WHERE ARE THEY NOW?
A retrospective analysis of churn among nurse practitioners in Oregon

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Background

Labor market churn refers to the movement of workers from one job to another. This movement may take a worker to a different position, department, organization, and/or geographic location. Higher levels of churn are generally seen as an indicator of ample employment opportunity and, thus, a healthy economy and job market.[1] But churn also comes at a cost. Left unfettered, it can drain resources and degrade the quality of goods and services produced.

Churn occurs across all sectors of the labor market and can be expensive for employers needing to recruit and train replacement workers. Within the health care sector, the time and resources required to educate and train health professionals makes churn particularly burdensome. In the nurse workforce, churn may lead to decreased morale among remaining staff, disrupt continuity of care, and have a negative impact on patient satisfaction and patient safety.[2]

Nurse practitioners are advanced practice registered nurses, and, in Oregon, have authority to practice independently and prescribe medications. Recent estimates put the number of nurse practitioners (NPs) working in the state at just over 2,400. They are considered essential to ensuring access to primary care, but the majority of Oregon NPs report their main area of focus is specialty care.[3] NPs play a vital role in the health care system, and the downstream effects of churn within the profession stand to have a significant impact on patients who rely on their availability and expertise.

So what is an ideal level of churn within the nurse practitioner workforce, where markets, workers, and communities thrive? Health care sector experts, employers, workers, and patients would likely disagree on the answer. Economists and employees could be expected to err on the side of more churn. Employers and patients would probably lean toward less. Differing perspectives notwithstanding, any attempt to answer the question requires an examination of the current state as an essential first step. That is the focus of this study.

To date, workforce data collected as part of the licensure process administered by the Oregon State Board of Nursing has been used to describe Oregon's NP workforce in a discrete fashion.[3, 4, 5] Unfortunately, insights gained from this type of analysis are limited, because the characteristics of the workforce are largely inflexible from year to year. What we know about the NP workforce has held true for some time: they are getting older, are predominantly female, mostly work in office/clinic settings, and the majority practice in the Portland metropolitan area.

By linking existing datasets collected at different points in time, this study was able to illuminate meaningful changes in the workforce that previously went undetected. This was accomplished by following a cohort of nurse practitioners over time to examine their movement through the workforce. The analysis was not entered into with a priori hypotheses or a goal of generating evidence to support a pre-defined policy position. The intent was to take greater advantage of the existing data to develop an understanding of the extent and complexion of churn within this segment of Oregon's nurse workforce. What was discovered may encourage interested stakeholders to enter into discussions about where churn is an indicator of innovation and positive growth and where it can and should be mitigated.

Terminology

Churn: The standard definition of labor market churn refers to the movement of workers from one job to another. This movement may take a worker to a different position, department, organization, and/or geographic location. Typically, workers who leave the workforce are considered separately. Since it was not possible to determine if nurses no longer practicing in Oregon moved to a nursing position outside of the state (i.e., churn) or left the nursing profession altogether (i.e., workforce separation), churn encompasses both phenomena for purposes of this study.

Nurse practitioner (NP): This is the group of nurses that makes up the cohort of 2011 Oregon NPs examined here. Advanced practice RNs practicing as certified nurse specialists or certified registered nurse anesthetists were not included.

Nurses practicing in Oregon / Oregon nurses: NPs licensed by the Oregon State Board of Nursing who reported they practice in Oregon.

Current status: Status of 2011 Oregon nurses as of 12/31/2014 based on the most recent Oregon State Board of Nursing licensee data and self-reported employment status provided at license renewal.

Analysis

Data collected as part of the nurse licensing process administered by the Oregon State Board of Nursing were used to look at a cohort of nurse practitioners practicing in Oregon as of 12/31/2011 to assess their current status as of 12/31/2014. Demographic data were collected as part of the initial licensure process. Workforce data, including employment status, practice setting, position, practice location, and intention to leave nursing, were collected at time of license renewal using a bi-annual rolling renewal cycle according to the licensee's date of birth. These data were self-reported. Licensees for whom status as a nurse in Oregon was unknown in either 2011 or 2014 were excluded from the cohort.

Data for nurses practicing in Oregon as of 2011 were collected during calendar years 2010 and 2011 and is assumed to represent their status as of 12/31/2011. Data regarding current status were collected during calendar years 2013 and 2014 and is assumed to represent their status as of 12/31/2014.

