



Overview of the Long-Term Care Health Workforce in Colorado

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Demographic characteristics of the long-term care (LTC) workforce

Table 1. Demographic characteristics of Colorado's certified nurse aide (CNA), licensed practical nurse (LPN) and registered nurse (RN) workforce

Demographic characteristic	CNAs in long-term care positions	All other CNAs	LPNs in long-term care positions	All other LPNs	RNs in long-term care positions	All other RNs
Male	10.5%	8.6%	12.0%	10.4%	8.1%	8.1%
Female	89.5%	91.4%	88.0%	89.6%	91.9%	91.0%
Average age (years)	40.2	41.7	47.5	46.8	49.9	46.4
Born in the United States	87.5%	93.1%	85.9%	93.7%	n/a	n/a
Born in a foreign country	12.5%	6.9%	14.1%	6.3%	n/a	n/a
American Indian/Alaskan Native	3.8% *	4.6% *	1.0%	1.1%	0.0%	0.9%
Asian/Pacific Islander	4.7% *	3.8% *	1.4%	2.3%	5.1%	1.4%
Black, non-Hispanic	13.6% *	9.5% *	9.1%	2.3%	1.8%	0.3%
Hispanic	25.2% *	19.9% *	4.8%	9.8%	2.4%	3.2%
White, non-Hispanic	57.8% *	68.4% *	81.1%	82.9%	90.6%	91.6%
Multi-racial/multi-ethnic	n/a	n/a	2.6%	1.6%	0.1%	1.0%
Fluent in a language other than English	34.6%	26.1%	16.0%	14.7%	10.9%	11.9%
Grew up in a rural community	37.8%	34.1%	49.9%	47.4%	50.4%	33.9%
Live in a rural community	22.7%	15.2%	22.2%	19.9%	21.4%	13.6%
Work in a rural community	23.8%	15.4%	21.7%	17.1%	22.4%	12.6%

NOTE: Values may not add to 100% due to rounding.

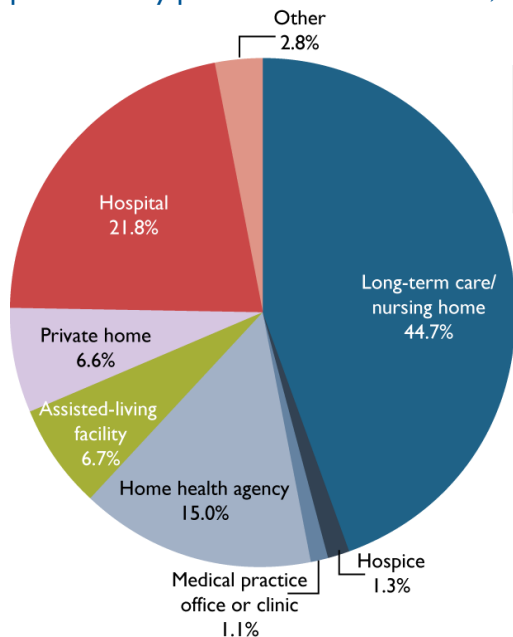
* Values add to more than 100% because respondents could select more than one racial/ethnic group.

SOURCE: 2006 Colorado Certified Nurse Aide (CNA) Workforce Survey, 2007-08 Colorado Licensed Practical Nurse (LPN) Workforce Survey and 2008 Colorado Registered Nurse (RN) Workforce Survey, Colorado Health Institute

Location of primary practice by type of nurse

CNAs

Graph 1. Primary practice location of CNAs, 2006

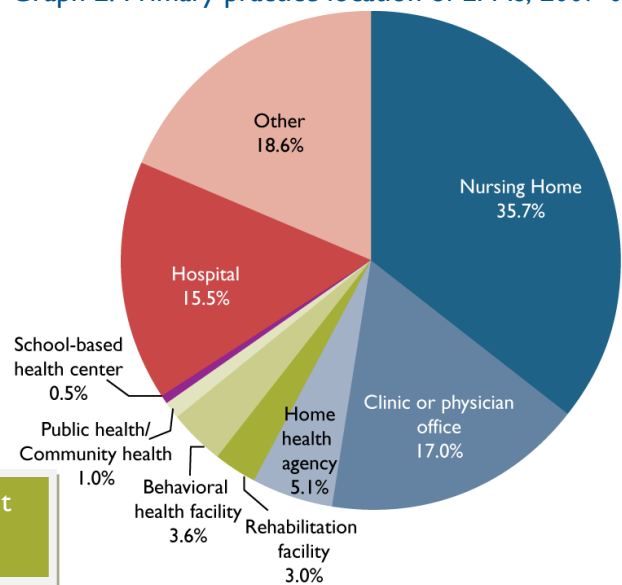


Approximately 60% of Colorado CNAs, or about 18,000, worked in a long-term care setting.

