The foreign born in the American healthcare workforce: Trends in this century's first decade

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Abstract

This study describes the native and foreign born in US healthcare in the first decade of this century. Immigrant women are more likely than natives to be employed in long term care where they are most concentrated among professional practitioners and lesser skilled direct care workers. The foreign born are similar to natives in their average age, education and the dominance of women. They differ in being more likely to reside in metropolitan areas and in central cities. The foreign born earn more than natives and this appears to be both significant and inexplicable by way of differences in experience or education.

Keywords: Healthcare, labour, ageing, US

Introduction

Healthcare is important to national competitiveness because businesses must have healthy workers to be productive and because the cost of healthcare places constraints on economic growth. In these respects the United States is fortunate in having good healthcare for much of the population and a population that is ageing more slowly than most other developed nations. But the United States is very uncompetitive in that many workers have not been covered by health insurance and costs have long appeared to be out of control (Johnson, 2012). The US spends $2 trillion annually on healthcare, nearly 18 per cent of its GDP, or more than any other developed nation. The US Centers for Medicare and Medicaid Service has recently projected that the national cost of healthcare will reach 21 per cent of GDP by 2021. These costs render U.S. businesses less competitive internationally and as the American population ages the total costs increase pressure on the federal budget and the economy.

While immigrants play an important role in helping America meet the challenge of providing healthcare, America's immigrant admission system does not place emphasis on highly skilled professional physicians and nurses. And like most other nations, the US immigration system has no provisions that favour lesser skilled care providers especially for the long term care of the elderly (Spencer et al., 2010). In fact, the US admission system is dominated by family sponsored immigrants and, increasingly, by temporary workers most of whom find jobs with employers in the information technology industry and outside of healthcare (Lowell and Gerova, 2004). There is a strong lobbying

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effort to increase work-related immigration and nurse's figure into that, consider the Emergency Nursing Supply Relief Act entertained in the recent US Congress (H.R. 1929). But typically U.S. policymakers spend little systematic thought on immigration as a tool for managing labour markets.

What we can say then about the role of immigration in US competitiveness in healthcare begins with what that workforce looks like and how it responds to market forces. There often appears to be a consensus that there are current shortages of healthcare workers, with certain specialties being particularly short, and that yet more shortages are sure to occur within the next decade. That is, indeed, a long standing perspective and one that necessarily lends itself to advocacy for changing US immigration policy to increased admissions of healthcare workers, especially for professional nurses. But the belief in worker shortages is not restricted to professional care, it is widely perceived as a problem that prevails throughout caregiving occupations and is a condition that is forecast to get worse given a presumed lack of domestic workers and increasing demand for care (Institute of Medicine, 2008).

This study provides a description of the demographic and employment characteristics of healthcare occupations during the past decade. It is important to examine professional care in short-term settings, as well as, long term care. There are high costs in hospitals and practitioner settings and the initial waves of ageing baby boomers will put pressure here, but the ageing population is on course for an expansion of long term care where the economics of care are different. Most short term care by practitioners and in hospitals is financed by insurance, with some government assistance for the poor and elderly. Long term care for the elderly, in contrast, requires assistance in daily living and personal care that is financed more from retirement income, savings, and family assistance—a system that puts downward pressure on all expenses.

I present tabulations of US Census surveys showing that immigrants make substantial contributions to the healthcare industry, where their role is greatest among highly skilled practitioners in hospital settings and the least skilled direct care workers in homes providing long term care. The foreign born are most concentrated among practitioners, less so among nurses compared with other nations, but their role in long term care is commensurate with that of other nations (Spencer et al. 2010). The concentration of immigrants in long term care surely reflects the nature of that industry, where pay is low, but also immigrants' significant role in providing care in America's inner cities. Nevertheless, foreign-born healthcare workers earn more than natives which suggests that they do not undercut native workers.

A profile of immigrants in the healthcare workforces

The US labour force data is able to provide a sense of immigrant numbers and a picture of where they find employment. The past decade saw a slowing of the immigration numbers that occurred in the 1990s and a slight decline in

the illegal resident population. Of course, the year 2000 comes just before the economic recession that occurred around the events of 9/11 and at the beginning of what has been called the "jobless" recovery. There was some growth in total employment after 2003 which peaked around 2007, only for the most recent recession to strike in 2008. Since then, US employment has not recovered its pre-recession high. On the other hand, healthcare has enjoyed on-going growth and there are distinctive patterns in general versus long-term healthcare.

