

**Final Report #123**

**Demographic, Education, and Practice  
Characteristics of Licensed Practical  
Nurses in Washington State:  
*Results of a 2007 Survey***

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**by**

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# Demographic, Education, and Practice Characteristics of Licensed Practical Nurses in Washington State: Results of a 2007 Survey

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## ABSTRACT

### BACKGROUND

In 2007, Washington State surveyed all of the licensed practical nurses (LPNs) in the state to obtain basic demographic, education, and practice information. This report describes LPNs in Washington using the 2007 survey responses, weighted to reflect the overall population. The descriptive statistics reflect LPNs who live in-state, and some sub-state analyses are provided.

### RESULTS

Of the 14,446 LPNs with Washington licenses in 2007, 72% practice in Washington. The work setting in which the largest percentage were employed was long-term care (37%), and 65% of licensed LPNs in Washington reported they worked in primary care. Of the average 37 hours worked per week by LPNs, 25 hours on average were spent in direct patient care. The average age of practicing LPNs was 46, 12% were male, 18% were non-white, and 4% were Hispanic. Nearly three-quarters of Washington's licensed LPNs received their LPN education in-state. Less than 2% of LPNs in Washington obtained their initial LPN education outside of the United States.

### DISCUSSION

Because of the high average age of Washington's LPNs, the relatively slow rate at which the workforce is growing, and the fact that LPNs provide significant amounts of long-term and home care services, there is concern that the workforce may not be adequate to meet future needs. Subsequent surveys will allow examination of LPN workforce trends over time and assessment of the impact of health workforce-related decisions and policies now being implemented.

## BACKGROUND

General information characterizing the health workforce of a state or region is critical for health care planning, but is frequently not available. Fortunately, Washington State initiated surveys in 2007 of its licensed health professionals, including licensed practical nurses (LPNs). The 2007 LPN survey collected data on the demographic, education, and practice characteristics of the LPN workforce that permit determination of how many of the licensed LPNs are actively working in their field, in what specialties, whether they work full or part time, where they work and where they received their nursing education. In addition, data on race, ethnicity, and gender can be used to assess the extent to which the workforce reflects the populations it serves, and provide insights as to whether education and recruitment programs are reaching minority and non-traditional populations.

The Washington Center for Nursing engaged the University of Washington Center for Health Workforce Studies to analyze Washington's LPN survey data in 2008. The results are presented in this report.

## METHODS

### DATA SOURCE

The data for this report come from the 2007 survey of licensed LPNs conducted by the Washington State Department of Health and the Washington Workforce Training and Education Coordinating Board. The survey was initiated in 2007 through a directive from the Washington State Legislature to collect race/ethnicity, specialty, practice and education information on the licensed health professionals in the state. Under this legislation, each licensed professional type in Washington will be surveyed once every two years. The survey procedures involve contacting all licensees for a given profession with a

letter offering Web access to the questionnaire. The two-page questionnaire (see Appendix A) was tailored to reflect the practice and education characteristics of each profession. In order to increase response rates in a cost-effective manner, a 33% random sample of the profession is selected also to receive a paper copy of the questionnaire and one additional follow-up mailing, if necessary. These procedures were used by the Washington Department of Health (through its survey contractor at Washington State University) for the LPN survey. From the 14,446 active LPN licenses in spring 2007, the survey yielded a total of 2,968 (20.5%) responses from the overall LPN population, and 2,052 responses (42.6%) from the one-third random sample (see Appendix B, Table B-1).

**SUB-STATE ANALYSES**

Where the sample size was sufficiently large, we analyzed the survey data by workforce development area (WDA) of the state. The 12 WDAs in Washington are sub-state regions made up of one or more counties that receive state and federal assistance for workforce planning and development programs. Response rates by WDA are shown in Table B-1.

**DATA WEIGHTING**

To investigate possible response bias, we compared survey respondents to the total licensed LPN population on several factors. These included age, gender, Washington residence status, and WDA. Additionally, respondents from the random sample were compared with those respondents who were in the single contact-only group using the same variables to determine if the two groups of respondents were statistically different. The two response groups did not differ on the variables examined. The age and WDA distribution of the survey respondents, however, was significantly different than the total licensed population: a larger proportion of older nurses responded to the survey (see Table B-2) and the rate of survey response differed among WDAs (see Table B-1). To accurately reflect the total LPN population and the LPN distribution in each WDA, WDA-specific 10-year age strata weights were calculated and applied to these analyses. The weights were created to reflect the population of licensed LPNs living in Washington State. The average weight was 5.36 and the minimum and maximum weights were 1.83 and 12.86 respectively. Tables B-3 and B-4 show the characteristics of respondents compared with the overall licensed LPN population.

**DATA CLEANING AND IMPUTATIONS**

When survey respondents answered part of a question and the remaining item(s) could be inferred, such data were imputed. For example, if a respondent reported direct patient hours or clinical administration hours but did not report hours for other activities such as

teaching or research we imputed these missing values as zero. This was also true if a respondent did not report their total weekly hours but provided hours spent in individual activities, in which case we imputed the sum of the individually reported hours as the weekly total hours. Due to imputation and the fact that some respondents were allowed to answer only part of the questionnaire if their responses led to valid skips past non-applicable questions, the number of respondents (the “n”) varies across survey questions.

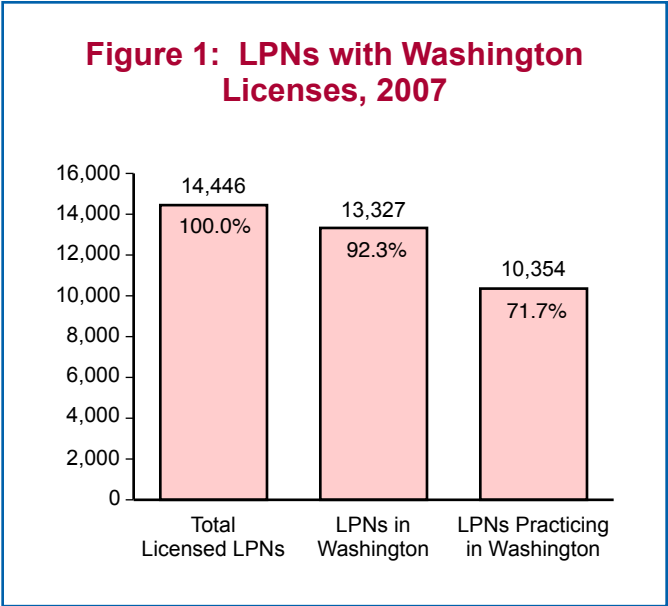
**DETERMINING IN-WASHINGTON STATUS**

LPNs were determined to be residing in Washington State if their license mailing address used a ZIP code from within Washington State.

**RESULTS**

**LPNS WITH WASHINGTON STATE LPN LICENSES**

Of the 14,446 licensed LPNs in Washington, 13,327 (92.3%) are estimated to have resided in Washington State in 2007. Among LPNs residing in Washington, an estimated 10,354 (71.7% of all licensed LPNs or 77.7% of those in Washington) indicated that they were currently practicing in Washington State (see Figure 1). Among the 7.7% of Washington LPN licensees whose address was outside of Washington, 1.4% were in Oregon and 1.3% were in Idaho (neighboring states) (see Table 1). Table 2 shows the estimated number of licensed LPNs in each WDA and the percent practicing in-state.