SOURCE: 2006 Colorado Certified Nurse Aide Workforce Survey, Colorado Health Institute

LPNs

Graph 2. Primary practice location of LPNs, 2007-08

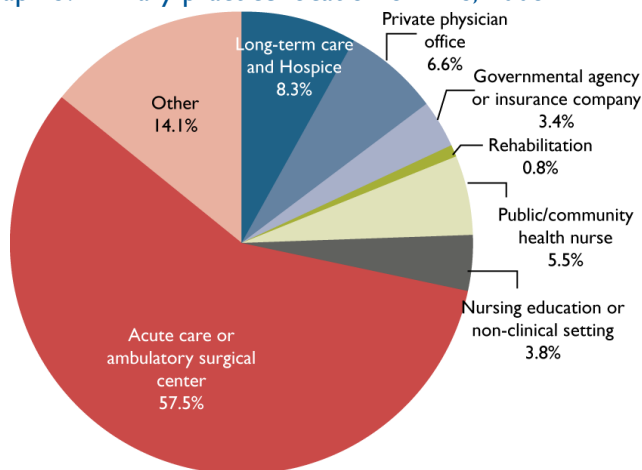


Approximately 41% of Colorado LPNs, or about 3,500, worked in a long-term care setting.

SOURCE: 2007-08 Colorado Licensed Practical Nurse Workforce Survey, Colorado Health Institute

RNs

Graph 3. Primary practice location of RNs, 2008

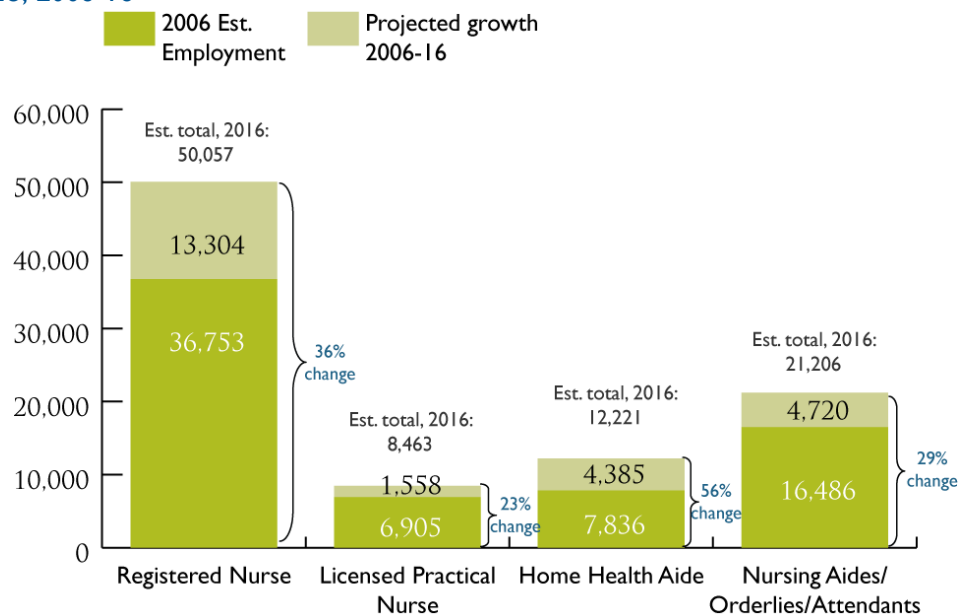


Approximately 8% of Colorado RNs, or about 3,900, worked in a long-term care setting.

SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Projected growth in nursing workforce

Graph 4. Projected growth by type of professional and paraprofessional nursing workforce, Colorado, 2006-16



SOURCE: Colorado Department of Labor and Employment, LMI Gateway¹

Turnover in nursing workforce

High rates of turnover among direct care workers have long been a serious workforce issue for long-term care (LTC) facilities, which has led to a substantial body of literature on the subject.^{2,3} National estimates of turnover in the LTC workforce vary widely. Most studies estimate turnover rates between 40 percent and 100 percent, though these figures vary by region and type of facility.^{4,5,6} Numerous studies suggest that high rates of turnover negatively affect the quality of care; both continuity of care and personal relationships between staff and patients suffer when turnover is high.^{7,8,9,10,11,12} In addition, high rates of staff turnover are costly for provider organizations because of increased recruitment and training costs. It is estimated that the direct cost of replacing a frontline worker is at least \$2,500.¹³

CNA WORKFORCE SURVEY

According to a CNA Workforce Survey conducted by the Colorado Health Institute (CHI) in 2006, the average CNA working in a long-term care setting worked in his or her current job for approximately 5.5 years, essentially the same length of time (6 years) as CNAs in other work settings.

When asked how many years they planned to continue working as a CNA, 24 percent reported plans to leave the profession within five years. Approximately half of the CNAs employed in an LTC setting marked “unknown.” A higher number of CNAs working in hospitals reported planning to leave the profession within the next five years than those working in other employment settings including LTC facilities or home health agencies.