The American Community Survey

The healthcare workforce is comprised of several occupations and employment primarily but not only in formally defined health industries. For the purposes here, I will restrict the discussion to workers in healthcare industries and broadly defined occupational groups. There are about 30 listed "Healthcare Practitioners and Technical Occupations" that are considered to be professionals, while another six "Healthcare Support Occupations" are classified as service jobs. An additional two occupations can be coded "Personal Care and Service Occupations." I collapse these occupations into 8 occupations initially and then remove the two classes of workers for the balance of the discussion further cross-classified by industry sector.

There are two major industry sectors, general healthcare and the long term healthcare sector (LTC). About 16 individual industries are included under the heading of "Educational, Health and Social Services" and I add private households when healthcare service workers report this as their industry of employment. About nine broadly classified industries can be identified which are further collapsed to eight groups: three of these, hospital, practitioners' offices and outpatient care are the formal care sector while five are considered to be long term care.

I follow prior research to define direct care workers with selected occupations restricted to LTC industries, but we expand our examination here to professional care workers in a smaller subset of LTC industries. Like others, we consider lower-skilled direct care providers to include the occupational titles of nursing psychiatric and home health aides, as well as personal and home health aides. Professional care workers are employed in occupations titled practitioners (physicians and dentists, etc.), nurses, or therapists. Direct care workers are, by definition, in long term care and so we consider any employment in one of seven LTC industries. Professional care workers are defined as being employed in five industries that provide almost only long term care, but they are excluded if they are employed in formal settings that tend to service outpatient care or hospitals.

Occupational growth, distribution, and concentration

Table 1 shows all of the major healthcare occupations, the size of the workforce in 2001 and 2009, as well as, two measures of change in workforce size. For example, the workforce of these combined eight occupational groups was 7.7 million in 2001; and by decades end had grown to 10.5 million or a little under 7 per cent of the entire US labour force. Immigrants' share of these occupations, while it has increased from 14.3 to 17.0 per cent, did not increase that substantially. In five out of the eight occupational groups immigrants' share of the workforce is less than their share of all workers in the entire US labour force which in 2010 was 15.6 per cent. Immigrants have been and remain, by this metric, under-represented in the nursing occupations, as well as for therapists, technicians or other health support therapists and assistants. The foreign born are over represented only at the skill extremes, as either practitioners or as nursing or personal care aides.

Table 1. The size, percentage distribution and growth of healthcare occupations by nativity, 2001 to 2009

Workforce by nativity	Occupation								
	Total	Health practi-tioners	Regis-tered nurses	Licensed nurses	Therapist & other treating	Techs & other diagnos-ing & treating	Health support therapists , assistants	Nursing, psyc., & home aides	Personal care service & aides
Workforce 2001	7,675,362	1,081,298	1,968,555	532,080	372,574	532,080	372,574	1,666,426	310,684
Natives %	85.7	79.9	88.0	91.1	89.8	91.1	89.8	81.4	78.8
Foreign %	14.3	20.1	12.0	8.9	10.2	8.9	10.2	18.6	21.2
Workforce 2009	10,489,682	1,310,397	2,538,638	621,825	547,232	621,825	547,232	2,199,707	911,075
Natives %	83.0	77.3	85.4	88.4	88.6	88.4	88.6	79.2	76.0
Foreign %	17.0	22.7	14.6	11.6	11.4	11.6	11.4	20.8	24.0
	Growth of native- and foreign-born workforce 2001-2009 %								
Native born	32.4	17.3	25.1	13.4	44.9	27.8	37.7	28.6	183.0
Foreign born	62.0	36.7	57.2	52.7	64.3	59.0	71.4	47.0	231.3
	Contribution to total growth by nativity 2001-2009%								
Native born	75.8	65.1	76.3	72.2	86.0	80.9	81.1	72.6	74.6
Foreign born	24.2	34.9	23.7	27.8	14.0	19.1	18.9	27.4	25.4

Source: Author's tabulations of U.S. Census data, see methods section and Ruggles et al. 2010.
Note: Three years of data are averaged, so results are centered on "2001" and "2009."

