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*Health Workforce Research Center  
on Long-Term Care*

## Research Report

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# Entry and Exit of Workers in Long-Term Care

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January 20, 2015

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## Entry and Exit of Workers in Long-Term Care

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## Entry and Exit of Workers in Long-Term Care

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### Executive Summary

In the past decade, the health care industry, and long-term care (LTC) in particular, saw substantial job growth. In anticipation of growing demand for LTC due to an aging demographic, employment opportunities in LTC are expected to surpass those of other U.S. sectors. Workforce planners are concerned about ensuring an adequate pipeline of appropriately trained workers for LTC jobs.

This study examines the demographics, socioeconomic status, and job mobility of workers by LTC sector and occupation. The goal of the study is to identify the characteristics associated with job mobility and turnover of LTC workers, and the pathways to LTC jobs these workers utilize.

### Methods

We pooled data from 2003 to 2013 of the Annual Social and Economic Supplement ("March Supplement") of the Current Population Survey. We defined LTC as the aggregate of six sectors defined by Census industry codes: 1) home health care services, 2) nursing care facilities, 3) residential care services, without nursing, 4) individual and family services, 5) community food and housing/emergency services, and 6) private households. We created worker categories of entrants, stayers, and leavers based on the changes in these workers' employment sectors reported between the current and prior year.

We defined "LTC occupations" according to nine Census occupation codes, which we identified as either highly prevalent in, or relevant to, LTC delivery: 1) registered nurse (RN), 2) licensed practical nurse/licensed vocation nurse (LPN/LVN), 3) nursing, psychiatric, and home health aide (NPHH), 4) medical assistant and other health care support occupation (MA), 5) personal and home care aide (PCA), 6) social and community service manager, 7) social worker, 8) miscellaneous community and social service specialist, and 9) physical therapist.

### Results

LTC employs a high share of low-skilled workers, and many jobs in LTC are not associated with direct health care. Despite the expected increases in demand for LTC services as Baby Boomers age, the rate at which workers leave LTC is outpacing the entry rate across all LTC sectors. LTC entrants and leavers were generally younger than those who remained in the industry. Nursing care facilities

tended to draw workers from hospitals, while individual and family services tended to draw workers from leisure and hospitality. A large share of LTC entrants was not in the labor force in the prior year; of these, a dominant portion reported previously being in school or taking care of the home or family. Most LTC leavers -- especially those with lower skill levels -- found themselves unemployed or out of the labor force, and these LTC leavers tended to report higher rates of work disability and to have higher rates of poverty.

### ***Recommendations***

Future research should explore the longer-term employment paths of LTC workers who become unemployed or leave the labor market. It is not known if these transitions provide opportunities to obtain higher-paying jobs or develop new skills, or if they increase the likelihood that LTC workers will live in poverty.

In order to improve recruitment and retention of LTC workers, as well as address the high rate of poverty and lack of upward mobility of many LTC occupations, employers, educators, and policymakers should consider investments in education and training. Such investments will help to ensure an adequately trained workforce in LTC, as well as support improved retention of LTC workers.

## Sources of Workers and Job Mobility in Long-Term Care

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In the past decade, the health care industry, and long-term care (LTC) in particular, saw substantial job growth. In anticipation of growing demand for LTC due to an aging demographic, employment opportunities in LTC are expected to surpass those of other U.S. sectors, for example, with 23.8% growth projected in nursing care facilities and 59.7% growth projected in home health care between 2012 and 2022.<sup>1</sup> As LTC employment grows, workforce planners are concerned about ensuring an adequate pipeline of appropriately trained workers.

This study examines the demographics, socioeconomic status, and job mobility of workers within six sectors that we identify as providing LTC services: nursing care facilities, residential care without skilled nursing, home health care, individual and family services, community food and housing/emergency services, and private households. We collectively refer to these six sectors as the LTC industry. We also examine the demographics, socioeconomic status, and job mobility of a select number of occupations that are commonly involved in delivering LTC. The goal of this study is to identify the characteristics associated with job mobility and turnover of LTC workers, and the job pathways of LTC workers.

### Background

Within LTC, physicians and registered nurses (RNs) provide less than 10% of care.<sup>2</sup> On the other hand, certified nursing assistants (CNAs), home health aides (HHAs), personal care aides (PCAs), and licensed practical nurses/licensed vocational nurses (LPNs/LVNs) play a substantial role in providing LTC. A recent study on LTC found that LPNs/LVNs constituted about a fifth of the nursing staff in home health agencies and nursing homes.<sup>3</sup> In this same study, aides (including CNAs, HHAs, and PCAs) comprised over two-thirds of the nursing staff in nursing homes as well as adult day services, and over 80% of the staff in residential care facilities.<sup>3</sup>

The U.S. Bureau of Labor Statistics (BLS) projects a 60% increase in employment in the home health care services sector, 30% increase in residential care facilities, and 20% increase in nursing care facilities over the next decade.<sup>1</sup> At the same time, it is well-documented that high rates of staff turnover are common in LTC.<sup>4</sup> Median turnover in skilled nursing facilities was 44% in 2012, and median CNA turnover within these facilities was 52%.<sup>5</sup> The combination of rapid job growth and high rates of turnover requires LTC employers to constantly recruit employees.

High turnover rates are of concern because they may negatively impact quality of care in LTC settings.<sup>6, 7, 8</sup> Research suggests, however, that turnover rates may be tempered. For example, nursing homes with higher staffing levels tend to have lower turnover rates than those with lower staffing levels, as do nursing homes that pay higher wages and offer more generous benefits, such as health insurance.<sup>4</sup> Home health care and hospice agencies have much lower turnover rates than do nursing homes, at 10% for RNs, 13% for HHAs, and 14% for LPNs in 2007.<sup>9</sup>

Further work is necessary to understand which employees may be at highest risk of turnover. Existing literature, however, provides limited guidance on the pathways through which workers enter and leave LTC jobs. This study identifies the industries and sectors from which the LTC industry draws workers, and to which sectors LTC loses workers. We also identify the demographic and socioeconomic characteristics associated with LTC job changes, and examine the extent to which LTC workers appear to advance into higher-paying jobs. The findings from this study will allow workforce planners to better target initiatives to recruit and retain LTC workers.

## Methods

### ***Data***

We pooled data from 2003 to 2013 of the Annual Social and Economic Supplement ("March Supplement") of the Current Population Survey (CPS).<sup>10</sup> The CPS is a monthly household survey of approximately 100,000 households, or 200,000 individuals, conducted by the BLS and the U.S. Census. The CPS collects self-reported data on household and individual demographics and socioeconomic status. The March Supplement is a well-recognized source to examine job transitions because respondents self-report both their current industry of employment, as well as their industry of employment in the prior year. We restricted our analysis to respondents age 16 years or older, and those who reported being in the labor force in either the current or prior year. We used survey weights to generalize the results to the civilian non-institutionalized U.S. adult population.