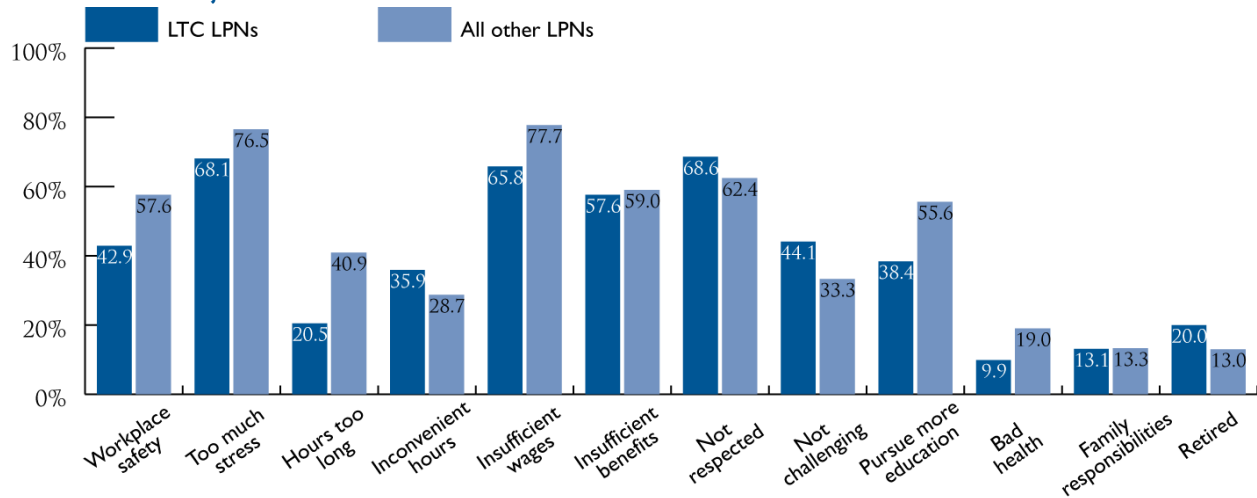
LPN WORKFORCE SURVEY

LPNs in LTC work settings were much more likely to report plans to leave their current job within the next year when compared to all other employment settings. In the 2007-08 survey, 28 percent of LPNs working in an LTC setting reported that they planned to quit their current nursing job within the next

12 months. Only 16 percent of LPNs working in other settings reported that they planned to leave within 12 months.

Of the LPNs who reported plans to leave within 12 months, CHI asked about the factors that influenced their decision to leave their job.

Graph 5. Percentage of LPNs who rated each factor as important or very important in their decision to leave their job within the next 12 months

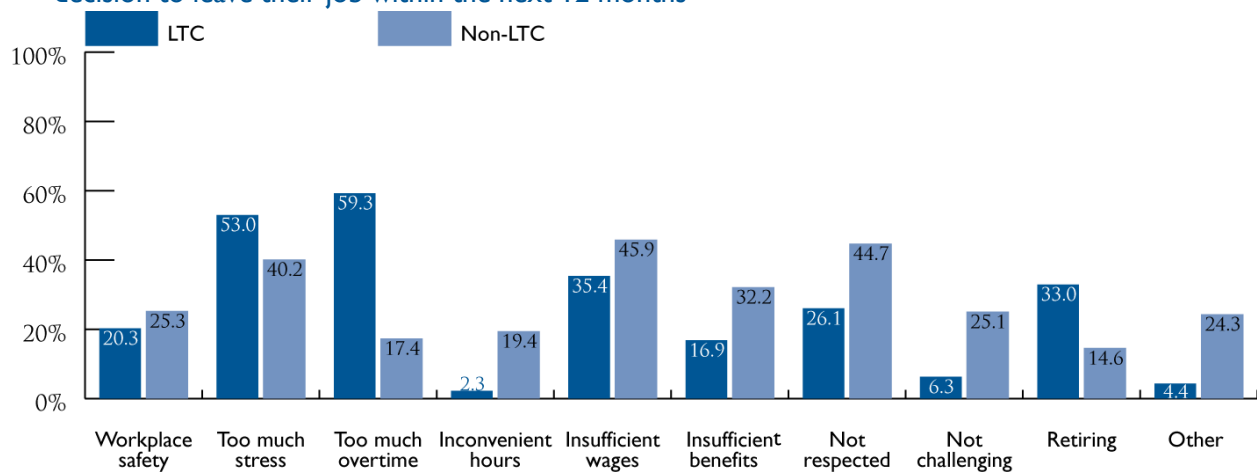


SOURCE: 2007-08 Licensed Practical Nurse Workforce Survey, Colorado Health Institute

RN WORKFORCE SURVEY

Approximately 13 percent of RNs employed in an LTC setting reported that they would leave their primary nursing position within the next 12 months compared to 12 percent of all other RNs. RNs in an LTC setting were more likely to report plans to retire from the profession within the next two years (16% versus 9%) than all others.

