

The Diversity of Oregon's Licensed Health Care Workforce

Based on data collected during 2016 and 2017

This report provides a snapshot of the state's health care workforce diversity using data collected by the Oregon Health Authority in collaboration with 14 health professional licensing boards. Future reports will include data of three additional licensing boards (See page 6 for Board information). Data are self-reported at the time of license renewal and do not capture all active licensees in the State.

This report explores the relative distribution of selected health care professions, including primary, oral health, and behavioral health care providers, and the population by race, ethnicity, gender and language.

OHA has improved data collection methods to reduce the amount of missing race and ethnicity data. Workforce records are missing race and ethnicity data because it was not entered by the licensee or it was not collected by the licensing board 0.04 percent of the time. Another 9.9 percent of licensees declined to report race or ethnicity.

Due to the addition of data from six licensing boards, data presented at the statewide level should not be compared with earlier versions. Data from specific occupations may be compared.

Race, ethnicity, and gender

Oregon's population has become more diverse. Since 2009, the white population has decreased from 80.4% to 77.0% (ACS; 5 year estimates), while other racial and ethnic populations have increased (Figure 1). Oregon's health care workforce is less racially and ethnically diverse than the population being served (Figure 2), with Whites and Asians being overrepresented and Hispanics being underrepresented.

Table 1 (Page 2) shows the distribution of health care professions' race, ethnicity and gender compared with the state's population. Differences are noted at the 0.5 percentage point level. Overall, Hispanic and multi-racial health care providers are underrepresented and white health care professionals are overrepresented in almost all professions. How-

ever, Hispanics tend to be more represented in fields with fewer licensure requirements (e.g. certified nursing assistants).

While females are overrepresented in most professions, men tend to be overrepresented in fields requiring more advanced training (e.g. dentistry and medicine).

The licensed health care workforce in nearly all Oregon counties is less Hispanic than the overall population (except in Gilliam County, which has only nine providers). Figure 3 shows the difference between the percentage of Hispanic health care professionals and the Hispanic population by county, with darker blue indicating a bigger gap. Though not evident in this map, while counties with a larger-than-

Figure 1: Increasing diversity in Oregon

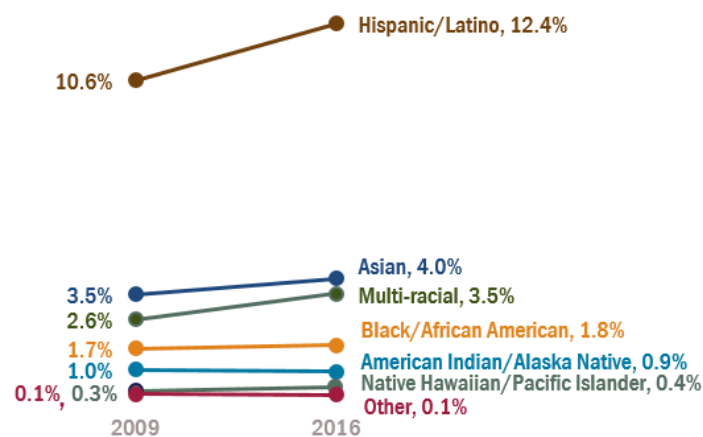
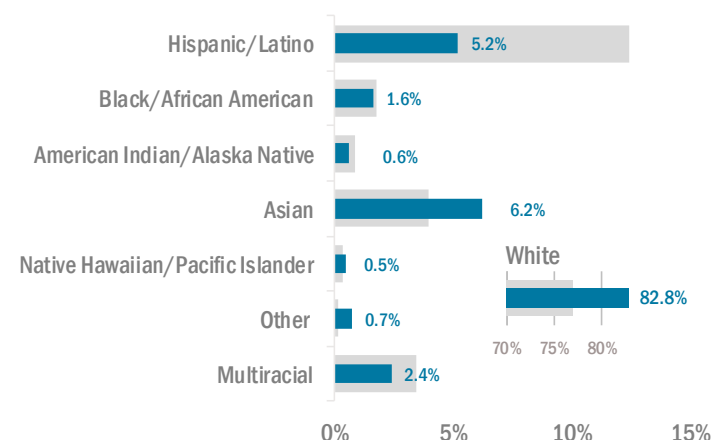


Figure 2: Health care workforce vs Population



Note: Providers with missing data were excluded from the analysis. Racial categories exclude Hispanics.

Table 1: Race, Ethnicity, and Gender Distribution: Health Care Workforce vs Population

	Hisp/ Latino	Non-Hispanic							Female	Male
		White	Black/ AA	AI/AN	Asian	NH/PI	Other	Multi- racial		
State Population	12.4%	77.0%	1.8%	0.9%	4.0%	0.4%	0.1%	3.5%	50.5%	49.5%
Chiropractic										
Chiropractic physicians	1.9%	90.0%	0.5%	0.3%	4.4%	0.3%	0.8%	1.9%	30.6%	69.4%
Chiropractic assistants	17.3%	73.1%	0.7%	0.8%	3.8%	0.5%	0.4%	3.4%	89.2%	10.8%
Counselors & Therapists										
Counselors & therapists	3.6%	90.1%	0.9%	0.4%	1.6%	0.1%	1.2%	2.2%	77.6%	22.4%
Dentistry										
Dentists	3.4%	79.2%	0.6%	0.3%	13.2%	0.2%	1.4%	1.8%	26.2%	73.8%
Dental hygienists	3.7%	86.6%	0.4%	0.6%	5.0%	0.2%	0.9%	2.5%	97.0%	3.0%
Dietetics										
Dietitians	1.1%	93.2%	0.4%	0.7%	3.5%	0.0%	0.0%	1.1%	96.9%	3.1%
Medicine										
Physicians	3.4%	78.8%	1.3%	0.1%	13.4%	0.2%	1.3%	1.4%	38.5%	61.5%
Podiatrists	1.2%	85.2%	0.6%	0.0%	10.5%	0.6%	0.6%	1.2%	23.4%	76.6%
Physician assistants	3.7%	89.2%	0.8%	0.4%	3.7%	0.2%	0.4%	1.7%	64.3%	35.7%
Acupuncturists	3.4%	82.3%	0.4%	0.1%	10.1%	0.1%	0.8%	2.8%	70.1%	29.9%
Naturopathy										
Naturopathic physicians	3.7%	86.9%	0.7%	0.1%	3.5%	0.1%	0.9%	4.1%	76.3%	23.7%
Nursing										
Nurse practitioners	3.2%	87.9%	1.5%	0.3%	3.4%	0.6%	0.6%	2.6%	87.9%	12.1%
Certified registered nurse anesthetists	4.1%	87.3%	0.3%	0.3%	5.0%	0.0%	0.6%	2.4%	48.7%	51.3%
Clinical nurse specialists	0.8%	93.1%	0.0%	0.0%	2.3%	0.0%	0.0%	3.8%	94.8%	5.2%
Registered nurses	3.7%	87.3%	0.9%	0.6%	4.2%	0.4%	0.5%	2.4%	87.4%	12.6%
Licensed practical nurses	7.6%	78.5%	3.9%	0.9%	4.6%	0.5%	0.5%	3.4%	87.6%	12.4%
Certified nursing assistants	14.6%	66.8%	6.2%	1.2%	5.7%	1.3%	0.8%	3.4%	84.3%	15.7%
Occupational therapy										
Occupational therapists	1.6%	90.7%	0.3%	0.3%	4.0%	0.2%	0.3%	2.5%	89.8%	10.2%
Occupational therapist assistants	3.5%	90.1%	0.4%	0.0%	3.2%	0.0%	1.4%	1.4%	86.8%	13.2%
Pharmacy										
Pharmacists	2.7%	72.0%	1.3%	0.5%	19.8%	0.3%	1.1%	2.3%	57.0%	43.0%
Certified pharmacy technicians	8.0%	78.6%	1.0%	1.0%	7.3%	1.1%	0.3%	2.8%	80.5%	19.5%
Physical therapy										
Physical therapists	2.5%	88.4%	0.3%	0.2%	6.2%	0.2%	0.3%	1.8%	65.9%	34.1%
Physical therapist assistants	1.6%	92.8%	0.5%	0.5%	1.5%	0.5%	0.3%	2.2%	75.9%	24.1%
Psychology										
Psychologist examiners	3.7%	89.1%	0.6%	0.1%	3.9%	0.2%	0.7%	1.8%	61.3%	38.7%
Respiratory Therapy & Polysomnography										
Respiratory therapists	5.7%	85.5%	1.0%	1.1%	2.6%	0.5%	0.7%	3.1%	60.0%	40.0%
Polysomnographic technologists	4.3%	87.6%	1.6%	0.5%	3.2%	0.0%	0.5%	2.2%	50.7%	49.3%
Social work										
Licensed clinical social workers	3.6%	89.3%	1.3%	0.7%	1.7%	0.2%	0.8%	2.4%	80.8%	19.2%
Clinical social worker associates	10.6%	75.9%	3.7%	0.4%	3.1%	0.2%	1.8%	4.3%	84.5%	15.5%
Non-clinical social workers	6.1%	88.5%	1.5%	0.0%	1.5%	0.0%	0.8%	1.5%	88.7%	11.3%
Speech-language pathology & audiology										
Audiologists	0.5%	93.6%	0.5%	0.0%	4.9%	0.0%	0.0%	0.5%	72.7%	27.3%
Speech-language pathologists	3.1%	92.6%	0.4%	0.4%	1.5%	0.1%	0.3%	1.7%	91.2%	8.8%
Speech-language pathologist Assistants	11.4%	83.4%	0.0%	0.6%	1.1%	0.0%	0.6%	2.9%	98.4%	1.6%