### ***Defining Sector and Occupation***

We defined the "LTC industry" as the aggregate of six sectors defined by Census industry codes, using four-digit codes that are the most disaggregated level available and align with the North American Industry Classification System (see Appendix Table 1 for crosswalk). When referencing other non-LTC health care sectors we use four-digit codes, and use two-digit higher level aggregations for all other sectors. Sectors may be defined by either type of service provided or locale (note: we may use sector and industry interchangeably). Three of the six LTC

sectors are typically identified as health care-related LTC: "home health care services," "nursing care facilities (including skilled nursing)," and "residential care services, without nursing." The remaining three sectors are non-health care support services that are often, but not exclusively, involved as part of LTC: "individual and family services," "community food and housing/emergency services," and "private households."

We defined "LTC occupations" to include both occupations that provide direct care to patients (including care management) and occupations that are indirectly associated with patient care and are either highly prevalent or otherwise relevant to LTC. For example, large numbers of food service preparation workers are employed in nursing homes and thus are included in the analysis. For all direct care occupations, we use four-digit Census occupation codes, which are the most disaggregated level available and align with the Standard Occupational Classification System (see Appendix Table 2 for crosswalk). We used two-digit aggregations for all other occupations. We focused on nine direct care occupations: 1) registered nurse (RN), 2) licensed practical nurse/licensed vocation nurse (LPN/LVN), 3) nursing, psychiatric, and home health aide (NPHH), 4) medical assistant and other health care support occupation (MA), 5) personal and home care aide (PCA), 6) social and community service manager, 7) social worker, 8) miscellaneous community and social service specialist, and 9) physical therapist.

### ***Defining Transitions***

We classified respondents into stayers, entrants, and leavers based on their reported sectors of employment from the current to prior year. Stayers reported the same employment sector in the current year as in the prior year. We created a separate category of LTC stayers that includes those who reported any one of the six LTC sectors in the current as well as in the prior year. Entrants and leavers reported different sectors in the current and prior year. We further categorized entrants into LTC entrants who reported one of the six LTC sectors in the current year and did not report any LTC sector in the prior year. Similarly, we categorized leavers into LTC leavers who reported one of the six LTC sectors in the prior year and did not report any LTC sector in the current year.

We also looked at transitions by LTC occupation. Among respondents in LTC occupations, we identified the sector and/or occupation from which a LTC worker entered and to which sector and/or occupation they left. Given the number of permutations of sector and occupation transitions, we focused on movement into and out of LTC sectors rather than into and out of LTC occupations.

Finally, although the CPS assigns unemployed individuals to the sector of their most recent occupation, we coded them into a separate group to indicate their unemployed status. This enabled us to analyze transitions into and out of employment. We also examined transitions into and out of the labor force. For those who transitioned into LTC from being out of the labor force, we created separate categories for transitions from the armed forces, school, illness or disability, family care, and retirement; however, we could not make these same distinctions when individuals left the labor force.

## Results

### ***Prevalence of Occupations by Long-Term Care Sector***

Table 1 presents total LTC employment and the five most common occupations (job titles as defined by the Census occupation codes) within each of the six LTC sectors in 2013. These five occupations accounted for the majority of jobs in each sector and nearly all of the jobs within home health care services, nursing care facilities, and private households. PCA was among the most commonly reported occupations in four of the six LTC sectors, the exceptions being nursing care facilities and community food and housing/emergency services. NPHHs were also consistently prevalent across four of the six LTC sectors, with a particular dominance in home health care services and nursing care facilities.

**Table 1. Five Most Common Occupations within Six Long-Term Care Sectors, 2013**

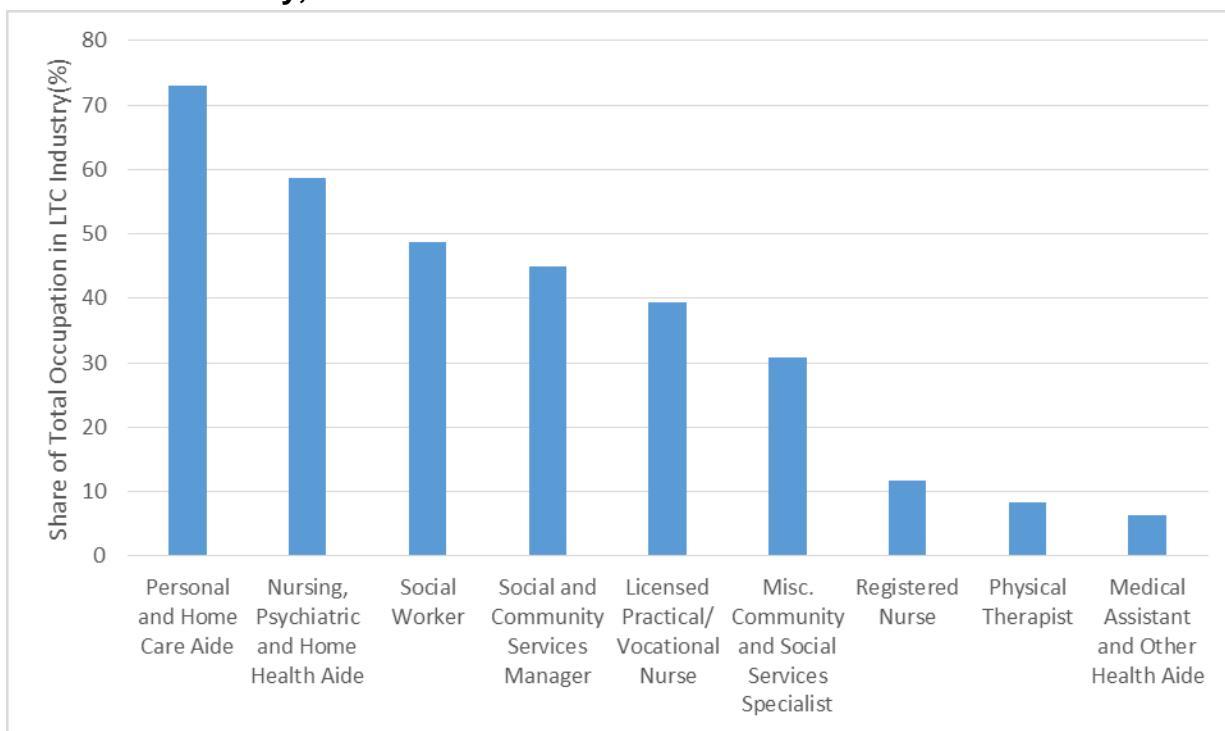
Sector	Home Health Care Services	Nursing Care Facilities	Residential Care Facilities	Individual and Family Services	Community Food and Housing/Emergency Services	Private Households
<b>Total Employment</b>	1,111,737	1,719,845	779,961	1,445,790	120,393	652,564
<b>1st Most Common Occupation</b>	41% NPHH	37% NPHH	20% PCA	21% PCA	19% Social worker	40% Bldg & grounds cleaning and maintenance
<b>2nd</b>	28% PCA	12% RN	13% Food prep & service-related	18% Social worker	13% Office & admin support	36% Personal care & services (excluding PCAs)
<b>3rd</b>	11% RN	9% LPN/LVN	9% Office & admin support	11% Office & admin support	11% Counselor	17% PCA
<b>4th</b>	6% Office & admin support	8% Food prep & service-related	9% Management	8% Social & community service managers	9% Food prep & service-related	2% Transportation & material moving
<b>5th</b>	4% LPN/LVN	6% Bldg & grounds cleaning and maintenance	7% Bldg & grounds cleaning and maintenance	8% Counselor	8% Transportation & material moving	2% NPHH
<b>Total</b>	<b>90%</b>	<b>73%</b>	<b>58%</b>	<b>66%</b>	<b>60%</b>	<b>97%</b>