Graph 6. Percent of RNs who responded agree or strongly agree to factors that influenced their decision to leave their job within the next 12 months

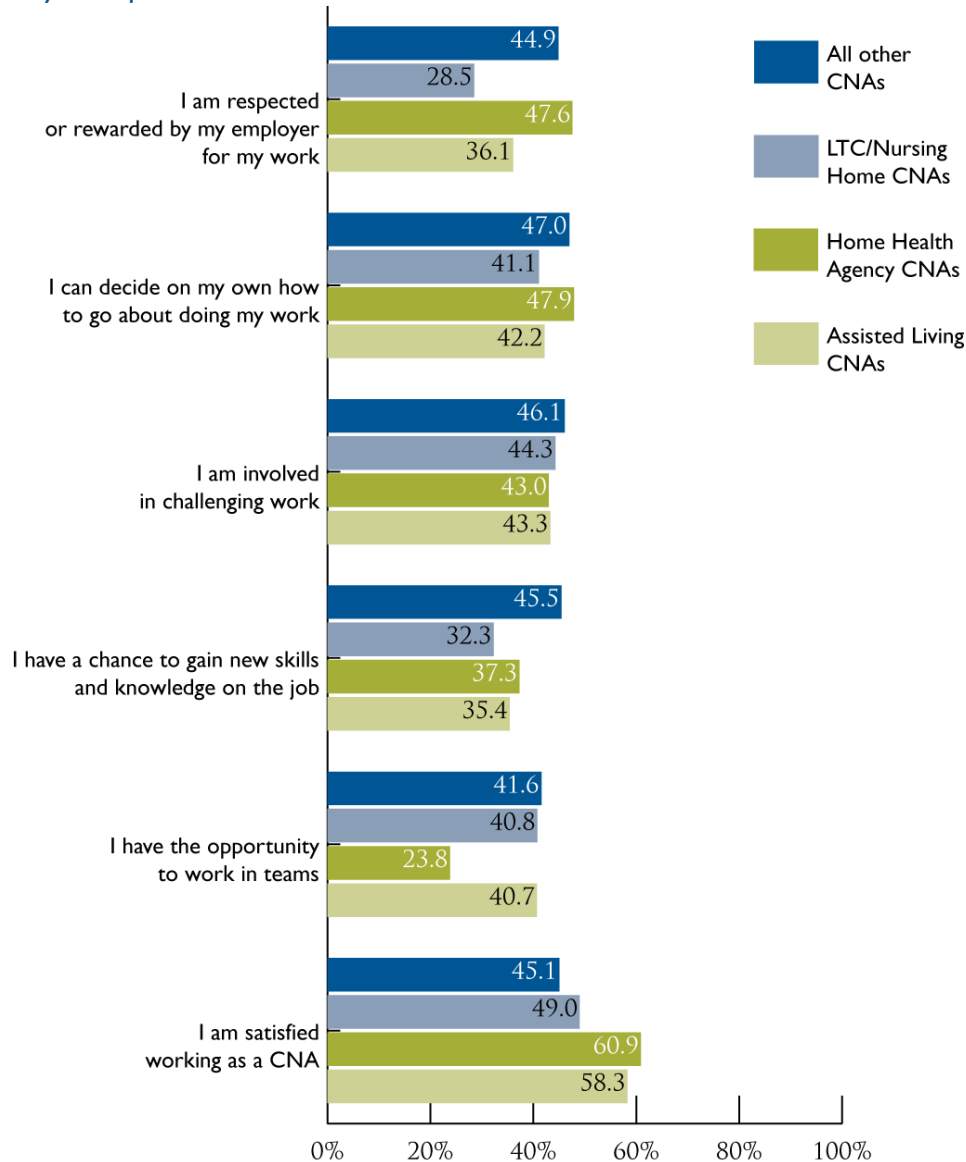


SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Job satisfaction among Colorado nurses

CNA WORKFORCE SURVEY

Graph 7. Percent of CNA respondents reporting a high level of agreement with statements about their primary workplace



NOTE: "All other" includes hospital, private home, hospice, medical practice office or clinic, and other categories

SOURCE: 2006 Colorado Certified Nurse Aide Workforce Survey, Colorado Health Institute

RN WORKFORCE SURVEY

When asked about career plans within the next two years, RNs working in an LTC setting were more likely to report that they intended to become nurse administrators than all other RNs (22% versus 6%). When asked how they spent their time during a typical work week, RNs working in an LTC setting were more inclined to say that they spent *too little* time in direct patient care (35% versus 19%) and *too much* time on administrative tasks in their primary nursing position (48% versus 30%) than all other RNs.

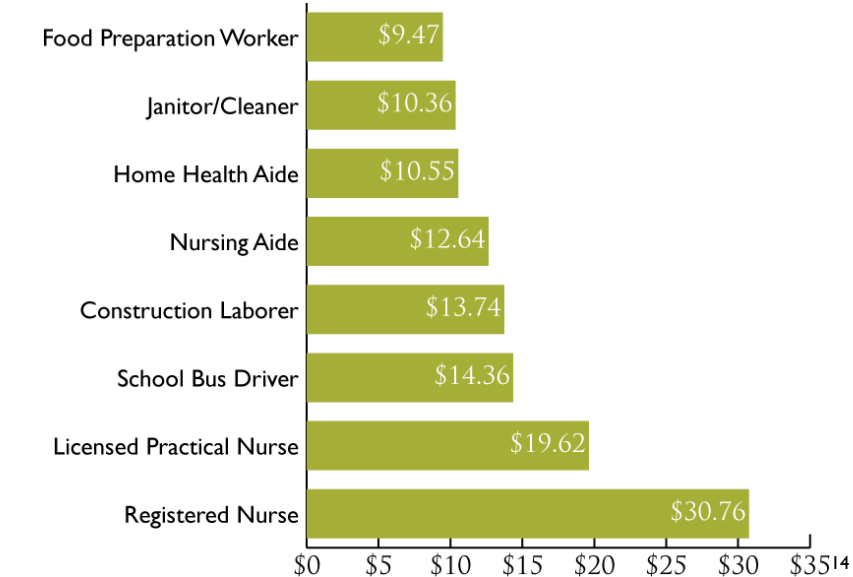
In addition, RNs working in LTC reported having much more supervisor support as well as spending much more time in daily meetings regarding quality improvement or patient safety.