Note: Providers with missing data were excluded from the analysis. Racial categories exclude Hispanics. AA = African American, AI/AN = American Indian or Alaska Native, NH/PI = Native Hawaiian or Pacific Islander

Above state population



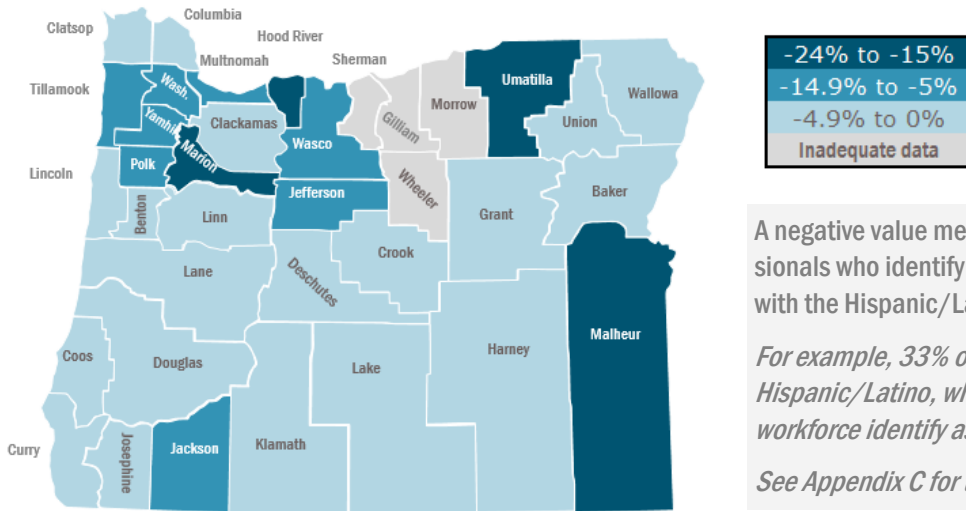
Similar to state population



Below state population



Figure 3: Gap in Hispanic/Latino health care professionals compared with county population



A negative value means that the percentage of health professionals who identify as Hispanic/Latino is smaller compared with the Hispanic/Latino population.

For example, 33% of Malheur county's population identify as Hispanic/Latino, while only 9% of the county's health care workforce identify as Hispanic/Latino – a gap of 24%.

See Appendix C for table of values.

average Hispanic population have a higher number of Hispanic health professionals, they still show the largest gaps (See Appendix C).

Traditional health workers (THWs) may help offset these gaps. THWs include seven primary worker types, including: Community Health Workers, Peer Support Specialists, Peer Wellness Specialists, Personal Health Navigators, Doulas, Family Support Specialists, and Youth Support Specialists. Utilization of THWs assures delivery of high-quality, culturally competent care which is instrumental in achieving Oregon's Triple Aim. As of October 2018, more than 3,000 THWs have been certified by OHA.

Language

Twenty percent of Oregon's health care professionals reported speaking languages other than English (Figure 4).

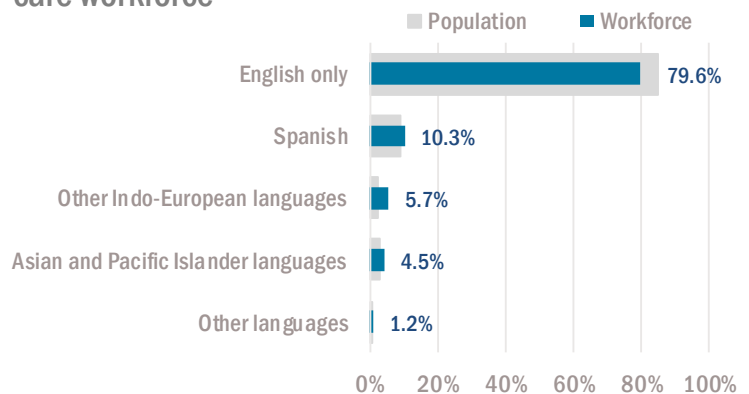
After English, Spanish is the most commonly reported language spoken (10%). Four in ten of these providers report either advanced proficiency (21%) or being a native speaker (18%) and of those that speak Spanish, 69 percent reported using Spanish while providing patient care. Of these, only five percent reported being certified, but 39 percent have received training in medical terminology. Seventy-six percent of these providers are located in six counties (Clackamas, Jackson, Lane, Multnomah, Marion, and Washington). Statewide, nurse practitioners, physicians, and podiatrists are most likely to be Spanish speakers (17%, 17%, and 16% respectively), while clinical nurse specialists (1%), occupational therapy assistants (4%), and polysomnographic technologists (5%) are least likely. After Spanish, the most commonly reported language is French, and the third is Tagalog.

After English, Spanish, Chinese (including Mandarin, Cantonese, Teochew and other Chinese languages), Vietnamese,

and Russian are the most common languages spoken in Oregon households (ACS; 5 year estimates). Figure 5 (next page) shows the percentage of providers that speak these languages. While the workforce and population appear similar, this may be driven by specific occupations. For example, while 6.1 percent of pharmacists report speaking Vietnamese, only 0.03 percent of licensed counselors and therapists speak Vietnamese. For the majority of occupations fewer than 0.5 percent of licensees report speaking Vietnamese. (See Appendix E).

