

Jobs or Careers?: Mobility among Low-Wage Workers in Healthcare Organizations

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Chapter 1:
Literature Review

INTRODUCTION

As many researchers, scholars, and cultural critics have lamented, the United States of the 1950s and 1960s, where ordinary people could expect to improve their condition over their lifetime, where job security was expected, and where inequality between the rich and poor lessened, is gone. Instead, over the last three decades there has been a rise in low-wage and low-quality jobs, leaving many workers with stagnating wages and fewer opportunities for upward mobility and career advancement over the life course. Consequently, the United States of the 1950's has been replaced by a United States of increasing inequality in wealth and growing risk for workers.

One sector of the labor market that has experienced high growth in lower-wage and low-skill jobs is the healthcare sector. Many of the fastest growing occupations in the United States are low threshold-to-entry healthcare occupations, such as home health aides and nursing assistants, or positions that generally require a high school degree or less with minimal clinical training. While many of these fast-growing jobs offer low wages and require few skills, some scholars view the healthcare sector as a very promising industry for low-wage workers, due primarily to opportunities for advancement within healthcare organizations because of the hierarchical nature of these employers as compared to other service jobs, such as retail or food service. Further, an increasing focus on the quality of care within healthcare organizations has brought attention to the skills and commitment of low-wage workers. That said, few studies have examined the mobility of low-wage workers in healthcare organizations. Indeed, very little research has looked at low-wage workers in the healthcare sector at all, with the exception of nursing assistants in nursing homes. This study aims to address the

following questions: Do low-wage healthcare jobs offer upward mobility for workers? If so, how do firms contribute to upward mobility? At the individual level, what types of workers are experiencing wage growth?

In this introductory chapter, I begin by summarizing trends in the low-wage labor market in general and then specifically talk about the healthcare labor market.

THE LOW-WAGE LABOR MARKET AND INCOME INEQUALITY

The current recession and the ongoing health care reform debate have brought renewed attention to a growing demographic in the United States: the working poor. In the 1950s, 1960s and early 1970s, the United States experienced a period of high economic growth, rising earnings, and improved living standards (Mishel, Bernstein, & Allegretto, 2007). Poverty rates would increase during recessions, but increases were more than offset by declines in poverty during times of economic expansion. The working poor gained along with everyone else, and poverty rates fell from 22.4 percent in 1959 to 11.1 percent in 1973 (Gottschalk, 1997).

However, beginning in the 1970s and continuing into the 1980s and 1990s, mean wages grew slowly and inequality increased rapidly. In their series of volumes entitled *The State of Working America*¹ documenting the economic conditions in the United States, Mishel and colleagues categorize the period between 1973 and 1995 as a period of slow growth and increasing inequality. The mean of the distribution of family income did increase after 1973; however, this was due to family members increasing their numbers of hours worked, while median wages remained stable. using data from the Current Population Survey, Morris and Western (1999) found that the wage of the median worker

¹ In summarizing the findings of the SWA publications, I am relying on Kalleberg's (2008) synthesis published in *Work and Occupations*.

stagnated through most of the 1970s and 1980s, and then fell sharply in the 1990s, losing a total of about 10 percent over two decades. Workers in the top decile, however, saw their wages rise by about 10 percent, mostly in the 1980s. Thus, write Morris and Western, "the story of this period is not that the rich got richer and the poor got poorer, but that virtually everyone lost ground (except those at the very top), and those at the bottom lost the most" (Morris & Western, 1999, p.626).

During the 1970s and 1980s, poverty rates continued to increase during recessions and decline during expansions, just as they had in the 1960s. However, the declines in poverty during expansions failed to offset the increases during recessions, and poverty rates ratcheted up 31 percent from 1973 to 1994 (that is, from 11.1 percent of the population to 14.5 percent) in spite of a 27 percent increase in mean per capita income. The rise in poverty alongside the increases in mean income is indicative of rising inequality in wages (Gottschalk, 1997). Changes in the demographic composition of the population, such as the increase in female-headed households, are also partially responsible for the rise in poverty rates, but these changes are no more important to the rise in poverty than the increase in wage inequality (Danziger & Gottschalk, 1995).

The authors of the *State of Working America* describe the period in the 1980s and 1990s as one of "great disparities." They concluded that the economy was "failing most Americans," not only due to the early 1990s recession but because of long-term wage erosion in the 1980s for blue-collar workers and wage stagnation among white-collar and college-educated workers in the 1990s. A boom in the late 1990s increased real wages throughout the wage scale, reduced poverty rates (especially for the most disadvantaged), and narrowed the gaps between most income classes and racial groups (the gap between

African Americans and White families fell to the lowest level ever recorded). However, a recession in 2001 was followed by a “jobless recovery” that was much less robust in terms of job creation than the average compared to other recoveries in the postwar period (Mishel et al., 2007).

There have been differences in wage growth and inequality between different groups. For example, for women the growth in earnings was highest at the higher deciles and lowest at the lower deciles, indicating growth in inequality of earnings among women as well as among men (Gottschalk, 1997). Morris and Western (1999) found that between 1973 and 1996, the wage gains for the median woman worker were quite modest (around 5%), but women in the top decile experienced gains of nearly 30 percent. However, the growth in inequality of earnings was offset by a sufficiently large shift in the whole distribution, which resulted in small absolute increases in earnings for women at the bottom of the distribution, as well as much larger increases for those at the top (Gottschalk, 1997). Morris and Western (1999) write that it would be a mistake to say that women have gained parity with men, but they have made both relative and absolute gains over the past two decades. Men, on the other hand, experienced wage losses, except for those at the very top.

Workers with different levels of education also experienced differential wage growth. Gottschalk (1997) found that the college premium declined during the 1970s, reaching a low of 31 percent in 1979. However, the decline in the college premium was reversed in the early 1980s. By 1993, the college premium had reached a high of 53 percent. From 1979 to 1994 the real weekly earnings of college graduates rose by 5 percent, while earnings for high school graduates fell by 20 percent. Changes in overall

inequality clearly reflect the fact that the less educated lost relative to the more educated, and more experienced workers gained relative to younger workers. At the same time, (Bernhardt, 2001) show that job instability rose across all education levels, strongly affecting workers in their peak earning years.

Low-Wage Worker Mobility

Cross-sectional analyses of income distributions clearly show that wages for the lowest-earning Americans have fallen since the 1970s. However, longitudinal studies of individuals' work and income trajectories help US to understand if individuals are "stuck" in low-wage jobs or whether they are able to eventually move into higher paying jobs. using the US Census Bureau's Longitudinal Employment-Household Dynamics data from five states, the authors of *Moving On, Moving Up* found that there is "considerable mobility" into and out of low earnings categories over time (Andersson, Holzer, & Lane, 2005). Of all workers who are lower earners for at least three years, over half transition out of the low earnings category (earning under \$12,000) in the subsequent six years. Indeed, over the entire nine-year study period, more the two-thirds of the initial low earners improved their earnings status. Mean earnings more than doubled for all initial low earners over the nine-year period (from \$7,000 to \$15,000). However, most of those who did escape the low-earnings category made only fairly modest progress in earnings, continuing to earn less than \$15,000 a year at least some of the time. Only 8% of the initial low earners became consistently non-low earners with incomes above \$15,000 per year.

Not surprisingly, white males were the most successful in transitioning out of low earnings. Females within each racial-ethnic group were more likely to be in the low

earner group than males. The findings indicate a clear gender gap, but this gap is larger among whites than other groups. Hispanic women are especially likely to be low earners as compared to all other groups. The data also imply a greater instability and lower frequency of employment among blacks (especially black men). Low earnings/unemployment are also more common among younger workers (25-34). The authors found that for those workers who were able to escape the low-earnings category (>\$12,000 per year), the majority of the transitions were accomplished by workers who switched employers, rather than those who stayed with their current employer. The best outcomes appear to be reached by those who transitioned into “better jobs” early and then accumulated tenure at these better employers (Andersson et al., 2005; Fuller, 2008).

Using data from the Current Population Study, (Gottschalk, 1997) found similar rates of mobility among the lowest-earners. Of those who started in the lowest quintile in 1974, 42 percent found themselves in the lowest quintile 17 years later (this finding is also consistent with the findings of Osterman (2000)). Of those who did exit the bottom quintile, most did not make sizeable progress, with the largest group moving to the next quintile.

In a later study of the Survey of Income and Program Participation data (the 1983 and 1993 panels), Gottschalk (2001) found that men and women experience greater wage growth when moving directly into a new job, rather than remaining with the same employer, a finding that is consistent with the findings of the *Moving On, Moving Up* study. Within job wage growth was especially low for women with less than a high school education, a finding that is particularly relevant for the predominantly female healthcare sector that is the focus of this study. In fact, for almost two-thirds of jobs held

by workers with less than a high school education had negative real wage growth over the study period (Gottschalk, 2001).

In her book *No Shame in My Game* and the follow-up *Chutes and Ladders*, Katherine Newman followed the careers of low-wage workers in a fast food restaurant in Harlem (Newman, 2000; Newman, 2006). Her longitudinal research showed that upward mobility was evident for a surprising number of the workers that she followed. While most workers were indeed “treading water” four years later, there was a substantial number of what she refers to as “high flyers,” or individuals who started in low-wage food service jobs and ended up in better-paying jobs. She found 37 percent of the sample was “high flyers,” or those who had experienced a \$5.00 increase in wages per hour four years later.

Using the Study of Income and Program Participation (SIPP), Connolly, Gottschalk, and Newman (2006) attempted to replicate Newman’s Harlem studies in *No Shame in My Game* and *Chutes and Ladders*. They found that 14 percent of males and 12 percent of females were “high flyers,” or individuals who experienced wage growth of over \$5.00 per hour over a four year period. The proportions are roughly half as large as the percentage found in the earlier studies by Newman, but the authors claim that it is still a non-negligible subset of the population. The study also shows that the fact that Newman conducted her study during strong economic times makes a difference: when they replicate the analysis for an earlier period marked by weak labor markets for less-skilled workers, they find substantially fewer “high flyers.” This suggests that the upward mobility of low-wage workers is highly dependent on economic conditions.

However, it should again be noted that while “high flyers” experience substantial economic growth, their incomes are still close to the poverty line. Sixty percent of females and 50 percent of males were still poor in the second year. Even when the cut off is raised to 1.5 times the poverty line, 30 percent of females and 29 percent of male high flyers are still below this threshold. The study also shows that most “high flyers” attained this status by changing occupations, with some moving into managerial positions and/or job that required some certification or training (e.g., hairdressers and accountants) (Connolly et al., 2006).

In sum, while many workers will escape the lowest earning category during their careers, most will not escape wages near the poverty line. For those who are able to escape the lowest earnings, most do so by switching employers and/or occupations, moving into jobs where wages are higher. In most cases, workers who stay in their current jobs do not see substantial returns on tenure.

LOW-WAGE JOBS AS “BAD JOBS”

In this section, I will discuss characteristics of low-wage jobs that make these jobs “bad jobs.” While low wages are an obvious “bad job” characteristic, most low-wage jobs are also plagued by other bad attributes, such as minimal employment benefits and few opportunities for advancement.

What is a “bad job?”

Kalleberg, Reskin, and Hudson (2000) in their study of non-standard employment arrangements, conceptualize “bad jobs” as having negative economic characteristics, namely low pay with limited access to health or retirement benefits. Arguably, wages are the single most important measure of job quality to workers. Health benefits are also

especially important in the United States because individuals are primarily dependent on employers for health insurance coverage; working for an employer that does not provide health insurance coverage may inflict considerable hardship on individuals and their families. Likewise, jobs that do not offer a pension or retirement contribution plan are considered to be “bad jobs” due to limited Social Security benefits in the United States that leave workers without an employer-based pension or contribution plan facing serious financial constraints in their later years.

Another characteristic of “bad jobs” is that they are often “dead-end” jobs, or jobs that provide little opportunity for advancement. Dual and segmented labor market theorists (e.g., (Doeringer & Piore, 1971; Gordon, Edwards, & Reich, 1982) argue that the existence of job ladders or internal labor markets was one of the defining differences between the primary (*good*) and secondary (*bad*) segments of the labor market. Jobs with access to internal labor markets and those in the primary segments of the labor markets had access not only to promotion opportunities, but subsequently to the attainment of higher wages, prestige, and security. In other words, a low-wage job is not necessarily a “bad job” if it is only temporary, or a stepping stone to a job with higher wages and better benefits. However, most low-wage jobs provide few opportunities for meaningful promotions and wage growth (Andersson et al., 2005).