Nurse wages and earnings

Analysis of CHI's LPN and RN workforce surveys found that of nurses working in an LTC setting who reported planning to leave their current position within 12 months, 66 percent of LPNs and 36 percent of RNs cited insufficient wages as an *important* or *very important* factor influencing their decision.

The following graph compares median hourly wages for select LTC care workers with other semi-skilled workers.

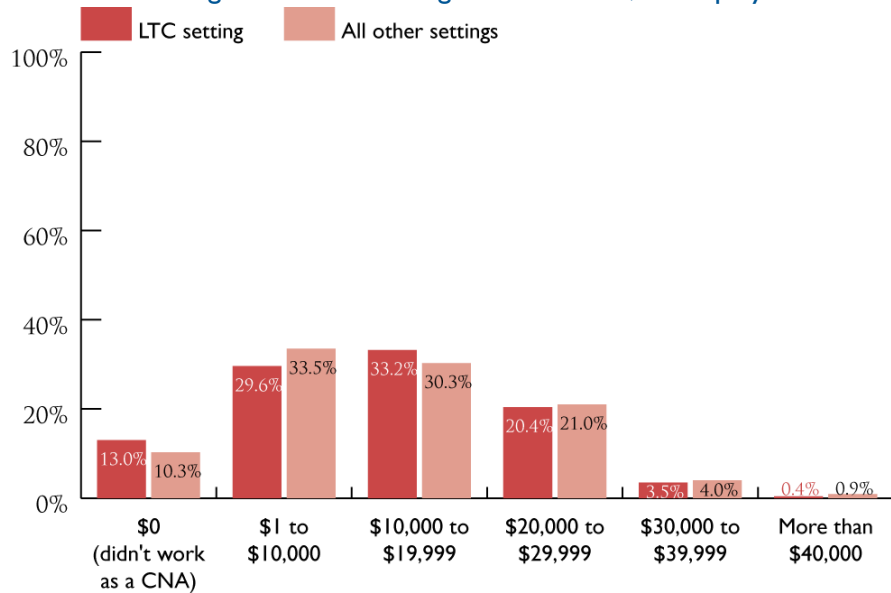
Graph 8. Median hourly wage, selected occupations, Colorado, 2008



SOURCE: Colorado Department of Labor and Employment, LMI Gateway, 2008

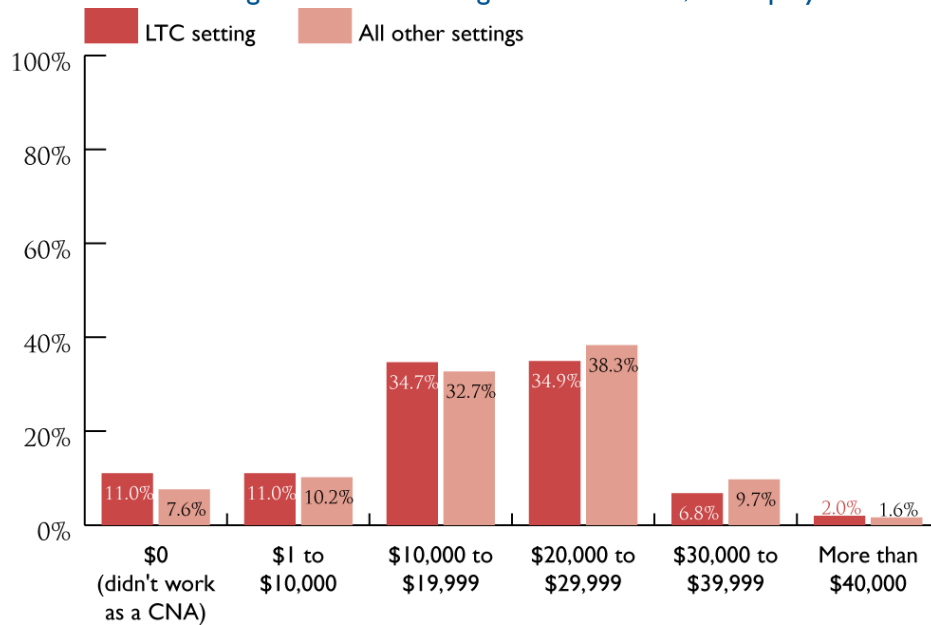
CNA WORKFORCE SURVEY

Graph 9. 2004 Annual earnings of CNAs working 0-20 hrs/week, all employment settings



SOURCE: 2006 Colorado Certified Nurse Aide Workforce Survey, Colorado Health Institute

Graph 10. 2004 Annual earnings of CNAs working 21-40 hrs/week, all employment settings