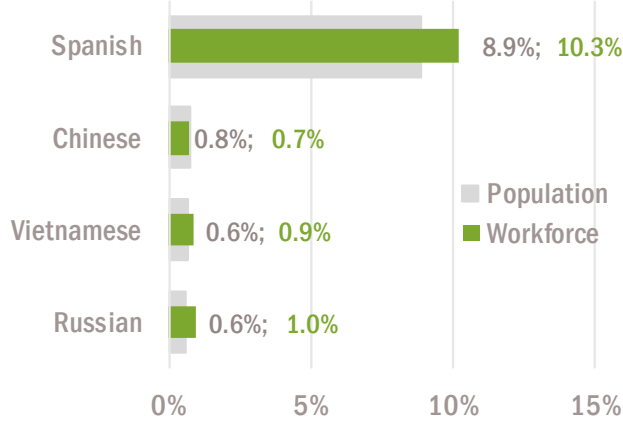
There is no guarantee that a provider who speaks a particular language will be available when a non-English-speaking client needs one. Health care interpreters (HCI) help to fill the gaps. The utilization of language services, such as interpretation by qualified and certified HCIs, has been shown to improve cross-cultural communication, leading to increased compliance with recommended treatment plans, improved health care outcomes, overall reduction of healthcare cost,

Figure 4: Languages spoken by Oregon's health care workforce



Note: See Methods and sources for definition of Indo-European languages.

Figure 5: Top Oregon Household Languages



and ultimately, reduction in health disparities. Oregon's Health Care Interpreter program is based on Title VI of the federal Civil Rights Act and Oregon law (ORS 413.550). To comply with these laws, OAR 333-002-0000 was implemented to develop an HCI workforce and ensure the availability of quality health care interpretation for patients who are considered Limited English Proficient (LEP).

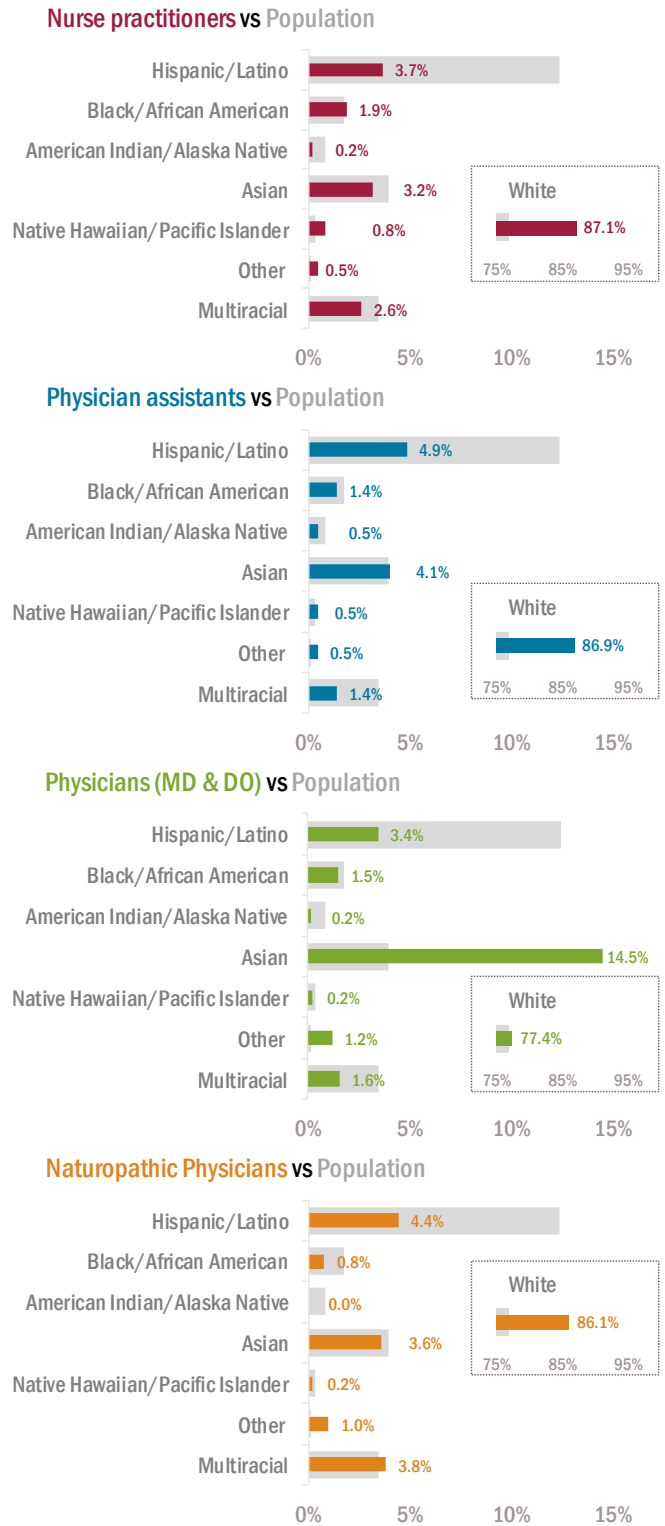
Certified and qualified interpreters must have formal training and experience and certified interpreters must pass national certification exams. As of October 2018, Oregon has 299 qualified and 129 certified health care interpreters. These numbers have increased from 257 and 91, respectively, since January 2017.

Primary care providers¹

Primary care providers (PCPs), including nurse practitioners (NP), physicians (MD & DO), physician assistants (PA), and naturopathic physicians (ND), comprise approximately 6.3 percent of the health care workforce. Figure 6 shows the racial and ethnic distribution of Oregon's PCPs compared with Oregon's population. Most people of color tend to be underrepresented among PCPs with the exception of providers of Asian descent. Asian physicians are overrepresented relative to Oregon's population.

Thirty-two percent of PCPs reported speaking a language other than English, suggesting that they are more linguistically diverse than the health care work force as a whole. Among PCPs, Spanish is the most commonly reported language spoken after English (19%), followed by languages in the Indo-European group (nearly 10%).

Figure 6: Primary Care Workforce vs Population



Note: Providers with missing data were excluded from the analysis. Racial categories exclude Hispanics.

¹Primary care providers are defined as MD, DO, and PA licensees whose practice specialties are in family medicine, family practice, family practice and osteopathic manipulative treatment, general practice, geriatric medicine, pediatrics, adolescent medicine, or internal medicine, NP licensees who select 'Primary Care' for their primary practice setting or 'Nurse Practitioner—Primary Care' for their primary practice position, and ND licensees who select yes to "Do you consider yourself a primary care provider at this practice location?"