## LPN DEMOGRAPHICS

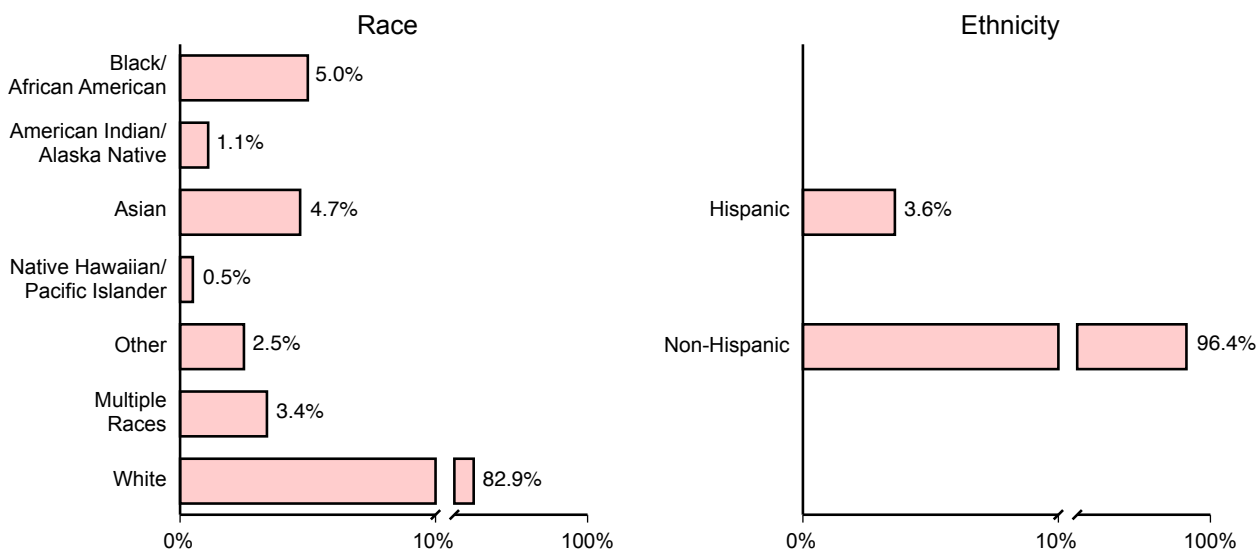
The average age of LPNs in Washington was 47.1 years, and 46.6% were age 50 or older. Among practicing LPNs, 43.0% were age 50 or older. Male LPNs comprised 11.2% of the state's LPN population, and 11.6% of practicing LPNs in the state. Overall 82.9% of LPNs were white, and 3.6% were Hispanic (see Figure 2). The race and ethnicity of practicing LPNs were not substantially different than those of the overall licensed state LPN population (see Table 3). The age distribution, sex, race and ethnicity of the LPNs in each of Washington's WDAs are shown in Table 4.

## SPECIALTY/AREAS OF PRACTICE

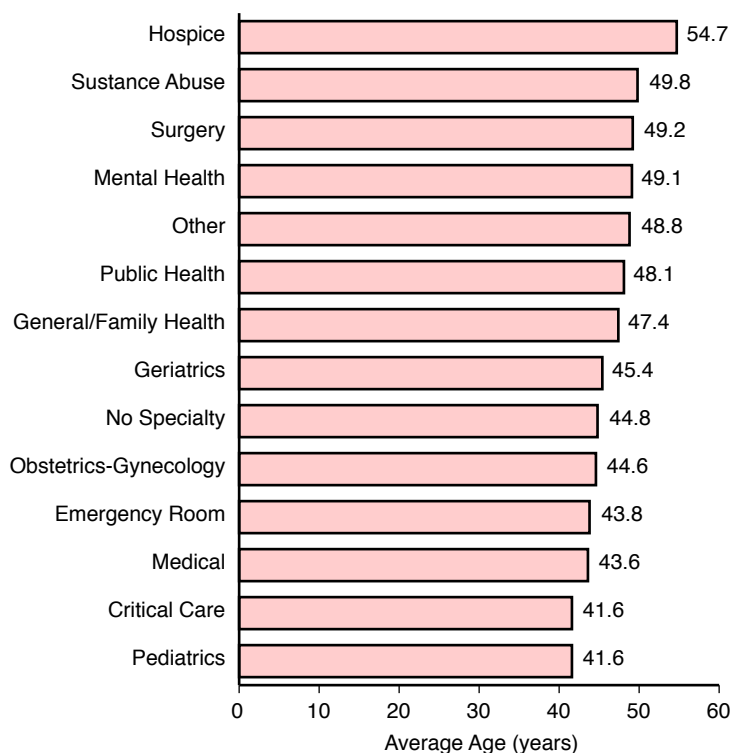
Almost two-thirds of Washington's LPNs indicated that their general area of practice was "primary/generalist care" (64.9%), more than twice those who reported practicing "specialized care" (23.5%). "No primary area of practice" was selected by 11.6% of LPNs (see Table 5). When asked about specific areas of practice, the most commonly selected by survey respondents was "geriatrics" (33.6%). Among the 12 specific areas of practice, 11.5% indicated "general/family health," 9.2% reported "medical (e.g., oncology, gastroenterology)," and 13.7% chose "other" as their specialty (see Table 6).

Table 7 shows the age, length of practice, and gender of Washington's LPNs by area of practice. On average, younger LPNs practiced in the areas of critical care and pediatrics, while LPNs providing hospice care were the only group with an average age over 50 (see Figure 3). Men comprised more than 20% of the state's LPN workforce in the practice areas of public health, critical care, and emergency care.

**Figure 2: Race and Ethnicity of LPNs in Washington**



**Figure 3: Average Age of Practicing LPNs in Washington by Specialty/Area of Practice**

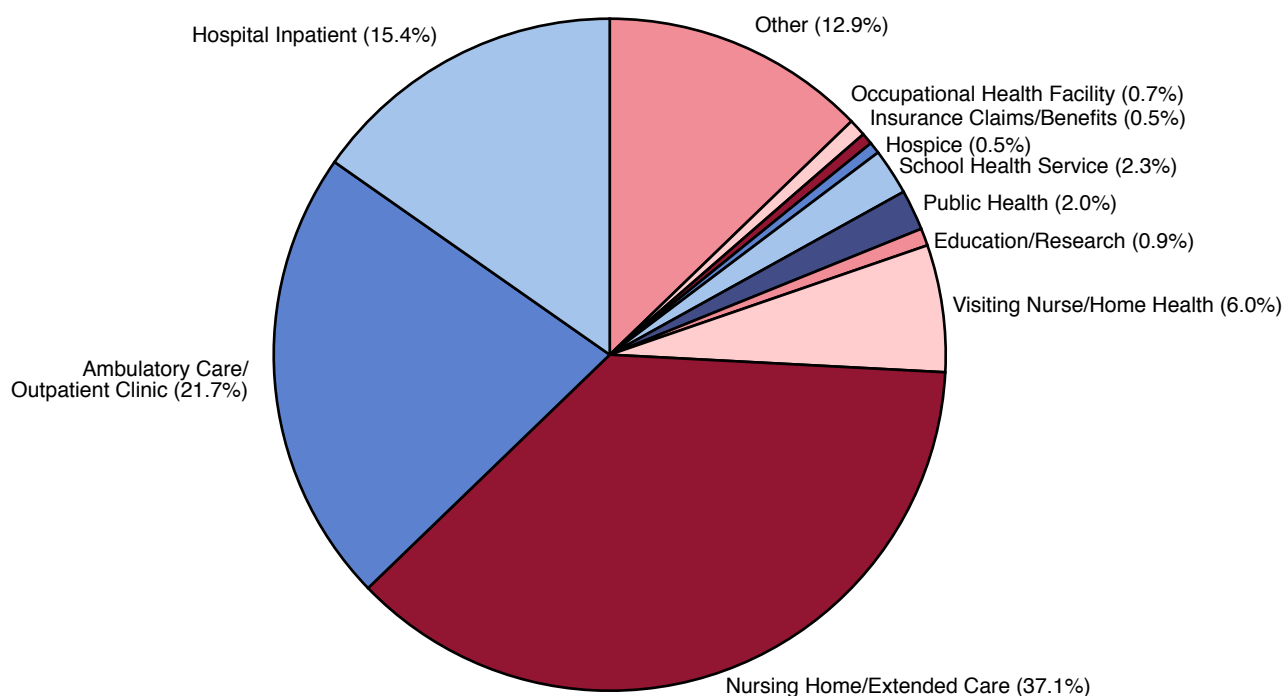


## WORK SETTING

Among practicing LPNs in Washington, more than one-third (37.1%) worked in nursing homes or extended care facilities, 21.7% worked in ambulatory care/outpatient clinic facilities, and 15.4% worked in hospital inpatient facilities (see Figure 4). Table 8 shows the distribution of LPNs by work setting for the state overall and Table 9 shows these results by WDA.

Table 10 shows the age, gender, work status, race/ethnicity, foreign education, and years in practice of LPNs by work setting. The youngest LPNs (44.4 years of age on average) worked in hospital inpatient facilities, and LPNs in hospice facilities were the oldest (53.0 years on average). LPNs working in school health and insurance claims/benefits facilities had the highest number of years of LPN practice: 22.4 years and 20.7 years respectively. The highest percent of non-white and/or Hispanic LPNs were employed in occupational health (28.8%), nursing home/extended care (22.3%), public health (21.5%), and hospital inpatient public health facilities (21.2%). The results for race/ethnicity by

**Figure 4: Work Setting of LPNs Practicing in Washington**





work setting should be viewed cautiously because of the small numbers of respondents involved.

Table 11 shows the work setting of LPNs by their specialty/area of practice.