Churn was examined:

> Within the 2011 Oregon NP cohort overall as well as stratified by age, gender, and year licensed in Oregon
>
> By Practice area (family practice, psychiatric/mental health, obstetrics/gynecology/women's health, pediatrics, emergency care)
>
> By Geographic region
>
> By Intention to leave the profession

Churn was assessed by assigning one of the following classifications to each NP in the 2011 cohort based on his/her status as of 12/31/2014:

> License lapsed
>
> Licensed but not practicing in Oregon
>
> Continuing to practice in Oregon

Churn within the last group, those continuing to practice in Oregon, was further classified as follows according to whether the individual changed position, practice setting, or geographic region:

> Now work in a different practice area/geographic region
>
> Continue to work in this practice area/geographic region

A related variable, intention to leave the profession, was also examined.

Descriptive statistics are reported. No tests of statistical significance were performed.

Discoveries

The diagram below illustrates what was discovered about churn within Oregon's nurse practitioner workforce. Churn within selected practice areas, all geographic regions, and highly impacted demographic strata are divided into quadrants indicating the relative degree of churn (less to more) and the number of nurses in the sample (more to fewer).

CHURN

Less ⟶ More

NURSE PRACTITIONERS

More

Fewer

Portland Metro

Southwest
Psychiatric/Mental health
OB/Gyn/Women's health

South Willamette Valley

Family practice

Mid Willamette Valley

Pediatrics
Central
Eastern

Licensed in 2010 or 2011*
Licensed prior to 1990*

Southern/Central
Gorge

65+ years of age
Emergency/Urgent care
North Coast

*Licensed as a nurse practitioner in Oregon

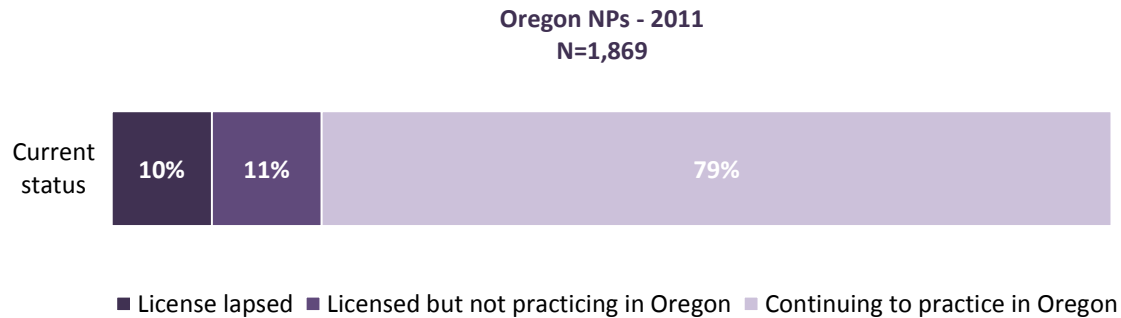# Churn Among Nurse Practitioners Practicing in Oregon as of 12/31/2011

Current Status (2014) – Overall

In 2011, there were 2,438 nurse practitioners (NPs) licensed to practice in Oregon. An estimated 91 percent of these nurses were practicing in the state.[4] As of 2014, 79 percent continued to practice nursing in Oregon. The remaining 21 percent indicated they were no longer practicing in Oregon. The proportions licensed but not practicing in the state or allowing their license to lapse were essentially evenly split.

The vast majority of Oregon NPs who were continuing to work in Oregon as of the end of 2014 were doing so within the same scope of practice (e.g., as a nurse practitioner). Among those continuing to work in the state but who left NP practice, 24 indicated they currently worked as a registered nurse and eight had gone on to practice as certified nurse specialists.