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: LPN/LVN = Licensed Practical Nurse/Licensed Vocational Nurse; NPHH = Nursing, Psychiatric, and Home Health Aide; PCA = Personal and Home Care Aide; RN = Registered Nurse

Figure 1 shows the percent of workers employed in the LTC sector for each of nine occupations that are highly prevalent or otherwise relevant to LTC. The majority of PCAs and NPHHs worked in the LTC sector versus in another health care sector or non-health care sector. About one-third to one-half of social and community related workers were employed in the LTC sector. A large share of LPNs/LVNs was employed in LTC, but only 10% of RNs worked in the LTC sector. Similarly, less than 10% of PTs and MAs worked in LTC.

**Figure 1. Share of Total Occupation for Select Occupations Found in the Long-Term Care Industry, 2013**

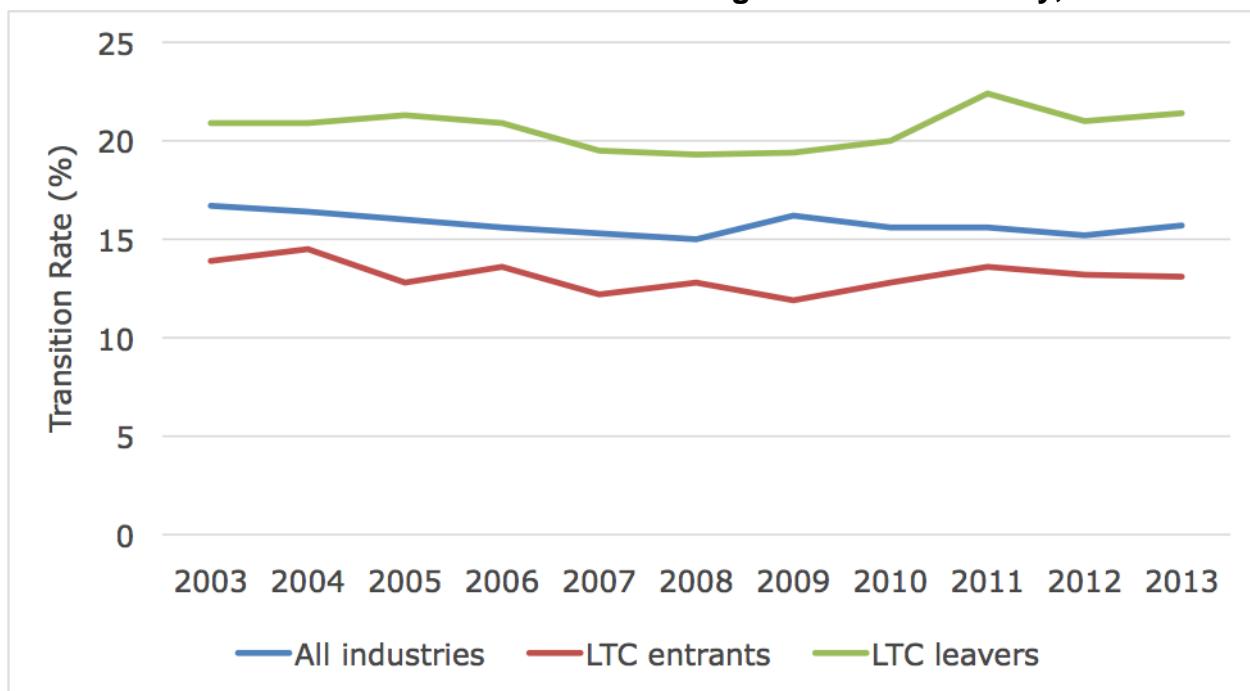


### ***Entrant and Leaver Rates by Long-Term Care Sector***

Among respondents who reported working in any of the six LTC sectors in either the prior or current year, 13% of the respondents were LTC sector entrants while 21% were LTC sector leavers (Figure 2); the remaining respondents stayed in LTC between the prior and current years. Across all U.S. industries, the rate of year-to-year sector change averaged 16% between 2003 and 2013. The rate of leaving LTC jobs outpaced the rate of entry, and the gap between the two has grown by about 1.3 percentage point over the last decade. During the 2007-2009 recession, the LTC leaver and entrant rates were at their lowest levels, while the rest of the economy saw a high rate of movement across sectors. These trends are consistent

across the six specific LTC sectors; as seen in Figure 3, the ten-year average leaver rate outpaced the entrant rate by six to ten percentage points.

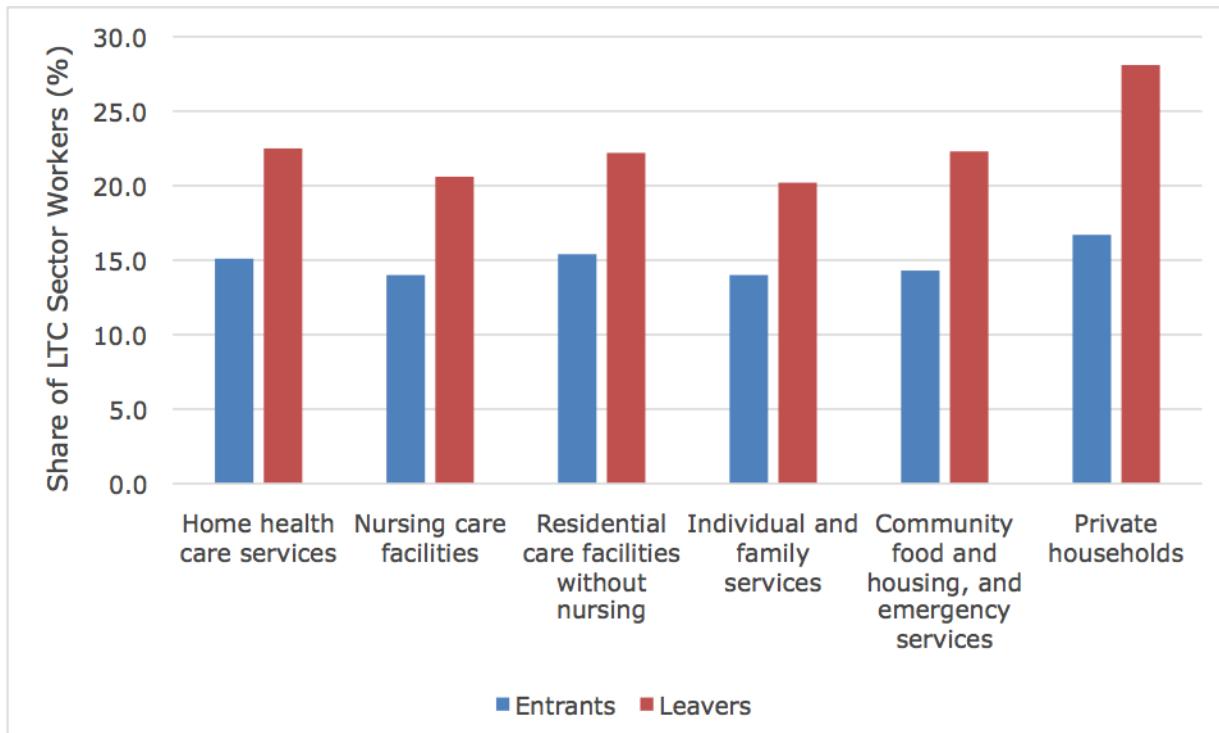
**Figure 2. Average Annual Transition Rates for All U.S. Industries compared with Entrant versus Leaver Rates for the Overall Long-Term Care Industry, 2003-2013**



Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Note: All industries turnover rate defined as share of respondents who reported a different sector between the prior and current year. For LTC entrants and leavers, denominator defined as respondents who reported working in any of the six LTC sectors in either the prior or current year. Calculation excludes those who never reported working in the specified LTC sector.

**Figure 3. Share of Entrants versus Leavers in Six Long-Term Care Sectors, Pooled 2003-2013**



Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Note: Denominator defined as respondents who reported working within each of the specified LTC sectors in either the prior or current year. Calculation excludes those who never reported working in the specified LTC sector.

### ***Demographic and Socioeconomic Characteristics of the Long-Term Care Workforce***

Table 2 summarizes the demographics of entrants, stayers, and leavers in each LTC sector for the pooled data from 2003 to 2013. Nearly all workers in each LTC sector were female, with a slightly lower proportion of females in community food and housing services, and emergency services. Entrants were generally younger than leavers, and leavers were younger than stayers. The racial/ethnic mix of entrants, leavers, and stayers did not significantly differ from each other, although stayers tended to be slightly less diverse. Across all LTC sectors, minorities represented about 40% of the workforce, which is higher than the national average of 21% of the labor force in 2013.<sup>11</sup> Stayers were more likely to be married than leavers or

entrants. The proportion of workers with young children in the household was slightly higher for leavers compared with entrants and stayers.

**Table 2. Demographic Characteristics of Entrants, Stayers, and Leavers by Long-Term Care Sector, Pooled 2003-2013**

Sector	Female	Age 16-24 Years	Age 55-64 Years	White	Married	Child under Age 5 in Household
<b>Home Health Care Services</b>						
<b>Entrants</b>	88%	14%	15%	49%	45%	15%
<b>Stayers</b>	90%	7%	18%	51%	47%	11%
<b>Leavers</b>	90%	11%	17%	54%	44%	15%
<b>Nursing Care Facilities</b>						
<b>Entrants</b>	85%	23%	10%	59%	42%	14%
<b>Stayers</b>	86%	13%	17%	60%	48%	13%
<b>Leavers</b>	86%	21%	13%	58%	42%	17%
<b>Residential Care Services</b>						
<b>Entrants</b>	73%	24%	10%	60%	39%	11%
<b>Stayers</b>	71%	14%	16%	65%	46%	12%
<b>Leavers</b>	73%	23%	13%	61%	40%	12%
<b>Individual &amp; Family Services</b>						
<b>Entrants</b>	76%	15%	15%	58%	43%	11%
<b>Stayers</b>	78%	7%	19%	60%	52%	11%
<b>Leavers</b>	76%	18%	14%	54%	41%	11%
<b>Community Food &amp; Housing/Emergency Services</b>						
<b>Entrants</b>	63%	10%	15%	52%	39%	6%
<b>Stayers</b>	73%	5%	18%	60%	46%	12%
<b>Leavers</b>	67%	8%	18%	60%	45%	13%
<b>Private Households</b>						
<b>Entrants</b>	90%	34%	11%	56%	37%	11%
<b>Stayers</b>	92%	16%	15%	48%	44%	8%
<b>Leavers</b>	88%	36%	11%	59%	34%	11%

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick.

Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Table 3 summarizes the socioeconomic characteristics of LTC entrants, stayers, and leavers in the decade from 2003 to 2013. Across most sectors, leavers were slightly more likely to be U.S. citizens. There was a large share of non-U.S. citizens in private households – two to three times higher than in other LTC sectors. LTC sector transitions did not seem to be associated with whether or not the individual lived in a rural area. Entrants and stayers had similar work disability rates, while leavers were more likely to report a work disability compared with entrants and stayers. Stayers were more likely to be employed full-time, while leavers were least likely to have worked full-time. Stayers in each of the LTC sectors were

considerably less likely to have a household income below the poverty line than entrants and leavers. The rate of poverty was relatively high among entrants and leavers across all LTC sectors, especially workers in the home health care services sector and private households. Stayers tended to have higher average annual wages, and leavers tended to have the lowest average wages (note: earnings are averaged over the ten-year period and adjusted for inflation).

**Table 3. Socioeconomic Characteristics of Entrants, Stayers, and Leavers by Long-Term Care Sector, Pooled 2003-2013**

Sector	Not a Citizen	Rural Residence	Work Disabled	Full-Time	Below Poverty	Earnings from Prior Year (2013 dollars)
<b>Home Health Care Services</b>						
<b>Entrants</b>	10%	20%	4%	74%	18%	\$27,499
<b>Stayers</b>	11%	19%	4%	66%	14%	\$27,685
<b>Leavers</b>	9%	20%	10%	59%	22%	\$21,379
<b>Nursing Care Facilities</b>						
<b>Entrants</b>	8%	24%	2%	75%	16%	\$28,913
<b>Stayers</b>	8%	26%	2%	78%	8%	\$31,500
<b>Leavers</b>	7%	25%	8%	72%	16%	\$24,343
<b>Residential Care Services</b>						
<b>Entrants</b>	6%	17%	4%	74%	14%	\$27,291
<b>Stayers</b>	6%	19%	3%	79%	5%	\$29,648
<b>Leavers</b>	7%	17%	8%	73%	13%	\$22,545
<b>Individual &amp; Family Services</b>						
<b>Entrants</b>	6%	17%	5%	78%	13%	\$27,898
<b>Stayers</b>	6%	17%	5%	77%	6%	\$35,559
<b>Leavers</b>	6%	17%	9%	64%	15%	\$24,618
<b>Community Food &amp; Housing/Emergency Services</b>						
<b>Entrants</b>	6%	17%	5%	68%	19%	\$32,894
<b>Stayers</b>	3%	17%	5%	77%	5%	\$38,348
<b>Leavers</b>	4%	18%	8%	70%	12%	\$19,585
<b>Private Households</b>						
<b>Entrants</b>	26%	15%	5%	65%	26%	\$10,203
<b>Stayers</b>	34%	12%	4%	50%	20%	\$16,107
<b>Leavers</b>	18%	17%	10%	37%	21%	\$9,458

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

### **Sector Movements among Long-Term Care Entrants and Leavers**

Table 4 presents the two most common sources from which each LTC sector drew workers. Home health care services most frequently drew entrants from nursing care facilities, while nursing care facilities most often drew entrants from hospitals.