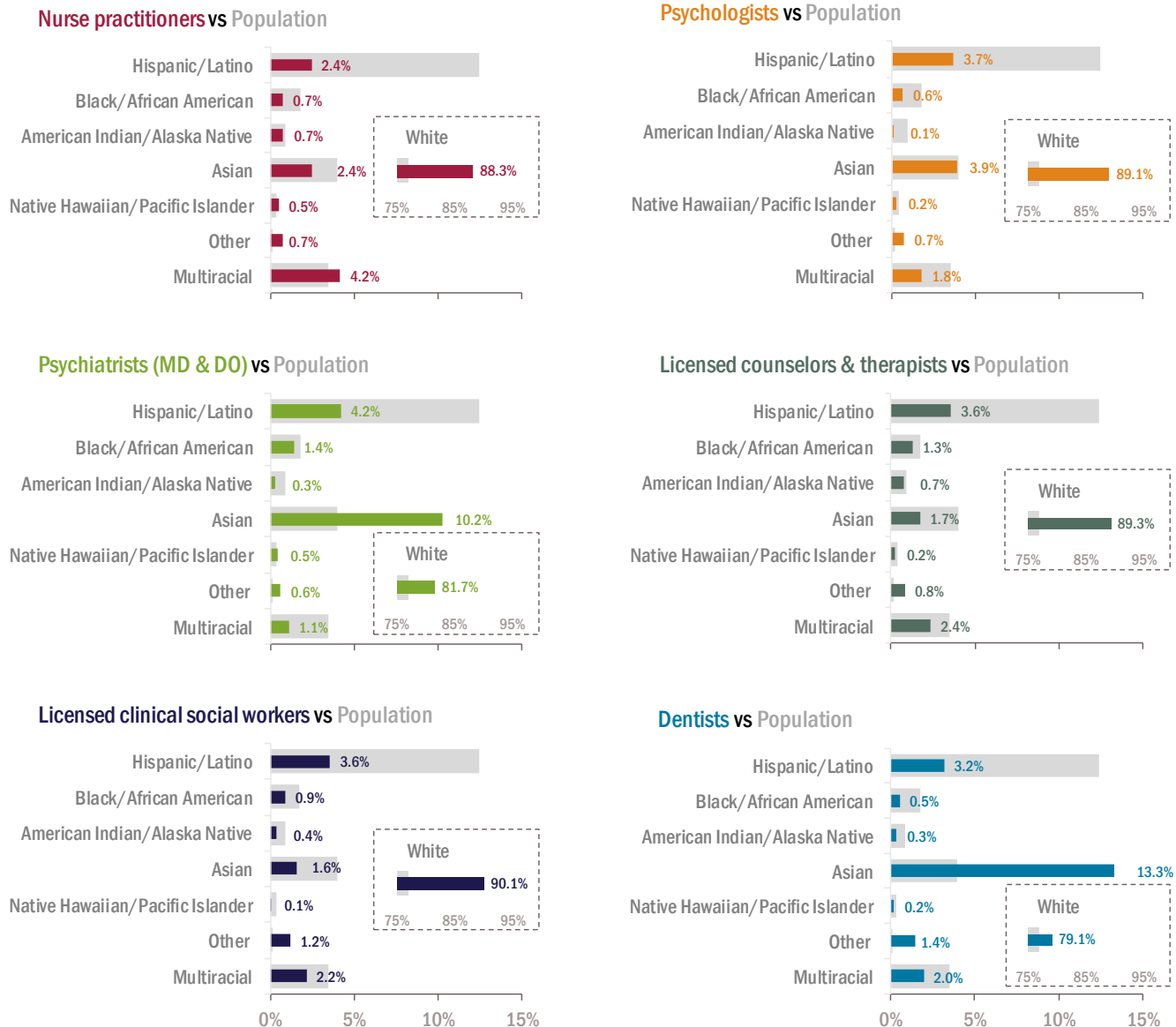
Behavioral health care providers²

Behavioral health care providers, including psychiatric nurse practitioners, physicians and physician assistants, psychologist examiners, licensed professional counselors and therapists, and licensed clinical social workers, comprise approximately 8.9 percent of the health care workforce. Figure 7 shows the racial and ethnic distribution of Oregon’s behavioral health workforce compared with Oregon’s population.

Oral health care providers³

Oral health care providers comprise approximately 2.0 percent of the health care workforce. Figure 7 shows the racial and ethnic distribution of Oregon’s general dentists compared with Oregon’s population. Asian dentists are overrepresented relative to Oregon’s population, while other minority races are underrepresented.

Figure 7: Behavioral Health and Oral Health Care Workforce vs Population



Note: Data from psychiatric physician assistants suppressed due to low numbers (n = 21). Providers with missing data were excluded from the analysis. Racial categories exclude Hispanics.

² Behavioral health care providers are defined as MD, DO, and PA licensees whose practice specialties are in psychiatry, addiction psychiatry, child and/or adolescent psychiatry, forensic psychiatry, geriatric psychiatry, or psychoanalysis, NP licensees with a specialty of psychiatry/mental health, psychologist examiners, licensed professional counselors and therapists, and licensed clinical social workers.

³ General oral health care providers are defined as dentists licensees whose practice specialties are in general dentistry, pediatric dentistry, or public health, but excluding oral surgeons, etc.

Methods and sources

Workforce licensing data:

Oregon's Health Care Workforce Reporting Program (HWRP) was created in 2009. As directed by Oregon Revised Statute 676.410, the HWRP collects and tabulates information from licensees of 17 health licensing boards upon renewal. Health professionals included in this report are licensees who worked in Oregon and renewed a license from one of the following boards during these dates:

- Oregon Medical Board (license types: medical doctors (MD); doctors in osteopathy (DO); medical doctor/volunteer/emeritus (MDVE); and physician assistants (PA) - October 1, 2017 through March 31, 2018; licensed acupuncturists - April 1, 2016 through June 30, 2016);
- Oregon State Board of Nursing (license types: registered nurse (RN), nurse practitioner (NP); certified registered nurse anesthetist (CRNA); clinical nurse specialist (CNS), licensed practical nurse (LPN); and certified nursing assistant (CAN) - January 1, 2016 through January 29, 2018);
- Oregon Board of Dentistry (license types: dentists (D), volunteer dentists (VD), registered dental hygienists (RDH) and volunteer registered dental hygienists (VRDH) - January 1, 2016 through December 31, 2017);
- Oregon Occupational Therapy Licensing Board (license types: occupational therapists (OT) and occupational therapy assistants (OTA) - January 1, 2016 through January 30, 2018);
- Oregon Board of Pharmacy (license types: pharmacists (RPH) and certified pharmacy technicians (CPhT) - January 1, 2016 through January 11, 2018);
- Oregon Physical Therapist Licensing Board (license types: physical therapist (PT) and physical therapist assistants (PTA) - January 1, 2016 through January 16, 2018);
- Oregon Board of Licensed Dietitians (license type: registered dietitian (RD) - December 1, 2016 through January 16, 2018).
- Oregon Physical Therapist Licensing Board (license types: physical therapist (PT) and physical therapist assistants (PTA) - January 1, 2016 through January 16, 2018);
- Oregon Board of Chiropractic Examiners (license types: chiropractic examiners (DC) - November 1, 2016 through December 31, 2017; and chiropractic assistants (CA) - June 1, 2017 through January 16, 2018).
- Oregon Board of Licensed Social Workers (license types: licensed clinical social worker (LCSW); clinical social worker associate (CSWA) and non-clinical social workers (NCSW)- July 1, 2016 through July 31, 2018);

- Oregon Board of Licensed Professional Counselors and Therapists (license types: licensed marriage and family therapist (LMFT) and licensed professional counselor (LPC) - November 1, 2016 through January 16, 2018).
- Oregon Board of Naturopathic Medicine (license types: naturopathic physician (ND) - November 1, 2017 through January 30, 2018);
- Oregon Board of Psychology (license type: psychologists (PSY) - July 1, 2016 through July 31, 2018);
- Respiratory Therapist and Polysomnographic Technologist Licensing Board (license types: polysomnographer (POL) ; and respiratory therapist (RT) - November 1, 2016 through December 31, 2017);
- Oregon Board of Examiners for Speech-Language Pathology and Audiology (license types: audiologists (AUD); speech-language pathologists (SLP); and speech-language pathologists assistants (SLPA) - November 1, 2017 through February 2, 2018). Eight licensees that hold both audiology and speech-language pathology licenses are grouped with the audiologists.