## PROFESSIONAL HOURS

Among all LPNs who practice in Washington State, 71.0% indicated they provide direct patient care. Of these, 82.5% provided direct patient care in one location, 6.9% in two locations, and 10.6% in more than two locations (see Table 12).

About three-quarters (77.1%) of practicing LPNs reported working full-time (32 hours or more per week). The work settings with the highest percentage of LPNs working full time were education/research (87.7%), occupational health facility (81.1%), visiting nurse/home health (80.5%), ambulatory care/outpatient clinic (79.8%), nursing home/extended care (79.6%) and insurance claims/benefits (79.6%) (see Table 10).

There was no difference in the percentage of older LPNs (age 50 years or more) who worked part time (22.7%) compared with younger LPNs (23.0%) (see Table 13).

Overall, LPNs practicing in Washington spent an average of 24.8 hours in direct patient care each week. The hospital inpatient and ambulatory care/outpatient clinic settings were where LPNs spent the greatest average number of hours in direct patient care (27.7 and 27.0 hours per week respectively) compared with nursing home/extended care and education/research settings where LPNs reported the highest weekly total hours (see Table 14).

## EDUCATION

Overall, 73.4.1% of LPNs in Washington received at their LPN education in Washington (see Table 15).

Among currently licensed LPNs, it appears that earlier cohorts were younger when they received their LPN education than later cohorts (see Table 16). This, however, may simply reflect that the LPNs from earlier cohorts who were older when they completed their education have left the workforce and may not be reflected in the current survey findings.

## FOREIGN-EDUCATED LPNS

In 2007, there were an estimated 256 licensed LPNs in Washington who received their initial LPN education outside of the United States (1.8% of total licensed LPNs in-state). Among the foreign-educated LPNs, 100% reported that they practiced in Washington. Among these foreign-educated LPNs in Washington, an estimated 6.9% were male and their average age was 45.7 years. Washington's foreign-educated LPNs were 67.8% non-white and/or Hispanic (see Table 17).

The largest minority group represented was Asians (48.3%).

Foreign-educated LPNs in Washington have practiced as an LPN for 14.5 years on average, with 9.6 of those years in Washington State. A majority work in nursing home or extended care settings (52.2%) and hospital inpatient settings (17.3%) (see Table 17).

## STUDY LIMITATIONS

The accuracy of survey findings depends on how well respondents represent the overall population under study. While it would be preferable for this survey to have had a higher response rate, we were fortunate to know the age, sex and residence (license mailing ZIP code) of the entire population so we could assess whether the responses showed any bias for these characteristics. We determined that older LPNs were more likely than younger LPNs to respond to the survey, and that LPNs responded disproportionately by WDA. To adjust for this bias, we weighted the survey responses to compensate. As a result, the survey response of a younger LPN represents more nurses in our analyses than does the response of an older LPN. Additionally the responses of LPNs of a given age represent a varying number of nurses depending on the WDA in which they live.

There remain some questions about how well the survey captured the racial and ethnic diversity of the LPN population. Because there are relatively small numbers of some racial groups in Washington's general population, the actual number of survey responses from some racial groups is small (e.g., 11 Native Hawaiian/Pacific Islanders and 29 American Indian/Alaska Natives). As a result, there will be a greater potential for error in our estimates of Washington LPNs' race and ethnicity than for other more frequently-occurring characteristics. In other cases where the data being reported are based on small numbers of occurrences, such as work setting or education by WDA, the estimates portrayed in this report should also be considered with caution.

## DISCUSSION

The findings described in this report tell us much about the demographic, education, and professional practice characteristics of the LPN workforce in Washington State at one point in time. These rich new survey data add much to the basic information that we have derived from the state's health professional licensing files (CHWS, 2001; CHWS & WCN 2006, 2007, 2008), thereby providing policymakers, educators, and planners in Washington with even more useful

information for assessing the nursing workforce needs of the state.

Of the more than 14,000 licensed LPNs in Washington in 2007, we found that 71.7% practiced as an LPN in the state, yielding a ratio of 157 per 100,000 state residents. Washington State LPN to population ratios are lower than the most current national average estimates of 211 per 100,000 population (Seago, 2004).

A higher percentage of LPNs in Washington are men (11.2%) than among LPNs nationally (5.0%) (Seago, 2004). About 80% of the state's LPN workforce is non-Hispanic white (82.9%), which is a similar proportion to the overall state population (79.4% non-Hispanic white in 2000) (OFM, 2006). African Americans make up the largest minority group of LPNs (5.0%) in Washington as well as nationally (26% in 2001). In Washington State 3.4 % of the population is African American (U.S. Census Bureau, n.d.). The LPN workforce in Washington is more diverse than Washington's registered nurse workforce (Skillman, 2008) and is reasonably representative of the state population's racial/ethnic make-up.

LPNs in Washington practice in similar work settings to LPNs throughout the country. In national surveys as well as surveys in Florida, Michigan, Minnesota, Nebraska, and Vermont, the most common work setting for LPNs was nursing homes and long-term care facilities (FCN, 2007; MCN, 2007; MDH, 2006; Office of Nursing Workforce Research, Planning and Development, n.d.; Seago, 2004; Walburn & Kelly, 2006). Nationally and in these states the percentage of LPNs working in long-term care ranged from 30% to 45%, and in Washington it was comparable (37.1%). Hospitals and clinics are the other most common work settings for LPNs in Washington, as well as throughout the country.

The mean age of Washington's LPNs has been increasing in recent years, which mirrors a national trend (Seago, 2004). The average age of Washington's LPNs had been consistently a few years older than LPNs nationally, but the most current national estimate is from 2001 (CHWS, 2001; CHWS & WCN 2006, 2007, 2008). The impact of an aging LPN workforce (and associated high impending rates of retirement) on future supply is as much of a concern for Washington as for the rest of the nation.

Because LPNs provide much of the care in long-term care and home care, the relatively high average age of our LPN population raises a question about whether we are preparing a sufficient number of LPNs for the future. Projections tell us that our state's population is growing and aging, predicting increased demand for both long-term and home-based care.

The number of LPNs in Washington with active licenses has grown by about 12% over the past nine

years, despite the state's much greater population growth rate. The number of LPNs who increase their education by moving to the RN role may be compounding the LPN shortage, and it would be useful to know more about how frequently this occurs.

Nearly three-quarters (73.4%) of Washington's LPNs received their education in the state of Washington, and less than 2% of LPNs said their initial LPN education was completed outside of the United States. These numbers indicate a different education pattern than that of RNs. In Washington 42.9% of RNs obtained their RN education out of state and an estimated 5.4% of Washington's practicing RN workforce are foreign-educated (Skillman, 2008). Additionally a larger percentage of Washington's licensed LPNs live in Washington than licensed RNs (92.3% vs. 84.0%) and practice in Washington than do their RN counterparts. This is important information to be used when making estimates of the available workforce from license data.

The legislation that sponsored this survey of Washington's LPNs called for it to be repeated every two years. The usefulness of future surveys would be enhanced if they achieved higher response rates than those of the 2007 survey. Generally, high response rates are achieved by increasing the number of attempts to contact all or a random sample of licensed LPNs. Alternatively, Washington could adopt the approach of some states that mandate workforce survey participation as a condition of licensing.

Continuation of these surveys will allow tracking of LPN workforce trends over time. These are important data that provide critical information needed to assess the impact of the health workforce-related decisions and policies that are now being implemented, as well as help identify policy needs for the future. Unfortunately, due to state economic conditions, the Washington State surveys of licensed health care professionals were suspended in late 2008.



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**Table 1: Number and Residence of LPNs with Washington State Licenses**

|                         | n      | Percent |
|-------------------------|--------|---------|
| LPNs—total              | 14,446 | 100.0%  |
| Residing* in Washington | 13,327 | 92.3%   |
| Residing* in Idaho      | 177    | 1.3%    |
| Residing* in Oregon     | 209    | 1.4%    |

\* Residence was attributed to the state associated with the ZIP code on the LPN's Washington State license.