The growth of “bad jobs”

The structure of the labor market has changed substantially over the last three decades, which has contributed to a growth in “bad jobs” in the United States. Most notably, there has been 1) a continuing decline in manufacturing employment leading to the emergence of a service economy and 2) a rise in the use of “contingent employees,”

or temp, contract, or part-time employees (Morris & Western, 1999). In the case of the former, manufacturing has dropped from 38 percent of non-farm employment in 1945 to 15 percent in 1996. Conversely, the service industry has increased to 29 percent of non-farm employment, up from just 10 percent in 1945 (Meisenheimer, 1998). The decline in the number of blue-collar factory jobs has been associated with a reduction in pay for workers with high school or lower education that has contributed to growing earnings inequality in the United States (Morris & Western, 1999). Service sector jobs have traditionally been characterized by more “bad job” characteristics, including lower pay, fewer benefits, and part-time hours as compared to manufacturing jobs (Meisenheimer, 1998). Bernhardt (2001) also attributes a substantial rise in job instability across all educational levels to the rise of the service sector.

In addition to growth in low-wage sectors like the service sector, there has also been an increase in “contingent employment.” It is generally agreed that in the 1970s there was a rise in what Kalleberg (2009) called “precarious work,” or employment that is “uncertain, unpredictable, and risky from the point of view of the worker.” During this time period, U.S. manufacturers began to be challenged by global competitors, and greater opportunities arose for manufacturers to outsource work to lower-wage countries. Technological advances both forced companies to be more competitive globally and made it possible for them to do so. Unions also began to decline, which weakened institutional protections for workers (Kalleberg, 2009).

These changes are consistent with what Beck (2000) has called the creation of a “risk society” and a “new political economy of insecurity.” Symptoms documented by researchers of growth in “precarious work” are increases in long-term unemployment,

growth in perceived job insecurity (Fullerton & Wallace, 2007), growth of nonstandard work arrangements and contingent work (Kalleberg et al., 2000; McGovern, Smeaton, & Hill, 2004), and an increase in risk-shifting from employers to employees. Examples of risk-shifting to employees include the increase in defined contribution pension and health insurance plans (where employees pay more of the premium and absorb more risk than employers) and the decline in defined benefit plans (Beck, 2000; Jacoby, 2001).

Work has also become more “precarious” in that workers are now more responsible for their education and training, a trend referred to as the “externalizing” of work careers. As I will discuss in greater detail in Chapter 2, the decline of firm internal labor markets placed the responsibility for education and training on the employee, rather than the employer (Kalleberg, 2003; Osterman, 2000). Rather than depending on internal training for skill development (and subsequent advancement), workers today are now expected to carry the risks and costs of obtaining additional education (Cappelli, 1999). Consequently, we have seen a decline in the financial rewards to tenure with an employer and a correspondingly stronger relationship between general workforce experience and job rewards for highly educated workers (DiPrete, Goux, & Maurin, 2002). Further, many workers are hard-pressed to identify ways of remaining employable in our quickly changing economic environment in which skills rapidly become obsolete. Today’s workers are much more likely than workers in the 1950s and 1960s to return to school again and again to update their skills and shift their careers (Kalleberg, 2009).

People differ in their vulnerability to jobs with “bad job” characteristics, depending on their level of education, race/ethnicity, gender, age, family situation, type of occupation and industry, geographic location, and degree of welfare and labor market

protections in a society. Education has become an increasingly important determinant of life changes and employment outcomes. This is illustrated in the increase in the wage premium for college degrees (as compared to high school degrees) in the 1980s and 1990s (Mishel et al., 2007). We also see a growing polarization in the quality of jobs available to workers with higher levels of education and skill as compared to workers with low levels of education and skill (Sorenson, 2000).

THE CHANGING EMPLOYEMENT LANDSCAPE

As shown in the previous paragraphs, wages and employment in the United States has changes in the last several decades. In the sections below I discuss how employment arrangements between employers and employees specifically related to training and promotion have changed.

Firm Internal Labor Markets

For middle-class professional workers, organizations have traditionally employed internal labor markets as mechanisms for individuals to move up careers ladders within the organization (Althausser, 1989a). There were limited points of entry into a firm, and employees came up from the bottom ranks and worked their way through a proliferation of job titles meant to suggest upward career movement (Bielby & Baron, 1986). Althausser (1989b, p.179) argues that the key characteristic of an internal labor market is that "there occurs a progressive development of skill or knowledge and a corresponding, regular advancement from less to more responsible and demanding tasks and positions composed of such tasks." Organizations with internal labor markets in their management structure depend on firm-specific training to advance employees within the company (Piore & Sabel, 1984). The organization takes responsibility for teaching employees new

skills and knowledge, and the knowledge and skills that are transmitted to the employee are largely specific to the individual organization.

In organizations with strong internal labor markets, employees are not responsible for furthering their own education because they receive training from their employer, but the training that they receive may not be applicable to other organizations or industries. In contrast, most organizations today expect employees to obtain their own further training by pursuing additional higher education, such as a master's degree. Employees are generally responsible for both the time (e.g., attending class, doing an internship) and costs of additional education (i.e., tuition, fees, and books). While this places the burden of training on the employee rather than the organization, some argue that employees ultimately benefit from this arrangement because employees receive industry-specific training (rather than firm-specific training), allowing them to transfer their skills between organizations. However, it should be noted that the development of internal labor markets within healthcare organizations often necessitates training in both firm-specific *and* industry-specific skills. The standardization of positions within the healthcare industry often requires that trainees earn industry-approved credentials to practice within a hospital setting (e.g., a statewide nurse aide certification).

The decline of internal labor markets

Firm internal labor markets peaked in the 1950's and have since declined as organizations began to compete on a global stage, the pace of technology increased, and firms began to seek arrangements that could respond to this environment (Kalleberg, 2003; Osterman, 2000; Piore & Sabel, 1984), providing both functional and numerical flexibility (Atkinson, 1984). Changes in corporate financing and governance also placed

an emphasis on short-term growth of dividends rather than a long-term investment of profits (Appelbaum & Berg, 1996). For these reasons it became easier and cheaper to maintain a core of permanent employees that was supplemented by a periphery of nonstandard workers (Atkinson, 1984; Cappelli, 1999; Hakim, 1990; Kalleberg, 2003; Pollen, 1988). Consequently, the relationship between employers and employees began to change, and the lifetime employment model epitomized in firm internal labor markets began to erode.

It is important to note that the shift to more flexible work arrangement is not fully complete, nor was the presence of internal labor markets in the mid-20th century ever universal. There are disagreements about the extent to which these flexible forms have been adopted, which have been made more difficult to determine given the scarcity of longitudinal data and industry variations (Kalleberg, 2003).² And just as there is disagreement about the extent of the shift from internal labor markets to flexible arrangements, there is disagreement about extent to which nonstandard work arrangements really represent a change in institutions underlying employment relations (Cappelli, 1999; Kalleberg, 2003). There have always been nonstandard work arrangements; standard, hierarchical internal labor markets may have been more of a historical anomaly, brought on by a combination of strong worker power and dominant management philosophies of the day.

Novel or not, the removal of internal labor markets has been difficult for workers in the US, as most of our social security system and labor laws were built around the idea

² However, as Kalleberg (2003) also discovered using data from the Second National Organizations Survey that between a third and half of organizations use elements of both numerical and functional flexibility. This is consistent with an earlier finding by Osterman (1994) that 35% of firms with 50 or more employees used two or more flexible firm practices.

of internal labor markets (Kalleberg et al., 2000), and the US system, unlike most other western countries, leaves much of the burden for healthcare and retirement benefits on the employer (Kohli, 1991). The move toward more flexible, less committed firms fragments the labor force along the core and periphery lines, creating in- and out-groups in industries (Kalleberg, 2003). As predicted by Atkinson (1984), the use of core and periphery workers makes something of a zero-sum game in the workplace; increasing pay, security, and benefits for one group often come at the expense of the other.

However, it should also be noted the opportunities of firm internal labor markets have generally not been extended to workers in low-wage jobs (Osterman, 2000). As mentioned earlier, segmented market theorists have argued that internal labor markets distinguish between primary and secondary labor markets. Those working in primary labor market have access to additional on-the-job training and career ladders, which subsequently give them access to higher wages, better benefits, and greater job security. Those in secondary labor markets are in jobs where there is little opportunity for advancement, or “dead-end” jobs (Doeringer & Piore, 1971; Gordon et al., 1982). Instead, low-wage workers generally work in low-skill, highly routinized jobs where there are few structural supports for helping workers advance into higher skilled, higher wage jobs. In the following section, I describe the new relationships between employers and employees that have emerged in the last two to three decades. However, for low-wage workers who had only limited access to structures such as internal labor markets, the “new” employment landscape may not differ substantially from the employment landscape they have always experienced.

The new employment landscape

As discussed above, beginning in the early 1980s, employers began to move away from the lifetime employment model. The changes in the last three decades that represent a break from this model include reductions in employment security, declines in internal development, and increases in the risks that employees must bear (Beck, 2000; Cappelli, 1999; Osterman, 2000). According to Capelli (1999), as part of the “New Deal” between employers and employees, employers no longer offer job security. A long-term relationship might develop, but it cannot be guaranteed. Further, an employee’s most important asset to an employer is his/her skills, but the company is no longer responsible for developing the employee’s skills. While many companies promise to support workers in developing skills (e.g., tuition remission programs), they do not provide firm-specific training that is directly tied to within-organization promotions. To summarize, employees have been told to develop other job options and always be prepared to be laid off. Employees are encouraged to think of themselves as independent contractors and direct their attention for career management outside of the organization to the market – where their long-term prospects lie.

For most of the past two decades, employers have benefitted from these new employment arrangements, while employees have lost. This is because slack labor markets allowed employers to push most of the costs of restructuring onto employees; when labor markets are slack and jobs are difficult to find, employees become more loyal to their employer and bear most of the costs of restructuring. However, when labor markets tighten, employee commitment falls and employers become more willing to make investments in their employees. In the healthcare sector, the focus of this study, we do see a tightening labor market due to increasing demand for healthcare services, which

I discuss in more detail below, and this explains in part why healthcare organizations are re-assuming some risk in training employees.³ Below I describe some of the problems that employers face in market-based employment relations when there is a tight labor market.

First, employers face the problem of retention (Cappelli, 1999; Osterman, 2000; Osterman, 2001). While some turnover can be beneficial to an organization (especially during a period of downsizing or shedding particular skills), employers suffer when they lose the ability to retain key skills. By eliminating many of the arrangements that encourage employee loyalty and commitment (such as internal labor markets), new employment relationships make it easier for them to leave. As employees look to the marketplace to build their careers, it can be difficult to both recruit and then retain employees with valuable skills.

Another problem that has been caused³ by new employment arrangements is the development of employee skills (Cappelli, 1999). Firms are motivated to invest in employee training when the value of the employee's increase in skills is greater than their increase in wages (G.S. Becker, 1962). However, when employees leave, employers lose their return on their investment. As discussed above, new employment relations have weakened internal arrangements for encouraging employee retention and loyalty; consequently, these trends make it difficult for organizations to justify investments in training even when they would be useful to the organization. Employees who have received training from one employer can be easily drawn to another employer willing to

³ The economic recession that began in late 2007 was in its early stages when I began my dissertation, and the data I draw on was collected when unemployment rates were much lower than today. The demand for workers in the healthcare sector has lessened as the economic recession has continued; however, the health care occupations remain some of the fastest growing occupations in the US

pay higher wages, hence leaving the initial employee without an opportunity to recoup their training costs. Other changes in organizations that have also led to a decline in employer-driven training include the flattening of organizations (e.g., fewer opportunities for gradual advancement) and the reduction of direct supervision (e.g., less opportunity for supervisors to provide on-the-job instruction).

The problems of worker retention and skills have led some employers to adopt policies and practices that assume risk for worker training and advancement, practices that are not unlike the firm internal labor markets of past generations. In the following section, I discuss the unique circumstances in the health care sector that may encourage employers to adopt practices that support low-wage worker training and advancement.

THE HEALTH CARE CONTEXT

The population that is the focus of the current study is low-wage workers in health care organizations, which are commonly referred to as “frontline workers.” There are approximately 12 million healthcare workers in the United States working in community and social service occupations, health care practitioner and technical occupations, and health care support occupations (Schindel, Solomon, Immartino, & Santimauro, 2006). The frontline workforce constitutes half of the total health and healthcare workforce, with more than 6 million workers in frontline occupations, and consists of a diverse set of occupations within various health services and health care delivery roles, including nursing assistants, respiratory therapy technicians, social and human service assistants, home health aides, mental health counselors, and medical transcriptionists.