Residential care services and private households both drew entrants from the leisure and hospitality sector. Individual and family services and community food and housing/emergency services both drew entrants from those who had previously worked in the education sector. Across all LTC sectors, many entrants were previously not in the labor force or were unemployed (note: given the data coding, we were unable to separate these two categories accurately). Of these, one-quarter to one-third of respondents entered from school and approximately another one-third had previously been taking care of the home and/or family (Figure 4).

PCA was the most common occupation held by entrants across half of the LTC sectors – home health care services, residential care services, and individual and family services (Table 4). Over one-third of entrants held positions as NPHHs once they entered home health care services and nursing care facilities. Many of those who entered LTC sectors occupied non-direct care jobs. For example, about one in eight entrants into residential care facilities were employed in food preparation. About one in seven entrants to community food and housing/emergency services took office and administrative support jobs. Over 40% of the entrants to the private household sector were in building and grounds maintenance occupations; this is likely reflective of the fact that the private household sector involves a wide range of non-health care related services.

Leavers of LTC jobs often became unemployed or were no longer in the labor force (Table 4). We are not able to determine the reasons for leaving the labor force, or whether these exits were voluntary or involuntary. The unemployment rate reported by leavers across all LTC sectors is double to triple the national unemployment rate, which averaged around 7% over the last decade.<sup>12</sup> Given that the unemployment rate is calculated only among those in the labor force, the unemployment rate among leavers is actually much higher.

**Table 4. Two Most Common Sectors and Occupations of Long-Term Care Entrants and Leavers, Pooled 2003-2013**

Sector	Entrants: Prior Year Sector	Entrants: Current Year Occupation	Leavers: Current Year Sector
<b>Home Health Care Services</b>	19% NILF/ unemployed 14% Nursing care facilities	42% NPHH 23% PCA	33% NILF 18% Unemployed
<b>Nursing Care Facilities</b>	18% Hospitals 15% NILF/ unemployed	37% NPHH 10% RN	27% NILF 19% Unemployed
<b>Residential Care Services</b>	15% NILF/ unemployed 14% Leisure & hospitality	21% PCA 13% Food preparation	25% NILF 16% Unemployed
<b>Individual &amp; Family Services</b>	18% NILF/ unemployed 9% Education	22% PCA 16% Social worker	30% NILF 16% Unemployed
<b>Community Food &amp; Housing/ Emergency Services</b>	17% NILF/ unemployed 10% Education	15% Office & admin support occupations 11% Social worker	22% Unemployed 21% NILF
<b>Private Households</b>	35% NILF/ unemployed 14% Leisure & hospitality	43% Bldg & grounds cleaning & maintenance occupations 39% Personal care and services occupations (excluding PCAs)	50% NILF 16% Unemployed

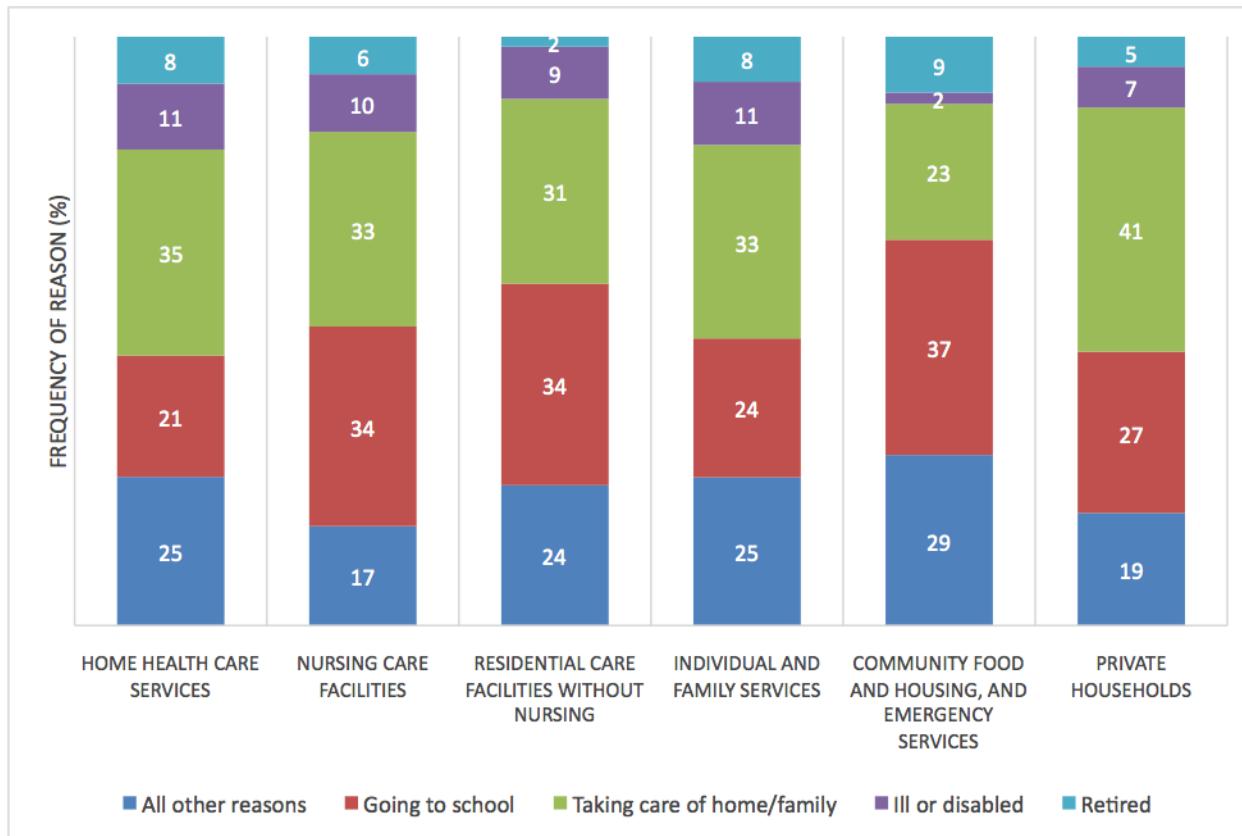
Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: For entrants, we are not able to distinguish unemployment from not in labor force with regard to prior year work activity.

