

APA Fact Sheet Series on Psychologist Supply and Demand Projections 2015-2030:

Data Sources

This fact sheet describes data sources used in the psychologist workforce projections¹ from 2015 to 2030. These projections were made specifically for psychologists that are licensed and currently active in the workforce. Supply was determined on the basis of the number of licensed psychologists active in the workforce, new entrants, and workforce participation patterns, whereas demand was determined on the basis of current patterns of service utilization and projected population demographic changes.

Supply Data Sources

- Current Supply of Psychologists
Supply modeling began with an estimated 104,940 licensed, doctoral-level psychologists in the United States in 2015. This number was derived from state licensing board lists – obtained from all 50 states and the District of Columbia – which were standardized and de-duplicated. Analysis of APA's 2015 Survey of Psychology Health Service Providers² indicated that 91% of these psychologists were under the age of 75 and actively employed, resulting in an estimate of 95,180 active psychologists.³
- New Entrants - Number of Doctoral Graduates
Data from the National Center for Education Statistics (NCES)⁴ were used to estimate the number of new doctoral-level entrants into health service psychology each year. In 2014, 6,630 graduates received a doctoral-level degree in psychology. Approximately 56% (3,700) of these graduates received a doctoral-level degree in a health service psychology subfield (e.g., clinical, counseling, and school psychology⁵). Demographic information for doctoral-level graduates in a health service psychology subfield was estimated from data collected by the NCES (gender), the National Science Foundation⁶ (age), and the U.S. Census Bureau's American Community Survey (ACS)⁷ (race/ethnicity).
- Workforce Attrition – Mortality and Retirement
Data from the 2011-2015 ACS were used to determine workforce participation, modeled in terms of hours worked, employment, and retirement patterns. Estimates of retirement patterns were made by comparing the aggregated age distribution of employed psychologists across adjacent years and estimating net departures by year.
- Cross-State Migration Patterns
APA membership files and ACS data were used to determine the cross-state migration patterns of active psychologists. On average, 6% of psychologists move across state lines each year, with psychologists age 30-34 having the highest propensity to move to a different state.

¹ IHS Markit. (2018). *Psychologist workforce projections for 2015-2030: Addressing supply and demand*. Washington, DC: American Psychological Association.

² American Psychological Association. (2016). 2015 APA Survey of Psychology Health Service Providers. Washington, DC: Author. Retrieved from <http://www.apa.org/workforce/publications/15-health-service-providers/index.aspx>

³ Includes licensed psychologists actively working in a position that requires a psychology license, or in a position that does not require a psychology license but uses clinical skills and/or training as a psychologist. The projections are described in terms of full-time equivalent (FTE) psychologists who are licensed, doctoral-level, and working 39 hours per week.

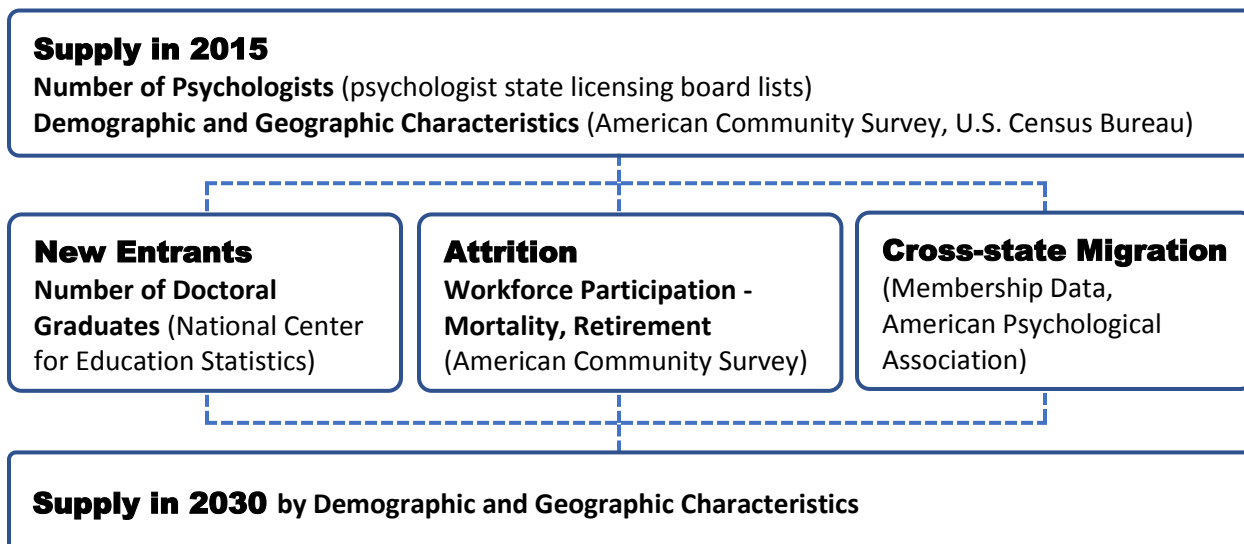
⁴ U.S. Department of Education, Digest of Education Statistics, National Center for Education Statistics (2014). Integrated postsecondary education data system (IPEDS). Retrieved from https://nces.ed.gov/programs/digest/d15/tables/dt15_318.30.asp