**Table 2: Number of LPNs and Percent Practicing by Washington WDA**

| WDA* | Unweighted n | Estimated Total |         | Percent Practicing in Washington† |
|------|--------------|-----------------|---------|-----------------------------------|
|      |              | Weighted n      | Percent |                                   |
| 1    | 176          | 725             | 5.4%    | 77.6%                             |
| 2    | 305          | 1,459           | 10.9%   | 75.6%                             |
| 3    | 272          | 1,178           | 8.8%    | 80.3%                             |
| 4    | 211          | 1,094           | 8.2%    | 76.9%                             |
| 5    | 439          | 2,663           | 20.0%   | 80.8%                             |
| 6    | 552          | 2,809           | 21.1%   | 84.2%                             |
| 7    | 155          | 656             | 4.9%    | 76.3%                             |
| 8    | 119          | 511             | 3.8%    | 77.4%                             |
| 9    | 113          | 520             | 3.9%    | 75.6%                             |
| 10   | 95           | 401             | 3.0%    | 63.5%                             |
| 11   | 82           | 344             | 2.6%    | 73.2%                             |
| 12   | 213          | 967             | 7.3%    | 79.8%                             |

\* Counties by Workforce Development Area (WDA)—WDA 1: Clallam, Jefferson, Kitsap; WDA 2: Grays Harbor, Lewis, Mason, Pacific, Thurston; WDA 3: Island, Skagit, San Juan, Whatcom; WDA 4: Snohomish; WDA 5: King; WDA 6: Pierce; WDA 7: Clark, Cowlitz, Wahkiakum; WDA 8: Adams, Chelan, Douglas, Grant, Okanogan; WDA 9: Kittitas, Klickitat, Yakima, Skamania; WDA 10: Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman; WDA 11: Benton, Franklin; WDA 12: Spokane.

† "In Washington" was determined from the ZIP code of the license mailing address.

**Table 3: Demographic Characteristics of LPNs in Washington: Overall and by Practice Status**

|                                          | Unweighted n | Weighted n | LPNs in Washington* |                               |                                   |
|------------------------------------------|--------------|------------|---------------------|-------------------------------|-----------------------------------|
|                                          |              |            | Overall             | Practicing<br>(in Washington) | Not Practicing<br>(in Washington) |
| Age                                      |              |            |                     |                               |                                   |
| Mean                                     |              |            | 47.1                | 46.0                          | 51.2                              |
| Median                                   |              |            | 48                  | 47                            | 53                                |
| Age categories                           |              |            |                     |                               |                                   |
| <25                                      | 54           | 397        | 3.0%                | 3.3%                          | 2.0%                              |
| 25-29                                    | 136          | 984        | 7.4%                | 7.6%                          | 6.5%                              |
| 30-34                                    | 154          | 1,075      | 8.1%                | 8.5%                          | 6.3%                              |
| 35-39                                    | 208          | 1,432      | 10.8%               | 11.4%                         | 8.6%                              |
| 40-44                                    | 269          | 1,378      | 10.4%               | 11.5%                         | 6.3%                              |
| 45-49                                    | 364          | 1,837      | 13.8%               | 14.7%                         | 10.8%                             |
| 50-54                                    | 499          | 2,064      | 15.5%               | 16.1%                         | 13.9%                             |
| 55-59                                    | 502          | 2,089      | 15.7%               | 15.2%                         | 17.2%                             |
| 60-64                                    | 312          | 1,142      | 8.6%                | 7.6%                          | 12.4%                             |
| 65 and over                              | 230          | 905        | 6.8%                | 4.1%                          | 16.2%                             |
| Missing data†                            | 4            | 24         | 0.2%                |                               |                                   |
| Sex                                      |              |            |                     |                               |                                   |
| Male                                     | 283          | 1,495      | 11.2%               | 11.6%                         | 9.5%                              |
| Race                                     |              |            |                     |                               |                                   |
| White only                               | 2,253        | 10,766     | 82.9%               | 82.0%                         | 87.2%                             |
| Black/African-American only              | 111          | 645        | 5.0%                | 5.3%                          | 3.2%                              |
| American Indian/Alaska<br>Native only    | 29           | 137        | 1.1%                | 1.1%                          | 0.7%                              |
| Asian only                               | 107          | 609        | 4.7%                | 5.0%                          | 3.4%                              |
| Native Hawaiian/Pacific<br>Islander only | 11           | 65         | 0.5%                | 0.6%                          | 0.0%                              |
| Other                                    | 61           | 324        | 2.5%                | 2.6%                          | 2.3%                              |
| Multiple races                           | 86           | 439        | 3.4%                | 3.4%                          | 3.2%                              |
| Missing data†                            | 74           | 343        | 2.6%                |                               |                                   |
| Ethnicity                                |              |            |                     |                               |                                   |
| Hispanic                                 | 84           | 461        | 3.6%                | 3.7%                          | 3.4%                              |
| Missing data†                            | 112          | 522        | 3.9%                |                               |                                   |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† The percent calculations above do not include these missing data.

**Table 4: Demographic Characteristics of LPNs Practicing in Washington by WDA\***

|                                       | LPNs Practicing in Washington† |       |       |       |       |       |       |       |       |        |        |        |
|---------------------------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|                                       | WDA 1                          | WDA 2 | WDA 3 | WDA 4 | WDA 5 | WDA 6 | WDA 7 | WDA 8 | WDA 9 | WDA 10 | WDA 11 | WDA 12 |
| Age                                   |                                |       |       |       |       |       |       |       |       |        |        |        |
| Mean                                  | 47.0                           | 45.8  | 43.1  | 46.4  | 44.6  | 45.6  | 47.4  | 47.6  | 45.3  | 57.4   | 47.7   | 50.2   |
| Median                                | 48.3                           | 47    | 44    | 48    | 45    | 46    | 48    | 49    | 48    | 53     | 50     | 53     |
| Age categories                        |                                |       |       |       |       |       |       |       |       |        |        |        |
| <25                                   | 1.0%                           | 5.0%  | 5.6%  | 1.5%  | 5.4%  | 1.6%  | 3.4%  | 0.0%  | 6.1%  | 3.3%   | 0.0%   | 2.7%   |
| 25-29                                 | 7.3%                           | 10.0% | 12.0% | 6.1%  | 4.9%  | 8.0%  | 6.9%  | 12.2% | 10.7% | 3.3%   | 12.2%  | 4.0%   |
| 30-34                                 | 8.8%                           | 4.1%  | 8.3%  | 7.3%  | 12.6% | 10.9% | 6.4%  | 6.9%  | 9.8%  | 0.0%   | 0.0%   | 4.1%   |
| 35-39                                 | 12.7%                          | 12.2% | 13.7% | 15.3% | 12.2% | 10.6% | 12.9% | 12.0% | 5.9%  | 3.3%   | 17.3%  | 4.1%   |
| 40-44                                 | 9.7%                           | 14.2% | 11.7% | 10.2% | 12.3% | 12.6% | 6.1%  | 8.1%  | 9.4%  | 16.0%  | 12.9%  | 8.6%   |
| 45-49                                 | 14.1%                          | 10.5% | 15.1% | 17.5% | 13.7% | 16.4% | 18.2% | 13.8% | 16.5% | 13.7%  | 6.4%   | 16.0%  |
| 50-54                                 | 19.2%                          | 15.2% | 14.0% | 15.3% | 14.2% | 16.6% | 13.7% | 13.8% | 17.1% | 19.2%  | 27.3%  | 20.3%  |
| 55-59                                 | 17.0%                          | 15.2% | 12.8% | 16.3% | 15.6% | 12.8% | 16.2% | 15.6% | 13.1% | 20.8%  | 7.6%   | 23.1%  |
| 60-64                                 | 4.8%                           | 9.0%  | 6.3%  | 5.7%  | 6.8%  | 6.3%  | 10.8% | 13.5% | 3.1%  | 12.2%  | 7.7%   | 12.7%  |
| 65 and over                           | 5.4%                           | 4.5%  | 0.4%  | 4.7%  | 2.3%  | 4.2%  | 5.5%  | 5.1%  | 8.4%  | 8.0%   | 8.6%   | 4.5%   |
| Sex                                   |                                |       |       |       |       |       |       |       |       |        |        |        |
| Male                                  | 11.3%                          | 9.9%  | 11.1% | 14.9% | 13.1% | 12.5% | 11.8% | 3.1%  | 15.4% | 7.4%   | 8.1%   | 8.8%   |
| Race                                  |                                |       |       |       |       |       |       |       |       |        |        |        |
| White only                            | 84.4%                          | 88.9% | 88.8% | 76.1% | 71.7% | 77.9% | 91.7% | 91.9% | 84.5% | 98.3%  | 98.4%  | 94.2%  |
| Black/African-American only           | 3.0%                           | 2.3%  | 1.1%  | 7.5%  | 11.1% | 8.4%  | 0.0%  | 1.8%  | 0.0%  | 0.0%   | 0.0%   | 0.0%   |
| American Indian/Alaska Native only    | 0.7%                           | 1.4%  | 0.4%  | 2.7%  | 0.9%  | 0.6%  | 2.2%  | 1.0%  | 3.3%  | 0.0%   | 1.6%   | 0.6%   |
| Asian only                            | 5.5%                           | 2.3%  | 2.8%  | 7.0%  | 10.4% | 5.3%  | 1.3%  | 0.8%  | 1.0%  | 0.0%   | 0.0%   | 2.4%   |
| Native Hawaiian/Pacific Islander only | 0.0%                           | 0.0%  | 1.0%  | 1.5%  | 0.7%  | 0.9%  | 0.9%  | 0.0%  | 0.0%  | 0.0%   | 0.0%   | 0.0%   |
| Other                                 | 2.6%                           | 2.4%  | 3.9%  | 2.7%  | 4.0%  | 2.1%  | 1.8%  | 2.4%  | 5.2%  | 0.0%   | 0.0%   | 0.0%   |
| Multiple races                        | 3.8%                           | 7.6%  | 2.0%  | 2.4%  | 1.4%  | 4.8%  | 2.2%  | 2.2%  | 5.9%  | 1.7%   | 0.0%   | 2.8%   |
| Ethnicity                             |                                |       |       |       |       |       |       |       |       |        |        |        |
| Hispanic                              | 2.4%                           | 1.7%  | 3.6%  | 6.4%  | 3.7%  | 2.8%  | 3.1%  | 7.9%  | 12.1% | 0.0%   | 5.1%   | 1.8%   |