NILF = Not in labor force; NPHH = Nursing, Psychiatric, and Home Health Aide;

PCA = Personal and Home Care Aide; RN = Registered Nurse

**Figure 4. Reasons for Not Working in Prior Year among Long-Term Care Entrants, Pooled 2003-2013**



Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: All other reasons include not being age eligible to work, not able to find work, in armed forces, or other unspecified reasons. The latter two categories were relatively small shares.

### ***Demographic and Socioeconomic Characteristics of Select Long-Term Care Occupations***

Tables 5 and 6 present the demographic and socioeconomic characteristics of workers in selected LTC occupations. We categorized respondents as LTC stayers, entrants, and leavers as defined previously, but for Tables 5 and 6 we used the *current year* occupation for stayers and entrants, and the *prior year* occupation for leavers.

Most of the workers in the selected LTC occupations were female, and this did not vary greatly by LTC transition status (Table 5). While LTC entrants into MA, NPHH,

and PCA positions were more likely to be younger than stayers, LTC occupation leavers were almost equally as likely to be young. The racial/ethnic mix of entrants, stayers, and leavers was considerably different, with the exception of MAs entering LTC, who were less diverse, and social and community services managers entering LTC, who were more diverse. For all occupations, stayers were more likely to be married. Leavers in these occupations were more than, or just as likely to have a child under age five in the household as were entrants.

**Table 5. Demographic Characteristics of Entrants, Stayers, and Leavers by Select Long-Term Care Occupations, Pooled 2003-2013**

	Female	Age 16-24 Years	Age 55-64 Years	White	Married	Child under Age 5 in Household
<b>Registered Nurse</b>						
<b>Stayers</b>	93%	2%	28%	70%	60%	12%
<b>Leavers</b>	92%	2%	21%	72%	58%	11%
<b>Licensed Practical Nurse/Licensed Vocational Nurse</b>						
<b>Entrants</b>	95%	14%	11%	61%	48%	14%
<b>Stayers</b>	93%	5%	17%	63%	53%	13%
<b>Leavers</b>	95%	4%	17%	65%	52%	15%
<b>Nursing, Psychiatric and Home Health Aide</b>						
<b>Entrants</b>	90%	26%	8%	48%	37%	18%
<b>Stayers</b>	92%	15%	14%	45%	40%	14%
<b>Leavers</b>	92%	25%	10%	50%	36%	20%
<b>Medical Assistant and Other Health Aide</b>						
<b>Entrants</b>	88%	46%	3%	65%	22%	11%
<b>Stayers</b>	80%	31%	11%	58%	32%	13%
<b>Leavers</b>	73%	45%	11%	62%	27%	14%
<b>Personal and Home Care Aide</b>						
<b>Entrants</b>	83%	24%	13%	50%	35%	15%
<b>Stayers</b>	88%	11%	18%	52%	41%	10%
<b>Leavers</b>	87%	16%	17%	50%	37%	15%
<b>Social and Community Services Manager</b>						
<b>Entrants</b>	74%	5%	24%	65%	50%	6%
<b>Stayers</b>	75%	2%	21%	74%	64%	9%
<b>Leavers</b>	70%	5%	20%	74%	54%	8%
<b>Social Worker</b>						
<b>Entrants</b>	75%	11%	13%	56%	45%	13%
<b>Stayers</b>	82%	5%	16%	61%	54%	15%
<b>Leavers</b>	78%	8%	13%	57%	50%	15%
<b>Misc. Community and Social Services Specialist</b>						
<b>Entrants</b>	77%	4%	15%	56%	43%	7%
<b>Stayers</b>	76%	12%	15%	53%	48%	11%
<b>Leavers</b>	75%	17%	11%	54%	38%	13%
<b>Physical Therapist</b>						
<b>Entrants</b>	73%	9%	2%	71%	73%	18%
<b>Stayers</b>	74%	0%	9%	78%	75%	30%
<b>Leavers</b>	73%	0%	12%	65%	65%	23%

Note: Entrants to LTC could have held a different occupation prior to entry; Leavers to LTC could have held a different occupation upon leaving.

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick.

Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

LTC entrants who were RNs, LPNs/LVNs, NPHHs, PCAs, and social and community services managers were less likely to be U.S. citizens compared with stayers and leavers, while LTC entrants who were MAs, social workers, and PTs were more likely to be U.S. citizens (Table 6). LTC leavers were more likely to live in rural areas compared with LTC entrants and/or stayers, with the exception of leavers who were PTs. For all occupations except social and community services managers and social workers, LTC leavers were more likely to report a work disability. Of particular note is the high level of work disability reported among some types of workers, such as LPNs/LVNs and PCAs. LTC leavers more often worked part-time, compared with entrants and stayers. The share of workers below poverty was particularly high among NPHHs, MAs, PCAs, and miscellaneous community and social services specialists. The rate of poverty among entrants and leavers was similar across these four occupations, as compared with stayers, which suggests that those changing jobs were not necessarily transitioning to a better economic state. This pattern is emphasized by LTC leavers having lower earnings than both LTC entrants and stayers.

**Table 6. Socioeconomic Characteristics of Entrants, Stayers, and Leavers in Select Long-Term Care Occupations, Pooled 2003-2013**

	Not a Citizen	Rural Residence	Work Disabled	Employed Full-Time	Below Poverty	Earnings from Prior Year (2013 dollars)
<b>Registered Nurse</b>						
<b>Entrants</b>	10%	20%	1%	85%	2%	\$50,447
<b>Stayers</b>	7%	21%	2%	79%	2%	\$55,313
<b>Leavers</b>	7%	20%	9%	72%	3%	\$42,900
<b>Licensed Practical Nurse/Licensed Vocational Nurse</b>						
<b>Entrants</b>	8%	19%	2%	81%	6%	\$32,947
<b>Stayers</b>	5%	29%	3%	80%	4%	\$38,504
<b>Leavers</b>	6%	28%	14%	69%	6%	\$28,348
<b>Nursing, Psychiatric and Home Health Aide</b>						
<b>Entrants</b>	12%	24%	2%	72%	25%	\$16,423
<b>Stayers</b>	12%	24%	3%	71%	15%	\$20,277
<b>Leavers</b>	7%	25%	10%	62%	25%	\$16,490
<b>Medical Assistant and Other Health Aide</b>						
<b>Entrants</b>	2%	25%	5%	62%	19%	\$17,540
<b>Stayers</b>	6%	29%	2%	61%	12%	\$20,150
<b>Leavers</b>	6%	30%	9%	59%	27%	\$13,466
<b>Personal and Home Care Aide</b>						
<b>Entrants</b>	11%	20%	6%	65%	28%	\$14,189
<b>Stayers</b>	12%	21%	6%	62%	17%	\$19,319
<b>Leavers</b>	11%	20%	13%	53%	26%	\$10,736
<b>Social and Community Services Manager</b>						
<b>Entrants</b>	4%	17%	3%	91%	5%	\$60,612
<b>Stayers</b>	2%	17%	1%	88%	2%	\$51,560
<b>Leavers</b>	3%	24%	2%	81%	2%	\$52,375
<b>Social Worker</b>						
<b>Entrants</b>	2%	17%	4%	86%	9%	\$31,544
<b>Stayers</b>	3%	15%	2%	90%	2%	\$41,395
<b>Leavers</b>	3%	17%	3%	87%	4%	\$32,457
<b>Misc. Community and Social Services Specialist</b>						
<b>Entrants</b>	4%	13%	5%	73%	14%	\$37,368
<b>Stayers</b>	3%	19%	4%	80%	4%	\$31,918
<b>Leavers</b>	2%	20%	8%	75%	12%	\$19,469
<b>Physical Therapist</b>						
<b>Entrants</b>	6%	11%	1%	75%	4%	\$68,638
<b>Stayers</b>	13%	13%	0%	73%	0%	\$65,470
<b>Leavers</b>	16%	6%	7%	70%	0%	\$60,495