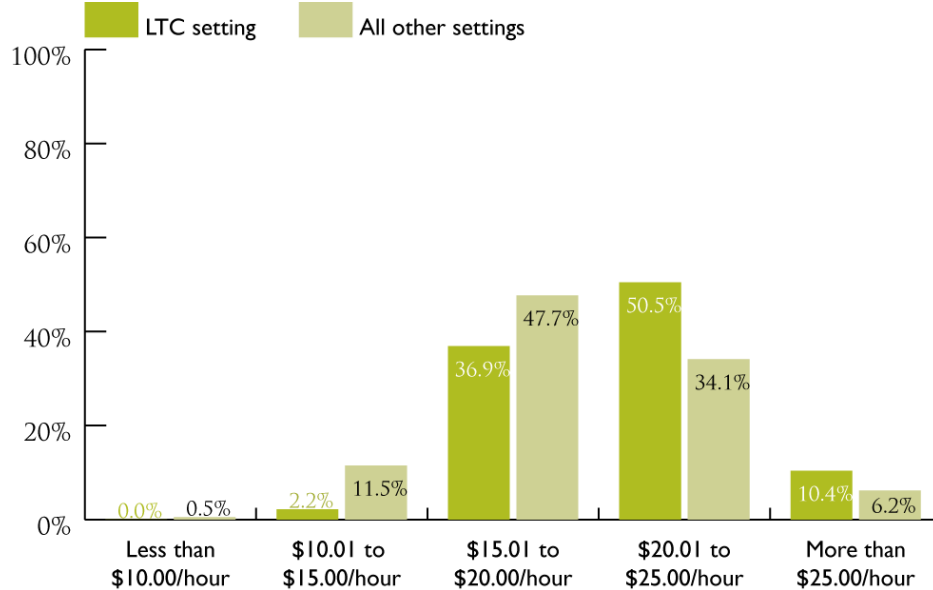


SOURCE: 2006 Colorado Certified Nurse Aide Workforce Survey, Colorado Health Institute

These survey analyses did not reveal any significant differences in earnings based on employment setting. Approximately nine in 10 CNAs who worked less than or equal to 40 hours per week and the vast majority, regardless of how many hours they worked per week, earned less than \$30,000 per year.

LPN WORKFORCE SURVEY

Graph 11. Hourly wages for LPNs at their primary place of employment, 2007-08

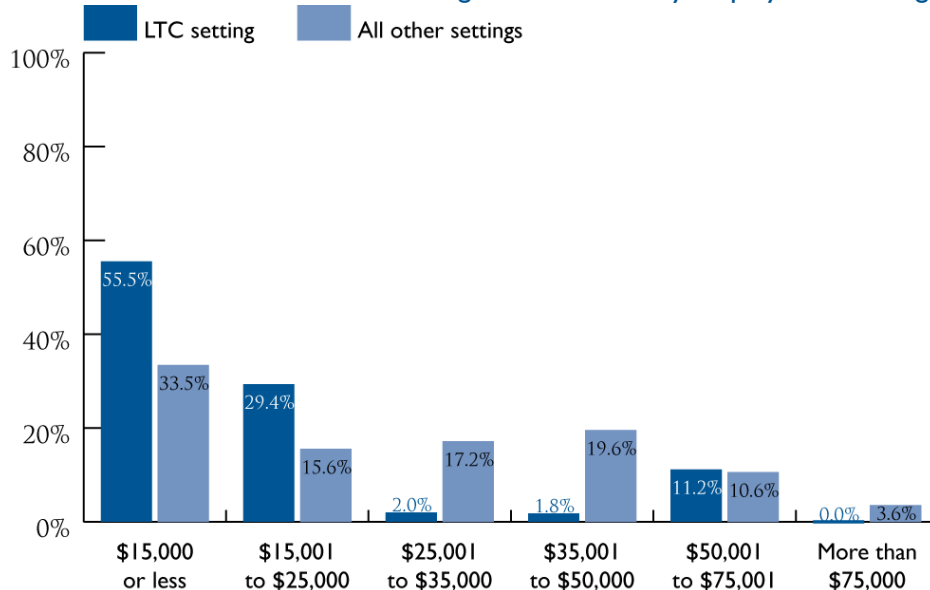


SOURCE: 2007-08 Colorado Licensed Practical Nurse Workforce Survey, Colorado Health Institute

LPNs working in an LTC setting reported slightly higher hourly wages than LPNs in all other settings. It is possible that total annual income may not be significantly different between the two groups but that the discrepancy in hourly wages may be accounted for by the differences in number of hours worked.

