶ Health care professions (state and county-level data)
- ▶ Health professions training (schools, enrollment, graduates)
- ▶ Hospital and health care facilities (admissions, visits, beds, expenditures)
- ▶ Population data (demographics, socioeconomic status)
- ▶ Vital statistics (mortality, natality)

AHRF Data Sources/Elements

Health Professions

Data Sources (Representative)	Types of Data: Health Professions	Key Elements
American Medical Association Physician Masterfile	MDs and Dos	Total, Active, Primary Care, and By specialty, age, gender, major professional activity, place of graduation
American Dental Association Masterfile	Dentists	Total, Active, and By specialty, age, gender, major professional activity
Health Professions Associations and CMS NPI	Other Health Professionals	Number of APRNs, CRNAs, CNMs, Physician Assistants, Optometrists, Podiatrists, Chiropractors, among others
Bureau of Labor Statistics	Health Employment	State level employment and wage statistics for approximately 50 health professions
Census, American Community Survey Public Use Microdata Sample (ACS PUMS)	Health Workforce	State level health workforce statistics for over 30 health professions; presented by age, race/ethnicity, gender and workforce setting
Integrated Postsecondary Education Data System (IPEDS)	Health Professions Training	State level statistics on number of individuals completing programs for over 25 health professions; presented by gender and race/ethnicity



AHRF Data Sources/Elements

Health Facilities

Data Sources (Representative)	Types of Data: Health Facilities	Key Elements
American Hospital Association Annual Hospital Survey Database	Number of hospitals, utilization, expenditures	Number of facilities, type, beds, services, personnel, critical access, sole community, provider, rural referral centers, inpatient days, outpatient visits
CMS Provider of Services Database	Other Health Facilities	Counts, types of facilities - SNF, LTC nursing, Ambulatory Surgical Centers, Home Health Agencies, FQHCs, RHCs, CMHCs, etc



AHRF Data Sources/Elements

Demographics

Data Sources (Representative)	Types of Data Demographics	Key Elements
Census, ACS	Population Characteristics	Counts by gender, race, age; underserved and special needs populations
Census/SAIPE, REIS	Income Poverty	Counts, per-capita, households, gender, race
Census/SAIHE	Health Insurance	Gender, age
DoL, BLS	Employment	Employed/unemployed, rate
CMS	Medicare, Health Insurance	Eligible/enrolled by program
CMS	Medicare, Prescription Drug	Eligible/enrolled, rates
CMS	Medicare, Fee for Service	Readmissions, expenditures, demographics
CMS	Medicaid	Eligible by program age
CDC, NCHS	Mortality	Deaths by race, gender, cause
CDC, NCHS	Nativity	Births by race, low/very-low birthweight, infant mortality



AHRF Data Download

2020-2021 County Level Data

Technical documentation (Approx. 770 KB)

ZIP

ASCII format (Approx. 24 MB)

ASCII

SAS format (Approx. 27 MB)

SAS

2020-2021 State and National Level Data

Technical documentation (Approx. 147 KB)

ZIP

ASCII format (Approx. 283 KB)

ASCII

SAS format (Approx. 151 KB)

SAS

Note: Please contact NCHWAInquiries@hrsa.gov for technical questions about the Area Health Resources Files (AHRF) data. Historical data are available for some variables in the AHRF county level data file. Please review the AHRF Technical Documentation (excel) for a list of variables and years included in the published data file.

2019-2020 County Level Data

Technical documentation (Approx. 746 KB)

ZIP

ASCII format (Approx. 24 MB)

ASCII

SAS format (Approx. 27 MB)

SAS

2019-2020 State and National Level Data

Technical documentation (Approx. 174 KB)

ZIP

ASCII format (Approx. 309 KB)

ASCII

SAS format (Approx. 150 KB)

