

Oregon's Health Care Workforce Reporting Program

Analytic Methods

The Health Care Workforce Reporting Program was created in 2009 with the passage of HB 2009, which required the Oregon Health Authority to collaborate with seven health profession licensing boards to collect health care workforce data via their licensing renewal process. In 2015, SB 230 added ten additional health licensing boards to the program.

These data are collected to:

- ◇ Understand Oregon's health care workforce;
 - ◇ Inform public and private educational and workforce investments; and
 - ◇ Provide data to inform policy recommendations for state agencies and the Legislative Assembly regarding Oregon's health care workforce.
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Methods & Sources

All licensees must be licensed by a state health licensing board and renew their license according to each board's licensing cycle (See Table 1). At the time of license renewal, licensees complete the Health Care Workforce Survey. The Oregon Medical Board administers the workforce survey using their own data system; all the other health professions' data were collected through a common format workforce survey that licensees must complete as part of their renewal process.

Annual data sets include all providers that are licensed by each board in January of each year. For licensees that renew annually, survey data collected in the prior 12-14 months is included. For those that renew biennially, survey data collected in the prior 24-26 months is included. Survey data collected include provider demographics, education and languages spoken other than English, practice locations, number of hours worked and future practice plans at each location, and specialty information. For selected occupations (medical professions, naturopathic physicians, chiropractic physicians, dentists, nurse practitioners, counselors and therapists, social workers and psychologists) whether they see Medicaid clients was also collected.

To see an example workforce survey, visit: <https://bit.ly/2wZen26>

Data were analyzed and tabulated with SAS 9.4; graphics were produced in Excel and Tableau. Charts in these reports explore the relative distribution of selected measures for the subset of licensees who completed the Health Care Workforce Survey and reported a primary or secondary work location in Oregon. Missing data are not included, however, data in charts may not sum to 100 due to rounding.

Comparisons across time

Due to the addition of data from additional licensing boards after the passage of SB230, data presented at the statewide workforce level should not be compared with earlier reports.

When considering trends over time for occupations that renew on biennial periodic cycles (pharmacy, occupational therapy, physical therapy, and speech-language pathology and audiology occupations), it is important to recognize the impact of their renewal cycles on annual trends. For these boards, most licensees that leave the workforce (i.e. their license becomes inactive) due so at the time of renewal, leading to drops in number of licensees at timepoints following the renewal period.

Table 1. Participating boards, licensed professions, and renewal cycle information

Licensing board & occupation	Renewal period	Renewal cycle
Board of Chiropractic Examiners Chiropractic physicians, Chiropractic assistants	Ongoing	1-yr
Board of Licensed Professional Counselors and Therapists Licensed professional counselors and therapists	Ongoing	1-yr
Board of Dentistry¹ Dentists	Jan - Mar	2-yr
Registered dental hygienists	Jul - Sep	2-yr
Board of Licensed Dietitians Licensed dietitians	Ongoing	1-yr
Medical Board² Physicians, Podiatrists, Physician assistants	Oct - Dec (odd yrs)	2-yr
Acupuncturists	Apr - Jun (even yrs)	2-yr
Board of Naturopathic Medicine Naturopathic physician	Nov - Dec	1-yr
State Board of Nursing³ Nurse practitioners, Certified registered nurse anesthetists, Registered nurses, Licensed practical nurses, Certified nursing assistants	Ongoing	2-yr
Occupational Therapy Licensing Board Occupational therapists, Occupational therapy assistants	Mar - May (even yrs)	2-yr
Board of Pharmacy Pharmacists	Apr - Jun (odd yrs)	2-yr
Certified pharmacy technicians	Apr - Jun (even yrs)	2-yr
Physical Therapy Licensing Board Physical therapists, Physical therapist assistants	Jan - Mar (even yrs)	2-yr
Board of Psychology Psychologists	Ongoing	2-yr
Respiratory Therapist and Polysomnographic Technologist Licensing Board Respiratory therapists, Polysomnographic technologists	Ongoing	1-yr
Board of Licensed Social Workers Licensed clinical social workers, Non-clinical social workers	Ongoing	2-yr
Clinical social worker associates	Ongoing	1-yr
Board of Examiners For Speech-Language Pathology and Audiology Audiologists, Speech-language pathologists, Speech-language pathologist assistants	Nov - Dec (Odd yrs)	2-yr
Board of Optometry⁴ Optometrists	Ongoing	1-yr
State Board of Massage Therapists³ Licensed massage therapists	Ongoing	2-yr
Board of Medical Imaging¹ Radiographers, radiation therapists, sonographers	Ongoing	2-yr