The aging of the baby-boomer generation is expected to lead to increasing demands for health care services, and indeed, our health care costs have been increasing

steadily. Chernew, Hirth, and Cutler (2009) report that between 1999 and 2007, real per capita health care spending grew an average of 2.2 percentage points faster than GDP per year. As a result, the share of GDP consumed by health care spending rose from 13.7 percent in 1999 to 16.2 percent in 2007. Researchers predict that health care spending will consume 20 percent of GDP by 2015 (Borger et al., 2006). As a result of this increasing use of health care services, frontline healthcare occupations are some of the fastest growing occupations in the United States. Frontline positions included by the Bureau of Labor Statistics (BLS) in their list of the fastest growing occupations between 2008 and 2018 include home health aides, personal and home care aides, nursing aides, orderlies, and attendants, medical assistants, and licensed practical and licensed vocational nurses. Registered nurses, a mid-level health care occupation, are also expected to be one of the fastest growing occupations in the next decade (U.S. Department of Labor, 2010a; U.S. Department of Labor, 2010b).

Frontline workers compose a particularly vulnerable segment of the population. These jobs are heavily dominated by women; seventy-nine percent of the frontline workforce is female, and 32 percent are African American, Hispanic, or Asian (Schindel et al., 2006). The divisions within the field of nursing are such that today much of frontline work continues to be a specialty of women who are racial-ethnic minorities (Glenn, 1992). Many frontline workers are single mothers; twenty-eight percent of nursing assistants working in nursing homes are single mothers, as compared to fourteen percent of all female workers (Smith & Baughman, 2007).

Frontline health and healthcare jobs have many ‘bad job’ characteristics, such as low pay and few benefits. Frontline worker wages reflect the overall downward pressure

on real wages for low-wage workers. Using data from the Current Population Study, Mehaut, Berg, Grimshaw, and Jaehrling (2010) calculated that wages for hospital nurse aides remained unchanged between 2000 and 2006 at about \$11 per hour. However, wages for unionized hospital nurse aides declined substantially during the same time period, from \$14.04 to \$12.72, suggesting that better-paying nurse aide positions are being eliminated. Other healthcare sectors, such as long-term care settings, generally pay even less than acute care settings. For instance, despite the fact that most nursing assistants in nursing homes work nearly full-time average weekly hours, approximately 18 percent of nursing assistants in nursing homes live in households with earnings below the Federal poverty line, and 52 percent live in low-income households (incomes below 200 percent of the Federal poverty line) (Smith & Baughman, 2007). Approximately 40 percent of nursing assistants in nursing homes receive health insurance through their employers, and in most cases, the employer pays for part of the monthly premium. However, a substantial percentage (11.3%) of nursing assistants receive health insurance through Medicaid (Yamada, 2002).

Not surprisingly, pervasive problems in recruitment and retention of frontline workers are reported nationally. National estimates of turnover among nursing assistants in nursing homes, for example, are often near or above 100 percent (Donoghue, 2010). Hospitals generally pay higher wages than other healthcare sectors and tend to have less difficulty with recruitment and retention. However, Appelbaum, Berg, Frost, and Preuss (2003) reported that in the late 1990's and early 2000's, when unemployment rates were extremely low, even hospitals experienced turnover of frontline workers that approached 100 percent. At the same time, hospitals faced increasing cost pressures and, in many

cases, reduced the benefits given to low-wage workers. As the labor market tightened and competitors raised wages and benefits, hospitals began losing employees to other sectors, such as fast food restaurants and retail.

However, the low wages and few benefits associated with these jobs are not due to their intrinsically low skill levels; in some countries jobs in the frontline health care sector are well paid and employ highly skilled workers (Appelbaum & Schmitt, 2009). Appelbaum and Schmitt (2009) report that healthcare organizations in general and hospitals in particular across six developed countries included in a Russell Sage Foundation study are facing substantial cost pressures as a result of demographic changes and advances in medical technology. A strategy of U.S. hospitals has been to replace skilled nurses with nursing assistants, who usually only have six weeks of training, for tasks such as bathing patients and taking blood pressures. European hospitals, on the other hand, are more limited in their ability to replace more highly skilled workers with workers with lower skills (due to greater institutional protections), where a highly skilled workforce is a significant political and social issue. When health care organizations in European countries do employ nursing assistants, they generally have higher levels of training as compared to the U.S.; for example, a nursing assistant in Denmark is required to complete a 34 month training program. Consequently, nursing assistants in European countries are also less likely than in the U.S. to be low-wage workers (between 0 and 5 percent in the Netherlands, France, and Denmark as compared to 38 percent in the US).

In summary, frontline healthcare worker jobs are among the fastest growing occupations in the U.S. (U.S. Department of Labor, 2010a). Unfortunately, a large proportion of jobs in the frontline healthcare sector are “bad jobs” with low pay and few

medical, retirement, and other benefits. In addition, poor working conditions and minimal staffing create an overwhelmed workforce, fostering high turnover in many of these occupations. However, the low wages and few benefits associated with these jobs are not due to their intrinsically low skill levels, as shown in the cross-national research by Appelbaum and Schmitt (2009). The fact that these jobs are “bad” in the United States thus reflects both the labor market institutions that influence the way that these jobs have been designed (e.g., to minimize the skills involved, thereby keeping wages low) and the availability of vulnerable populations who are forced to take these kinds of jobs (such as women, minorities and immigrants).

Organization of Manuscript

The overall purpose of this manuscript is to fill a gap in knowledge about the career mobility of low-wage workers in healthcare organizations. To this end, I use a variety of data sources and analytical methods, from qualitative case studies to a longitudinal analysis of a nationally representative dataset, to look at mobility and the determinants of mobility from different angles. In Chapter 2, I explore the development of career ladders for low-wage workers in healthcare settings. While many scholars have noted a decline in the use of firm internal labor markets over the last three decades, some healthcare organizations are aiming to develop career ladders for low-wage workers. In Chapter 2, I explore why organizations in the healthcare sector are motivated to adopt the risks of training and advancement for workers while other organization have placed these risks on employees. I examine organizational practices and policies being used in the adoption of firm internal labor markets among the sample organizations.

In Chapter 3, I examine firm-level determinants of low-wage workers' perceptions of career mobility with their current employer. In other words, I ask what organizational policies and practices give low-wage workers the sense that they will be able to move into better jobs with their current employer. To address this question, I use both individual-level and organizational-level data collected from twenty-three healthcare organizations across the country. Looking at both formal policies held by organizations as well as individuals' perceptions the organization related to advancement, I use confirmatory factor analysis and structural equation modeling to examine determinants of perceived career opportunity.

In Chapter 4, I use the Survey of Income and Program Participation (SIPP) to examine wage growth and career mobility of low-wage workers in hospitals. Many scholars and policymakers have discussed hospitals as sources of potential "good" jobs for low-wage workers because of their relatively higher wages and opportunity for advancement. However, little is currently known about the mobility of low-wage workers in hospitals (most studies of the work experiences of low-wage workers in healthcare settings are of nursing assistants in nursing homes). In this study, I use latent growth curve modeling to explore wage growth as it relates to the occupation and education of low-wage workers.

Finally, in Chapter 5 I provide a summary of the findings in Chapters 2-4 and discuss potential policy implications related to the results. I also discuss directions for future research.

Chapter 2: Making 'Bad Jobs' Better: The Case of Frontline Healthcare Workers

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Frontline healthcare occupations play an essential role in both the quality of life experienced by workers and clients and the health of nations. Yet, these occupations are often poorly paid and provide few opportunities for advancement in the United States. The frontline workforce currently constitutes half of the total U.S. health care workforce, with more than 6 million workers, and consists of a diverse set of occupations within various health services and health care delivery roles, including nursing assistants, respiratory therapy technicians, social and human service assistants, home health aides, mental health counselors, and medical transcriptionists (Schindel et al., 2006). As the U.S. population ages, many frontline healthcare occupations are projected to be among the fastest growing occupations in the United States. Workforce development in the U.S. health care sector has traditionally focused on medical professionals and highly skilled health care workers, while frontline workers have largely been ignored, as these workers are presumed to be easily replaced due to the low skill levels required for these jobs. However, the increasing demand for frontline workers and concerns about quality of care have led to a growing interest in improving the skills and retention of this large group of workers.

In this chapter, we argue that employers have a choice as to how they organize work and that ‘bad jobs’ are not inevitable in the health care industry. We examine how 35 health care organizations in the U.S. are attempting to address these challenges by making ‘bad jobs’ into ‘better jobs’ through the development of firm internal labor markets (FILMs). These structures are characterized by employees moving up from the bottom ranks of the organization and working their way through a proliferation of job titles associated with the progressive development of skill and knowledge (Althausen &

Kalleberg, 1981). FILMs can provide advantages to both employers (who benefit from having a supply of workers with firm-specific knowledge and skills to fill vacant positions) and employees (who receive opportunities for upward career mobility). We identify strategies employers are using to develop firm internal labor markets and discuss their impact on improving job quality for frontline health care workers

Who are U.S. frontline health care workers and what is the quality of their jobs?

Frontline healthcare workers (FLWs) are those who offer a high level of direct patient care or care delivery support services. These occupations often have low thresholds of entry (typically a high school with little extra training) and low levels of compensation. Thus, these occupations have many ‘bad job’ characteristics, including low wages and few opportunities for advancement (Kalleberg et al., 2000). Some health care employers – particularly acute care hospitals - provide frontline health care workers with high quality, affordable employment benefits, though this certainly is not the case across all health care organizations: benefits are not always offered, and often when they are offered, workers cannot afford to pay the high premiums. Frontline healthcare jobs can also have heavy workloads and be very physically and emotionally demanding. Not surprisingly, there is high turnover in frontline positions for many health care employers.

Firm internal labor markets and the U.S. health care context

Some employers have simply accepted high turnover among frontline workers as a fact of business in the health care industry. However, as the labor market tightened for the workers in the early 2000s, some health care organizations began to invest in frontline healthcare workers through the development of FILMs for these low-wage workers. Indeed, there has been more activity in the development of career ladders for low-wage

workers in the health care sector than any other industry in the United States (Fitzgerald, 2006), due in large part to the intersection of the growing demand for workers and quality of care and cost concerns influenced largely by government-driven (e.g. Medicare and Medicaid) requirements. Health care organizations are consistently short on staff as a result of turnover, causing middle-class patients and their families to be increasingly dissatisfied with the quality of care being provided. Further, a growing percentage of overstressed frontline workers are represented by unions (currently about 20 percent, according to Mehaut et al., 2010). All of these groups – patients, families, payers and workers – are placing pressure on organizations to improve quality of care through the improvement of frontline healthcare jobs (Fitzgerald, 2006).

Health care organizations also face shortages of mid-level health care workers (i.e., nurses and allied health professionals), most notably in nursing. While shortages in the United States have temporarily lessened with the economic recession and rising wages for nurses, this reprieve may be short-lived (Rother & Lavizzo-Mourey, 2009). As the population ages, the need for therapeutic, diagnostic imaging and pharmacy services is increasing and driving the need for these mid-level professionals. Further, the nursing workforce is a much older than average, and though many nurses on the cusp of retirement have delayed retirement, it is likely that retirement will increase once the economic situation has improved. There has also been a decline in younger women choosing nursing as career. Consequently, future nursing shortages are likely to be much more severe unless there is a rapid increase in foreign-born RNs or in younger cohorts' interest in nursing as a career (Bureaus, Staiger, & Auerbach, 2003). Filling mid-level positions by training and promoting frontline health care workers offer the promise of

addressing this shortage. Such strategies may also have other benefits, including raising cultural competence for health care organizations with high racial/ethnic minority populations, increasing the quality of language translation to improve communication and increasing economic development for underserved and vulnerable communities through better jobs for community members.

In response to the shortage of mid-level health care occupations including nursing, many health care organizations have adopted ‘short-term’ responses, such as increasing salaries, using temporary staffing agencies, and adding sign-on bonuses. These responses, while somewhat effective, are expensive for health care organizations (May, Bazzoli, & Gerland, 2006). Training programs for frontline workers may provide a more sustainable solution for dealing with these shortages and loss of skills. Employees educated through these programs are believed to be more loyal to their employers and less likely to leave.

The reliance on ‘bad jobs’ in the U.S. health care sector

As in the broader economy, there has been a move towards the use of low-wage contingent labor in the health care sector. The U.S. has a higher rate of low-wage workers in health care with generally the lowest levels of training than other developed countries. For example, to control costs, U.S. hospitals have made greater use of nursing assistants and other low-skill workers to replace Registered Nurses (RNs), a practice that is less common in European hospitals. Further, nursing assistants in the U.S. generally have far less training than nursing assistants in other developed countries (e.g., 6-12 weeks of training in the U.S. as compared to 34 months of training in Denmark) (Appelbaum & Schmitt, 2009). Consequently, nursing assistants in European countries are also less

likely than in the U.S. to be low-wage workers (between 0 and 5 percent in the Netherlands, France, and Denmark as compared to 38 percent in the U.S.).