SAS

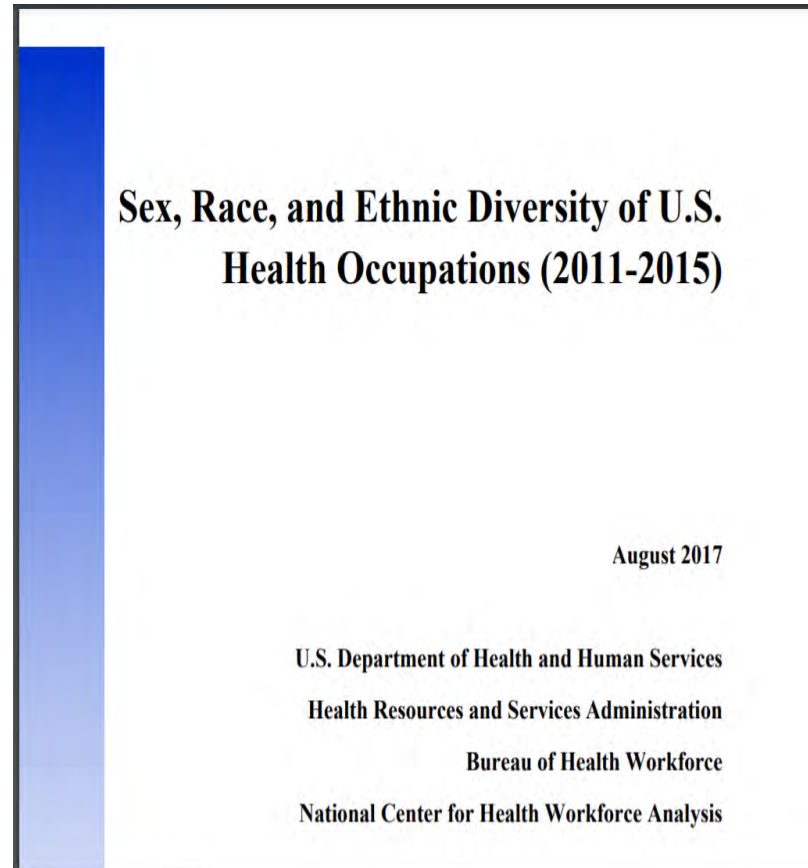


AHRF Dashboard

- <https://data.hrsa.gov/topics/health-workforce/ahrf>
- Includes multiple years
- Includes 40+ health professions and population data
 - Can calculate rate (per 100,000 population)
- Ability to export selected data



Next steps for the AHRF dashboard



Next steps for the AHRF dashboard

Table 2: U.S. Health Occupations¹ by Race/Ethnicity, 2011-2015

	Hispanic	Non Hispanic					
		White	Black	Asian	American Indian/ Alaska Native	Native Hawaiian and Other Pacific Islander	Multiple/ Other Race
U.S. Workforce ² (#)	25,776,728	102,850,895	18,597,223	8,534,837	902,977	251,578	2,910,645
U.S. Workforce ² (%)	16.1	64.4	11.6	5.3	0.6	0.2	1.8
Health Occupations³							
Community and Social Services Occupations							
Counselors	10.7	64.6	18.8	2.8	0.8	0.1	2.2
Social Workers	12.0	60.6	21.5	3.0	0.8	0.1	2.0
Life, Physical, and Social Sciences Occupations							
Psychologists	6.3	83.5	4.9	3.4	0.2	(0.0)	1.6
Health Diagnosing and Treating Practitioners Occupations							
Advanced Practice Registered Nurses ⁴	4.5	84.0	5.7	4.1	0.2	NR	1.3
Chiropractors	3.7	86.7	1.9	5.4	0.5	NR	1.8
Dentists	6.1	74.8	3.0	14.3	(0.1)	NR	1.7
Dietitians and Nutritionists	8.5	68.7	15.0	6.0	0.3	(0.1)	1.4
Optometrists	3.9	78.4	1.8	13.7	NR	NR	1.8
Pharmacists	3.7	70.4	5.9	17.9	0.2	0.1	1.8
Physicians	6.3	67.0	4.8	19.6	0.1	0.0	2.1
Physician Assistants	10.0	72.7	7.1	7.3	0.6	NR	2.2
Occupational Therapists	4.0	83.8	4.4	6.6	0.2	NR	1.1
Physical Therapists	4.8	77.8	4.4	11.1	0.2	(0.1)	1.6
Respiratory Therapists	7.9	70.1	12.8	7.0	0.5	NR	1.7
Speech-Language Pathologists	6.2	86.1	4.1	2.2	0.3	NR	1.0
Registered Nurses	5.7	73.5	10.4	8.4	0.4	0.1	1.5
Health Technologists and Technicians Occupations							
Dental Hygienists	7.5	83.4	3.1	4.2	0.2	NR	1.5
Diagnostic Related Technologists and Technicians	9.6	75.7	7.8	4.9	0.4	(0.1)	1.5



National Sample Survey of Registered Nurses (NSSRN)

- NSSRN covers many aspects of the RN work experience
- Publishing data since 1977
- Preparing the survey for the 2022 NSSRN with Census Bureau