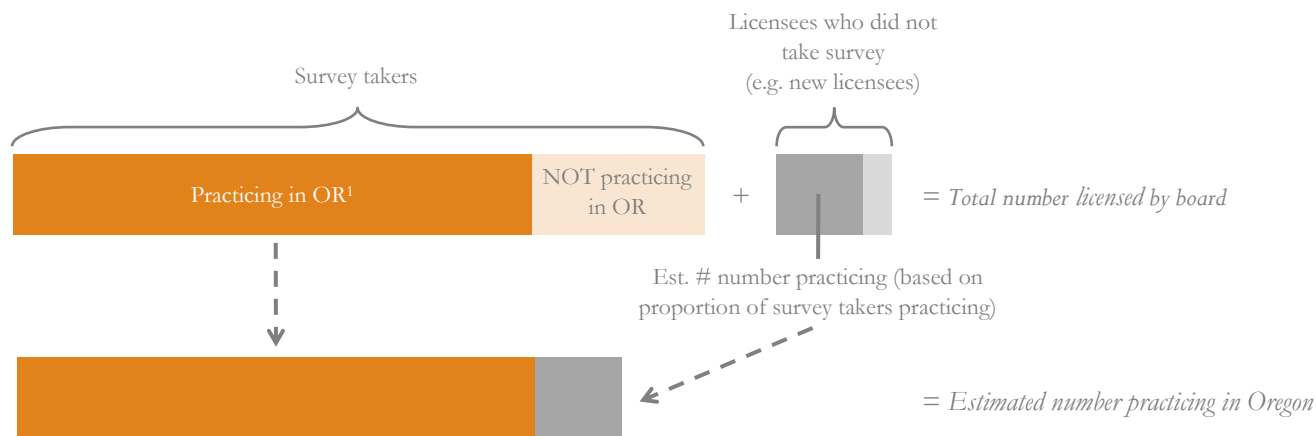
¹Those licensed in even-numbered years renew in even-numbered years and those licensed in odd-numbered years renew in odd-numbered years.

² Workforce data are collected by the Oregon Medical Board with their own application.

³Those born in even-numbered years must renew by their birthday in even-numbered years and those born in odd-numbered years must renew by their birthday in odd-numbered years.

⁴Must renew license by first day of birth month.

Figure 1. Estimation of number practicing schematic



Estimated Number Practicing in Oregon

The number of providers licensed in the state is obtained directly from each of the licensing boards in January of each year. Not all licensees who hold an active license in Oregon are actively working in the field in Oregon. Further, not all active licensees complete the workforce survey (e.g. new licensees). The estimate of all licensees (new and renewing) working in the state is derived from the percent of survey respondents who are actively practicing in the state.¹ Specifically:

Active practice rate = % survey takers who are active in OR (of those with known work location and practice status)

*Number practicing in OR (Estimated) = Total # licensed in OR * Active practice rate*

This estimation assumes that practice rates for those who do not complete the workforce survey (e.g. new licensees) is the same as those who have completed the survey.

FTE estimation

Not all licensees who work in Oregon work full time and not all licensees spend time in direct patient care. In addition to the estimated number of providers in the state, these reports also look at the total number of FTEs in direct patient care.

At the licensee level, Direct Patient Care FTE is calculated based on total hours worked and on time spent in direct patient care (capped at 80 hours). For dentists only, direct patient care FTE was weighted based on the number of auxiliaries reported (e.g., chairside assistants, hygienists, etc.) and age, according to HRSA Procedures for Shortage Designation.

At the statewide level, the total FTEs in direct patient care are estimated as follows:

*Direct patient care FTE (estimated) = # practicing in OR (estimated) * Average Patient Care FTE for occupation*

Where the average Direct Patient Care FTE for each occupation is calculated from the health care workforce survey data.

¹Practicing in Oregon means licensees who 1) identified their employment status as 'employed in the field', 'self-employed in the field', 'volunteer', or 'other'; and 2) reported a primary or secondary practice location in Oregon.

Population-to-provider ratio

State maps display the population-to-provider ratio (or conversely, the provider-to-population ratio) based on the estimated number of direct patient care FTEs who are practicing in the county.

$$\text{County patient care FTE (estimated)} = \text{Direct patient care FTE (estimated statewide)} * \% \text{ observed direct patient care FTE in county}$$

Where the percent of observed Direct Patient Care FTE in the county is calculated from the health care workforce survey data. Statewide and county population estimates come from the Portland State University Population Research Center (<https://www.pdx.edu/prc/population-reports-estimates>).

Race & ethnicity

Race and ethnicity population data comes from five-year American Community Survey (ACS) estimates. These estimates are not as current as the one-year estimates, but the primary advantage of using multiyear estimates is the data's availability and increased statistical reliability for less populated areas and small population subgroups.