Workforce data were extracted from the most recent workforce database. The Oregon Medical Board provided race and ethnicity data collected with their own data system; all the other health professions' race/ethnicity data were collected through a common format workforce survey that licensees must complete as part of their renewal process.

All race/ethnicity categories in the workforce data were coded as mutually exclusive to match the American Community Survey (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 would only be counted in the Hispanic category and not in other categories. Of the 5,015 licensees coded as Hispanic, approximately 59.5 percent identified with at least one racial category (White: 50.8%; Multi-racial: 4.5%; American Indian/Alaska Native: 2.1%, Black/AA: 1.1%; Asian: 0.5%; Native Hawaiian/Pacific Islander: 0.5%). The remaining 40.5 percent chose "Other" (19.4%), declined to report a race (18.9%) or were missing data (2.3%). 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."

Table 1 uses a difference of 0.5 percent as the threshold to identify gaps between provider and population diversity.

Data were analyzed and tabulated with SAS 9.4; graphics were produced in Excel.

Population data comes from five-year ACS estimates (data collected over 60-month period, 2012–2016). 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. Population data reflects the total population (rather than the adult population), as the total population is served by the workforce.

Regarding languages, ACS coded 381 different languages nationwide. 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). Some health professionals reporting speaking more than one language may be counted in more than one language group; 91 percent of the health professionals who report speaking languages other than English were coded in only one language group.

This report was produced by the Office of Health Analytics, Oregon Health Authority.

Appendix A: Oregon population: race and ethnicity, by county

	Total	Hispanic/ Latino		Non-Hispanic													
				White	%	Black/AA	%	AI/AN	%	Asian	%	NH/PI	%	Other	%	Multi-racial	%
Oregon	3,982,267	494,806	12.4%	3,066,467	77.0%	70,359	1.8%	35,074	0.9%	158,209	4.0%	14,245	0.4%	4,905	0.1%	138,202	3.5%
Baker	16,030	615	3.8%	14,657	91.4%	65	0.4%	213	1.3%	124	0.8%	43	0.3%	14	0.1%	299	1.9%
Benton	87,455	6,100	7.0%	71,510	81.8%	851	1.0%	483	0.6%	5,522	6.3%	267	0.3%	119	0.1%	2,603	3.0%
Clackamas	394,967	32,503	8.2%	328,760	83.2%	3,163	0.8%	2,031	0.5%	15,787	4.0%	977	0.2%	169	0.0%	11,577	2.9%
Clatsop	37,660	3,074	8.2%	32,445	86.2%	267	0.7%	139	0.4%	422	1.1%	75	0.2%	-	0.0%	1,238	3.3%
Columbia	49,645	2,301	4.6%	44,362	89.4%	303	0.6%	573	1.2%	548	1.1%	124	0.2%	-	0.0%	1,434	2.9%
Coos	62,944	3,910	6.2%	53,888	85.6%	403	0.6%	1,320	2.1%	722	1.1%	93	0.1%	72	0.1%	2,536	4.0%
Crook	21,334	1,588	7.4%	18,903	88.6%	39	0.2%	217	1.0%	34	0.2%	14	0.1%	-	0.0%	539	2.5%
Curry	22,364	1,457	6.5%	19,513	87.3%	87	0.4%	402	1.8%	128	0.6%	5	0.0%	25	0.1%	747	3.3%
Deschutes	170,813	13,029	7.6%	150,077	87.9%	797	0.5%	769	0.5%	1,701	1.0%	147	0.1%	80	0.0%	4,213	2.5%
Douglas	107,375	5,649	5.3%	95,301	88.8%	380	0.4%	1,042	1.0%	988	0.9%	75	0.1%	16	0.0%	3,924	3.7%
Gilliam	1,913	186	9.7%	1,657	86.6%	6	0.3%	54	2.8%	-	0.0%	10	0.5%	-	0.0%	-	0.0%
Grant	7,227	253	3.5%	6,650	92.0%	30	0.4%	46	0.6%	17	0.2%	-	0.0%	1	0.0%	230	3.2%
Harney	7,214	356	4.9%	6,294	87.2%	46	0.6%	241	3.3%	32	0.4%	10	0.1%	42	0.6%	193	2.7%
Hood River	22,842	7,046	30.8%	14,741	64.5%	111	0.5%	202	0.9%	391	1.7%	7	0.0%	-	0.0%	344	1.5%
Jackson	210,916	25,058	11.9%	173,329	82.2%	1,321	0.6%	1,280	0.6%	2,252	1.1%	610	0.3%	285	0.1%	6,781	3.2%
Jefferson	22,305	4,421	19.8%	13,410	60.1%	226	1.0%	3,614	16.2%	155	0.7%	87	0.4%	-	0.0%	392	1.8%
Josephine	84,063	5,850	7.0%	73,736	87.7%	297	0.4%	1,022	1.2%	646	0.8%	5	0.0%	30	0.0%	2,477	2.9%
Klamath	65,946	7,823	11.9%	52,273	79.3%	394	0.6%	2,118	3.2%	630	1.0%	88	0.1%	65	0.1%	2,555	3.9%
Lake	7,799	592	7.6%	6,679	85.6%	44	0.6%	90	1.2%	70	0.9%	-	0.0%	10	0.1%	314	4.0%
Lane	360,273	29,403	8.2%	299,530	83.1%	3,442	1.0%	3,155	0.9%	9,053	2.5%	858	0.2%	574	0.2%	14,258	4.0%
Lincoln	46,685	4,028	8.6%	38,725	82.9%	205	0.4%	1,334	2.9%	557	1.2%	91	0.2%	80	0.2%	1,665	3.6%
Linn	119,862	10,054	8.4%	103,248	86.1%	591	0.5%	1,623	1.4%	1,363	1.1%	116	0.1%	69	0.1%	2,798	2.3%
Malheur	30,474	10,015	32.9%	18,902	62.0%	306	1.0%	167	0.5%	471	1.5%	21	0.1%	39	0.1%	553	1.8%
Marion	326,527	83,659	25.6%	218,448	66.9%	3,547	1.1%	1,952	0.6%	6,249	1.9%	2,549	0.8%	249	0.1%	9,874	3.0%
Morrow	11,207	3,886	34.7%	6,857	61.2%	15	0.1%	44	0.4%	40	0.4%	14	0.1%	-	0.0%	351	3.1%
Multnomah	778,193	86,579	11.1%	553,241	71.1%	41,100	5.3%	4,389	0.6%	53,047	6.8%	4,683	0.6%	1,899	0.2%	33,255	4.3%
Polk	78,470	10,232	13.0%	62,253	79.3%	621	0.8%	849	1.1%	1,507	1.9%	226	0.3%	54	0.1%	2,728	3.5%