\* Counties by Workforce Development Area (WDA)—WDA 1: Clallam, Jefferson, Kitsap; WDA 2: Grays Harbor, Lewis, Mason, Pacific, Thurston; WDA 3: Island, Skagit, San Juan, Whatcom; WDA 4: Snohomish; WDA 5: King; WDA 6: Pierce; WDA 7: Clark, Cowlitz, Wankiakum; WDA 8: Adams, Chelan, Douglas, Grant, Okanogan; WDA 9: Kittitas, Klickitat, Yakima, Skamania; WDA 10: Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman; WDA 11: Benton, Franklin; WDA 12: Spokane.

† "In Washington" was determined from the ZIP code of the license mailing address.



**Table 5: Main Practice Area (Primary vs. Specialty Care) of LPNs in Washington: Overall and for LPNs Practicing In-State**

| Main Practice Area          | LPNs in Washington* |            |         |                          |         |
|-----------------------------|---------------------|------------|---------|--------------------------|---------|
|                             | Unweighted n        | Total      |         | Practicing in Washington |         |
|                             |                     | Weighted n | Percent | Weighted n               | Percent |
| Primary/generalist care     | 1,728               | 8,419      | 64.9%   | 7,157                    | 69.9%   |
| Specialized care            | 606                 | 3,052      | 23.5%   | 2,496                    | 24.4%   |
| No primary area of practice | 323                 | 1,500      | 11.6%   | 593                      | 5.8%    |
| Missing data†               | 75                  | 356        | 2.7%    | 108                      | 1.0%    |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† The percent calculations above do not include these missing data.

**Table 6: Specialties/Areas of Practice of LPNs in Washington**

| Specialty/Area of Practice‡                | LPNs in Washington* |            |         |                            |         |
|--------------------------------------------|---------------------|------------|---------|----------------------------|---------|
|                                            | Unweighted n        | Total      |         | Practicing (in Washington) |         |
|                                            |                     | Weighted n | Percent | Weighted n                 | Percent |
| Public health                              | 66                  | 303        | 2.4%    | 244                        | 2.4%    |
| Critical care                              | 42                  | 224        | 1.8%    | 148                        | 1.5%    |
| ER/emergency care                          | 54                  | 274        | 2.2%    | 228                        | 2.3%    |
| General/family health                      | 310                 | 1,460      | 11.5%   | 1,172                      | 11.7%   |
| Geriatrics                                 | 863                 | 4,265      | 33.6%   | 3,638                      | 36.4%   |
| Hospice                                    | 29                  | 124        | 1.0%    | 86                         | 0.9%    |
| Medical (e.g., oncology, gastroenterology) | 233                 | 1,174      | 9.2%    | 973                        | 9.7%    |
| Obstetrics-gynecology/labor and delivery   | 120                 | 606        | 4.8%    | 464                        | 4.6%    |
| Pediatrics                                 | 136                 | 737        | 5.8%    | 649                        | 6.5%    |
| Psych/mental health                        | 144                 | 661        | 5.2%    | 520                        | 5.2%    |
| Substance abuse                            | 27                  | 129        | 1.0%    | 110                        | 1.1%    |
| Surgery                                    | 82                  | 367        | 2.9%    | 247                        | 2.5%    |
| Other                                      | 370                 | 1,734      | 13.7%   | 1,321                      | 13.2%   |
| No primary area of practice                | 128                 | 636        | 5.0%    | 191                        | 1.9%    |
| Missing data‡                              | 128                 | 632        | 4.7%    | 364                        | 3.5%    |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† If respondent selected more than one area of practice, responses were weighted to equal 1 (e.g., if two responses were selected, each was given a weight of 0.5).

‡ The percent calculations above do not include these missing data.

**Table 7: Age, Length of Practice, and Gender by Specialties/Areas of Practice of LPNs Practicing in Washington**

| Specialty/Area of Practice                 | LPNs Practicing in Washington* |                                              |              |
|--------------------------------------------|--------------------------------|----------------------------------------------|--------------|
|                                            | Average Age                    | Average Number of Years Practicing as an LPN | Percent Male |
| Public health                              | 48.1                           | 18.6                                         | 21.9%        |
| Critical care                              | 41.6                           | 15.2                                         | 27.6%        |
| ER/emergency care                          | 43.8                           | 17.0                                         | 20.6%        |
| General/family health                      | 47.4                           | 19.8                                         | 8.5%         |
| Geriatrics                                 | 45.4                           | 15.1                                         | 11.5%        |
| Hospice                                    | 54.7                           | 22.0                                         | 0.0%         |
| Medical (e.g., oncology, gastroenterology) | 43.6                           | 15.6                                         | 8.3%         |
| Obstetrics-gynecology/labor and delivery   | 44.6                           | 17.3                                         | 3.9%         |
| Pediatrics                                 | 41.6                           | 15.0                                         | 8.1%         |
| Psych/mental health                        | 49.1                           | 19.2                                         | 16.7%        |
| Substance abuse                            | 49.8                           | 16.8                                         | 9.4%         |
| Surgery                                    | 49.2                           | 21.3                                         | 15.4%        |
| Other                                      | 48.8                           | 19.9                                         | 10.9%        |
| No primary area of practice                | 44.8                           | 14.0                                         | 32.9%        |

\* "In Washington" was determined from the ZIP code of the license mailing address.

**Table 8: Work Setting of LPNs Practicing in Washington, Overall**

| Work Setting                      | LPNs Practicing in Washington* |            |         |
|-----------------------------------|--------------------------------|------------|---------|
|                                   | Unweighted n                   | Weighted n | Percent |
| Hospital inpatient                | 302                            | 1,538      | 15.4%   |
| Nursing home/extended care        | 723                            | 3,697      | 37.1%   |
| Public health                     | 40                             | 198        | 2.0%    |
| Ambulatory care/outpatient clinic | 444                            | 2,167      | 21.7%   |
| School health service             | 51                             | 234        | 2.3%    |
| Occupational health facility      | 13                             | 65         | 0.7%    |
| Visiting nurse/home health        | 123                            | 602        | 6.0%    |
| Hospice                           | 12                             | 50         | 0.5%    |
| Insurance claims/benefits         | 9                              | 50         | 0.5%    |
| Education/research                | 19                             | 91         | 0.9%    |
| Other                             | 279                            | 1,286      | 12.9%   |
| Missing data†                     | 77                             | 375        | 3.6%    |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† The percent calculations above do not include these missing data responses.