The examples from other developed countries suggest that frontline healthcare jobs are not inevitably ‘bad jobs.’ The fact that these jobs are ‘bad’ in the United States thus reflects both the labor market institutions that influence the way that these jobs have been designed (e.g., to minimize the skills involved, thereby keeping wages low) and the availability of vulnerable populations who are forced to take these kinds of jobs (such as women, minorities and immigrants).

The role of organizations in frontline worker career mobility

The problems of worker retention and skills have led some employers to adopt policies and practices in which they assume risk for worker training and advancement, practices that are not unlike the FILMs of past generations. While such career development efforts are not widespread in health care today (Méhaut et al., 2010), organizational policies and practices play an important role in who advances out of low-wage work, above and beyond the impact of national policies and norms. Health care is one of the few industries in the U.S. that successfully transitions workers out of low-wage work (Andersson et al., 2005). However, there is broad variation among health care organizations in frontline worker advancement. Indeed, Andersson, Holzer, and Lane (2005) found that only a small fraction of firms account for a significant amount of low-wage worker mobility in the health care sector. Although many health care organizations have the capacity to facilitate upward mobility for frontline workers, then, most do not.

U.S. health care organizations have the potential to be a source of ‘good jobs’ for low-wage, low-skill workers (Wolf-Powers & Nelson, 2010), though this promise is as

yet unrealized. The hierarchical nature of many health care organizations, hospitals in particular, may make them especially well-suited to the development of career ladders and advancement for low-wage workers. For example, the heavy emphasis on credentials in health care organizations means that often there are opportunities for frontline workers to move up within the organization without significant investment in college-level education. Another feature of hospitals is their 24-hour operation, which provides more opportunity for entry-level employees to advance into supervisory roles than do industries with an 8-hour day. Health care, unlike many economic sectors in the global economy, is not easily outsourced. This means that health care organizations are often a major source of employment for community members in underserved and vulnerable communities where other employers have disinvested. Consequently, health care employers in vulnerable and underserved areas are often the largest employer in the region and a strong partner in community economic development.

In summary, the anticipated growth in demand for health care services and concerns about quality of care, the stratified structure of many health care organizations, the precedents set in other countries and a handful of progressive U.S. firms all contribute to the health care sector is a setting where ‘bad jobs’ have the potential to get ‘better.’ In this paper, we seek to learn from innovative health care organizations what policies and practices seem to impact the creation of better jobs for workers.

METHODS

We studied 35 U.S. health care organizations, including acute care providers, community health centers, behavioral health centers, and long-term care organizations. Health care organizations included in the sample have received funding as part of a grant-

funded initiative to build partnerships with educational institutions to help them to implement educational and training programs aimed at frontline worker career advancement. Types of frontline workers that participated in these programs included direct care (e.g., nursing assistants), entry level (e.g., dietary, housekeeping) or administrative workers (e.g., unit clerks). Table 2.1 summarizes the types of organizations included in the sample, the educational and career outcomes, and the types of workers targeted.

For the content analysis, we draw on 467 semi-structured key informant interviews (e.g., administrators, middle managers, and HR personnel), 33 frontline worker focus groups, and 31 frontline supervisor focus groups. In interviews with administrators and managers, we gathered information about their motivations for implementing career ladders, the challenges they faced during the implementation process, and details about the programs developed. We also heard from frontline supervisors and frontline workers about working and staffing conditions, challenges that frontline workers face in moving up within the organization, and how they had experienced the career development program that had been implemented at their place of employment. Interviews were conducted with every grantee site each year of funding (for a total of three visits per grantee), and focus groups were conducted in the first and last year of funding.

We coded interview and focus group transcripts for themes using NVivo 8.0. Coders were trained to apply codes consistently. Each transcript was coded twice; discrepancies between codes were discussed until consensus was achieved. Primary level

thematic coding was completed to understand the breadth of policy and practice changes implemented to support frontline worker career advancement.

We also use data from a web-based survey that was administered to key informants at health care organizations and educational institutions that applied for funding through the workforce development initiative to better understand employer motivations for investing in FILMs for frontline health care workers. Because organizations applied for the grant as a partnership (i.e., an employer and an educational institution applied together for a single grant), a partnership response rate was calculated. A total of 147 partnerships out of the 204 who applied for a grant were represented in the sample, resulting in a response rate of 72%. Of the 147 organizations that responded to the survey, 66 were health care organizations (the other organizations were educational institutions or workforce intermediaries). The web-based survey instrument inquired about the opportunity for and specific types of training for frontline workers, employer motivations for investing in frontline workforce development, and past initiatives targeted to this group. We use the survey data to quantify the extent to which health care organizations are adopting internal labor market policies and practices and their motivations for doing so.

The health care organizations included in our sample may differ in some ways from the “typical” health care organization. In applying for a Jobs to Careers grant, these organizations demonstrated that the organization had a commitment to utilizing policies and practices to promote frontline worker advancement. Many proposals included examples of policies and programs in place to support frontline workers and evidence that needs assessments of frontline workers had been conducted. Thus, frontline health

care workers included in our sample work in health care settings that have shown an interest in “high-road” job redesign. Despite this selectivity of organizations, we have no reason to believe that the job characteristics of frontline workers in our sample differ substantially from the frontline workers in other health care organizations. Further, when identifying strategies to make ‘bad jobs’ better, it makes sense that we look to the practices of organizations who are developing innovative and novel programs and practices related to the development of FILMs. An examination of these types of organizations allows U.S. to better understand what is possible rather than what is typical.

FINDINGS

Organizational motivations to create ‘better’ frontline health care jobs

Health care administrators are motivated to improve frontline worker jobs for several reasons, which we elaborate below. Table 2.2 summarizes motivations for survey respondents from the web survey of proposal applicants (hereafter referred to as survey respondents).

Quality Improvement. Health care administrators are primarily motivated to improve frontline workers jobs in order to enhance the quality of care, although how such programs would improve quality of care varied between organizations. Indeed, 95 percent of survey respondents cited improvement in quality of care as the major motivation for doing so, and this was also a major theme in interviews with health care administrators. In general, strategies for improving quality of care focused on two areas: 1) worker skills and 2) worker recruitment and retention.

Three quarters of the survey respondents were motivated to develop career ladders for frontline workers in order to improve employee skills. Health care

administrators were focused on improving a range of skills, from medical terminology and clinical skills to translation and customer service skills. One behavioral health organization had focused their frontline worker training on teaching workers to de-escalate situations of conflict and prevent adverse events between workers and patients. The development of internal labor markets improves workers' skills so that they can move into new, more skilled positions, a fact that was not lost on many supervisors who were reluctant to lose their best workers. However, administrators recognized that in training workers to move up within the organization, frontline workers would bring their new skills back to their current jobs while they were being trained, thus improving the overall skill set of the frontline workforce.

Administrators were also eager to improve worker retention and fill worker shortages. They hoped that the development of an internal labor market would offset costs currently spent in recruitment of higher-level health care professionals, while reducing turnover and improving recruitment in lower level positions because career opportunities will now exist for these positions. This approach included both an understanding that there were upcoming needs that would not be adequately addressed by current recruitment strategies, particularly in rural and underserved areas of the U.S., and, in some cases, a focus on increasing diversity in higher-level positions by promoting frontline staff. Administrators also hoped that workers who advanced within the company would have a higher degree of cultural competence because they would be more familiar with the organization and clientele. In many cases, frontline workers were of the same minority population served by the organization, while mid-level and upper-level staff were not. Consequently, helping frontline workers move up within the organizations

would also increase the representation of minority groups in higher levels of the organization.

Increasing revenue. Most administrators discussed how generally improving employee morale and quality of care is “good for business.” However, some organizations had explicit goals to increase revenue through the development of frontline worker career ladders (35 percent of survey respondents). For example, one organization’s outpatient counseling department was losing money due to a lack of certified clinical workers. They developed a career ladder for frontline workers to become certified clinical workers that enables the organization to bill directly for these workers’ time, making their services more profitable.

Concern for workers. Some health care administrators were motivated to improve frontline jobs because they felt like it was the “right thing to do” for workers in these positions (41 percent of survey respondents). Several administrators mentioned that since their organizations had development programs for mid- and upper-level employees, addressing the frontline workforce seemed like a logical extension of their other efforts. Community health and behavioral health centers were particularly concerned about the well-being of their workers and saw it as part of their service to their communities to help their frontline workers achieve upward mobility.

Innovative practices in promoting frontline health care worker career advancement

Developing FILMs for frontline workers within health care organizations is a complex process that involves the cooperation and effort of many actors. Organizations in our sample of 35 health care employers used a variety of strategies to build career ladders, though many of these practices presented a variety of challenges. We begin by

focusing on partnerships between health care organizations and educational institutions, followed by strategies used at the organizational level.

Partnering with an educational institution

Education institutions, usually community colleges, or training organizations such as union-based or independent training providers can provide essential services for low-wage workers' career advancement, particularly in the health care sector, including: the provision of standardized credentials, credit for prior learning, and the delivery of remedial education. Consequently, partnering with an educational or training institution is an important component in building FILMs for frontline workers.

Standardized credentials. The standardization of positions within the health care industry often requires that employees earn industry-approved credentials to practice within a health care setting (e.g., a statewide nurse aide certification). Most mid-level positions require specific training and certification, including patient care technicians, respiratory therapy technicians, and pharmacy aides. Because of the strict educational requirements for job positions, many of which are mandated by state and federal regulations, health care organizations do not have the freedom to promote workers without the necessary training and certification. For example, a supervisor cannot always promote frontline workers because they do not have the necessary certification to move to the next level, despite an individual's hard work and job skills.

Consequently, the development of a strong internal labor market for frontline workers within the health care sector requires that health care organizations partner with an education institution – typically a community college - that can provide workers with meaningful credentials. Unlike firm internal labor markets of the past, which primarily

provide workers with firm-specific training, internal labor markets within health care organizations often necessitate training in both firm-specific *and* industry-specific skills.

Credit for prior learning. Because the next meaningful promotion for many of the frontline workers in the organizations would require additional education, employers included in our sample attempted to develop credit for prior learning strategies with their partnering community college as a means of advancing workers into these positions more quickly. Credit for prior learning policies are designed to give college credit for activities or classes taken outside the normal college routine. This may include classes taken outside of traditional educational institutions, on-the-job training or simply experience at work. Credit for prior learning policies translate these experiences into academic credit, which can apply toward a college degree and cut down significantly on the time and cost of getting a degree.

Remedial education. Organizations became keenly aware of the lack of educational readiness among many frontline workers through the process of implementing FILMs and engaged in practices that facilitated the success of their programs in the face of these obstacles. For example, most sites offered a range of remediation assessment and education including standardized assessment tools (e.g., WorkKeys, COMPASS, Key Train), tutoring, remedial continuing education through employer organization, and full-scale remedial coursework with the educational partner. Job / career coaches who help frontline workers navigate the educational system and develop career goals and paths were also a feature of many partnerships. A few sites went beyond testing and remedial coursework to address students' fears and inexperience surrounding formal education and the learning process by providing individualized

coaching aimed at reducing anxiety and increasing/maintaining motivation. A few partnerships have formalized this process by designating a person on staff who teaches workers how to be students, engages students, and advocates for them as they navigate the requirements of the employer and the educational institution.

While a strong partnership with an educational institution is needed to build internal labor markets, organizational changes are also needed to support low-wage workers.

Changes in Organizational Policies and Practices

Organizations support career advancement and “better jobs” for frontline workers through changes in three key areas: human resource policies, organizational culture and management practices, and work processes.

Human Resource (HR) policies. HR policies enabled systemic changes within organizations by formalizing components of the Jobs to Careers program and relationships with educational institutions. Policies outlining tuition assistance, competency-based raises and promotions, educational release time, and formal mentor positions were often revised to support career advancement for frontline workers. Approximately three quarters of employers in our sample offer some tuition reimbursement policies, but most of these policies are either not accessible or not taken up by frontline workers. Working directly with educational institutions to cover the costs of tuition so that frontline workers do not have initial out-of-pocket tuition costs can effectively remove the financial barrier for frontline workers. For most organizations, tuition policies were originally designed to cover coursework that leads to a formal degree. Employers found that low wage workers were in need of tuition support for non-

degree or continuing education coursework that addressed basic skills, college readiness or certificate programs.