Continued on next page

Appendix A: Oregon population: race and ethnicity, by county

	Total	Hispanic/ Latino		Non-Hispanic													
				White	%	Black/AA	%	AI/AN	%	Asian	%	NH/PI	%	Other	%	Multi-racial	%
Oregon	3,982,267	494,806	12.4%	3,066,467	77.0%	70,359	1.8%	35,074	0.9%	158,209	4.0%	14,245	0.4%	4,905	0.1%	138,202	3.5%
Sherman	1,705	87	5.1%	1,506	88.3%	8	0.5%	42	2.5%	2	0.1%	-	0.0%	-	0.0%	60	3.5%
Tillamook	25,552	2,573	10.1%	21,733	85.1%	79	0.3%	199	0.8%	188	0.7%	101	0.4%	4	0.0%	675	2.6%
Umatilla	76,582	19,596	25.6%	51,612	67.4%	519	0.7%	1,641	2.1%	508	0.7%	116	0.2%	41	0.1%	2,549	3.3%
Union	25,758	1,131	4.4%	23,106	89.7%	170	0.7%	202	0.8%	271	1.1%	296	1.1%	13	0.1%	569	2.2%
Wallowa	6,836	174	2.5%	6,407	93.7%	27	0.4%	29	0.4%	15	0.2%	1	0.0%	7	0.1%	176	2.6%
Wasco	25,657	4,289	16.7%	19,499	76.0%	109	0.4%	921	3.6%	206	0.8%	183	0.7%	-	0.0%	450	1.8%
Washington	564,088	91,495	16.2%	382,165	67.7%	10,013	1.8%	1,865	0.3%	53,065	9.4%	2,083	0.4%	894	0.2%	22,508	4.0%
Wheeler	1,369	26	1.9%	1,291	94.3%	-	0.0%	15	1.1%	9	0.7%	-	0.0%	-	0.0%	28	2.0%
Yamhill	102,217	15,768	15.4%	79,759	78.0%	777	0.8%	791	0.8%	1,489	1.5%	270	0.3%	54	0.1%	3,309	3.2%

Source: American Community Survey 5-year file, 2012-2016

Appendix B: Oregon health care workforce: race and ethnicity, by county

	Total	Hispanic/ Latino	Non-Hispanic							Refused/ Declined	Missing (no data)
			White	Black/AA	AI/AN	Asian	NH/PI	Other	Multi-racial		
Oregon	107,091	5,015	79,856	1,553	570	6,013	447	695	2,300	10,604	38
Baker	301	6	240	-	2	4	-	-	6	43	-
Benton	2,494	95	1,985	18	18	92	4	12	54	215	1
Clackamas	8,624	372	6,280	138	36	687	43	67	173	827	1
Clatsop	889	30	719	7	2	38	3	6	12	72	-
Columbia	362	12	277	4	-	15	-	4	9	41	-
Coos	1,567	52	1,190	7	22	57	5	8	52	174	-
Crook	244	7	198	-	2	6	-	2	6	23	-
Curry	312	10	241	1	4	10	2	2	2	40	-
Deschutes	5,082	154	4,214	12	21	83	10	16	92	479	1
Douglas	2,169	58	1,699	15	23	59	6	6	45	258	-
Gilliam	9	1	6	1	-	-	-	-	1	-	-
Grant	129	2	107	1	1	5	-	-	4	9	-
Harney	130	3	109	-	1	3	-	-	2	12	-
Hood River	660	45	534	-	3	8	-	2	4	64	-
Jackson	6,070	310	4,733	24	34	173	19	31	120	624	2
Jefferson	275	19	209	1	11	3	-	-	6	26	-
Josephine	1,839	71	1,419	5	11	52	4	10	38	229	-
Klamath	1,278	86	982	6	17	24	4	5	36	117	1
Lake	158	4	119	1	2	3	-	-	4	25	-
Lane	9,751	374	7,465	77	61	358	27	58	228	1,096	7
Lincoln	855	31	682	4	9	22	6	2	16	83	-
Linn	2,201	77	1,780	10	18	57	4	5	46	203	1
Malheur	756	62	569	3	2	20	2	3	11	83	1
Marion	8,740	665	6,305	121	59	396	48	77	164	902	3
Morrow	84	2	70	-	1	-	-	-	4	7	-
Multnomah	32,715	1,442	23,689	820	117	2,402	158	239	773	3,061	14

Appendix B: Oregon health care workforce: race and ethnicity, by county

	Total	Hispanic/ Latino	Non-Hispanic							Refused/ Declined	Missing (no data)
			White	Black/AA	AI/AN	Asian	NH/PI	Other	Multi-racial		
Oregon	107,091	5,015	79,856	1,553	570	6,013	447	695	2,300	10,604	38
Polk	798	45	611	7	9	29	3	2	13	78	1
Sherman	2	-	2	-	-	-	-	-	-	-	-
Tillamook	406	16	330	6	1	8	1	2	8	34	-
Umatilla	1,287	92	961	13	14	39	2	6	25	134	1
Union	586	13	485	1	1	12	7	3	1	63	-
Wallowa	143	1	119	-	-	2	-	-	2	19	-
Wasco	870	38	693	1	10	14	4	3	17	89	1
Washington	13,337	695	9,360	235	47	1,262	73	114	285	1,264	2
Wheeler	14	-	11	-	-	-	-	-	-	3	-
Yamhill	1,851	124	1,405	13	11	66	11	10	39	171	1

Health care workforce missing county information: 103

Source: Health Care Workforce Database, Oregon Health Authority, 2016-2017

Appendix C: Oregon population and health care workforce: Hispanic/Latino ethnicity, by county

County	Population			Health Care Workforce			% Difference
	Total	Hispanic/ Latino	%	Total	Hispanic/ Latino	%	
Oregon	3,982,267	494,806	12.4%	97,548	5,015	5.1%	-7.3%
Baker	16,030	615	3.8%	259	6	2.3%	-1.5%
Benton	87,455	6,100	7.0%	2,298	95	4.1%	-2.8%
Clackamas	394,967	32,503	8.2%	7,879	372	4.7%	-3.5%
Clatsop	37,660	3,074	8.2%	823	30	3.6%	-4.5%
Columbia	49,645	2,301	4.6%	324	12	3.7%	-0.9%
Coos	62,944	3,910	6.2%	1,408	52	3.7%	-2.5%
Crook	21,334	1,588	7.4%	221	7	3.2%	-4.3%
Curry	22,364	1,457	6.5%	278	10	3.6%	-2.9%
Deschutes	170,813	13,029	7.6%	4,641	154	3.3%	-4.3%
Douglas	107,375	5,649	5.3%	1,937	58	3.0%	-2.3%
Gilliam	1,913	186	9.7%	9	1	11.1%	1.4%
Grant	7,227	253	3.5%	120	2	1.7%	-1.8%
Harney	7,214	356	4.9%	122	3	2.5%	-2.5%
Hood River	22,842	7,046	30.8%	605	45	7.4%	-23.4%
Jackson	210,916	25,058	11.9%	5,503	310	5.6%	-6.2%
Jefferson	22,305	4,421	19.8%	252	19	7.5%	-12.3%
Josephine	84,063	5,850	7.0%	1,628	71	4.4%	-2.6%
Klamath	65,946	7,823	11.9%	1,166	86	7.4%	-4.5%
Lake	7,799	592	7.6%	135	4	3.0%	-4.6%
Lane	360,273	29,403	8.2%	8,754	374	4.3%	-3.9%
Lincoln	46,685	4,028	8.6%	779	31	4.0%	-4.6%
Linn	119,862	10,054	8.4%	2,021	77	3.8%	-4.6%
Malheur	30,474	10,015	32.9%	680	62	9.1%	-23.7%
Marion	326,527	83,659	25.6%	7,933	665	8.4%	-17.2%
Morrow	11,207	3,886	34.7%	78	2	2.6%	-32.1%
Multnomah	778,193	86,579	11.1%	29,982	1,442	4.8%	-6.3%

Appendix C: Oregon population and health care workforce: Hispanic/Latino ethnicity, by county