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

***Sector Movements among Select Long-Term Care Occupations***

For all occupations except physical therapy, the share of LTC leavers was higher than the share of LTC entrants, which is consistent with the aggregate level LTC sector trends (Table 7). The gap ranged from 1% to as high as 9% among PCAs. Hospitals were a common source of RNs, LPNs/LVNs, NPHHs, and PTs who entered LTC. Leisure and hospitality were a common sector from which MAs, PCAs, and social and community service managers entered the LTC industry. Many LTC entrants were previously unemployed or not in the labor force. (We were unable to distinguish these due to the way the data were coded.) Figure 5 presents the reasons LTC entrants reported being out of the labor force or unemployed in the year prior to entering LTC. Going to school or taking care of the home and/or family were among the most common reasons for not working.

PTs, RNs, LPNs/LVNs, NPHHs, and MAs most often entered the LTC sector of nursing care facilities (Table 7). PCAs, social and community service managers, social workers, and the miscellaneous community and social service specialists most commonly entered into the individual and family services sectors.

For nearly all occupations, about one-half to two-thirds of the respondents who left LTC either became unemployed or left the labor force. As noted, we are not able to determine why a respondent left the labor force and whether the decision was voluntary or not. One-third of RNs and one-fifth of PTs, however, left to work in hospitals.

**Table 7. Sector Transition Trends by Select Long-Term Care Occupations, Pooled 2003-2013**

Occupation	LTC Entrant*	LTC Leaver*	LTC Entrant: Prior Year Sector (Top 2)**	LTC Entrant: Current Year LTC Sector (Top 2)	LTC Leaver: Current Year Sector (Top 2)**
<b>Registered Nurse</b>	13%	19%	56% Hospitals 10% NILF/unemployed	59% Nursing care facilities 36% Home health care services	38% Hospitals 21% NILF
<b>Licensed Practical Nurse/Licensed Vocational Nurse</b>	15%	16%	38% Hospitals 11% NILF/unemployed	82% Nursing care facilities 14% Home health care services	28% NILF 24% Hospitals
<b>Nursing, Psychiatric, &amp; Home Health Aide</b>	13%	21%	27% NILF/unemployed 20% Hospitals	59% Nursing care facilities 32% Home health care services	37% NILF 24% Unemployed
<b>Medical Assistant &amp; Other Health Aide</b>	17%	20%	17% NILF/unemployed 17% Leisure & hospitality	81% Nursing care facilities 14% Residential care facilities	32% NILF 22% Unemployed
<b>Personal and Home Care Aide</b>	17%	26%	32% NILF/unemployed 15% Leisure & hospitality	32% Individual & family services 30% Home health care services	43% NILF 21% Unemployed
<b>Social &amp; Community Service Manager</b>	10%	13%	24% Other services 7% Leisure & hospitality	77% Individual and family services 10% Residential care facilities	24% NILF 15% Unemployed
<b>Social Worker</b>	11%	15%	24% Public administration 17% Education	75% Individuals and family services 12% Residential care facilities	21% Unemployed 20% NILF
<b>Misc. Community and Social Service Specialist</b>	13%	21%	17% NILF/unemployed 14% Other services	85% Individual and family services 7% Community food and housing/emergency services	34% NILF 20% Unemployed
<b>Physical Therapist</b>	13%	11%	44% Hospitals 24% Outpatient care centers	45% Nursing care facilities 41% Home health care services	36% Outpatient care centers 21% Hospitals

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: \*Entry/exit rate is into/out of any of the six LTC sectors    \*\*Entry/exit to non-LTC sectors    NILF = Not in labor force

**Figure 5. Reasons for Not Working in Prior Year among Long-Term Care Entrants by Select Long-Term Care Occupations, Pooled 2003-2013**



Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: LPN/LVN = Licensed Practical Nurse/Licensed Vocational Nurse; MA = Medical Assistant; NPHH = Nursing, Psychiatric, and Home Health Aide; PCA = Personal and Home Care Aide; PT = Physical Therapist; RN = Registered Nurse

### ***Occupational Movement among Long-Term Care Entrants and Leavers by Select Occupations***

Job changes can be associated with opportunities for increased responsibilities and pay, and may indicate upward mobility of workers. In the ten-year pooled sample of the CPS, 12% of the respondents reported a job change between the prior and the current year. Similarly, among those who reported working in the LTC industry in the current year, 11% reported a job change.

Table 8 explores occupational changes among LTC sector entrants and leavers for selected LTC occupations. In general, the rates of occupation change were higher

among LTC leavers than LTC entrants for each occupation except PTs. If a respondent stayed in the LTC sector, the likelihood that they changed occupations was low. Among LTC entrants who also changed occupations, many of the respondents were not in the labor force in the prior year. There appears to be some level of hierarchy among the occupations: MAs moved into NPHH occupations, LPNs/LVNs moved into RN occupations, and RNs moved into PT occupations. Among social and community services managers, there appears to have been lateral movement across management-level positions. Among LTC leavers who changed their occupation, most left the labor force or were unemployed in the year after leaving LTC.

**Table 8. Occupation Transition Trends among Select Long-Term Care Occupations, Pooled 2003-2013**

LTC Occupation	LTC Entrant: Rate of Occupation Change	LTC Stayer: Rate of Occupation Change	LTC Leaver: Rate of Occupation Change	LTC Entrant: Job Prior to LTC Entry if Job Changed (Top 2)	LTC Leaver: Job After Leaving LTC if Job Changed (Top 2)
Registered Nurse	25%	7%	47%	40% NILF 17% LPN/LVN	45% NILF 28% Unemployed
Licensed Practical Nurse/Licensed Vocational Nurse	55%	1%	68%	27% Health diagnosing and treating practitioner support technician 20% NILF	40% NILF 24% Unemployed
Nursing, Psychiatric, and Home Health Aide	67%	1%	82%	39% NILF 11% Medical assistant and other health aide	45% NILF 29% Unemployed
Medical Assistant and Other Health Aide	70%	7%	86%	24% NILF 18% Food preparation and service related	37% NILF 25% Unemployed
Personal and Home Care Aide	94%	2%	96%	50% NILF 28% Personal care and services occupations (excl. PCAs)	45% NILF 22% Unemployed
Social and Community Service Manager	78%	2%	87%	50% Management occupations 8% Medical and health services manager	30% Management occupations 27% NILF
Social Worker	68%	2%	75%	17% NILF 15% Counselors	28% Unemployed 26% NILF
Misc. Community and Social Services Specialist	86%	4%	91%	21% NILF 16% Social worker	28% NILF 22% Unemployed
Physical Therapist	55%	2%	53%	74% RN 13% NILF	31% NILF 13% Occupational therapist