All immigrant healthcare workers contributed just 25 per cent of the increase from 7.7 to 10.5 million in the number of all healthcare workers between 2001 and 2009. That is substantially less than the roughly 48 per cent immigrants contributed to the growth of total US labour force over the decade. In fact, immigrants contribute most to the growth of the practitioner workforce and least to therapists, technicians or health support therapists and assistants. Still, and partly because migrants are a small fraction of most healthcare occupations, the rate of growth of the foreign-born workforce was

nearly double that of natives over the decade. The number of native healthcare workers grew by 32.4 per cent and the number of the foreign born by 62.0 per cent. The 231.3 per cent growth of the number of foreign-born employed as personal care service and aides was most remarkable: 66,000 to 219,000. The number of natives likewise grew by 183.0 per cent over the decade. These direct care workers are in demand to assist the growing number of elderly with the activities of daily living primarily in home care settings.

The demand for workers in any occupation is conditioned by the industries in which they are employed. Table 2 shows major health industry groupings in 2009, identified separately by the general and long term care sectors, and eight healthcare occupations. Roughly less than two-thirds of all healthcare workers are found in general care and another third in long term care settings. Otherwise, it is worth noting that certain occupations concentrate in a given industry. Over half of hospital care is provided by nurses and physicians. Over half of the staff in nursing homes is nurse aides, while between half and three-quarters of care in long term care outside of nursing homes is provided by nursing and personal care service or aides. These concentrations also changed relatively little from 2001 to 2009 with the exception of an increase in the share of personal care service workers in family and home care over the decade.

In terms of the distribution of occupational workforces across the different industry groups, table 2 shows that there are few marked differences between natives and the foreign-born. The foreign born in any given occupation are a little more likely to be employed in the long term care sector, especially for workers employed in family or homes, as well as, for those in the occupations of personal care service and aides. The most skilled professional occupations, practitioners and registered nurses, are most likely to be employed in general care: about 90 and 80 per cent respectively. Foreign-born practitioners and nurses are more likely than natives to be employed in hospitals, while foreign-born personal care service workers are more likely to be employed in family and home care.

This barbell type distribution is also reflected in the percentage all workers who are foreign born in each occupation-industry combination. For example, 26.4 per cent of all practitioners in hospitals are foreign born, while roughly 30 per cent of those employed in nursing and personal care service or as aides are foreign born and in LTC home/other health-care service and in family and households settings. Registered and particularly licensed nurses tend to be under-represented in practitioners' offices and outpatient care. Likewise, the foreign born tend to be under represented in all industries when employed as technicians and health support therapists or assistants. Indeed, immigrants are not highly represented among technicians and health support therapists; and neither are these "caregivers" in the traditional meaning of the term, so are excluded from the balance of the discussion.

Table 2. Distribution of occupations by industry and nativity and the foreign-born share of the occupation-industry workforce, 2009

Occupation	Total	General care		Long term care			
		Hos-pitals	Practi-tioners & Out-patient	Nurs-ing care	Resi-dential care, no nurses	Home & other health-care service	Family & house-holds
	Foreign-born distribution across industries, %						
Native born	**100**	**39.7**	**23.7**	**13.1**	**2.9**	**15.9**	**4.8**
Health practitioners	100	36.7	56.6	1.2	0.2	4.9	0.3
Registered nurses	100	69.4	11.6	7.8	0.4	10.1	0.6
Licensed nurses	100	32.4	17.1	33.3	1.4	14.6	1.2
Therapist & other treating	100	41.1	34.3	6.1	3.3	11.0	4.1
Techs & other diagnosing &	100	50.9	28.1	1.5	0.5	18.8	0.2
Health support therapists,	100	22.3	59.8	6.8	1.4	9.3	0.4
Nursing, psyc., & home aides	100	23.3	5.4	36.0	4.2	27.3	3.8
Personal care service & aides	100	--	--	5.9	18.4	29.2	43.1
Foreign born	**100**	**37.8**	**18.6**	**13.0**	**2.6**	**19.4**	**8.6**
Health practitioners	100	44.7	48.5	0.7	0.3	5.6	0.2
Registered nurses	100	72.9	6.1	9.5	0.4	10.3	0.7
Licensed nurses	100	33.9	9.0	38.9	1.4	15.2	1.5
Therapist & other treating	100	36.7	35.1	7.5	4.4	14.1	2.2
Techs & other diagnosing &	100	58.2	20.4	1.5	0.5	19.3	0.1
Health support therapists,	100	21.6	62.4	5.2	1.2	9.2	0.4
Nursing, psyc., & home aides	100	20.9	3.1	30.0	2.6	36.6	6.8
Personal care service & aides	100	--	--	6.2	11.6	27.6	52.7
	Foreign-born share within occupation-industry, %						
Foreign born	**17.0**	**16.3**	**13.8**	**16.8**	**15.2**	**20.0**	**27.0**
Health practitioners	22.7	26.4	20.1	14.5	24.0	25.3	15.4
Registered nurses	14.6	15.3	8.3	17.3	13.9	14.8	17.9
Licensed nurses	11.6	12.1	6.5	13.4	11.9	12.1	13.7
Therapist & other treating	11.4	10.3	11.7	13.6	14.4	14.2	6.6
Techs & other diagnosing &	12.2	13.7	9.2	12.6	10.9	12.5	6.7
Health support therapists,	13.2	12.9	13.7	10.5	11.3	13.2	12.8
Nursing, psyc., & home aides	20.8	19.0	13.2	17.9	13.8	26.0	31.8
Personal care service & aides	24.0	--	--	25.1	16.6	23.0	27.8