County	Population			Health Care Workforce			% Difference
	Total	Hispanic/ Latino	%	Total	Hispanic/ Latino	%	
Oregon	3,982,267	494,806	12.4%	97,548	5,015	5.1%	-7.3%
Polk	76,464	9,636	12.6%	732	45	6.1%	-6.5%
Sherman	1,790	97	5.4%	2	-	0.0%	-5.4%
Tillamook	25,334	2,443	9.6%	376	16	4.3%	-5.4%
Umatilla	76,645	19,058	24.9%	1,164	92	7.9%	-17.0%
Union	25,736	1,088	4.2%	526	13	2.5%	-1.8%
Wallowa	6,893	172	2.5%	126	1	0.8%	-1.7%
Wasco	25,387	4,070	16.0%	788	38	4.8%	-11.2%
Washington	547,451	87,650	16.0%	12,221	695	5.7%	-10.3%
Wheeler	1,357	48	3.5%	11	-	0.0%	-3.5%
Yamhill	100,486	15,285	15.2%	1,700	124	7.3%	-7.9%

Health care workforce missing county information: 103

Sources: Health Care Workforce Database, Oregon Health Authority, 2016-2017; American Community Survey 5-year file, 2012-2016

Appendix D: Oregon population and health care workforce: languages spoken other than English, by county

SPEAK A LANGUAGE OTHER THAN ENGLISH		Total	Only English speakers	%	Spanish or Spanish Creole	%	Other Indo-European languages	%	Asian and Pacific Island languages	%	Other languages	%
Oregon	HCWF	107,091	85,264	79.6%	10,996	10.3%	6,149	5.7%	4,831	4.5%	1,272	1.2%
	Population	3,750,266	3,184,816	84.9%	334,636	8.9%	94,957	2.5%	112,341	3.0%	23,516	0.6%
Baker	HCWF	301	270	89.7%	20	6.6%	8	2.7%	5	1.7%	-	0.0%
	Population	15,216	14,543	95.6%	384	2.5%	189	1.2%	71	0.5%	29	0.2%
Benton	HCWF	2,494	2,087	83.7%	229	9.2%	108	4.3%	67	2.7%	121	4.9%
	Population	83,687	72,363	86.5%	4,917	5.9%	1,962	2.3%	3,716	4.4%	729	0.9%
Clackamas	HCWF	8,624	6,682	77.5%	784	9.1%	607	7.0%	535	6.2%	6	0.1%
	Population	373,421	328,068	87.9%	21,154	5.7%	11,647	3.1%	10,400	2.8%	2,152	0.6%
Clatsop	HCWF	889	733	82.5%	79	8.9%	49	5.5%	30	3.4%	-	0.0%
	Population	35,616	32,390	90.9%	2,234	6.3%	516	1.4%	355	1.0%	121	0.3%
Columbia	HCWF	362	313	86.5%	23	6.4%	10	2.8%	11	3.0%	14	3.9%
	Population	47,148	45,009	95.5%	1,321	2.8%	370	0.8%	410	0.9%	38	0.1%
Coos	HCWF	1,567	1,322	84.4%	132	8.4%	73	4.7%	47	3.0%	-	0.0%
	Population	59,868	56,934	95.1%	1,753	2.9%	566	0.9%	538	0.9%	77	0.1%
Crook	HCWF	244	215	88.1%	19	7.8%	2	0.8%	8	3.3%	2	0.8%
	Population	20,334	19,406	95.4%	649	3.2%	224	1.1%	39	0.2%	16	0.1%
Curry	HCWF	312	264	84.6%	29	9.3%	14	4.5%	5	1.6%	40	12.8%
	Population	21,501	20,405	94.9%	690	3.2%	333	1.5%	70	0.3%	3	0.0%
Deschutes	HCWF	5,082	4,419	87.0%	450	8.9%	193	3.8%	56	1.1%	6	0.1%
	Population	161,663	151,369	93.6%	7,103	4.4%	1,765	1.1%	1,167	0.7%	259	0.2%
Douglas	HCWF	2,169	1,901	87.6%	139	6.4%	87	4.0%	46	2.1%	-	0.0%
	Population	101,850	98,025	96.2%	2,229	2.2%	811	0.8%	610	0.6%	175	0.2%
Gilliam	HCWF	9	9	100.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
	Population	1,806	1,661	92.0%	123	6.8%	17	0.9%	5	0.3%	-	0.0%
Grant	HCWF	129	106	82.2%	9	7.0%	4	3.1%	6	4.7%	2	1.6%
	Population	6,918	6,697	96.8%	126	1.8%	77	1.1%	11	0.2%	7	0.1%
Harney	HCWF	130	120	92.3%	8	6.2%	2	1.5%	1	0.8%	-	0.0%
	Population	6,834	6,468	94.6%	184	2.7%	48	0.7%	12	0.2%	122	1.8%
Hood River	HCWF	660	481	72.9%	149	22.6%	37	5.6%	5	0.8%	13	2.0%
	Population	21,303	15,285	71.8%	5,689	26.7%	241	1.1%	88	0.4%	-	0.0%

Appendix D: Oregon population and health care workforce: languages spoken other than English, by county

SPEAK A LANGUAGE OTHER THAN ENGLISH		Total	Only English speakers	%	Spanish or Spanish Creole	%	Other Indo-European languages	%	Asian and Pacific Island languages	%	Other languages	%
Oregon	HCWF	107,091	85,264	79.6%	10,996	10.3%	6,149	5.7%	4,831	4.5%	1,272	1.2%
	Population	3,750,266	3,184,816	84.9%	334,636	8.9%	94,957	2.5%	112,341	3.0%	23,516	0.6%
Jackson	HCWF	6,070	4,971	81.9%	700	11.5%	281	4.6%	158	2.6%	2	0.0%
	Population	198,890	179,750	90.4%	15,189	7.6%	2,170	1.1%	1,545	0.8%	236	0.1%
Jefferson	HCWF	275	229	83.3%	31	11.3%	11	4.0%	7	2.5%	-	0.0%
	Population	20,845	17,396	83.5%	2,943	14.1%	77	0.4%	144	0.7%	285	1.4%
Josephine	HCWF	1,839	1,596	86.8%	139	7.6%	64	3.5%	50	2.7%	1	0.1%
	Population	79,968	76,166	95.2%	2,516	3.1%	802	1.0%	426	0.5%	58	0.1%
Klamath	HCWF	1,278	1,099	86.0%	111	8.7%	46	3.6%	28	2.2%	-	0.0%
	Population	61,982	57,049	92.0%	3,820	6.2%	556	0.9%	352	0.6%	205	0.3%
Lake	HCWF	158	143	90.5%	6	3.8%	8	5.1%	3	1.9%	-	0.0%
	Population	7,419	7,027	94.7%	309	4.2%	29	0.4%	54	0.7%	-	0.0%
Lane	HCWF	9,751	8,205	84.1%	880	9.0%	445	4.6%	298	3.1%	-	0.0%
	Population	342,186	313,174	91.5%	16,841	4.9%	4,715	1.4%	6,138	1.8%	1,318	0.4%
Lincoln	HCWF	855	713	83.4%	78	9.1%	42	4.9%	31	3.6%	-	0.0%
	Population	44,398	40,929	92.2%	2,715	6.1%	245	0.6%	445	1.0%	64	0.1%
Linn	HCWF	2,201	1,926	87.5%	159	7.2%	63	2.9%	51	2.3%	-	0.0%
	Population	112,545	104,060	92.5%	6,435	5.7%	1,062	0.9%	565	0.5%	423	0.4%
Malheur	HCWF	756	620	82.0%	104	13.8%	30	4.0%	11	1.5%	-	0.0%
	Population	28,352	21,353	75.3%	6,575	23.2%	122	0.4%	247	0.9%	55	0.2%
Marion	HCWF	8,740	6,934	79.3%	1,042	11.9%	429	4.9%	347	4.0%	-	0.0%
	Population	303,975	228,113	75.0%	61,296	20.2%	7,553	2.5%	5,928	2.0%	1,085	0.4%
Morrow	HCWF	84	74	88.1%	10	11.9%	2	2.4%	-	0.0%	-	0.0%
	Population	10,391	7,157	68.9%	3,162	30.4%	37	0.4%	29	0.3%	6	0.1%
Multnomah	HCWF	32,715	24,858	76.0%	3,517	10.8%	2,402	7.3%	1,914	5.9%	-	0.0%
	Population	731,895	587,514	80.3%	59,073	8.1%	34,314	4.7%	41,633	5.7%	9,361	1.3%
Polk	HCWF	798	644	80.7%	95	11.9%	29	3.6%	26	3.3%	-	0.0%
	Population	73,873	63,602	86.1%	7,652	10.4%	1,087	1.5%	1,087	1.5%	445	0.6%
Sherman	HCWF	2	2	100.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
	Population	1,620	1,569	96.9%	48	3.0%	-	0.0%	-	0.0%	3	0.2%