⁵ Also includes smaller health service psychology subfields: applied psychology, applied behavior analysis, clinical child psychology, family psychology, forensic psychology, geropsychology, health/medical psychology, and other clinical/counseling/applied psychology.

⁶ National Science Foundation (2017). Science and Engineering Doctorates, Data Tables. National Science Foundation, Arlington, VA. Retrieved from <https://www.nsf.gov/statistics/sed/2013/data-tables.cfm>.

⁷ U.S. Census Bureau. (2015). American Community Survey. One-Year Public Use Microdata Sample (PUMS) analyzed by IHS Markit. (2017).

Supply Data Sources Flow Chart



Source: IHS Markit, (2018). *Psychologist workforce projections for 2015-2030: Addressing supply and demand*.

Demand Data Sources

Estimates of demand are based on utilization patterns, for example, office visits or clinical/outpatient visits to psychologists. This scenario assumes that in 2015, the supply and demand for psychologists were in equilibrium. Future demand for psychologists was modeled by examining the following three components: (1) population growth in each state over time, (2) current utilization of psychologist services, and (3) the number of psychologists employed in different work settings required to meet demand for services.

- Population data sources

A representative sample of the population in each state was constructed by combining data from the U.S. Census Bureau's 2015 American Community Survey (ACS), the Centers for Disease Control and Prevention's (CDC) 2014 and 2015 Behavioral Risk Factor Surveillance System (BRFSS),⁸ the 2013 Medicare Beneficiary Care Survey,⁹ and the Centers for Medicare and Medicaid Services 2015 Nursing Home Minimum Dataset.¹⁰ The resulting constructed population database covers approximately 3.1 million individuals, and for each person, contains information on demographics (age, sex, race/ethnicity), socioeconomic characteristics (household income, medical insurance type), and residence in a metropolitan or non-metropolitan area.

- Psychologist Utilization data sources

Utilization patterns were determined by analyzing data on approximately 169,000 adults and children in the pooled 2010-2014 files of the Medical Expenditure Panel Survey (MEPS),¹¹ as well as data from the 2015 National

⁸ U.S. Centers for Disease Control and Prevention. (2014-2015). Behavioral Risk Factor Surveillance System. Retrieved from https://www.cdc.gov/brfss/annual_data/annual_data.htm

⁹ Centers for Medicare and Medicaid Services, Office of Enterprise Data and Analytics (2013). Medicare Current Beneficiary Survey. Retrieved from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables.html>

¹⁰ Centers for Medicare and Medicaid Services (2015). Nursing Home Minimum Dataset. Retrieved from <https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/Minimum-Data-Set-3-0-Public-Reports/index.html>