Employers in our sample also developed career maps outlining specific competencies for jobs across the organization which provided not only clarity for workers trying to get ahead but clear rubrics for assessing workers as they gain skills to qualify them for better jobs. Particularly in large health systems, promotion opportunities may not be clear or transparent to frontline workers. The heavy emphasis on credentials in health care organizations means that often there are opportunities for frontline workers to move up within the organization without significant investment in college-level education. However, pathways up the career ladder may not be readily apparent to a housekeeper or a nurse aide working in a vast health system. One way to encourage transparency within organizations is to use competency-based job descriptions attached to career ladders or lattices so it is clear to workers what skills they need to obtain in order to fill a position.

Organizations in the sample also created educational release time policies to allow frontline workers to attend classes, work with preceptors and do homework on work time. While these practices are common mid- and upper-level health care careers, they are not common for frontline workers. One organization took educational release time to the next level by creating formal training positions that allowed frontline workers to engage in training and receive mentorship on-the-job. Alternatively, some organizations had formal HR policies that allowed workers to receive employment benefits when working less than full-time, allowing them to reduce the number of hours they were working to

accommodate class or clinical rotations. Table 2.3 includes a list of HR policies being utilized by organizations to support frontline worker development and advancement.

Table 2.4 shows the extent to which survey respondents had utilized many of these HR policies and practices. About two-thirds of health care organizations had provided career coaching, on-site classes, and tuition reimbursement or remission for frontline workers. Much smaller percentages had adopted clear career ladders for frontline workers that specified skill and educational requirements for positions with the organizations (32 percent) or college credit for prior experience or work-related training (14 percent).

Organizational culture/management practices. Organizational culture refers to a collection of values and norms that are shared by people and groups within an organization. Management practices influence organizational cultures by setting the tone and instantiating the practices that reflect the values and shared norms in an organization. A strong record of developing workers across levels appears to facilitate organizational support for expanding the development of opportunities down the hierarchy. For example, one organization had a history of career development programs and a culture of advancement and promotion, which was exemplified by a CEO who was very proud of the fact that he worked his way up through the ranks from frontline staff to his current position. The hospital had implemented a series of pipeline programs (including part-time, largely on-site LPN programs, LPN-RN bridge programs, Associates and RN to BSN programs for incumbent workers) and frontline workers were a logical next group to emphasize.

Supervisor practices and relationships with frontline staff are important components of organizational culture, as supervisors carry out management practices. In one organization, frontline supervisors were keenly aware of the barriers facing the individuals that they supervise and were supportive of career ladders for their frontline workers. Many supervisors and administrators had climbed career ladders themselves, and they had empathy for employees who are trying to advance their careers. They actively encouraged their employees to pursue additional education and allowed them to take time off the floor to attend classes, and workers affirmed that they felt that their supervisors were trying to help them advance their careers. However, in many organizations supervisors expressed that they wanted to be helpful but had not really been educated in the ways that they could support frontline workers.

Work process. The organization and process of work also needs to accommodate education, training and career advancement at work. First and foremost, work must be organized in a way that enables workers to make a steady progression up a career ladder as they obtain additional skills. This might involve setting aside time to allow on-the-job training by supervisors and encouraging workers to share learning in a way that reinforces the learning for the entire group. Another example would be a more explicit inclusion of the frontline worker into the work team. This change in work process could mean including the frontline worker into the care planning team so as to improve their access to learning opportunities and minimize separateness between supervisors and frontline workers.

Organizations in our sample have developed concrete ways in which to support education and training programs and frontline worker career advancement. These policies

and practices serve both to tangibly support these initiatives but also contribute to making ‘bad jobs’ better by addressing key areas of low job quality.

DISCUSSION

The introduction of FILMs is a departure for many U.S. health care organizations, where frontline workers have long experienced jobs characterized by low wages, limited benefits, heavy workloads and few possibilities of career advancement. While FILMs benefit workers by increasing individuals’ chances of upward mobility, these structures may also offer health care employers a way to increase commitment and retention of frontline workers and solve mid-level worker shortages. An important benefit of firm internal labor markets may also be improvement in job performance (and therefore quality of care) from increased acquisition of education and training, strengthening of organizational learning culture and increased engagement or commitment of the workers.

Developing FILMs for low-wage workers is not without challenges. Communication and coordination between educational institutions and employers are vital for program development, but these organizations have different cultures, norms, and bureaucracies that can make negotiation difficult. For example, educational administrators frequently complained that the bureaucracy within health care organizations and the rigid schedules of workers made timely and efficient implementation of classes and training difficult. Many key informants also reported difficulties in negotiating alternative training methods, such as work-based methods, with educational partners. College administrators and faculty were often reluctant to approve alternative training methods because of a lack of staff resources, concerns about academic rigor, or lack of protocol. Health care organizations have also struggled to

comply with state Board of Nursing requirements or other licensing bodies while also trying to incorporate less traditional teaching methods, such as using online courses or on-site training. These challenges point to the corresponding change that needs to take place within the educational sector for internal labor markets to be successful within health care organizations.

Health care organizations and educational institution partnerships in our sample were most successful in overcoming these obstacles when they built relationships in ways that were mutually beneficial for both partners. An example of such an arrangement is sharing employees as faculty. Community colleges are often in need of nursing faculty (due to, in part, to lower levels of pay as compared to clinical work), while health care organizations benefit from having on-site clinical faculty for their students. Sharing space is also a mutually beneficial arrangement. One community health center in our sample allowed its on-site training center to be used as a satellite campus for a community college; the community college benefitted from being able to offer classes in an underserved community, and the community health center benefitted from being able to offer its employees on-site for-credit instruction through the community college.

Another key component in creating successful internal labor markets is educating frontline worker supervisors about the role that they play in helping low-wage workers advance their careers. In health care organizations, supervisors typically have training in their clinical area but not necessarily in supervisory skills. However, many mid-level clinicians across healthcare sectors have significant supervisory responsibility. For example, in assisted living it is common that one Registered Nurse (RN) has supervisory responsibility for all the nursing staff in the entire building. RNs also make up a large

proportion of the management structures in hospitals, community health centers and behavioral health clinics. Despite this fact, RNs – and other healthcare managers- are not often supported in this capacity with education (in school or in continuing education) in supervisory skills such as coaching, performance review, career counseling or providing constructive feedback.

Finally, health care employers in our sample were most successful when adequate support was provided for low-wage workers. Strategies included case management, coaching, basic skills training, technology training, and addressing time, logistical and financial constraints. Across our sample, the availability of learning on-site at the employer at least partially during work time was critical to overcoming real and perceived barriers to educational advancement. Workers reported being more comfortable with classes taught on-site, particularly where instructors were known to them through work. The arrangements also eased logistical burdens such as transportation and childcare arrangements.

Population aging in combination with the U.S. Healthcare reform (Affordable Care Act 2010), which may add 34 million insured patients, will strain the capacity and resources of health care organizations. Given these circumstances, are ‘bad jobs’ inevitable in the U.S. health care system? using low-wage workers is a very common tactic bring down rising health care costs and is widespread among U.S. health care organizations (Appelbaum, Berg, Frost, & Preuss, 2003; Méhaut et al., 2010). However, as other researchers have noted, the health care sector has the potential to turn many low-wage ‘bad jobs’ into better jobs by making them a stepping stone to jobs with better compensation and prestige (Pindus, Flynn, & Nightingale, 1995). As discussed earlier,

frontline workers compose half of the health care workforce in the U.S. and have a high level of interaction with patients; consequently, health care employers are becoming increasingly aware of how important their frontline workforce is in relation to client satisfaction and productivity, creating an impetus for frontline workforce development. Firm internal labor markets have the potential to both address the skill and staffing needs of employers and create better jobs for frontline healthcare workers.

Table 2.1. Overview of organizations, programs, and workers.

	Region	Type of health care organization	Job Title(s) of Participants	Targeted Educational Outcomes	Targeted Job Position Outcomes	Rewards for Completion
1	Northeast	Behavioral health	Resident Assistants, Mental Health Technicians, Mental Health Tech Supervisor, Therapist Assistant, Shift Supervisor, Facility Manager	<ul style="list-style-type: none"> • Behavior Health Technician Certificate • 21 Credits towards Behavior Health Tech Certification at four-year university 	Behavioral Health Technician	\$100 gift card, job enrichment
2	West	Health care system	Frontline workers from Nursing, Lab, and Imaging departments	Certificate in Health care Informatics	Health care Informatics Position	Salary Increase
3	South	Health care systems	Clinical Assistant/Patient Care Technicians	<ul style="list-style-type: none"> • Continuing Education Credit • 2 hours of college credit 	Clinical Technician	Job enrichment
4	Northeast	Health care systems	Dietary Aides, Transportation workers, Environmental Services workers	Certified Nursing Assistant training, Patient Care Technician certification	CNA, Patient Care Technicians	Promotion into CNA and Patient Care Technician jobs
5	South	Community health centers	Health Tech	One non-degree elective credit	Health Technician, Community Health / Health Promotion Worker	Promotion -Integrated into performance review system
6	Midwest	Health care system	Hospital-wide involvement	Associate Degree Nurse	Registered Nurse	Promotion to nurse
7	West	Long-term care	Resident Assistant, Service partner	Industry recognized credential	---	Job enrichment
8	Pacific	Community health center	Medical Assistants, Receptionists	3 Credit hours for each course completed	---	Salary increase
9	Northeast	Behavioral health	Human Service Workers, Substance Abuse Specialists	<ul style="list-style-type: none"> • 15 hours college credit for training through technical program • 4 hours college 	Certified Addictions Counselor	Job enrichment, Salary Increase

	Region	Type of health care organization	Job Title(s) of Participants	Targeted Educational Outcomes	Targeted Job Position Outcomes	Rewards for Completion
				credit through community college		
10	Northeast	Long-term care	Certified Nurse Assistants	CNA Clinical Specialty Certificate	CNA (Progress through tiers I,II, and II)	Salary increase tied to tier advancement
11	Northeast	Community health center	ESP Aides, Medical Assistants, Clerical Associates	<ul style="list-style-type: none"> • Internal certification • 3 college credits 	Certified Auxiliary Interpreters	Job enrichment, Stipend
12	Midwest	Health care system	Environmental Services, Nutrition	Certified Health Unit Coordinator	Health care Associate Unit Clerk	Promotion
13	South	Health care system	Nursing Assistants, Dietary Aides, Transporters, Housekeepers	Internal certification	Unit Clerk	Promotion 5-6% Raise
14	West	Behavioral Health	FLWs in the community health department	Community Health Worker Certificate	Community Health Worker	Job enrichment
15	West	Behavioral Health	Village Based Counselors	Behavioral Health Aide Level I, College credits	Behavioral Health Aide	Job enrichment, salary increase
16	West	Health system	Clinical Service Representatives, Non-clinical entry level positions	Medical Assistant Certification	Certified Medical Assistant	Promotion
17	Northeast	Community health center	Medical Assistants, Patient Service Representatives	Medical Administrative Assistant in the Health Field Certificate	---	Job Enrichment, \$1,000 Raise

Source: *Jobs to Careers National Evaluation*

Table 2.2. Motivating factors for employer organizations to invest in FILMs.

Motivation	A major motivator
Quality of patient/client care will be improved	94%
The skills and performance of FLWs will be improved	78%
Turnover rates will be reduced	73%
Improve work environment for FLW	73%
Recruitment of FLWs will be improved	59%
Meet community needs for career opportunities	55%
Absenteeism will be reduced	53%
Shortages of mid-level staff will be reduced	50%
FLWs deserve better wages	41%
Help address certification/standards requirements	39%
Help increase revenues	35%

Source: *Jobs to Careers Proposal Applicants Web Survey*, n=66

Table 2.3. Selected HR policies that support career developing and training for frontline workers.

Policy	Description
Case management services for FLWs	Providing FLWs with access to a case manager that can help them with access to resources, such as childcare, transportation, or health care.
Competency-based pay raise	Pay raises upon documentation of having learned a competency or set of competencies.
Competency-based promotion	Promotion upon documentation of having learned a competency or set of competencies.
Educational release time	Providing paid time-off for workers to attend classes, participate in WBL activities, or study.
Employment benefits for part-time workers	Allowing workers to maintain their employment benefits while working part-time. Enables employees to temporarily reduce their hours to accommodate classes or clinical training.
Formalized mentoring positions	Designating mentoring as a job responsibility and formally including it in a job description; sometimes includes additional compensation for increased responsibility.
In-house credentialing	On-site training that leads to additional credentials for participants.
Promotion from within	Hiring current employees for jobs that advance their careers; often includes specific policies regarding how long a job will be posted within the organization before it is posted outside the organization.