Oregon NPs - 2011
N=1,869

Current status	10%	11%	79%

■ License lapsed ■ Licensed but not practicing in Oregon ■ Continuing to practice in Oregon
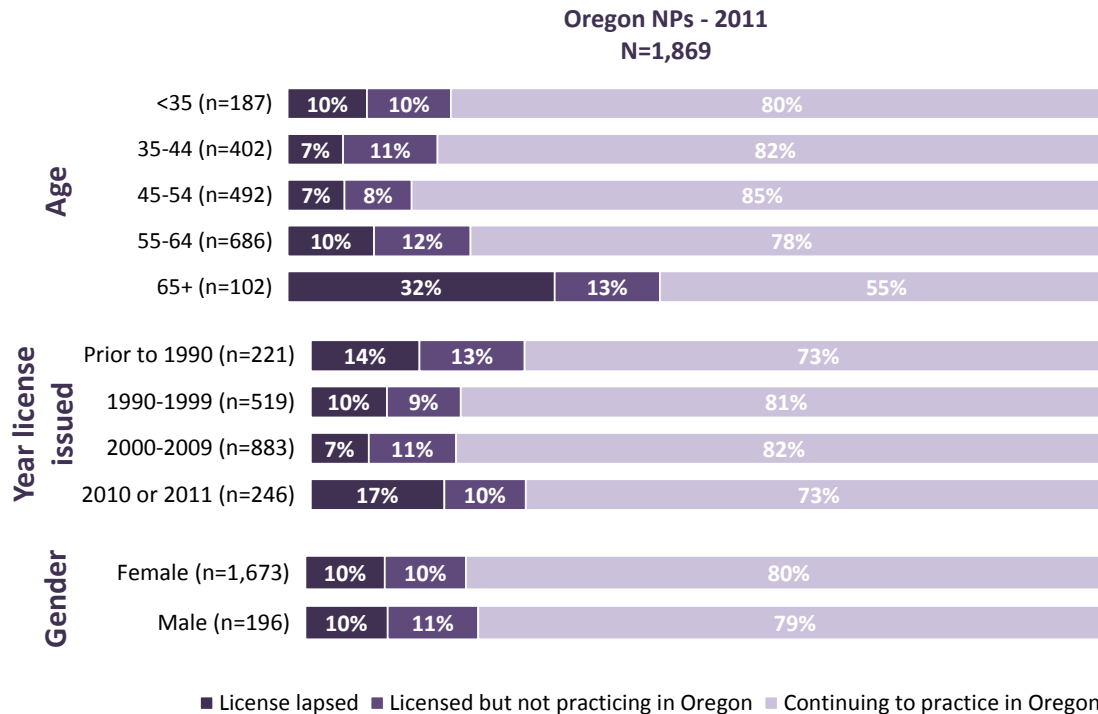
Current Status (2014) by Demographic variables

Within the cohort of NPs practicing in Oregon as of the end of 2011, there are some notable differences related to age and year of Oregon licensure. With regard to age, it is not surprising that higher proportions of nurses in the 65+ age group exited Oregon's workforce compared to the younger age groups. Perhaps more interesting is the similarity of proportions in the <35 and 55-64 tiers who chose to exit.

Newly licensed nurses and those licensed prior to 1990 were most likely to allow their license to lapse or no longer practice in Oregon. One of 4 NPs in these groups were no longer in the workforce at follow up.

There were no differences in current status related to gender.

Oregon NPs - 2011
N=1,869

Age	License lapsed	Licensed but not practicing in Oregon	Continuing to practice in Oregon
<35 (n=187)	10%	10%	80%
35-44 (n=402)	7%	11%	82%
45-54 (n=492)	7%	8%	85%
55-64 (n=686)	10%	12%	78%
65+ (n=102)	32%	13%	55%

Year license issued	License lapsed	Licensed but not practicing in Oregon	Continuing to practice in Oregon
Prior to 1990 (n=221)	14%	13%	73%
1990-1999 (n=519)	10%	9%	81%
2000-2009 (n=883)	7%	11%	82%
2010 or 2011 (n=246)	17%	10%	73%

Gender	License lapsed	Licensed but not practicing in Oregon	Continuing to practice in Oregon
Female (n=1,673)	10%	10%	80%
Male (n=196)	10%	11%	79%