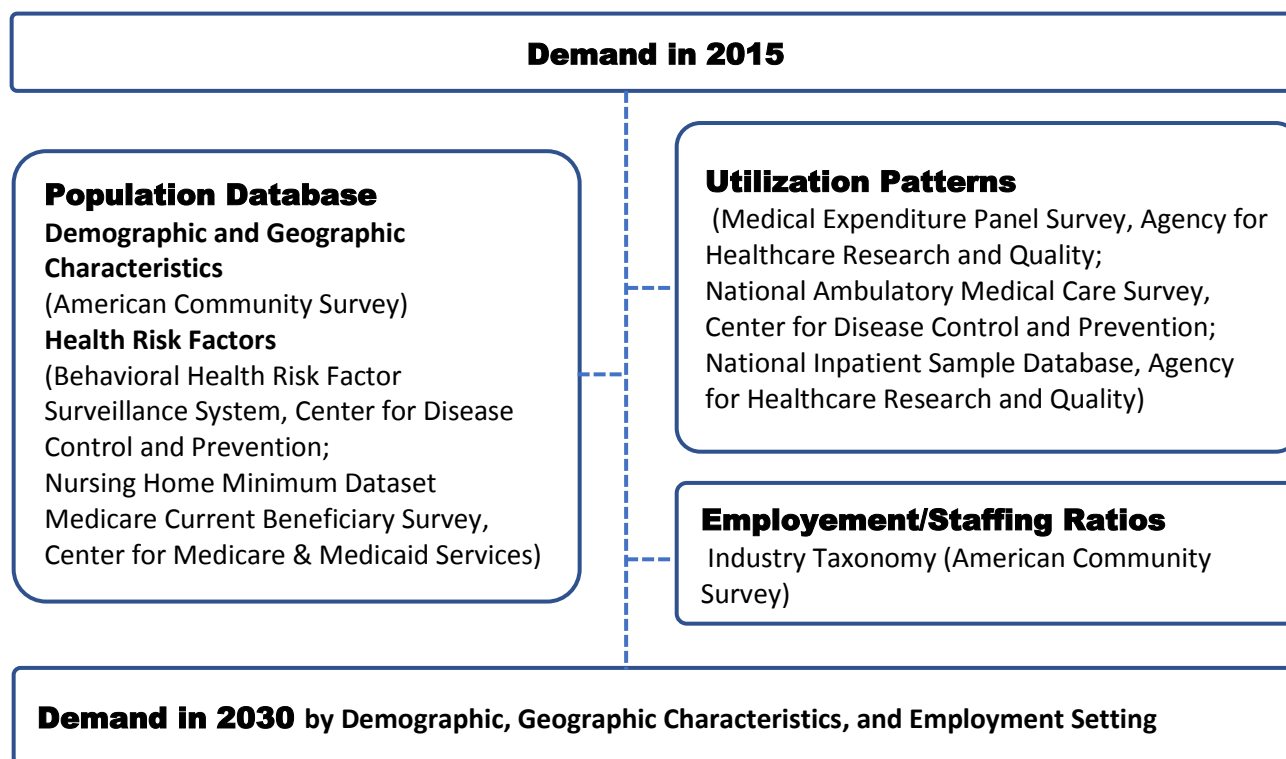
¹¹ Agency for Healthcare Research and Quality (2010-2014). Medical Expenditure Panel Survey. Retrieved from https://meps.ahrq.gov/data_stats/MEPS_topics.jsp?topicid=38Z-1

Ambulatory Medical Care Survey¹² and the 2015 National Inpatient Sample Database.¹³ MEPS is an annual set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. If a person reported a visit to a psychologist during this 2010-2014 timeframe, that individual was counted as having utilized an office or clinical/outpatient visit with a psychologist.

- Psychologist Employment data sources

Psychologists work in various settings, as described by categories in the ACS. Demand for psychologists is linked to demand for services, taking into account estimates of the portion of time that psychologists spend serving patients in different delivery settings. This approach estimates the proportion of full-time equivalent psychologists by setting, based on analysis of the ACS, and how demand for services in each setting is projected to change over time. The largest setting is “offices of health practitioners” where currently 44% of psychologists are working. The second largest setting is elementary and secondary schools, currently employing about 16% of psychologists. Hospitals constitute the third largest setting, currently employing about 13% of psychologists.

Demand Data Sources Flow Chart



Source: IHS Markit, *Psychologist workforce projections for 2015-2030: Addressing supply and demand* (2018).

¹² Centers for Disease Control and Prevention (2015). National Ambulatory Medical Care Survey. Retrieved from https://www.cdc.gov/nchs/ahcd/web_tables.htm

¹³ Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project (2015). National Inpatient Sample Database. Retrieved from https://www.hcup-us.ahrq.gov/tech_assist/centdist.jsp

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