Replacement staff for educational release time	Providing either a 1) pool of workers or 2) additional funds to hire temporary or agency workers to cover scheduling gaps that result from educational release time.
Skills assessment for new FLWs	Administering tests of basic skills to all FLWs to determine their training and remediation needs.
Tuition advancement	Providing FLWs with funds for tuition at the beginning of a course (rather than the end) so that FLWs do not have to pay tuition costs up-front.
Tuition reimbursement on a sliding scale	Providing additional funds for FLWs for higher education as compared to other job categories with higher wages.
Tuition remission	Arranging for educational institutions to bill employer organizations directly so that FLWs do not have to pay tuition costs up-front.

Source: *Jobs to Careers National Evaluation*

Table 2.4. Benefits achieved for frontline workers as a result of previous initiatives.

Component	% Yes
Career coaching	68%
Classes delivered at the employer site	68%
Tuition reimbursement or remission from employers	62%
On-the-job learning that is tied to achieving additional work-related competencies	54%
Development of basic skills (e.g., ESL or GED)	54%
Career maps articulating competency and educational requirements for positions within the organization	32%
Mentor-based training	32%
Credit for prior experience or work-related training (e.g., college credit for completing training)	14%
Other	11%

Source: *Jobs to Careers Proposal Applicants Web Survey*, n=66

Chapter 3:

Perceived Career Opportunity among Low-Wage Workers in Healthcare Organizations

INTRODUCTION

As the U.S. population ages and demand for health care continues to rise, health care organizations are increasingly relying on low-wage, low-skill workers, referred to as frontline workers, to meet basic service demands and expand primary care services while controlling costs (Appelbaum & Schmitt, 2009). Frontline healthcare workers, ranging from nursing assistants and patient care technicians to mental health counselors and respiratory therapy technicians, comprise over fifty percent of the healthcare workforce and provide a wide range of direct patient care and supportive services across healthcare settings (Schindel et al., 2006). Traditionally, health care organizations have been reluctant to invest in frontline healthcare workers because the low threshold to entry means these workers can be easily replaced (Lepak & Snell, 2002). However, as the demand for frontline worker skills increases, some health care organizations have turned to high performance work practices (HPWP) and work redesign strategies to recruit and retain skilled workers and improve service quality without raising costs (Aiken et al., 2001; Appelbaum, Bernhardt, & Murnane, 2003; Hyde, Harris, Boaden, & Cortvriend, 2009).

Most research on the outcomes of high performance work practices has focused on organizational performance from a managerial perspective (e.g., B.E. Becker and Huselid (1998)) or changes in workers' experiences in their current jobs, measuring the impact of HR policies and practices on job satisfaction or job stress (Appelbaum et al., 2000; Appelbaum, Bailey, Berg, & Kalleberg, 2000; Kashefi, 2009; Vidal, 2007). In this study, I aim to extend knowledge of the impact of HPWP by examining the impact of a variety of management policies and practices on individuals' perceived career

opportunity. As with most low-wage workers, we see limited upward mobility among frontline healthcare workers. While many healthcare organizations have a hierarchy of jobs that allow for upward mobility, the training and education often needed to acquire these positions, even if relatively minimal, can be a barrier for low-wage workers. However, previous research has shown that firms can strongly influence who advances in the low-wage labor market (Andersson et al., 2005).

Using survey data from individuals nested within organizations, I explore the effects of firm-level policies and practices on individual perceptions of career opportunity. All organizations included in this study are attempting to take a “high road” approach to their frontline staff by adopting management policies and practices that encourage low-wage worker skill development and advancement. However, there is substantial variety in policies adopted by the employers in this study, as well as variation in compensation for low-wage workers, opportunities for advancement, and local economic conditions. This study explores the differential impact of human resource policies, other organizational characteristics, and individual perceptions of organizational support on low-wage workers’ sense of mobility.

BACKGROUND AND SIGNIFICANCE

Human Resource Management and Frontline Worker Jobs

Organizations utilizing human performance work practices (HPWP) aim to increase worker satisfaction and improve organizational performance through investment in human capital (Burke & Cooper, 2006; Pfeffer, 1996). HPWP policies and practices are typically implemented as “bundles” of synergistic policies and practices that emphasize worker training, socialization, and rewards such as performance-based

incentives, job rotation or multi-skilling, team-building, and participative decision-making (Appelbaum et al., 2000; Sullivan, 2004). Many HPWP policies and practices are not particularly new (Godard & Delaney, 1999), but recent research has suggested that they have become more widespread (Osterman, 2000). HPWP was initially implemented and studied in the manufacturing sector, but such practices are now much more widely used in the service sector (Harley, Allen, & Sargent, 2007; Hyde et al., 2009; Preuess, 2002), although the form in which the policies are implemented in the service sector may differ from manufacturing settings (Kalleberg, Marsden, Reynolds, & Knoke, 2006).

An example of a common use of HPWP in health care is combining job tasks from a variety of jobs into one position (such as housekeeping, food service, and patient care) that would focus on a smaller number of patients so that workers would have a greater degree of diversity in their day-to-day job tasks and a greater sense of ownership in their jobs. In other words, healthcare organizations design jobs that are challenging and interesting, and they try to reward work with higher wages and greater job security (Appelbaum, Bernhardt et al., 2003; Harley et al., 2007).

Another important component of HPWP in health care is redesigning the relationship between workers and supervisors. Many organizations that implement HPWP aim to provide non-supervisory employees with a greater sense of autonomy. Often, this entails allowing employees to have more input into their job tasks and the overall structure of the workplace, thus shifting some authority traditionally held by supervisors to employees. In health care, this often takes the form of allowing frontline workers to serve on care plan committees or having some form of self-scheduling.

Garman and colleagues (2011) recently published a conceptual model based on prior research on high performance work practices in health care with consideration of research done in other industries.⁴ They identify four subsystems within high performance work systems in healthcare organizations, including: 1) engaging staff (e.g., employee involvement in decision-making), 2) aligning leaders (e.g., leadership training), 3) acquiring and developing talent (e.g., extensive training career development), and 4) developing the frontline (e.g., utilizing teams). The study I present in this chapter focuses primarily on HR policies and management practices related to developing talent -- and specifically career development. Garman and colleagues define career development within HPWP as extending beyond training to focus on identifying career opportunities/pathways for current employees as well as providing them support to pursue them (Garman, McAlearney, Harrison, Song, & McHugh, 2011; McAlearney et al., 2011). Career development practices may include an emphasis on internal labor pools for filling open positions.

The conceptual model by Garman et al. (2011) shows that the four subsystems within HPWP work together to contribute to positive employee-level outcomes, such as higher retention, higher engagement, and higher general well-being. However, there is debate about the impact of HPWP on worker outcomes, which I discuss below.

HPWP and Worker Outcomes

Much of the literature on HPWP in the health care sector adopts a more ‘mainstream’ approach and posits that HPWP will have uniformly positive results for

⁴ While Garmon et al. (2011) review 118 articles total for their study, only 10 articles focus specifically on HPWP in healthcare settings, most of which focus on organizational outcomes, rather than worker outcomes. This shows how little research has been done on HPWP in the healthcare sector, particularly among frontline workers.

both workers (in terms of job satisfaction) and the organization (in terms of worker performance). In other words, HPWP can create a ‘win-win’ situation for workers and organization. Alternatively, a ‘labor process theory’ approach posits that such shifting of responsibility is also always accompanied by work intensification, which then leads to increased job stress and heavier workloads (Harley, 2001; Harley et al., 2007; Ramsay, Scholarios, & Harley, 2000). Consequently, workers may become less satisfied in their jobs and performance may suffer.

Evidence has been found to support both theoretical positions. For example, a previous study of HPWP and low-wage healthcare workers found that high performance work practices were associated with increased job satisfaction among hospital nursing assistants (Appelbaum, Bernhardt et al., 2003). HPWP has also been associated with positive outcomes for both higher and lower-skilled employees in long-term care organizations in Australia (Harley et al., 2007).⁵ On the other hand, Berg and Frost (2005) found that while job up-skilling and job broadening were associated with higher wages for low-wage hospital workers, these characteristics did not deliver more intrinsically rewarding jobs or feelings of fair treatment by employers. They note that many of the work redesign efforts around up-skilling low-wage positions were specifically directed at being able to reduce staff numbers by increasing individual workloads. Consequently, workers in these jobs reported inadequate staff and resources and heavy workloads.

⁵ While my study is primarily concerned with worker outcomes, it should be noted that HPWP has also been associated with improved patient outcomes and higher quality care (West et al, 2002; West et al., 2006; Hyde et al., 2009; Bartram, Stanton, & Leggat, 2007).

Career ladders for frontline healthcare workers

While some organizations have used HPWP to redesign frontline worker jobs (Appelbaum, Bernhardt et al., 2003; Harley et al., 2007), some organizations are using HPWP policies and practices to try to build career ladders for these workers. Again, organizations are using HPWP and career ladders to induce employee commitment, improve employee skills, and improve overall job satisfaction and performance. Career ladder strategies aim to not just re-design jobs but to devise explicit pathways of occupational attainment (Fitzgerald, 2006). In the best cases, career ladder programs clarify for workers what training or education is required to move to the next occupational level, and they provide workers with support services and financial assistance needed to complete the training.

The question is whether HPWP policies and career ladders help low-wage workers advance. While upward earnings mobility among low-wage workers is generally low (Gottschalk, 1997; Osterman, 2000), there is evidence that organizations make a substantial difference in helping workers escape low wages. In their book *Moving On, Moving Up*, Andersson, Holzer, and Lane (2005) give special attention to healthcare workers and their employers, stating that healthcare organizations are “both an important employer of low-wage workers and one of the few industries that successfully transition workers out of low-wage work” (Andersson et al. 2005, p.106). However, Andersson et al. show that there is large degree of variation among firms in the healthcare sector, and only a small fraction of firms account for a significant percent of escapes for low wages. For example, the authors state that in Florida, twenty firms (out of 6,000 that hire healthcare workers) account for 10 percent of escapes from low-wages. Andersson and

colleagues are not able to specify the mechanisms by which some firms are able to help low-wage workers improve their earnings and career prospects, but we know that whatever these firms are doing makes a difference in low-wage worker mobility. My study is an attempt to better understand the mechanisms that contribute to the variation in frontline worker mobility between firms (recognizing, of course, that I am examining perceived career opportunity, not actual mobility).

There is evidence that providing training and education for workers improves both their job experience and job prospects. A recent study of low-wage hospital workers by Berg and Frost (2005) found that formal training and education is an important component of workers' perceptions of dignity on the job. Workers who had access to formal training, which indicates if the worker received any classroom-based training in the past year, saw their jobs as more intrinsically satisfying and their employers were perceived as treating them more fairly. In addition, Berg and Frost (2005) found that formal training was strongly associated with higher wages, even after controlling for work redesign and union representation. In sum, formal training appears to be a way of accessing more interesting jobs and higher wages.

Summary

Previous research has shown that firms play an important role in low-wage worker mobility (Andersson et al., 2005; Appelbaum, Bernhardt et al., 2003; Appelbaum & Schmitt, 2009; Osterman, 2001). This study aims to better understand specific firm level practices and policies that contribute to low-wage worker mobility while also controlling for individual and economic characteristics. I provide a simple illustration of the measures included in the study in Figure 3.1. Specific measures are explained in the

measurement section below. I expect that measures of perceived organizational support, including support for education and training and financial rewards, will be positively related to perceived career opportunity.