Source: Author's tabulations of U.S. Census data, see methods section and Ruggles et al. 2010.

Note: Three years of data are averaged, so results are centered "2009." Figures for small cell size counts are not shown (marked --).

Human capital, demographic and workplace characteristics

The human capital characteristics of workers generate differences in terms of earnings and labour market outcomes. Average differences in skills and training often predict which groups of workers are employed in different sectors. Table 3 shows basic human capital and demographic characteristics of workers in the general and long term care sector. The first notable thing is that there are fewer differences in the characteristics of the native and foreign

born than there are differences between all workers in general and long term care. All workers are slightly older and more likely to be female when employed in long term care, while the foreign born in direct care occupations are slightly less educated than natives. Therapists, as well as direct care personal

Table 3. Demographic characteristics of healthcare workers by nativity and sector, 2009

Occupations by industry and nativity	Age, (mean)	Years of Education (mean)	Female, %	Metro residence, %	Central city residence , %	Speaks English only or very well, %	Naturalized Citizen, %	Immigrated last 10 years, %
				General care				
Native born	**41.2**	**14.6**	**75.6**	**80.9**	**16.3**	**99.0**	**--**	**--**
Health practitioners	41.2	17.6	37.5	88.6	18.2	99.1	--	--
Registered nurses	43.5	15.2	91.5	82.9	11.8	99.4	--	--
Licensed nurses	43.6	13.0	93.9	72.2	11.9	99.3	--	--
Therapist & other treating	41.2	16.3	75.1	86.3	15.0	99.4	--	--
Nursing, psyc., & home aide	38.0	12.8	82.1	80.1	19.0	98.7	--	--
Personal care service & aides	39.8	12.8	73.4	75.3	21.8	98.5	--	--
Foreign born	**43.9**	**14.6**	**70.8**	**96.5**	**25.8**	**75.3**	**65.0**	**24.1**
Health practitioners	45.2	17.7	40.4	95.4	23.1	87.6	72.3	20.7
Registered nurses	44.0	15.6	87.4	97.2	22.5	84.1	71.7	24.4
Licensed nurses	44.1	13.1	87.0	96.1	27.6	78.7	68.7	23.3
Therapist & other treating	42.5	16.1	62.7	96.5	24.0	79.7	64.7	23.4
Nursing, psyc., & home aide	43.2	12.8	79.6	97.1	30.2	64.4	64.1	26.5
Personal care service & aides	44.1	12.5	67.9	96.8	27.6	57.3	48.6	26.5
				Long term care				
Native born	**43.0**	**14.3**	**82.5**	**78.5**	**15.2**	**98.9**	**--**	**--**
Health practitioners	45.3	16.8	53.5	87.5	16.1	98.6	--	--
Registered nurses	46.6	15.0	91.5	78.7	11.4	99.4	--	--
Licensed nurses	43.1	12.9	93.5	72.0	13.2	99.4	--	--
Therapist & other treating	41.5	16.3	79.3	86.4	14.6	99.4	--	--
Nursing, psyc., & home aide	39.0	12.2	91.3	71.6	18.4	98.4	--	--
Personal care service & aides	42.6	12.3	86.0	75.0	17.7	98.0	--	--
Foreign born	**44.2**	**14.2**	**77.4**	**96.7**	**27.3**	**70.0**	**60.0**	**27.6**
Health practitioners	44.8	17.1	49.3	96.4	22.6	84.6	72.0	19.2
Registered nurses	45.1	15.4	85.1	97.7	23.2	78.4	65.1	27.8
Licensed nurses	42.6	13.2	84.4	96.8	23.9	76.0	64.5	26.7
Therapist & other treating	40.5	16.1	69.5	96.8	20.3	85.8	61.1	27.8
Nursing, psyc., & home aide	45.4	11.8	90.1	96.6	41.9	52.8	50.8	31.9
Personal care service & aides	46.7	11.4	86.1	96.2	32.1	42.5	46.5	32.3