■ License lapsed ■ Licensed but not practicing in Oregon ■ Continuing to practice in Oregon
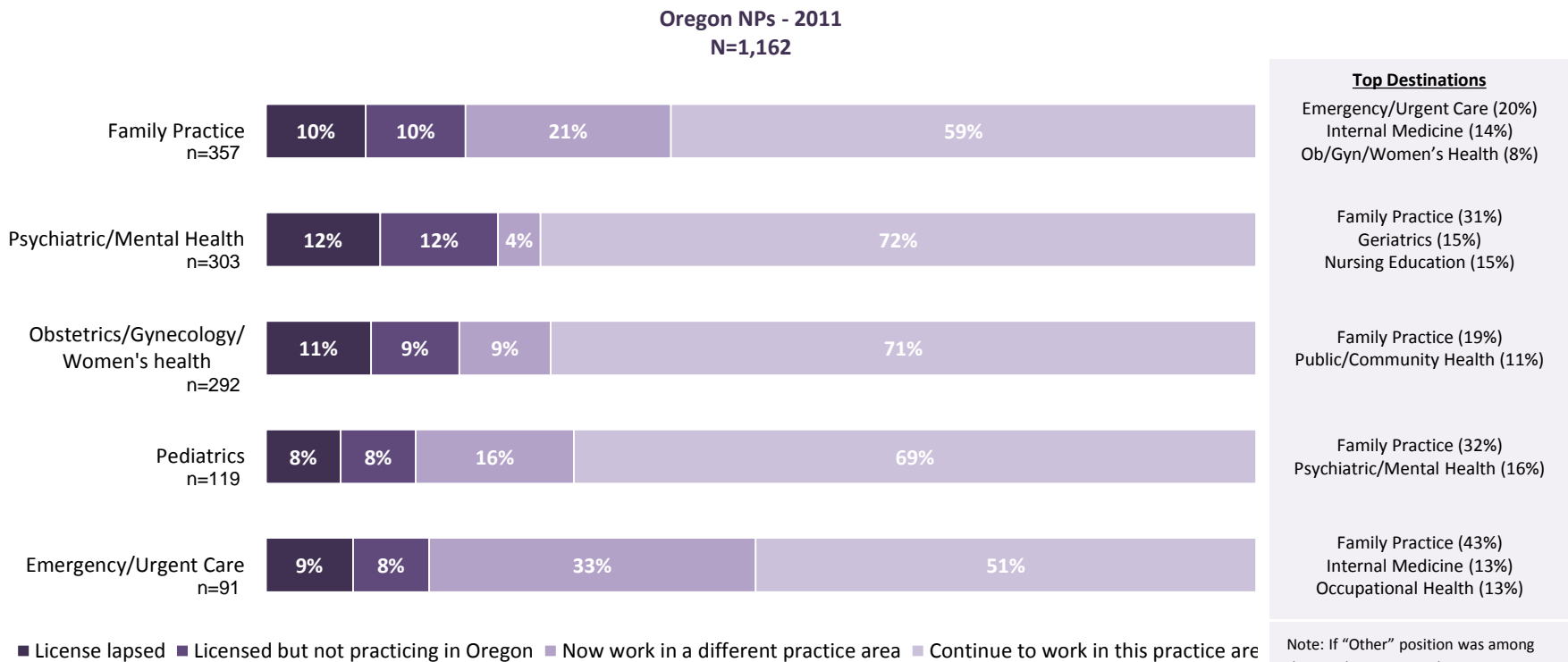
Current Status (2014) by Practice Area

Churn among nurse practitioners was examined within select practice areas. Overall, churn was least prominent among NPs practicing in psychiatric/mental health, obstetrics/gynecology/women's health, and pediatrics. The relatively low rate of overall churn within the psychiatric/mental health is primarily attributable to low numbers of NPs changing practice area; the proportion exiting Oregon's workforce altogether was highest in this group.

Among nurses continuing to practice in Oregon, one of 5 NPs migrated away from family practice as did one-third in emergency/urgent care. The greatest stability, where nearly all remained in the practice area, was exhibited by NPs in psychiatric/mental health. The greatest instability was seen among NPs in emergency/urgent care. This may be an indication that employers are moving away from staffing models that utilize nurse practitioners in emergency departments.