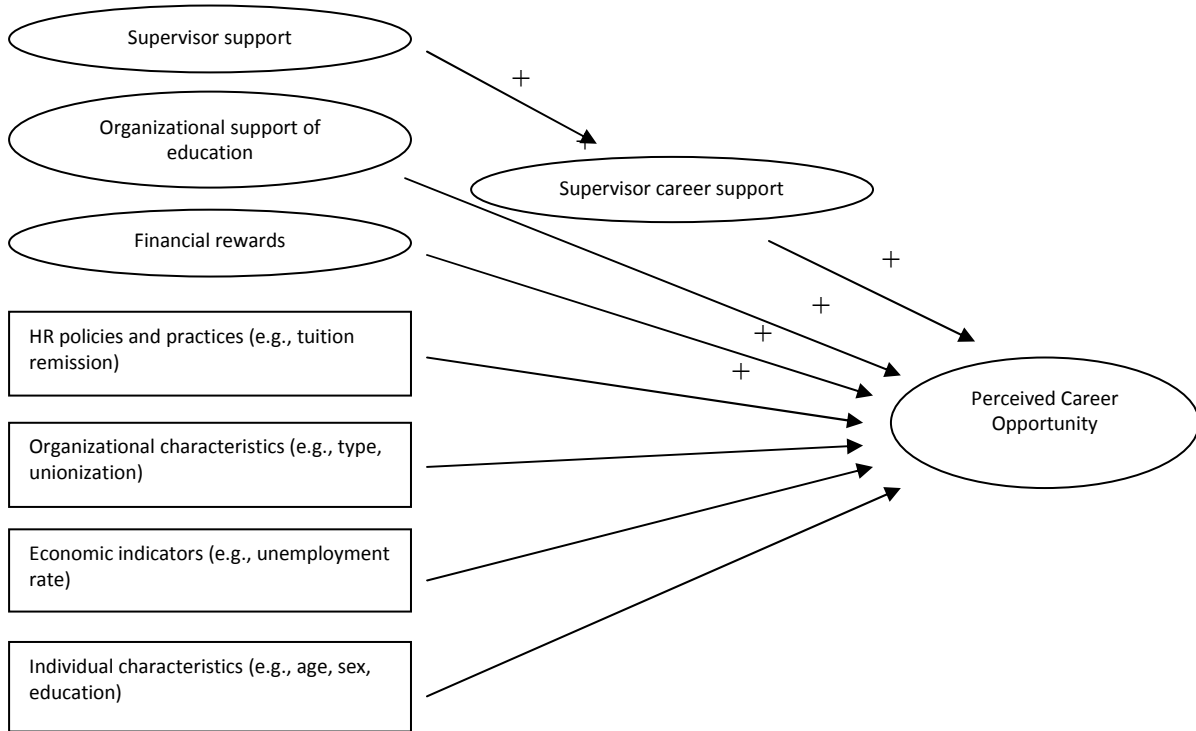
Organizational representatives such as HR personnel, middle managers and direct supervisors act as gatekeepers for organizational policies and practices (Bowen & Ostroff, 2004; Turnley & Feldman, 1999). In the case of career ladders, they can determine who is able to participate in a class onsite or whether they will provide time off to attend a training session. More indirectly, a supervisor may simply encourage employees to consider other positions (thus shaping their expectations), make employees aware of HR policies that encourage career development, or write a recommendation. Consequently, I expect that supervisor support for career development will mediate the relationship between general supervisor support and perceived career opportunity. Supervisors who provide general support for frontline workers will also be more likely to provide career support and guidance.

I expect that HR policies related to career advancement, including explicit career ladders for low-wage workers, educational release time (e.g., providing paid time off for class or studying), and tuition remission will be positively related to perceived career opportunity. It is also likely that the structure of the organization also impacts perceived career opportunity; I expect that workers in larger and more complex organizations with unionized frontline workers will have higher perceived career opportunity (e.g., workers in hospitals or health systems as compared to long-term organizations). It is also likely that economic conditions influence perceived career opportunity. Individuals living in areas of high unemployment will likely have lower perceived career opportunity

(although Wolf-Powers and Nelson (2010) do argue that in many cases hospitals or other healthcare organizations are the major employer in an otherwise depressed area, suggesting that workers in such an environment may perceive that their future holds a lot of promise).

Finally, I expect that some individual characteristics are related to perceived career opportunity. For example, I expect that older workers will have lower perceived career opportunity, as they have less time to move upward, and minority workers may have lower perceived career opportunity as well. In many healthcare organizations, white women, and often white men, serve in administrative and supervisor roles, while the tasks of caregiving – or the “dirty work” – are performed by minority women (Glenn, 1992). A lack of diversity in the upper levels of organizations may discourage workers from attempting to move into higher occupations.

Figure 3.1. Simplified illustration of a model of perceived career opportunity.



METHODS

Data

In this study I analyze survey data collected from 947 frontline workers at 9 hospitals and/or health care systems, 2 behavioral health centers, 3 community health centers, and 8 long-term care facilities. Healthcare organizations included in the sample have received funding from a national foundation to create partnerships with educational institutions and build career ladders for low-wage workers. This study draws upon baseline data collected between March 2007 and December 2008.⁶ Prior to implementation of the grant programs, frontline workers in targeted occupations at each health care employer were surveyed about their job satisfaction, perceived quality of care, organizational practices, work climate, and demographic characteristics. Surveys were distributed in person to frontline workers by an evaluation liaison located within each health care employer, and returned directly to the evaluation team using business reply envelopes to ensure confidentiality. Information about the study protocol and frontline worker rights as human subjects was included with each survey. The response rate for the frontline worker survey was 76.3 percent.

An administrator at each health care organization was surveyed about organizational characteristics (e.g., number of employees), and an HR employee completed a survey about HR practices and policies at the organization. Both surveys were distributed in person by an evaluation liaison, and the HR questionnaire was completed as an interview with an evaluation liaison to clarify any questions. The

⁶ Sixty percent of survey respondents are participants in a grant-sponsored workforce development program, while 40 percent of survey respondents are controls. However, the data being examined in this study are baseline data that were collected before the programs were implemented. Whether a respondent was a participant or control was not a significant predictor of perceived career opportunity and is not included in the models.

evaluation team staff also collected contextual data on county-level population and unemployment rates from the Census Bureau and the Bureau of Labor Statistics Local Area Unemployment Statistics. The University of North Carolina at Chapel Hill Institutional Review Board approved this project.

The data being used in this study were collected at baseline, before the organizations had implemented the intervention for which they had received funding. However, the sample organizations are not likely to be “typical” healthcare organizations. In order to receive a grant, employer organizations had to demonstrate that the organization had a commitment to utilizing policies and practices to promote frontline worker advancement. Many proposals included examples of policies and programs in place to support frontline workers and evidence that needs assessments of frontline workers had been conducted.

The sample used for this analysis is 88 percent female; 24 percent identify as Black, 27 percent identify as Hispanic, and 25 percent as another minority.⁷ Respondents are on average 37 years old, 52 percent are married, 52 percent have children, and 19 percent are single mothers. Sixty-two percent of the sample has a high school degree or less. Ninety percent work full-time, and the average tenure is five years. Respondents make on average \$12 per hour, with wages ranging between \$7 and \$31 per hour.

About 50 percent of the sample work in acute care settings, 13 percent in behavioral health centers, 20 percent in community health centers, and 18 percent in long-term care settings. About nine percent of workers are employed in an organization

⁷ Race/ethnicity categories are not mutually exclusive. Survey respondents were allowed to identify themselves as more than one race/ethnicity; consequently, the reference group for each dummy is simply everyone who did not identify themselves as a given race/ethnicity. For example, the reference category for “Black” is everyone who did not identify themselves as Black.

where frontline workers are unionized. Twenty-nine percent of respondents work in organizations that provide career ladders for frontline workers, 65 percent have educational release time, and 53 percent provide tuition remission. Sample characteristics are shown in Table 3.1.⁸

Measurement

Perceived career opportunity. Survey items include statements about opportunities for promotions and advancement. Examples of measures of perceived career opportunity are “There are opportunities for promotion with my employer,” and “If I complete education programs or degrees, I will be promoted within this employer.” A confirmatory factor analysis (CFA) was performed to determine if the number of latent variables and the loadings of measured (indicator) variables on them conform to what is expected on the basis of pre-established theory (Garson, 2011). The factor loadings for the indicator variables for perceived career opportunity were .686 and above, and the R² statistics are .471 and above (see Table 3.2). Mplus provides several measures of fit that can be used to evaluate the model; however, measures of fit for this CFA model are not available because the model is exactly identified. MPlus 6 was used to run all confirmatory factor analysis models (Muthen & Muthen, 2010).

Measures of perceived organizational support. Previous research suggests that there is significant variation in the extent to which policies and practices are consistently implemented across the organization (Currie & Procter, 2001; McGovern, Gratton,

⁸ About 25 percent of the sample have missing data and are therefore dropped by listwise deletion. Workers who have higher perceived career opportunity, perceived organizational support of education and training, and who work in acute care are less likely to have missing data, while older workers, Black and Hispanic workers, and those with a high school degree or less are more likely to have missing data. While I did not perform multiple imputation for this analysis, it is something I will consider before trying to publish this paper.

Hope-Hailey, Stiles, & Truss, 1997). Consequently, I include frontline worker assessments of their perceptions of organizational support and enacted human resource policies within their immediate work environment (Callan et al., 2007), as well as measures of whether an organization has specific HR policies (described below).

I include four measures of an individual's perception of the level of support available to them through their employer, including perceived *organizational support for training and education* (e.g., I am encouraged to take formal training or classes relevant to my job.), *supervisor support of career development* (e.g., My supervisor advocates for me for wage increases or promotions.), general *supervisor support* (e.g., My supervisor treats me as an equal member of the health care team.), and a measure of an individual's degree of *satisfaction with their financial compensation*. These measures of perceived employer support are all measured with multiple indicators and are modeled as latent variables. See Table 3.2 for all factor loadings, R² statistics, and measures of fit. Measures of fit include a Chi-square value, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error (RMSEA).

Table 3.3 contains a correlation matrix for all latent variables, including perceived career opportunity and variables of perceived organizational support.⁹

Organizational policies and characteristics. Organizational policies and characteristics, economic and geographic indicators, and individual characteristics are

⁹ As shown in Table 3.3, perceived career opportunity and organizational support for education and training are very highly correlated ($r=0.872$). Difference tests were conducted in Mplus to determine if the measures fit better as one or two latent variables, and the tests indicated that the measures fit better into one latent variable as compared to two. However, I continue to model career opportunity and organizational support of education and training as two distinct latent variables because they are theoretically distinct. While multicollinearity is a concern, when I remove organizational support of education and training from the model, the major findings are the same, indicating the multicollinearity is not strongly affecting the results. General supervisor support and supervisor career support are also highly correlated ($r=0.806$), but again, they are theoretically distinct and modeled as two separate latent variables.

summarized in Table 3.1. Variables measured at the organizational level include whether an organization has specific human resource policies and practices related to career advancement, including *explicit career ladders for frontline workers* (1), *educational release time* (1), and *tuition remission* (1).¹⁰ Educational release time refers to providing paid time-off for workers to attend classes, participate in on-the-job training activities, or study. Tuition remission refers to arranging for educational institutions to bill employer organizations directly so that frontline workers do not have to pay tuition costs up-front. I also include a measure of whether the frontline workers at the organization are *unionized* (1). Finally, I include the *type of healthcare organization*. Types of organizations represented include long-term care, behavioral health, community health centers and hospitals (long-term care is the reference category).^{11,12}

Economic and geographic indicators. I include economic control variables measured at the county-level. These include *county population* (per 100,000), the *median*

¹⁰ I initially included a measure of tuition reimbursement as an HR policy in models of perceived career opportunity but eventually dropped it because it was not a significant predictor of perceived career opportunity. This is likely because tuition reimbursement programs are often inaccessible for frontline workers because they cannot afford the upfront tuition costs. Consequently, administrators interviewed as part of national evaluation reported that participation in reimbursement programs among frontline workers was low.

¹¹ Clearly, there is a high degree of diversity among the four types of healthcare organizations included in the sample. However, extensive interviews and focus groups with administrators, supervisors, and frontline workers at all included organizations have demonstrated that many of the mobility constraints faced by frontline workers are consistent across settings, such as finding time and resources to complete additional training. At the same time, structural differences among types of healthcare organizations may contribute to differences in perceived career opportunity. For example, long-term care organizations tend to be relatively flat, with few levels between the lowest-level workers and administrators. Hospitals, on the other hand, are heavily stratified and have many levels between the bottom and the top, providing workers with many more “rungs” on a career ladder. I will attempt to control for these differences by including a dummy variable for type of organization in my models.

¹² I do not include a measure of size in the models because size is highly correlated with type of organization. All of the acute care organizations in the sample were large organizations (>1000 employees), behavioral health and community health centers were mid-size organizations (375 and 536 employees on average, respectively), and long-term care organizations were generally small organizations (146 employees on average).

county income (per 10,000), and the *county unemployment rate* at the time that the organizations began their intervention and data collection began. I indicate if the organization is in the Northeast, South, or Midwest/West (combined due to low sample size in the Midwest). Northeast is the reference category.

Individual characteristics. Individual control variables in the model include *sex* (female=1), *race/ethnicity* (Black, Hispanic, or other minority), *working full-time* (1), *level of education* (high school or less=1, education above high school=0), *marital status* (married=1, non-married=0), and *having children* under the age of 18 (1). I also include whether an individual had *health insurance* that is either partially or fully paid for by their employer (1).¹³ Also of interest are variables that reflect personal circumstances that may influence one's ability to pursue career advancement. In this study we measure whether an individual is a *single mother* (1) and the degree that their *household relies on their wages* (i.e., indicates that the respondent answered "yes" to this statement: "I (or my family) depend completely on my paycheck.") (1).