Source: Author's tabulations of U.S. Census data, see methods section and Ruggles et al. 2010.
Note: Three years of data are averaged, so results are centered on "2009." These data exclude central city residence "unknown," but otherwise reliably reflect differences across demographic groups in terms of central city residence.

care and service aides also are slightly more likely to employ males of either nativity especially in the general care sector. Thus, it is fair to say that education and experience in either sector are similar regardless of nativity, but that

females tend to be more common in long term care. Also, the average age of workers in either sector increased less than one year over the decade and is little more than the average of 41 years of age for all immigrants; and average education in healthcare occupations changed not at all.

Table 4. Labour force characteristics of healthcare workers by nativity and sector, 2009

Occupations by sector and nativity	Weekly earnings, (mean)	Unem-ployed, %	Usual hours worked per week, (mean)	Full time hours (>=35), %	Weeks worked, (mean)	Health-care insured by employer or union, %	Self-employ-ed, %
	General care						
Native born	**1167.7**	**2.9**	**37.9**	**75.7**	**47.8**	**78.7**	**8.4**
Health practitioners	3,059	0.8	46.2	83.3	49.1	76.4	33.8
Registered nurses	1,158	1.1	36.8	75.5	48.9	92.0	0.1
Licensed nurses	731	2.7	37.3	79.6	48.6	84.2	0.0
Therapist & other treating	1,069	1.3	36.5	72.7	48.2	84.6	13.8
Nursing, psyc., & home aide	529	5.2	35.6	73.1	46.9	75.2	0.0
Personal care service & aides	459	6.4	35.3	69.7	45.6	59.7	2.9
Foreign born	**1302.3**	**2.4**	**39.5**	**82.1**	**48.3**	**78.5**	**8.5**
Health practitioners	3,134	1.0	48.6	88.9	49.1	78.5	29.1
Registered nurses	1,428	1.0	38.8	85.1	49.0	92.1	0.0
Licensed nurses	905	1.6	39.0	86.8	49.0	80.6	0.0
Therapist & other treating	1,227	1.5	37.8	77.8	47.7	77.0	19.4
Nursing, psyc., & home aide	643	3.0	37.9	82.2	48.1	79.2	0.0
Personal care service & aides	478	6.1	34.7	71.7	47.0	63.5	2.7
	Long term care						
Native born	**1020.7**	**4.9**	**36.8**	**70.3**	**46.7**	**67.0**	**5.8**
Health practitioners	2,519	1.4	42.8	81.1	48.5	82.6	12.6
Registered nurses	1,053	2.8	38.0	76.1	47.7	82.3	0.1
Licensed nurses	730	4.2	37.1	74.4	47.3	69.6	0.0
Therapist & other treating	1,053	1.6	36.4	71.5	48.0	82.2	7.3
Nursing, psyc., & home aide	418	9.6	34.2	64.8	44.9	46.5	3.9
Personal care service & aides	351	10.0	32.4	54.2	43.9	38.6	11.2
Foreign born	**1179.9**	**3.5**	**38.8**	**76.6**	**47.3**	**66.8**	**6.1**
Health practitioners	2,892	1.9	45.1	88.9	48.6	85.1	10.9
Registered nurses	1,206	2.3	39.1	82.8	47.9	78.9	0.0
Licensed nurses	848	2.2	38.6	78.5	47.6	70.8	0.0
Therapist & other treating	1,257	0.8	39.0	79.1	48.2	78.3	8.5
Nursing, psyc., & home aide	495	5.6	36.8	72.8	46.3	52.1	4.6
Personal care service & aides	381	8.3	34.1	57.7	45.0	35.7	12.6

Source: Author's tabulations of U.S. Census data, see methods section and Ruggles et al. 2010.
Note: There years of data are averaged, so results are centered on "2009."