RN WORKFORCE SURVEY

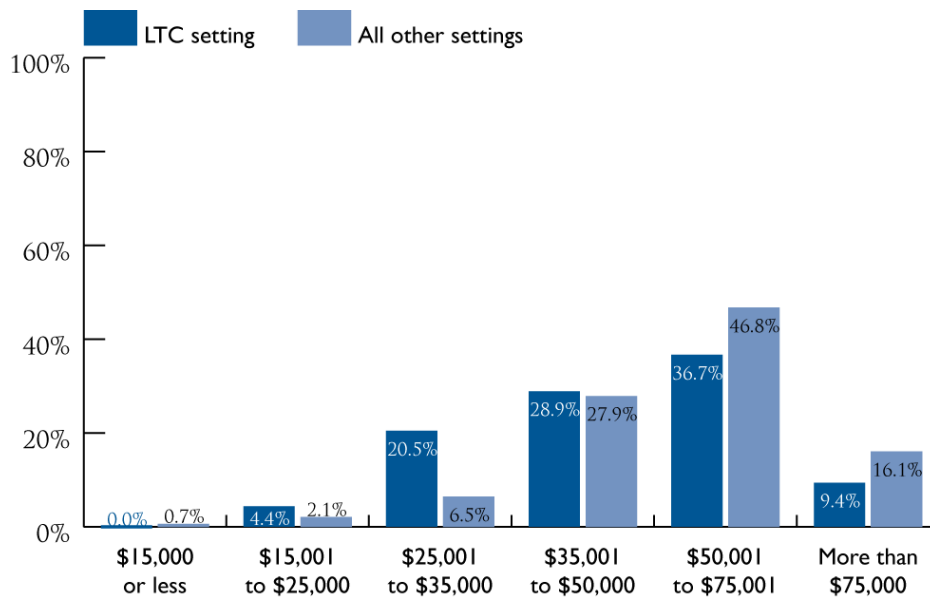
Graph 12. 2007 Annual income of RNs working 0-20 hrs/week by employment setting



NOTE: 20% of RNs in LTC settings and 11% of all others reported working fewer than 20 hrs/week

SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Graph 13. 2007 Annual income of RNs working 21-40 hrs/week by employment setting



NOTE: 57% of RNs in LTC and 73% in other settings reported working 21-40 hrs/week
 SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Nurse training

LPN WORKFORCE SURVEY

Table 2. Percent of LPNs who rated their **classroom** instruction as *Adequate or Most Adequate*

Classroom instruction topics	LPNs employed in an LTC setting	LPNs in all other work settings
Caring for the elderly	65.2%	72.7%
Caring for persons with dementia and other mental impairments	47.3%	49.6%
Caring for persons with physical disabilities	50.8%	57.1%
Developing leadership/management skills	52.1%	58.1%
Providing patient care fundamentals such as bathing, personal care, transferring, catheter care, etc.	90.6%	93.6%

SOURCE: 2007-08 Colorado Licensed Practical Nurse Workforce Survey, Colorado Health Institute

Table 3. Percent of LPNs who rated their **clinical** instruction as *Adequate or Most Adequate*

Clinical instruction topics	LPNs employed in an LTC setting	LPNs in all other work settings
Caring for the elderly	67.9%	78.9%
Caring for persons with dementia and other mental impairments	49.6%	56.2%

Caring for persons with physical disabilities	53.3%	58.9%
Developing leadership/management skills	51.4%	59.8%
Providing patient care fundamentals such as bathing, personal care, transferring, catheter care, etc.	87.3%	94.7%

SOURCE: 2007-08 Colorado Licensed Practical Nurse Workforce Survey, Colorado Health Institute

LPNs employed in an LTC setting were more likely to report being interested in additional on-the-job training resulting in a certificate of program completion than LPNs in other work settings—79 percent expressed interest in additional training in geriatrics and 77 percent in training about Alzheimer’s disease and/or other types of mental disorders. In contrast, slightly more than half of LPNs working in other settings reported an interest in additional training in geriatrics and Alzheimer’s disease.

RN WORKFORCE SURVEY

Table 4 . Percent of RNs who reported their classroom instruction as *Good or Excellent*

Classroom instruction topics	RNs employed in an LTC setting	RNs employed in all other settings
Caring for the elderly	55.4%	63.0%
Caring for persons with dementia and other mental impairments	52.9%	50.4%
Caring for persons with physical disabilities	51.4%	45.5%
Caring for persons with behavioral problems	48.4%	51.3%
Administration of meds/treatments	94.6%	88.6%
Developing patient assessment skills	81.9%	85.9%
Using critical thinking/problem solving skills	82.6%	79.6%

SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Table 5. Percent of RNs who reported their clinical instruction as *Good or Excellent*

Clinical instruction topics	RNs employed in an LTC setting	RNs employed in all other settings
Clinical rotation in a nursing home	37.5%	40.3%
Clinical rotation in a psych/behavioral health setting	67.5%	69.1%
Understanding the RN role on interdisciplinary care team	70.0%	66.8%

SOURCE: 2008 Colorado Registered Nurse Workforce Survey, Colorado Health Institute

Reasons Colorado licensed nurses were not currently working

CNA WORKFORCE SURVEY

Based on results from the 2006 Colorado CNA Workforce Survey and records from the Colorado Department of Regulatory Agencies, approximately 25 percent (n=7,000) of licensed CNAs were not working in Colorado in 2006.