Source: Author calculation from Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Notes: \*Excludes counselors, social workers, misc. community and social service specialists

LPN/LVN = Licensed Practical Nurse/Licensed Vocational Nurse; NILF = Not in labor force; NPHH = Nursing, Psychiatric, and Home Health Aide; PCA = Personal and Home Care Aide; RN = Registered Nurse

## Conclusions

LTC employs a high share of low-skilled workers. Many common LTC occupations, however, are not associated with direct health care, such as building and grounds cleaning and maintenance, office and administrative support, food preparation and food service, management, and transportation and material moving. Despite expected increases in demand for LTC services as Baby Boomers age, the leave rate is outpacing the entry rate across all LTC sectors. The LTC industry saw a slight slowdown in sectoral movement during the 2007-2009 recession, when other sectors in the U.S. saw greater movement.

LTC sector entrants and leavers were generally younger than those who stayed in LTC. There were no noticeable differences in the racial/ethnic mix of LTC sector entrants, stayers, and leavers. LTC leavers were more likely to report a work disability than were LTC entrants or stayers. LTC stayers were less likely to be in poverty, and had higher average annual wages. These patterns were even more pronounced when focusing on LTC workers in lower-skilled aide positions.

A large share of LTC entrants were not in the labor force in the prior year, with a dominant share of those reporting being engaged in school or taking care of the home or family. Nursing care facilities often drew LTC workers from hospitals, while individual and family services tended to draw LTC workers from leisure and hospitality.

Few LTC stayers changed occupations, which suggests there is limited opportunity for upward mobility in the LTC industry. On the other hand, some evidence of a career ladder appears when looking at job changes among LTC entrants. However, most LTC leavers found themselves unemployed or out of the labor force. The trend was consistent across sectors and occupations with the exception of the more highly skilled jobs such as PTs and social and community service managers.

## ***Limitations***

This analysis has several limitations, the most important of which are linked to limitations of the CPS. Respondents to the CPS self-report the sector and occupation of their employment, and respondents may not report these accurately. In addition, the CPS does not enable us to identify job transitions that do not involve a change in occupation or sector.

Because LTC is provided in both institutional and home- and community-based settings, we included three home- and community-based industries in this analysis that are not exclusive to LTC services. For example, the sector of community food

and housing/emergency services includes homeless shelters, food banks, and other services that are unrelated to LTC. The individual and family services sector includes services such as housekeeping and meal delivery, which are often purchased without LTC needs. Private households can employ housekeepers (separately from a housekeeping service) and child care providers, as well as personal aides, which again, may not be related to LTC needs.

### **Implications and Future Directions**

Our analysis indicates that there is reason to be concerned about sector and occupational turnover in LTC. First, the rate of leaving LTC is greater than the entry rate. Second, LTC entrants are increasingly younger, low skilled, and low income with no clear career ladder or evidence of job mobility. Third, LTC leavers report greater levels of work disability, have high levels of poverty, and are often unemployed. These patterns suggest that there may be challenges to maintaining an adequate and well-trained workforce as the demand for LTC workers grows.

A large share of those who left the LTC industry was subsequently out of the labor force or unemployed. This, combined with the high rate of poverty observed among those who work in LTC occupations, raises concerns about the economic condition of LTC workers. LTC occupations can be demanding and, as found in our analysis, often do not offer high wages. One longitudinal study of Pennsylvania CNAs found that workers who left the LTC industry had lower job satisfaction and emotional well-being, and many left for health reasons.<sup>13</sup> Future research should explore the long-term employment paths of LTC workers who became unemployed or leave the labor market. It is not known if these transitions provide opportunities to obtain higher-paying jobs or develop new skills, or if they increase the likelihood that LTC workers will live in poverty.

In order to improve recruitment and retention of LTC workers, as well as address the high rate of poverty and lack of upward mobility of many LTC occupations, employers, educators, and policymakers should consider investments in education and training. Well-crafted training programs not only can improve the job skills of direct-care workers but also reduce occupational injury rates and job turnover.<sup>14, 15</sup>

<sup>16</sup> Most states regulate the training of home health aides and certified nursing assistants, but few states have well-developed training requirements for personal care aides.<sup>17</sup> The ACA authorized funds to provide new training opportunities for direct-care workers who are employed in assisted living facilities, skilled nursing facilities, intermediate care facilities for individuals with developmental disabilities, and home and community-based settings.<sup>18</sup> Investments in training for workers in these occupations will likely help to ensure an adequately trained workforce in LTC, as well as support improved retention of LTC workers.

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**Acronyms Used in this Report**

BLS	Bureau of Labor Statistics
CNA	Certified nursing assistant
CPS	Current Population Survey
LTC	Long-term care
LVN/LPN	Licensed vocational nurse/licensed practical nurse
MA	Medical assistants and other health aide
NILF	Not in labor force
NPHH	Nursing, psychiatric, and home health aide
PCA	Personal and home care aide
PT	Physical therapist
RN	Registered nurse
US	United States

## Appendix

**Appendix Table 1: Census and NAICS Crosswalk for Selected Long-Term Care Sectors**

Census Code	NAICS	Sector Description
8170	6216	Home health care services
8270	6231	Nursing care facilities
8290	6232, 6233, 6239	Residential care facilities, without nursing
8370	6241	Individual and family services
8380	6242	Community food and housing, and emergency services
9290	8140	Private households

Source: IPUMS USA. Codes for Industry (IND) and NAICS Industry (INDNAICS) in the 2000-2002 ACS Samples. Minnesota Population Center, University of Minnesota.

<https://usa.ipums.org/usa/volii/indcross.shtml>

**Appendix Table 2: Census and SOC Crosswalk for Selected Long-term Care Occupations**

Census Code	SOC	Occupation Description
0420	119151	Social and community service managers
2010	211020	Social workers
2020	211090	Miscellaneous community and social service specialists (including community health workers)
3130	291111	Registered nurses
3160	291123	Physical therapists
3500	292061	Licensed practical nurses or licensed vocational nurses
3600	311010	Nursing, psychiatric, and home health aides
3650	31909X	Medical assistants and other health care support occupations
4610	399021	Personal care and home care aides

Source: IPUMS USA. Occupation Crosswalk – OCC and OCCSOC 2000 Census Samples. Minnesota Population Center, University of Minnesota.

[https://usa.ipums.org/usa/volii/census\\_occtooccsoc.shtml](https://usa.ipums.org/usa/volii/census_occtooccsoc.shtml)