**Table 9: Work Setting of LPNs Practicing in Washington by WDA\***

| Work Setting                       | LPNs Practicing in Washington† |       |       |       |       |       |       |       |       |        |        |        |
|------------------------------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|                                    | WDA 1                          | WDA 2 | WDA 3 | WDA 4 | WDA 5 | WDA 6 | WDA 7 | WDA 8 | WDA 9 | WDA 10 | WDA 11 | WDA 12 |
| Hospital inpatient                 | 9.2%                           | 19.4% | 5.7%  | 11.3% | 12.4% | 25.6% | 5.6%  | 12.2% | 23.0% | 8.5%   | 8.9%   | 15.6%  |
| Nursing home/ extended care        | 45.9%                          | 34.3% | 40.7% | 44.4% | 42.8% | 26.5% | 38.0% | 29.9% | 42.1% | 44.2%  | 36.4%  | 37.6%  |
| Public health                      | 0.6%                           | 1.1%  | 2.1%  | 2.6%  | 1.1%  | 2.6%  | 2.9%  | 3.0%  | 0.0%  | 2.4%   | 4.1%   | 3.0%   |
| Ambulatory care/ outpatient clinic | 22.8%                          | 24.8% | 21.2% | 17.7% | 21.1% | 21.9% | 29.5% | 26.0% | 21.3% | 18.7%  | 26.5%  | 15.0%  |
| School health service              | 2.5%                           | 2.2%  | 2.7%  | 2.1%  | 2.1%  | 2.8%  | 1.3%  | 3.1%  | 3.6%  | 3.3%   | 0.0%   | 1.7%   |
| Occupational health facility       | 0.9%                           | 0.5%  | 0.5%  | 0.5%  | 0.5%  | 1.0%  | 0.0%  | 1.2%  | 0.0%  | 0.0%   | 1.5%   | 0.6%   |
| Visiting nurse/home health         | 4.0%                           | 6.8%  | 6.4%  | 7.4%  | 5.7%  | 5.1%  | 10.9% | 9.1%  | 1.1%  | 0.8%   | 1.6%   | 9.3%   |
| Hospice                            | 0.6%                           | 0.4%  | 0.0%  | 0.0%  | 0.4%  | 0.5%  | 0.9%  | 0.0%  | 0.0%  | 0.0%   | 4.4%   | 1.1%   |
| Insurance claims/ benefits         | 0.0%                           | 1.1%  | 0.6%  | 0.0%  | 0.9%  | 0.3%  | 0.0%  | 0.8%  | 0.0%  | 0.0%   | 0.0%   | 0.6%   |
| Education/research                 | 0.0%                           | 0.7%  | 0.8%  | 0.5%  | 1.4%  | 1.0%  | 0.0%  | 0.0%  | 0.0%  | 2.9%   | 0.0%   | 1.8%   |
| Other                              | 13.6%                          | 8.7%  | 19.3% | 13.3% | 11.5% | 12.6% | 10.9% | 14.6% | 9.0%  | 19.0%  | 16.5%  | 13.8%  |

\* Counties by Workforce Development Area (WDA)—WDA 1: Clallam, Jefferson, Kitsap; WDA 2: Grays Harbor, Lewis, Mason, Pacific, Thurston; WDA 3: Island, Skagit, San Juan, Whatcom; WDA 4: Snohomish; WDA 5: King; WDA 6: Pierce; WDA 7: Clark, Cowlitz, Waukegan; WDA 8: Adams, Chelan, Douglas, Grant, Okanogan; WDA 9: Kittitas, Klickitat, Yakima, Skamania; WDA 10: Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman; WDA 11: Benton, Franklin; WDA 12: Spokane.

† "In Washington" was determined from the ZIP code of the license mailing address.

**Table 10: Age, Sex, Race/Ethnicity, Practice History, Full-Time Status, and Education by Work Setting of LPNs in Washington**

| Work Setting                      | LPNs Practicing in Washington* |                                              |              |                            |                                   |                                                          |
|-----------------------------------|--------------------------------|----------------------------------------------|--------------|----------------------------|-----------------------------------|----------------------------------------------------------|
|                                   | Average Age                    | Average Number of Years Practicing as an LPN | Percent Male | Percent Working Full Time† | Percent Non-White and/or Hispanic | Percent Who Completed Initial LPN Education Outside U.S. |
| Hospital inpatient                | 44.4                           | 15.9                                         | 15.4%        | 71.3%                      | 21.2%                             | 2.6%                                                     |
| Nursing home/extended care        | 45.0                           | 14.7                                         | 12.3%        | 79.6%                      | 22.3%                             | 3.2%                                                     |
| Public health                     | 45.3                           | 16.0                                         | 21.2%        | 75.9%                      | 21.5%                             | 0.0%                                                     |
| Ambulatory care/outpatient clinic | 46.2                           | 19.1                                         | 6.7%         | 79.8%                      | 14.7%                             | 0.5%                                                     |
| School health service             | 51.1                           | 22.4                                         | 11.6%        | 52.9%                      | 13.8%                             | 2.0%                                                     |
| Occupational health facility      | 47.5                           | 19.2                                         | 23.4%        | 81.1%                      | 28.8%                             | 0.0%                                                     |
| Visiting nurse/home health        | 46.7                           | 18.0                                         | 12.9%        | 80.5%                      | 12.8%                             | 3.5%                                                     |
| Hospice                           | 53.0                           | 14.8                                         | 0.0%         | 48.2%                      | 8.2%                              | 0.0%                                                     |
| Insurance claims/benefits         | 45.0                           | 20.7                                         | 0.0%         | 79.6%                      | 14.2%                             | 0.0%                                                     |
| Education/research                | 47.4                           | 19.0                                         | 8.3%         | 87.7%                      | 11.0%                             | 0.0%                                                     |
| Other                             | 48.8                           | 19.8                                         | 8.8%         | 73.9%                      | 22.2%                             | 2.6%                                                     |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† ≥32 hours/week.

**Table 11: Work Setting of LPNs in Washington by Specialty/Area of Practice**

| Specialty/Area of Practice                 | LPNs Practicing in Washington* |                             |               |                                   |       |
|--------------------------------------------|--------------------------------|-----------------------------|---------------|-----------------------------------|-------|
|                                            | Hospital Inpatient             | Nursing Home/ Extended Care | Public Health | Ambulatory Care/Outpatient Clinic | Other |
| Public health                              | 5.4%                           | 8.9%                        | 39.9%         | 5.7%                              | 40.2% |
| Critical care                              | 76.6%                          | 9.3%                        | 0.0%          | 3.1%                              | 11.0% |
| ER/emergency care                          | 24.8%                          | 1.7%                        | 3.6%          | 44.0%                             | 25.8% |
| General/family health                      | 2.0%                           | 3.7%                        | 3.7%          | 69.1%                             | 21.6% |
| Geriatrics                                 | 1.2%                           | 88.9%                       | 0.2%          | 1.2%                              | 8.5%  |
| Hospice                                    | 0.0%                           | 0.0%                        | 0.0%          | 4.7%                              | 95.3% |
| Medical (e.g., oncology, gastroenterology) | 34.6%                          | 2.0%                        | 0.0%          | 48.6%                             | 14.8% |
| Obstetrics-gynecology/labor and delivery   | 50.3%                          | 0.0%                        | 3.0%          | 38.7%                             | 8.0%  |
| Pediatrics                                 | 9.3%                           | 8.0%                        | 0.7%          | 33.9%                             | 48.1% |
| Psych/mental health                        | 53.0%                          | 20.9%                       | 2.6%          | 5.1%                              | 18.6% |
| Substance abuse                            | 27.4%                          | 4.4%                        | 7.5%          | 8.8%                              | 51.9% |
| Surgery                                    | 50.2%                          | 0.0%                        | 0.0%          | 42.9%                             | 7.0%  |
| Other                                      | 10.8%                          | 11.2%                       | 0.7%          | 15.5%                             | 61.9% |
| No primary area of practice                | 29.7%                          | 31.7%                       | 0.0%          | 3.3%                              | 35.2% |

\* "In Washington" was determined from the ZIP code of the license mailing address.

**Table 12: Number of Locations in which LPNs Practicing in Washington Provide Direct Patient Care**

| Provide Direct Patient Care | LPNs Practicing in Washington* |            |         |
|-----------------------------|--------------------------------|------------|---------|
|                             | Unweighted n                   | Weighted n | Percent |
| Overall                     | 1,896                          | 9,461      | 100.0%  |
| In one location             | 1,451                          | 7,144      | 82.5%   |
| In two locations            | 113                            | 599        | 6.9%    |
| In more than two locations  | 169                            | 916        | 10.6%   |
| Missing data†               | 163                            | 802        | 8.5%    |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† The percent calculations above do not include these missing data responses.

**Table 13: Age of Practicing LPNs in Washington by Full-/Part-Time Status**

|                            | LPNs Practicing in Washington* |           |
|----------------------------|--------------------------------|-----------|
|                            | Full Time†                     | Part Time |
| Total‡ (n)                 | 7,916                          | 2,347     |
| Mean age                   | 46.0                           | 46.1      |
| Age <50 years (n = 5,890‡) | 77.3%                          | 22.7%     |
| Age ≥50 years (n = 4,446‡) | 77.0%                          | 23.0%     |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† Full-time status was assigned if work hours totaled ≥32 hours/week and part time was <32 hours/week.