Table 6. Reasons not working in a CNA position in 2006

Reason	Percent
Better salaries in other type of position	27.3%
Home/family responsibilities	22.4%
Difficult to find a CNA position	21.7%
Hours more convenient in other type of position	21.3%
Find other position more rewarding professionally	11.8%
Poor or no health benefits	8.8%
Disability/illness	7.6%
Work environment inhibits ability to practice on professional level	6.5%
Work-related injuries	5.8%
Concern about safety in health care environment	5.2%
Retirement	3.7%

NOTE: The total adds up to more than 100% since respondents could choose “all that apply”
 SOURCE: 2006 Colorado Certified Nurse Aide Workforce Survey, Colorado Health Institute

LPN WORKFORCE SURVEY

Approximately 28 percent of all licensed LPNs in Colorado were not employed as an LPN in a clinical position in Colorado at the time of the workforce surveys.

Table 7. Percentage of LPNs who rated each factor as “important” or “very important” in their decision to not be employed as an LPN in a clinical position in Colorado at the time of the survey

Reason	Percent	Reason	Percent
Insufficient wages	58.8%	No positions available	26.7%
Too much stress	56.1%	Retired	26.1%
Not respected	54.2%	Not challenging	25.2%
Insufficient benefits	45.5%	Pursuing more education	25.0%
Long hours	40.6%	Family responsibilities	24.6%
Workplace safety	37.2%	Poor health	22.5%
Inconvenient hours	34.5%		

SOURCE: 2007-08 Colorado Licensed Practical Nurse Workforce Survey, Colorado Health Institute

About the data used in this chart pack

CHI's Health Professions Database Project is an initiative designed to help address Colorado's health care workforce shortages by collecting, analyzing and disseminating workforce data. To that end, CHI has conducted a series of workforce surveys of various health professionals. Unless otherwise stated, data used in this section come from the results of these surveys.

CNA WORKFORCE SURVEY

CHI conducted a survey of certified nursing assistants (CNAs) in January 2006 by including a questionnaire with certification renewal forms sent to more than 29,000 CNAs in Colorado. The survey response rate of 35 percent represented more than 10,000 completed surveys. For results of the CNA survey, please see the findings at:

http://www.coloradohealthinstitute.org/Documents/workforce/2006_CNAfindings.pdf.

LPN WORKFORCE SURVEY

In 2007-08, CHI surveyed a random, stratified sample of 2,500 licensed practical nurses (LPNs) in Colorado to create a baseline of information about the state's LPN workforce. Approximately 40 percent (n=1,002) completed the survey. For results, please see the survey findings at:

http://www.coloradohealthinstitute.org/Documents/workforce/2007_LPn_findings.pdf.

RN WORKFORCE SURVEY

In 2008, CHI surveyed registered nurses (RNs) in Colorado about practice and training issues related to the nursing workforce. Out of an eligible sample of 2,835 who received the survey, 1,457 (51%) responded. The 2008 survey is a follow-up to CHI's 2005 survey of RNs whose license was subject to renewal. For results of the RN survey, please visit:

http://www.coloradohealthinstitute.org/resourceHotissues/workforce_RN.htm.

Additional information about the Health Professions Workforce Project is available at:

www.coloradohealthinstitute.org/workforce.

¹ Colorado Department of Labor and Employment. *LMI Gateway: Occupational Employment & Projections*. Retrieved June 18, 2009, from <http://lmigateway.coworkforce.com/lmigateway/default.asp>.

² Castle, N. (2006). "Measuring staff turnover in nursing homes." *The Gerontologist*, 46(2): 210-219.

³ Cohen-Mansfield, J. (1997). "Management of verbally disruptive behaviors in nursing home residents." *Journal of Gerontology: Medical Sciences*, 52(A): M369-M377.

⁴ Harrington, C., et al. (2000). "Experts recommend minimum nurse staffing standards for nursing facilities in the United States." *The Gerontologist*, 40(1): 5-16.

⁵ Stone, R., and J. Weiner. (2001). *Who Will Care for Us? Addressing the Long-term Care Workforce Crisis*. Retrieved June 29, 2009 from http://www.urban.org/UploadedPDF/Who_will_Care_for_Us.pdf.

⁶ No recent Colorado-specific data on turnover in the direct-care workforce were available at this time.

⁷ Stone, R., and J. Weiner.

⁸ Cohen-Mansfield, J. (1997). "Turnover among nursing home staff: A review." *Nursing Management*, 28(5): 59-64.

⁹ Stone, R. et al. (2003). *Why Workforce Development Should Be Part of the Long-term Care Quality Debate*.

Washington, DC: American Association of Homes and Services for the Aging.

¹⁰ Dawson, S., and R. Surpin. (2001). "Direct-care health workers: You get what you pay for." *Generations*, 25(1): Spring 23-28.

¹¹ Barry, T., et al. (2008). "Measuring worker turnover in long-term care: Lessons from the Better Jobs Better Care Demonstration." *The Gerontologist*, 48(3): 394-400.

¹² Bowers, B., et al. (2003). "Turnover reinterpreted: CNAs talk about why they leave." *Journal of Gerontological Nursing*, 29(3): 36-43.

¹³ Seavey, D. (2004). *The Cost of Frontline Turnover in Long-term Care*. Washington, DC: American Association of Homes and Services for the Aging.

¹⁴ Colorado Department of Labor and Employment. *LMI Gateway: Occupational Employment Statistics Survey*. Retrieved June 18, 2009, from <http://lmigateway.coworkforce.com/lmigateway/default.asp>.