All race/ethnicity categories in the workforce data were coded as mutually exclusive to match the ACS race/ethnicity categories and allow comparisons. When a licensee selected Hispanic as his or her ethnicity, the licensee was coded as being Hispanic. If there were other races selected along with Hispanic ethnicity, such as "Black" or "Asian," the licensee was only counted in the Hispanic category and not in the other categories. When a licensee selected a non-Hispanic ethnicity and more than one race, the licensee was coded as "Multiracial" and was not included in the specific race categories. When a licensee selected "Other" as race and no other race was selected, the licensee was coded as "Other."

Beginning in 2021, more detailed racial and ethnic data were collected according to [REAL-D standards](#).

Gender

Beginning in 2019, an option to self-describe gender identity was added to the surveys. Due to differing renewal cycles, full reporting in this category is available beginning with the 2021 timepoint.

Language

Regarding languages, ACS codes different languages nationwide into aggregated language groups. Standard tables separate out 39 languages and the four main language groups used here: Spanish, other Indo-European languages (most languages of Europe and the Indic languages of India, as well as Iranian languages), Asian and Pacific Island languages (among them Chinese, Korean, Japanese, Vietnamese, Hmong, Khmer, Lao, Thai, Tagalog and others) and all other languages (such as Uralic languages, languages of Africa, Native American languages, and more). Health professionals reporting speaking more than one language may be counted in more than one language group.

Specialty groups

In addition to evaluating the health care workforce by occupation, it is important to evaluate it through a multidisciplinary lens which groups health care professionals by specialty rather than by occupation. For example, physicians, nurse practitioners, physician assistants and naturopathic physicians may all specialize in primary care and provide this service to Oregonians.

Specialty groups as included in these reports are not mutually exclusive, so some professionals are included in more than one. Specialty groups are defined as:

- Primary care professionals are physicians and physician assistants who specialize in family practice, general practice, geriatric medicine, pediatrics, adolescent medicine, internal medicine, or obstetrics and gynecology; nurse practitioners who specialize in family practice, geriatrics, pediatrics, internal medicine, or OB/GYN/women's health; and naturopathic physicians who specialize in family medicine, pediatrics, geriatrics or obstetrics.
- Behavioral health professionals are all psychologists, counselors and therapists, licensed clinical social workers,

and clinical social work associates; physicians and physician assistants who specialize in psychiatry (addiction, neurology, child, adolescent, geriatric, or forensic) or psychoanalysis; nurse practitioners who specialize in psychiatry/mental health; and naturopathic physicians who specialize in mental health.

- Oral health professionals are dentists who specialize in oral health, pediatric dentistry or public health; and expanded practice dental hygienists who specialize in oral health, pediatric dentistry or public health and who report holding an expanded practice permit.
- Maternal child health professionals are physicians and physician assistants who specialize in obstetrics and gynecology, neonatology/perinatal or maternal and fetal medicine. Also included are primary care physicians and physician assistants who answer a subsequent question saying they provide maternal child health in their practice (important for rural communities where primary care physicians provide the bulk of maternity care); nurse practitioners who specialize in maternal-child health, OB/GYN/women's health; and naturopathic physicians who specialize in obstetrics.
- Pediatric and geriatric care professionals are subgroups of primary care professionals and include nurse practitioners and naturopathic physicians who specialize in pediatrics or geriatrics respectively, as well as physicians and physicians assistants who report any of the primary care specialties in addition to acknowledging in subsequent questions that they provide pediatric or geriatric services.

For questions about this report, contact:

Health Care Workforce Reporting Program
Research and Data
Oregon Health Authority
Wkfc.admin@dhsosha.state.or.us
971-283-8792

For more information, visit:

<https://www.oregon.gov/oha/hpa/analytics/Pages/Health-Care-Workforce-Reporting.aspx>

Sources:

- Population Research Center. Population estimates and reports: certified population estimates, July of each year. Portland, OR: Portland State University. Accessed September 7, 2021. <https://www.pdx.edu/population-research/population-estimate-reports>
- U.S. Census Bureau. American Community Survey Demographic and Housing Estimates: ACS 5-Year Estimates Data Profiles (Table ID DP05, geography of Oregon). Washington, DC: U.S. Census Bureau. Accessed September 17, 2021. <https://data.census.gov/cedsci/table?q=United%20States&tid=ACSDP5Y2019.DP05>

Suggested Citation:

Oregon Health Authority. (2021). *Oregon's health care workforce reporting program: Analytic methods*. Portland, OR: Oregon Health Authority.