Collecting data

- Target population - currently actively licensed RNs
 - Complete list in the U.S. does not yet exist
- Frame construction from state licensure board listings
 - National Council of State Boards of Nursing (NCSBN)
 - Individual state licensure boards
- Stratified systematic random sample of $\approx 100,000$

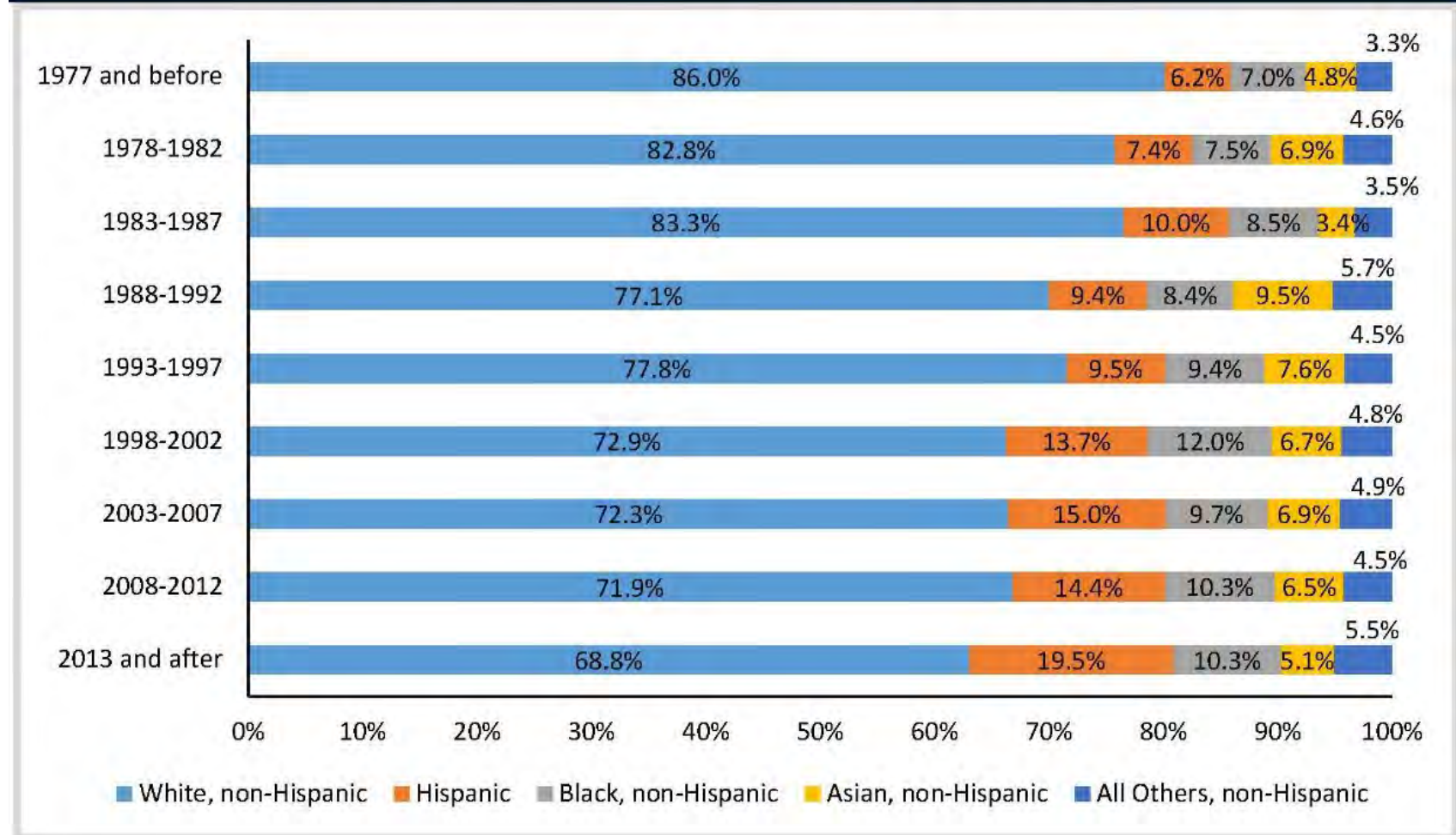
2018 NSSRN findings: Workforce

- Estimated 3,957,661 actively licensed registered nurses living in the United States, as of December 31, 2017
 - Of those, 83% were actively licensed and employed in nursing
- Approximately 40% of the current RN workforce graduated from their initial nursing program in 2005 or later
- An average of 18.9 years of experience post initial RN licensure