‡ Weighted number. Unweighted numbers were 1,603 for full time and 474 for part time.

**Table 14: Average Weekly Hours in Professional Activities of Practicing LPNs in Washington by Work Setting**

| Average Weekly Hours in Professional Activity     | Practice Location of LPNs in Washington* |                    |                             |               |                                   |                     |
|---------------------------------------------------|------------------------------------------|--------------------|-----------------------------|---------------|-----------------------------------|---------------------|
|                                                   | All Locations                            | Hospital Inpatient | Nursing Home/ Extended Care | Public Health | Ambulatory Care/Outpatient Clinic | Education/ Research |
| Direct patient care (including patient education) | 24.8                                     | 27.7               | 24.3                        | 23.8          | 27.0                              | 4.8                 |
| Administration of clinical practice               | 5.2                                      | 3.0                | 6.6                         | 7.3           | 4.8                               | 3.8                 |
| Teaching (nursing education)                      | 1.9                                      | 1.4                | 1.7                         | 4.6           | 1.8                               | 11.8                |
| Research                                          | 0.8                                      | 0.4                | 0.6                         | 1.5           | 0.6                               | 14.9                |
| Other professional. LPN activities                | 4.8                                      | 3.5                | 5.7                         | 4.3           | 2.9                               | 4.1                 |
| Total†                                            | 36.8                                     | 35.1               | 38.1                        | 37.5          | 36.5                              | 39.4                |
|                                                   |                                          |                    |                             |               |                                   | 22.9                |
|                                                   |                                          |                    |                             |               |                                   | 4.5                 |
|                                                   |                                          |                    |                             |               |                                   | 2.0                 |
|                                                   |                                          |                    |                             |               |                                   | 0.9                 |
|                                                   |                                          |                    |                             |               |                                   | 6.1                 |
|                                                   |                                          |                    |                             |               |                                   | 35.5                |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† Total hours do not equal the sum of professional activity component hours because total hours were reported independently.



**Table 15: Nursing Education Obtained from an Institution in Washington, Among LPNs in Washington\***

|                                                                                   | Overall    |
|-----------------------------------------------------------------------------------|------------|
| Total number†                                                                     | 13,327     |
| Obtained nursing degree/completed program from an institution in Washington State | 73.4%      |
| Missing data‡, n† (%)                                                             | 297 (2.2%) |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† Weighted number.

‡ The percent calculations above do not include these missing data.

**Table 16: Age at Completion of Initial LPN Credentials Among LPNs in Washington**

| Year Obtained Initial LPN Education | Mean Age at Completion of Initial Nursing Education, Among LPNs in Washington* |
|-------------------------------------|--------------------------------------------------------------------------------|
| 2005-2007                           | 32.6                                                                           |
| 2000-2004                           | 31.5                                                                           |
| 1995-1999                           | 31.4                                                                           |
| 1990-1994                           | 30.5                                                                           |
| 1985-1989                           | 28.5                                                                           |
| 1980-1984                           | 25.7                                                                           |
| Before 1980                         | 22.7                                                                           |

\* "In Washington" was determined from the ZIP code of the license mailing address.

**Table 17: Characteristics of LPNs in Washington Who Obtained their Initial Education to Become an LPN Outside of the United States**

|                                                                                 | LPNs in Washington* |
|---------------------------------------------------------------------------------|---------------------|
| Total Washington LPNs with initial nursing education from outside the U.S.† (n) | 256                 |
| Practicing in Washington                                                        | 100.0%              |
| Mean age (years)                                                                | 45.7                |
| Male                                                                            | 6.9%                |
| Race and ethnicity                                                              |                     |
| White non-Hispanic                                                              | 32.2%               |
| Black/African-American only                                                     | 9.9%                |
| American Indian/Alaska Native only                                              | 0.0%                |
| Asian only                                                                      | 48.3%               |
| Native Hawaiian/Pacific Islander only                                           | 4.1%                |
| Other                                                                           | 5.4%                |
| Multiple races                                                                  | 0.0%                |
| Ethnicity: Hispanic                                                             | 3.5%                |
| Average number of years practicing as an LPN                                    | 14.5                |
| Average number of years practiced in Washington                                 | 9.6                 |
| Provide direct patient care                                                     | 93.6%               |
| Employed in hospital inpatient setting                                          | 17.3%               |
| Employed in nursing home/extended care setting                                  | 52.2%               |

\* "In Washington" was determined from the ZIP code of the license mailing address.

† Weighted number (48 unweighted).

# APPENDIX A: WASHINGTON STATE LPN SURVEY QUESTIONNAIRE

## Survey of Washington State Licensed Health Care Providers: License type: LICENSED PRACTICAL NURSES

Please answer all questions as instructed. If you hold more than one type of license to practice, please complete the questionnaire as it applies to the license type listed above. PLEASE DO NOT DOUBLE COUNT YOUR ACTIVITIES across license types.

### Specialty

**Q1. Select ONE category below that best describes your primary area of practice.** (If you are not clinically active, please select the type of work with which you are most associated.)

- |                                             |                                                                |                                                   |
|---------------------------------------------|----------------------------------------------------------------|---------------------------------------------------|
| <input type="radio"/> Public health         | <input type="radio"/> Hospice                                  | <input type="radio"/> Substance abuse             |
| <input type="radio"/> Critical care         | <input type="radio"/> Medical (eg. oncology, gastroenterology) | <input type="radio"/> Surgery                     |
| <input type="radio"/> ER/Emergency care     | <input type="radio"/> OB/Gynecology/Labor & delivery           | <input type="radio"/> Other                       |
| <input type="radio"/> General/Family health | <input type="radio"/> Pediatrics                               | <input type="radio"/> No primary area of practice |
| <input type="radio"/> Geriatrics            | <input type="radio"/> Psych/Mental Health                      |                                                   |

**Q2. Considering the direct patient care you provide, which of the following best describes your main practice activities? (Check only ONE.)**

- ☐ Primary/Generalist care (e.g., primary care clinic, nursing care facility, home health care)
- ☐ Specialized care (e.g., specialized hospital unit)
- ☐ Not applicable - I do not provide direct patient care

### Practice Activities

**Q3. Are you currently practicing (employed or volunteer) as a licensed practical nurse in Washington State?**

- ☐ Yes
- ☐ No ==> Skip to Q10

**Q4. During a typical week, approximately how many hours do you spend in the following professional LPN activities? (Do not include on-call time.)**

- Direct patient care (including patient education)
- Administration of clinical practice
- Teaching (Nursing education)
- Research
- Other professional LPN activities

**TOTAL** hours (add above items -- This should represent your typical weekly hours of work.)

**Q5. In the past 12 months, how many weeks did you work? (For example, if you work all year and take two weeks vacation, you would work 50 weeks.)**

Weeks

**Q6. Do you provide direct patient care?**

- ☐ Yes
- ☐ No ==> Skip to Q9

→ Please turn the page over and answer the questions on the other side.

### MARKING INSTRUCTIONS

- Use a No. 2 pencil or a blue or black ink pen only.
- Do not use pens with ink that soaks through the paper.
- Make solid marks that fill the response completely.
- Make no stray marks on this form.

CORRECT: ●

INCORRECT: ☐ ✗ ○ ◐

Q7. What are the ZIP codes of your work location(s) where you provide direct patient care?

Principal work location ZIP code

Secondary work location ZIP code (if applicable)

Q8. Do you provide direct patient care in more than two locations?

- ☐ Yes  
☐ No

#### Facility Type

Q9. Which ONE of the following best describes the work setting of your principal position?

- |                                                                 |                                                    |                                                 |
|-----------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------|
| <input type="radio"/> Hospital inpatient                        | <input type="radio"/> School health service        | <input type="radio"/> Insurance Claims/Benefits |
| <input type="radio"/> Nursing home/Extended care/Long term care | <input type="radio"/> Occupational health facility | <input type="radio"/> Education/Research        |
| <input type="radio"/> Public health                             | <input type="radio"/> Visiting nurse/Home health   | <input type="radio"/> Other                     |
| <input type="radio"/> Ambulatory care/Outpatient clinic         | <input type="radio"/> Hospice                      |                                                 |

#### Practice History

Q10. How many total years have you practiced as a licensed practical nurse? (Include both time in Washington and elsewhere.)

Total years of practice (including in Washington) (Use 0 if none.)