Continued on next page

Appendix D: Oregon population and health care workforce: languages spoken other than English, by county

SPEAK A LANGUAGE OTHER THAN ENGLISH		Total	Only English speakers	%	Spanish or Spanish Creole	%	Other Indo-European languages	%	Asian and Pacific Island languages	%	Other languages	%
Oregon	HCWF	107,091	85,264	79.6%	10,996	10.3%	6,149	5.7%	4,831	4.5%	1,272	1.2%
	Population	3,750,266	3,184,816	84.9%	334,636	8.9%	94,957	2.5%	112,341	3.0%	23,516	0.6%
Tillamook	HCWF	406	344	84.7%	43	10.6%	18	4.4%	6	1.5%	-	0.0%
	Population	24,282	22,521	92.7%	1,500	6.2%	157	0.6%	76	0.3%	28	0.1%
Umatilla	HCWF	1,287	1,055	82.0%	166	12.9%	45	3.5%	30	2.3%	-	0.0%
	Population	71,190	55,397	77.8%	14,918	21.0%	323	0.5%	367	0.5%	185	0.3%
Union	HCWF	586	517	88.2%	32	5.5%	17	2.9%	19	3.2%	-	0.0%
	Population	24,269	23,023	94.9%	687	2.8%	173	0.7%	355	1.5%	31	0.1%
Wallowa	HCWF	143	123	86.0%	15	10.5%	3	2.1%	3	2.1%	-	0.0%
	Population	6,520	6,307	96.7%	92	1.4%	87	1.3%	20	0.3%	14	0.2%
Wasco	HCWF	870	721	82.9%	115	13.2%	34	3.9%	15	1.7%	-	0.0%
	Population	24,027	20,332	84.6%	3,051	12.7%	260	1.1%	193	0.8%	191	0.8%
Washington	HCWF	13,337	9,953	74.6%	1,454	10.9%	912	6.8%	956	7.2%	-	0.0%
	Population	526,856	400,040	75.9%	65,716	12.5%	21,160	4.0%	34,268	6.5%	5,672	1.1%
Wheeler	HCWF	14	11	78.6%	3	21.4%	-	0.0%	-	0.0%	-	0.0%
	Population	1,335	1,308	98.0%	20	1.5%	-	0.0%	7	0.5%	-	0.0%
Yamhill	HCWF	1,851	1,520	82.1%	217	11.7%	68	3.7%	51	2.8%	-	0.0%
	Population	96,283	82,406	85.6%	11,522	12.0%	1,262	1.3%	970	1.0%	123	0.1%

Health care workforce missing county information: 103

Sources: Health Care Workforce Database, Oregon Health Authority, 2015-2016; American Community Survey 5-year file, 2010-2014

NOTE:

Columns are mutually exclusive for population data; they are not for healthcare workforce data as one health care worker may have been classified in more than one language group.

Health care workforce data includes languages other than English; these were classified into the four ACS language groups. Some Health care workers were classified in more than one language group.

English only speaking health care workers did not report any other language other than English.

Appendix E: Percentage of licensees that speak top Oregon household languages, by license type

County	% Licensees			
	Spanish	Chinese	Vietnamese	Russian
% Oregon Households	8.9%	0.8%	0.6%	0.6%
Chiropractic				
Chiropractic physicians	13.0%	0.1%	0.7%	0.7%
Chiropractic assistants	15.8%	0.2%	1.3%	3.1%
Counselors & Therapists				
Counselors & therapists	7.6%	0.3%	0.0%	0.4%
Dentistry				
Dentists	13.7%	1.7%	3.0%	1.1%
Dental hygienists	7.1%	0.2%	2.0%	1.7%
Dietetics				
Dietitians	4.9%	0.8%	0.0%	0.2%
Medicine				
Physicians	16.9%	2.1%	0.6%	0.8%
Podiatrists	16.0%	2.9%	2.3%	0.6%
Physician assistants	15.9%	0.6%	0.6%	0.5%
Acupuncturists	10.9%	5.8%	0.6%	0.7%
Naturopathy				
Naturopathic physicians	14.2%	0.8%	0.2%	1.8%
Nursing				
Nurse practitioners	17.0%	0.7%	0.4%	0.7%
Certified registered nurse anesthetists	12.9%	1.2%	0.2%	0.2%
Clinical nurse specialists	0.7%	0.0%	0.0%	1.5%
Registered nurses	7.6%	0.3%	0.6%	0.8%
Licensed practical nurses	7.7%	0.2%	0.3%	1.3%
Certified nursing assistants	13.1%	0.3%	0.6%	1.5%
Occupational therapy				
Occupational therapists	8.7%	0.2%	0.3%	0.1%
Occupational therapist assistants	4.2%	0.0%	0.3%	1.0%

Appendix E: Percentage of licensees that speak top Oregon household languages, by license type

County	% Licensees			
	Spanish	Chinese	Vietnamese	Russian
% Oregon Households	8.9%	0.8%	0.6%	0.6%
Pharmacy				
Pharmacists	6.6%	1.9%	6.1%	0.9%
Certified pharmacy technicians	6.7%	0.3%	1.8%	2.4%
Physical therapy				
Physical therapists	10.2%	0.5%	0.2%	0.1%
Physical therapist assistants	6.8%	0.2%	0.1%	1.1%
Psychology				
Psychologist examiners	7.3%	0.7%	0.2%	0.3%
Respiratory Therapy & Polysomnography				
Respiratory therapists	5.1%	0.2%	0.3%	1.5%
Polysomnographic technologists	4.6%	0.5%	0.9%	1.4%
Social work				
Licensed clinical social workers	10.6%	0.1%	0.1%	0.3%
Clinical social worker associates	13.0%	0.6%	0.7%	0.6%
Non-clinical social workers	8.4%	0.0%	0.7%	0.7%
Speech-language pathology & audiology				
Audiologists	4.7%	0.9%	0.0%	0.0%
Speech-language pathologists	14.7%	0.3%	0.0%	0.6%
Speech-language pathologist Assistants	13.2%	0.5%	0.0%	0.0%

Sources: Health Care Workforce Database, Oregon Health Authority, 2016-2017; American Community Survey 5-year file, 2012-2016