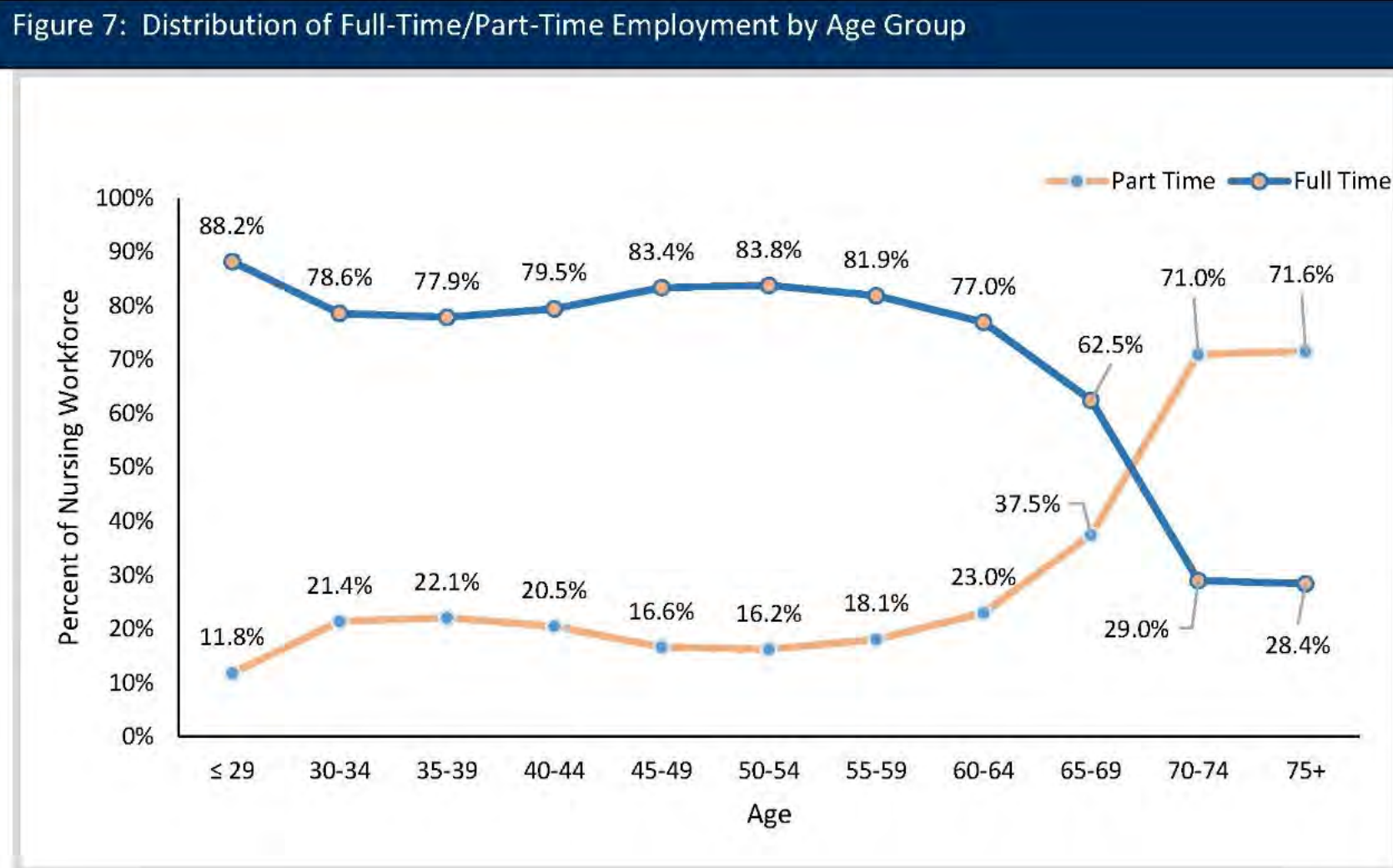


Distribution of Race and Ethnicity by Graduation Year

Figure 3: Distribution of Race and Ethnicity by Initial Nursing Program Graduation Year