Churn within select practice areas is depicted below. The top destinations of NPs who changed practice areas, and the proportion of those NPs making a switch who migrated to that area, are shown on the right. Family practice is the top destination for all other practice areas examined, but as noted previously, a relatively high proportion of NPs left family practice.
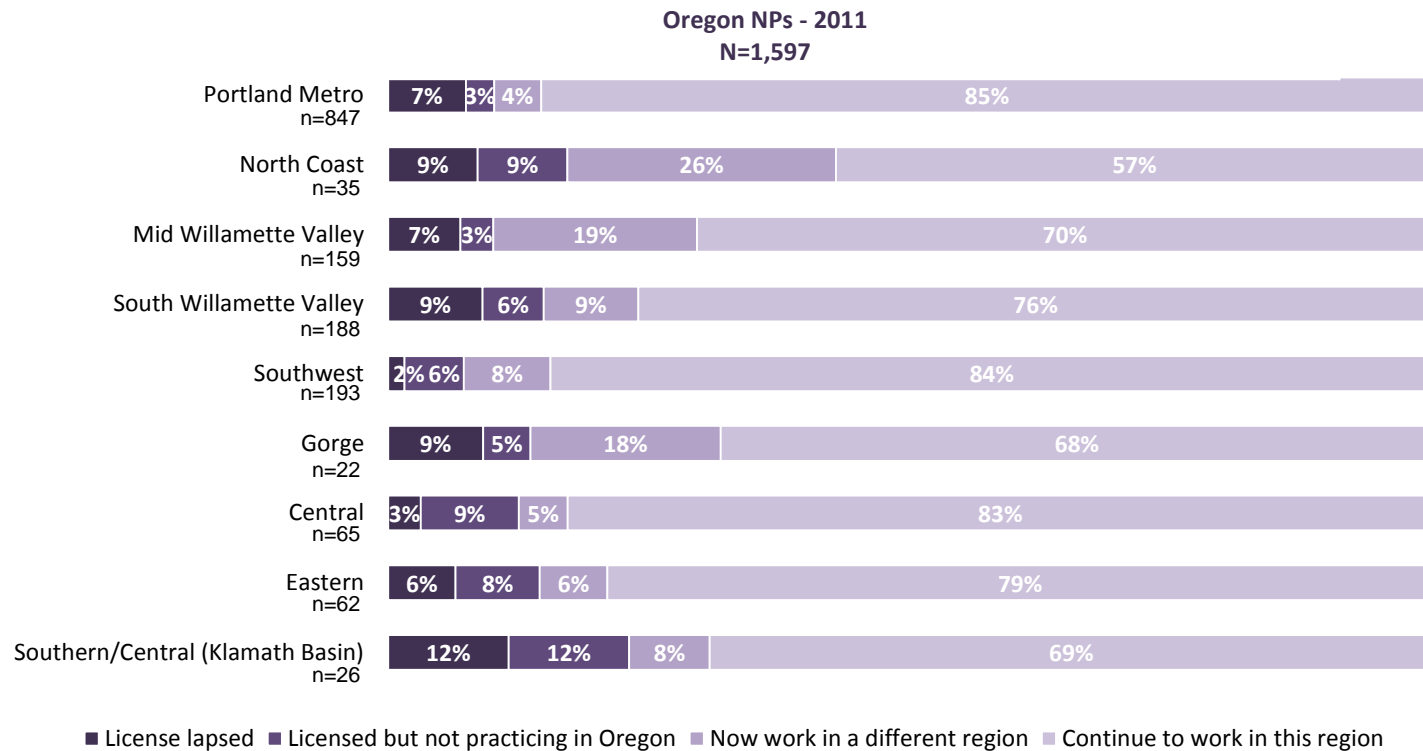
Oregon NPs - 2011
N=1,162

Practice Area	License lapsed	Licensed but not practicing in Oregon	Now work in a different practice area	Continue to work in this practice area
Family Practice n=357	10%	10%	21%	59%
Psychiatric/Mental Health n=303	12%	12%	4%	72%
Obstetrics/Gynecology/ Women's health n=292	11%	9%	9%	71%
Pediatrics n=119	8%	8%	16%	69%
Emergency/Urgent Care n=91	9%	8%	33%	51%

Top Destinations

Family Practice:
Emergency/Urgent Care (20%)
Internal Medicine (14%)
Ob/Gyn/Women's Health (8%)

Psychiatric/Mental Health:
Family Practice (31%)
Geriatrics (15%)
Nursing Education (15%)

Obstetrics/Gynecology/Women's health:
Family Practice (19%)
Public/Community Health (11%)

Pediatrics:
Family Practice (32%)
Psychiatric/Mental Health (16%)

Emergency/Urgent Care:
Family Practice (43%)
Internal Medicine (13%)
Occupational Health (13%)

Note: If "Other" position was among the top destinations, this category was excluded from the list.