However, immigrants are substantially more likely to live (and work) in metropolitan or urbanized areas than natives, while they are also more likely than natives to live in the central city of a metropolitan area. These differences are important because they suggest differences in where shortages of healthcare workers may be most influenced by immigrants. In terms of im-

migrant-only characteristics, more immigrants in healthcare are naturalized citizens, 60-66 per cent, than are employed immigrants generally at 43.5 per cent in 2010. Those in lesser skilled healthcare occupations are least likely to be naturalized citizens, some 47 per cent of personal care service and aides. Of course, more settled immigrants tend to naturalize and those in healthcare are slightly more likely to have spent more years in the US than are other immigrants. Roughly 25 per cent of foreign healthcare workers arrived during the first decade of the century compared with 33.7 per cent of the foreign born 16 to 64 years: 75 per cent are long term residents compared with 64 per cent of others. Professionalized healthcare immigrants are more likely to be long term settlers, especially those working in the long term care sector.

Next, table 4 shows the weekly earnings and other labour force characteristics of healthcare workers. As one might anticipate, worker earnings are lower in long term care while unemployment is higher. At the same time, workers in long term care work slightly fewer hours than in general care and are also less likely to have health insurance or to be self-employed. What may be more surprising is that the foreign born earn more on average than do natives in either sector, have lower unemployment, and tend to work more hours and weeks on average. However, immigrants are little different from natives in terms of health insurance and self-employment. The earnings of advantage of the foreign born in healthcare cannot be readily explained by their human capital, as we have seen above, because immigrants are about the same age and have education similar to that of natives. What is more, the foreign born have less English ability than natives which should significantly lower wages. We are thus left with a conundrum, apparently immigrants are not undercutting natives by accepting lower wages, but why should they receive higher earnings when they are otherwise either similar to natives in human capital but are somewhat lacking in English ability?

Summary and conclusions

Most all of the recent Congressional debate over immigration and healthcare has focused on nurses and that concern is focused on shortages in hospital settings. Yet the greatest demand for immigrant nurses, both registered and licensed, appears to be in long term care settings. Of course, most of the nurses admitted into the United States tend to be the more educated registered nurses for whom existing visas are most appropriate. The strong workforce growth in long term care settings is consistent with the observation that the last decade has seen the entry of the large baby boom generation into retirement. That retirement wave will continue, so what role is there in immigration policy to address that challenge (Lowell, Martin and Stone 2010)? It has been the case historically that the US has opted to not import lesser skilled workers for the purpose of employment because such workers directly compete with low-wage, vulnerable domestic workers. And it would seem unnecessary to set aside special visas because most immigrants in direct care enter

on visas for family reunification. Future flows of family immigrants will remain strong and, that being the case, visas for direct care workers would compete head to head with newly admitted family migrants.

Additionally, the statistics presented in this article yield some clear observations. There is a double bar bell distribution of the healthcare workforce: immigrant women are more likely than natives to be employed in long term care; and immigrants are most concentrated both among professional practitioners and the least skilled direct care, service workers. It is in these segments of the healthcare workforce that immigrant contributions are greatest and which show the greatest disparities.

The rate of growth of the foreign-born workforce has been roughly twice that of the native workforce. The proportional contribution, however, of immigrants to the growth of the total workforce has been only about one-third that of the native contribution. Furthermore, the foreign-born percentage of healthcare occupations has increased only slightly over the decade and, except for practitioners and direct care workers, immigrants are under-represented in most healthcare occupations. So the foreign-born play an important but not a central role in this sector of the economy.

The foreign born are very similar to natives in terms of their average age, education and the dominance of most occupations by women. They differ in terms of being much more likely than natives to reside in metropolitan areas and in their central cities. This residential variance is similar to that of the native and foreign populations generally, but it has unexplored implications for the role immigrants play in addressing regional shortages and disparities in healthcare provision.

The foreign born in healthcare earn more than natives and this appears to be both statistically significant and inexplicable by way of differences in experience or education. Consider by way of comparison that immigrants in science and engineering (S&E) also earn more than natives, but after controlling for their completion of more years of schooling, immigrants in S&E tend to earn less than otherwise similar natives. Foreign-born earnings may be higher in healthcare as they work longer hours and more weeks than natives; in turn, that may be correlated with unobserved lower rates of turnover or more employer-specific experience. Of course, the earnings of direct care workers, particularly in long term care, are very low on average (Stone 2011). Many of the workforce challenges in long term care are associated with the nature of how care is funded in this sector and that, in turn, will continue to place pressure on workers' earnings and the nature of future supply and demand.

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