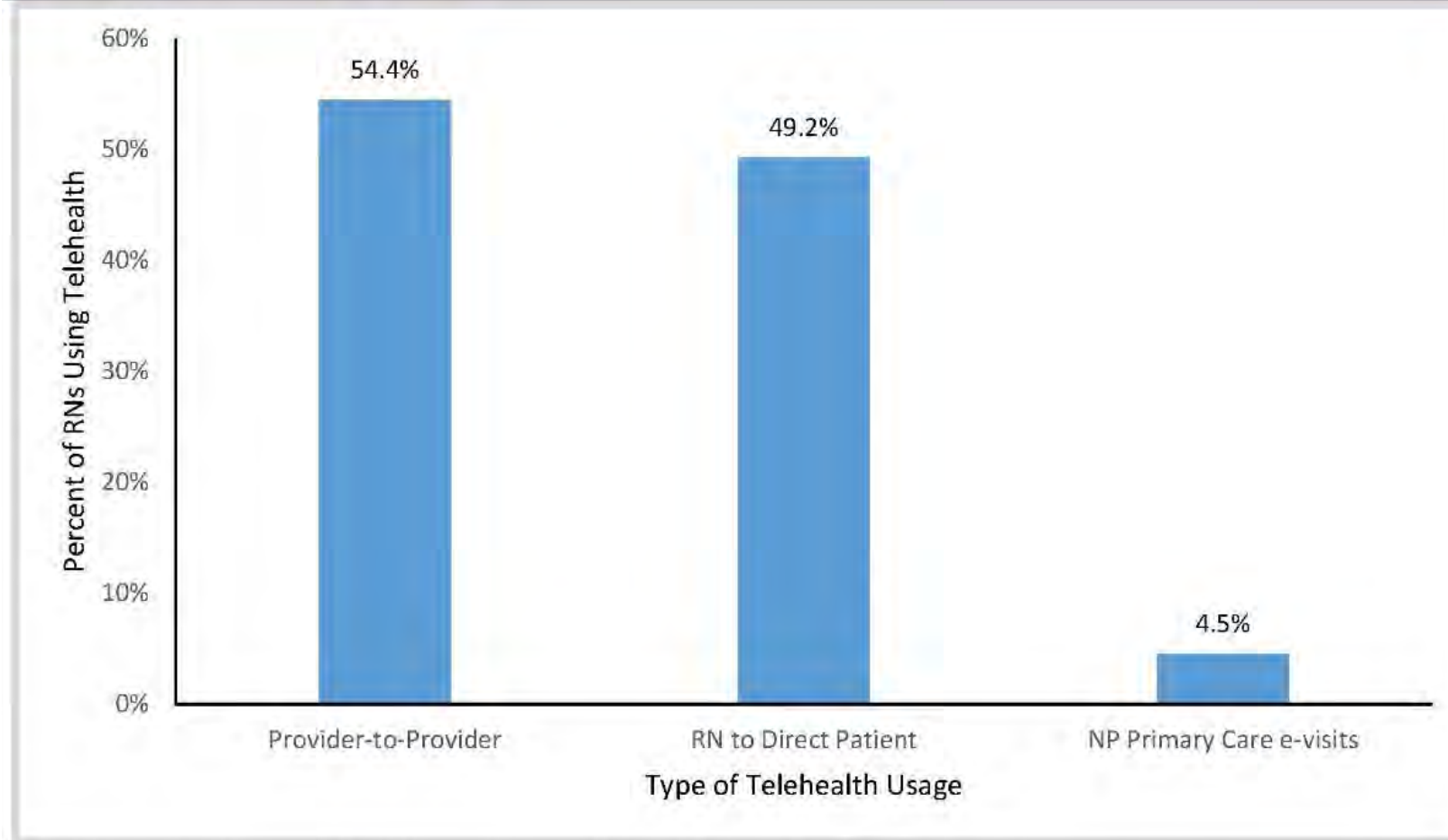


Distribution of Full-Time/Part-Time Employment by Age Group



Telehealth Usage by RNs

Figure 10: Telehealth Usage by RNs



*Participants in this study had the option to select all that applied for this question



Data Dissemination

- Reports at HRSA/BHW/NCHWA [Webpage](#)
 - NSSRN Summary Findings Report, Technical Report, Final Questionnaire
- [Public Use Files](#) (PUFs) at HRSA Data Warehouse
 - PUF data, codebook, crosswalk
- Future dashboard for NSSRN data

Contact Us

Steve Pegula

Economist

Bureau of Health Workforce (BHW)

Health Resources and Services Administration (HRSA)

Phone: 301-443-4159

Email: spegula@hrsa.gov

Website: www.bhw.hrsa.gov



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