■ License lapsed ■ Licensed but not practicing in Oregon ■ Now work in a different practice area ■ Continue to work in this practice area

Current Status (2014) by Geographic Region

Churn among nurse practitioners was examined within geographic regions. Overall, churn is more pervasive in rural regions. The proportion of nurses lost to lapsed licenses and licensees leaving Oregon practice was highest in the North Coast and Southern/Central regions. Among those nurses who continue to practice in Oregon, those working in the North Coast, Mid Willamette Valley and Gorge regions were most likely to move to another geographic location. The Mid Willamette Valley was the only region with an urban component that experienced churn comparable to that seen in rural regions.

Churn across Oregon regions is depicted below. The reader should note small sample sizes of some regions.

Oregon NPs - 2011
N=1,597

Region	License lapsed	Licensed but not practicing in Oregon	Now work in a different region	Continue to work in this region
Portland Metro n=847	7%	3%	4%	85%
North Coast n=35	9%	9%	26%	57%
Mid Willamette Valley n=159	7%	3%	19%	70%
South Willamette Valley n=188	9%	6%	9%	76%
Southwest n=193	2%	6%	8%	84%
Gorge n=22	9%	5%	18%	68%
Central n=65	3%	9%	5%	83%
Eastern n=62	6%	8%	6%	79%
Southern/Central (Klamath Basin) n=26	12%	12%	8%	69%

■ License lapsed ■ Licensed but not practicing in Oregon ■ Now work in a different region ■ Continue to work in this region

REGIONS:
Central: Crook, Deschutes, Jefferson
Eastern: Baker, Grant, Harney, Malheur, Morrow, Umatilla, Union, Wallowa
Gorge: Gilliam, Hood River, Sherman, Wasco, Wheeler

Mid Willamette Valley: Marion, Polk, Yamhill
North Coast: Clatsop, Columbia, Tillamook
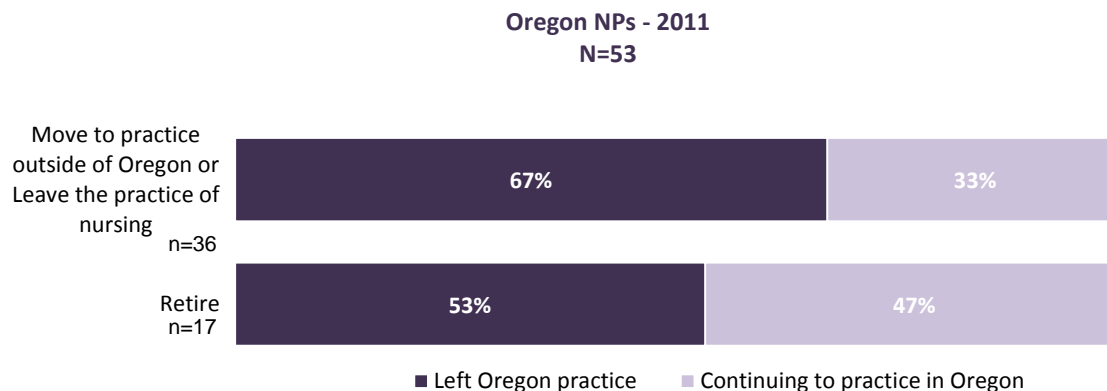Portland Metro: Clackamas, Washington, Multnomah

South Willamette Valley: Benton, Lane, Lincoln, Linn
Southern/Central (Klamath Basin): Klamath, Lake
Southwest: Coos, Curry, Douglas, Jackson, Josephine

Current Status (2014) by Intention to Stop Practicing in the State

Nurses' intentions to leave Oregon and/or the profession altogether can provide insight into the degree of churn attributable to workforce separations that can be expected in the future. Among Oregon NPs in 2011 who reported they planned to make such a change within two years, two of 5 continued to practice in the state at follow up. Both those whose license lapsed and who maintained Oregon licensure but reported they no longer practice in the state were considered to have left Oregon practice.

Oregon NPs - 2011
N=53

Move to practice outside of Oregon or Leave the practice of nursing n=36	67%	33%
Retire n=17	53%	47%

■ Left Oregon practice   ■ Continuing to practice in Oregon

References

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