Q11. How many total years have you practiced as a licensed practical nurse in Washington?

Total years of practice in Washington (Use 0 if none)

#### Education

Q12. In what year did you complete your licensed practical nurse program

year

Q13. Did you complete this program at a school or program in Washington state?

- ☐ Yes  
☐ No

Q14. Did you complete your education to become a licensed practical nurse outside of the United States?

- ☐ Yes, outside the U.S.  
☐ No

#### Ethnicity and Race

Q15. Are you of Spanish / Hispanic / Latino origin?

- ☐ Yes  
☐ No

Q16. The Spanish/Hispanic/Latino question is about ethnicity, not race. Please continue to answer the following question by marking one or more boxes to indicate what you consider your race(s) to be.

- |                                                        |                                                        |
|--------------------------------------------------------|--------------------------------------------------------|
| <input type="radio"/> White                            | <input type="radio"/> Asian                            |
| <input type="radio"/> Black or African American        | <input type="radio"/> Native Hawaiian/Pacific Islander |
| <input type="radio"/> American Indian or Alaska native | <input type="radio"/> Other                            |

Thank you for participating in this important survey! Please return your questionnaire in the envelope provided, or to  
SESRC, Washington State University, PO Box 641801, Pullman, WA 99164-1801

## APPENDIX B: ASSESSMENT OF POSSIBLE RESPONSE BIAS

|            |                                                                                                          |    |
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**Table B-1: Response Rates for Washington LPNs by Workforce Development Area (WDA)**

|                              | Response Rates<br>Overall | Response Rates for<br>Random Sample of<br>33% of Licensed LPNs |
|------------------------------|---------------------------|----------------------------------------------------------------|
| Total number                 | 14,446                    | 4,814                                                          |
| Overall responses (n)        | 2,968                     | 2,052                                                          |
| Overall responses (%)        | 20.5%                     | 42.6%                                                          |
| Responses (% of WDA) by WDA* |                           |                                                                |
| 1                            | 24.4%                     | 47.9%                                                          |
| 2                            | 20.9%                     | 41.0%                                                          |
| 3                            | 23.1%                     | 45.7%                                                          |
| 4                            | 19.3%                     | 40.0%                                                          |
| 5                            | 16.5%                     | 36.4%                                                          |
| 6                            | 19.7%                     | 41.0%                                                          |
| 7                            | 23.6%                     | 50.5%                                                          |
| 8                            | 23.2%                     | 43.7%                                                          |
| 9                            | 21.7%                     | 47.8%                                                          |
| 10                           | 23.7%                     | 49.7%                                                          |
| 11                           | 23.8%                     | 43.8%                                                          |
| 12                           | 22.0%                     | 47.8%                                                          |

\* Counties by Workforce Development Area (WDA)—WDA 1: Clallam, Jefferson, Kitsap; WDA 2: Grays Harbor, Lewis, Mason, Pacific, Thurston; WDA 3: Island, Skagit, San Juan, Whatcom; WDA 4: Snohomish; WDA 5: King; WDA 6: Pierce; WDA 7: Clark, Cowlitz, Wahkiakum; WDA 8: Adams, Chelan, Douglas, Grant, Okanogan; WDA 9: Kittitas, Klickitat, Yakima, Skamania; WDA 10: Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman; WDA 11: Benton, Franklin; WDA 12: Spokane.

**Table B-2: Response Rates for Washington LPNs by Age Group**

|                                              | Response Rates<br>Overall | Response Rates for<br>Random Sample of<br>33% of Licensed LPNs |
|----------------------------------------------|---------------------------|----------------------------------------------------------------|
| Total number                                 | 14,446                    | 4,814                                                          |
| Overall responses (n)                        | 2,968                     | 2,052                                                          |
| Overall responses (%)                        | 20.5%                     | 42.6%                                                          |
| Responses (% of age group) by age categories |                           |                                                                |
| <25                                          | 14.8%                     | 33.1%                                                          |
| 25-29                                        | 14.2%                     | 29.1%                                                          |
| 30-34                                        | 13.3%                     | 28.1%                                                          |
| 35-39                                        | 15.5%                     | 34.0%                                                          |
| 40-44                                        | 18.3%                     | 34.8%                                                          |
| 45-49                                        | 20.6%                     | 42.3%                                                          |
| 50-54                                        | 23.0%                     | 45.9%                                                          |
| 55-59                                        | 25.4%                     | 52.0%                                                          |
| 60-64                                        | 25.6%                     | 55.7%                                                          |
| 65-69                                        | 30.9%                     | 67.4%                                                          |
| 70-74                                        | 23.0%                     | 54.9%                                                          |
| ≥75                                          | 19.0%                     | 47.1%                                                          |

**Table B-3: Age and Sex Characteristics of All Licensed LPNs in Washington Compared with Survey Respondents**

|                                | Total Licensed Population | Survey Respondents     |                                |
|--------------------------------|---------------------------|------------------------|--------------------------------|
|                                |                           | From 33% Random Sample | From LPNs NOT in Random Sample |
| Total number                   | 14,446                    | 2,052                  | 914                            |
| Age                            |                           |                        |                                |
| Mean                           | 47.1                      | 49.9                   | 49.3                           |
| Median                         | 48                        | 52                     | 51                             |
| Age categories (% of category) |                           |                        |                                |
| <25                            | 2.7%                      | 2.0%                   | 1.9%                           |
| 25-29                          | 7.4%                      | 5.1%                   | 5.2%                           |
| 30-34                          | 8.5%                      | 5.6%                   | 5.3%                           |
| 35-39                          | 10.4%                     | 8.0%                   | 7.5%                           |
| 40-44                          | 11.0%                     | 9.3%                   | 10.9%                          |
| 45-49                          | 13.3%                     | 12.9%                  | 14.1%                          |
| 50-54                          | 16.6%                     | 18.2%                  | 19.5%                          |
| 55-59                          | 14.6%                     | 17.9%                  | 18.6%                          |
| 60-64                          | 9.1%                      | 11.8%                  | 10.5%                          |
| 65 and over                    | 6.3%                      | 9.2%                   | 6.8%                           |
| Sex                            |                           |                        |                                |
| Male (%)                       | 11.9%                     | 10.7%                  | 10.8%                          |

**Table B-4: Geographic Distribution of All Licensed LPNs in Washington Compared with Survey Respondents**

|                       | Total Licensed Population | Survey Respondents     |                                |
|-----------------------|---------------------------|------------------------|--------------------------------|
|                       |                           | From 33% Random Sample | From LPNs NOT in Random Sample |
| Total number          | 14,446                    | 2,052                  | 914                            |
| Geography             |                           |                        |                                |
| Out of state (%)      | 7.7%                      | 7.8%                   | 8.1%                           |
| In-state, overall (%) | 92.3%                     | 92.2%                  | 91.9%                          |
| WDA* (%)              |                           |                        |                                |
| 1                     | 5.4%                      | 6.1%                   | 7.3%                           |
| 2                     | 11.0%                     | 10.5%                  | 12.6%                          |
| 3                     | 8.8%                      | 9.7%                   | 10.5%                          |
| 4                     | 8.2%                      | 7.6%                   | 8.0%                           |
| 5                     | 19.9%                     | 16.8%                  | 14.4%                          |
| 6                     | 21.0%                     | 20.3%                  | 20.0%                          |
| 7                     | 4.9%                      | 5.7%                   | 5.6%                           |
| 8                     | 3.8%                      | 3.9%                   | 5.5%                           |
| 9                     | 3.9%                      | 4.5%                   | 3.3%                           |
| 10                    | 3.0%                      | 3.8%                   | 2.9%                           |
| 11                    | 2.6%                      | 3.0%                   | 3.1%                           |
| 12                    | 7.3%                      | 8.2%                   | 6.9%                           |

\* Counties by Workforce Development Area (WDA)—WDA 1: Clallam, Jefferson, Kitsap; WDA 2: Grays Harbor, Lewis, Mason, Pacific, Thurston; WDA 3: Island, Skagit, San Juan, Whatcom; WDA 4: Snohomish; WDA 5: King; WDA 6: Pierce; WDA 7: Clark, Cowlitz, Wahkiakum; WDA 8: Adams, Chelan, Douglas, Grant, Okanogan; WDA 9: Kittitas, Klickitat, Yakima, Skamania; WDA 10: Asotin, Columbia, Ferry, Garfield, Lincoln, Pend Oreille, Stevens, Walla Walla, Whitman; WDA 11: Benton, Franklin; WDA 12: Spokane.

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