Analysis

After assessing the fit of the confirmatory factor models for the latent variables (described in the measurement section), I evaluated the complete structural model represented in Figure 3.1. Again, MPlus 6 (Muthen & Muthen, 2010) was used and multiple indices of model fit were examined. These include the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error (RMSEA).

Because the data used for this analysis include individuals nested within organizations,

¹³ I include whether an individual had employer-based insurance because in focus groups conducted with frontline workers having health insurance through one's employer was often cited as a reason for why they felt supported (or lack of support) and/or fairly compensated by their employer.

the estimation of the models accounts for clustering of the error terms. Stata 11 was used for all data management.

I run three main models of perceived career opportunity. In the first model, I only include measures collected at the organizational level, including HR policies, type of health care setting, and economic and geographic indicators. In the second model, I include measures collected at the individual level, including measures of perceived organizational support for education and training and perceived supervisor support. I also include supervisor career support as a mediating variable. This model is represented in Figure 3.1. In the third model, I only include key variables of interest and control variables that were significant in the original theoretical model (Model 2). In doing so, I am effectively setting non-significant control variables to zero. In addition to assessing the overall fit of the three models just described, I also examine two alternative models with mediated relationships. The alternative models were compared to the final model using changes in fit statistics.

RESULTS

The coefficients and measures of fit for all models are reported in Table 3.4. The recommended thresholds for the measures of fit are as follows: CFI and TLI $>.90$, and the RMSEA <0.08 (Bollen & Curran, 2006). I first tested a structural model which included only organizational policies and characteristics and economic/geographic indicators (Table 3.4, Model 1). These measures all had a direct effect on the outcome variable of perceived career opportunity. The fit indices for the model were excellent (CFI=.986, TLI=.976, RSMEA=.027). Additionally, many of the path estimates were significant and in the expected direction. Both educational release time (.244 $p<.01$) and tuition remission (.280, $p<.01$) were significant positive predictors of perceived career

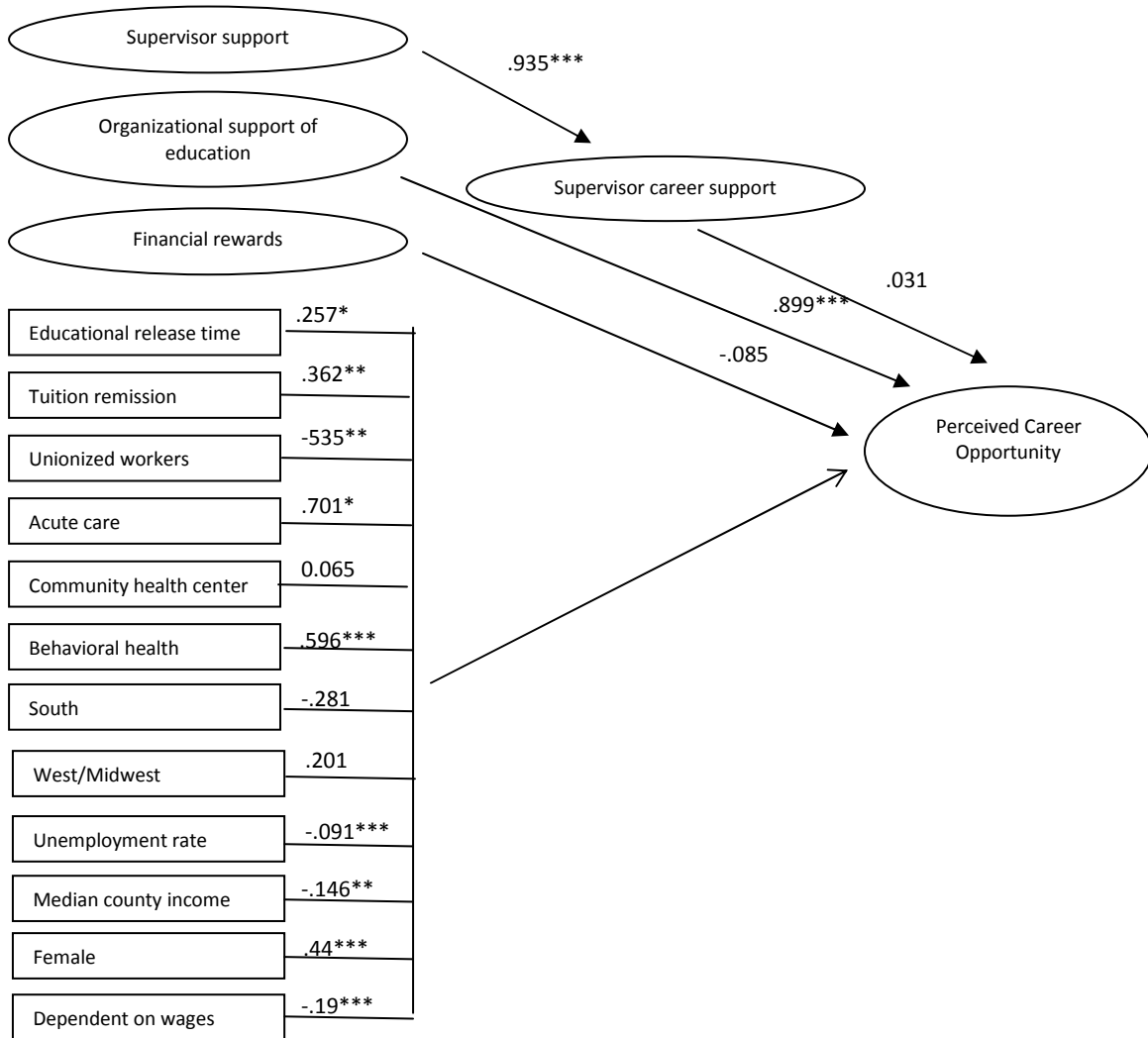
opportunity. Working in an organization where the workers are unionized is negatively related to perceived career opportunity (-.411, $p < .01$), a surprising finding that I will address in the discussion. Workers in acute care and behavioral health settings have significantly higher perceived career opportunity as compared to workers in long-term care (.577, $P < .001$ and .364, $p < .001$, respectively). Workers in areas with higher unemployment rates (-.078, $p < .001$) have lower perceived career opportunity.

In Model 2 (Table 3.4), I include measures of perceived organizational support and individual characteristics. Again, the measures of fit are within the recommended range (CFI=.979, TLI=.977, RSMEA=.025) (Bollen & Curran, 2006). Organizational support for education and training is a strong predictor of perceived career opportunity (.918, $p < .001$). In this model, I tested supervisor career support as a mediating variable between general supervisor support and perceived career opportunity (as shown in Figure 3.1). Model 2 confirms that supervisor support predicts supervisor career support (.918, $p < .001$); however, supervisor career support does not significantly predict perceived organizational support, suggesting that general supervisor support does predict supervisor career support but that supervisor career support does not play a significant role in perceived career opportunity. Model 2 also shows that female workers have higher perceived career opportunity than males (.397, $p < .001$), married workers have higher perceived career opportunity than non-married workers (.298, $p < .01$), older workers have lower perceived career opportunity (-.294, $p < .05$), and those who report a high dependency on their wages have lower perceived career opportunity (-.181, $p < .01$).

In Model 3 (Table 3.4), I include key variables of interest and control variables that were significant in the original theoretical model (Model 2). In doing so, I am

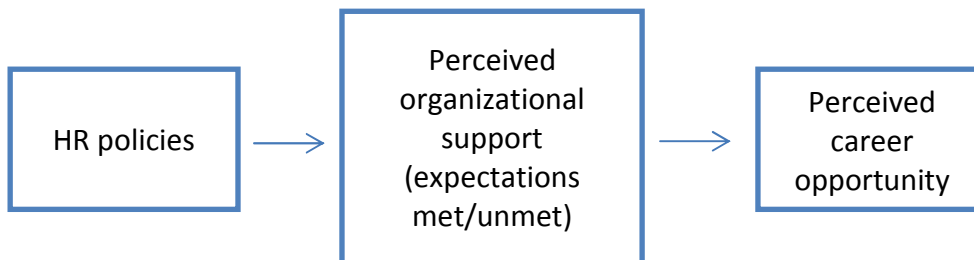
effectively setting non-significant control variables to zero. Model 3 is illustrated in Figure 3.2 below. The model fit statistics are within the recommended ranges (CFI=.983, TLI=.981, RSMEA=.031). Perceived organizational support for education and training, educational release time, and tuition remission are all strong predictors of perceived career opportunity. There is also a strong sector effect in Model 3; individuals working in acute care settings and behavioral health have much higher perceived career opportunity than workers in long-term care.

Figure 3.2. Model of perceived career opportunity with mediated supervisor relationships (Model 3).



Alternative models. In addition to the models discussed above, there are plausible alternative models that include other mediated relationships. First, I tested whether perceived organizational support of education and training mediated the relationships between HR policies and perceived career opportunity, as shown in Figure 3.3 below. Previous researchers have argued that HR policies and practices send strong messages to individuals regarding what the organization expects of them and what they can expect in return (Blau, 1964; Hyde et al., 2009). HPWP policies related to career development promise to employees both economic (e.g., compensation) and socio-emotional (e.g., training, career development) returns. When these expectations are met by the organization, employees gain a strong sense of career support from supervisors and the organization in general, leading to higher perceived career opportunity. Figure 3.3 below illustrates potential relationships between HPWP, employee expectations, and perceived career opportunity.

Figure 3.3. Relationships between expectations and perceived career opportunity.



In this model, HR policies (i.e., career ladders, release time, and tuition remission) are indeed significant predictors of organizational support ($p < .001$), and organizational support is a significant predictor of perceived career opportunity ($p < .001$), indicating that organizational support does play a mediating role. However, the fit of the model declines

when this mediating relationship is added to the model (CFI=.947, TLI=.942, RSMEA=.056). Therefore I assume that organizational support for education and training as a mediator does not fit the data well.

Second, I tested whether the effect of the type of healthcare organization (i.e., acute care, behavioral health, community health center, or long-term care) in which an individual works on perceived career opportunity is mediated by HR policies (i.e., career ladders, release time, or tuition remission). For example, a hospital within a large health system may be more likely to offer tuition remission as compared to a small nursing home. However, adding in HR policies as mediators between the type of health care organization and perceived career opportunity does not change the fit of the model (CFI=.983, TLI=.981, RSMEA=.030). Further, the type of health care organization is not a significant predictor of any of the HR policies included in the model. Therefore, I did not consider this model better than Model 3 (Table 3.4).

DISCUSSION

The purpose of this study was to examine which firm-level policies and practices impact perceived career opportunity. The low-wage workers included in this sample have a fairly optimistic view of their career opportunities. Over 70 percent responded that their current job is a stepping stone to a better job with their employer. Indeed, compared to other low-wage jobs, such as retail or food service, low-wage jobs in healthcare have much more potential for career advancement. However, promotion is often not possible without additional training and, in many cases, additional certification or licensure.

Not surprisingly, then, we see that policies and practices related to training are significant predictors of perceptions of career opportunity. Organizations with tuition

remission, where the organization might contract with a community college so that workers do not have to pay any fees upfront, and organizations with educational release time, where the organization might allow workers to leave during work hours to attend a class or complete homework, have workers that have significantly higher perceived career opportunity. Frontline workers are clearly aware of the importance of education and training for their own advancement and have a stronger sense of mobility when organizations provide some assistance in obtaining additional training.

Respondents with higher perceived organizational support for education and training also have higher perceived career opportunity. My analysis suggests that perceived organizational support for education and training does not act as mediator between HR policies and perceptions of opportunity (as illustrated in Figure 3.3); instead, perceived organizational support and HR policies have their own direct effects on perceived career opportunity. This finding suggests that perceived support for education and training may reflect aspects of an organization's climate or culture not measured in my model. For example, an organization may not have many formal HR policies related to frontline worker advancement but have a history of helping workers move into better positions, which then shapes the perceived career opportunity of other workers (Dill, Morgan, & Kalleberg, in press). Alternatively, an organization could have strong partnerships with educational institutions and make training widely known and available, resulting in higher perceived career opportunity by employees.

I was surprised to find that supervisors did not play a role in workers' perceptions of career opportunity. While having a generally supportive supervisor predicts having a supervisor who supports an employee's career goals, supervisor career support does not

predict having higher perceived career opportunities. This stands in contrast to previous studies on the importance of organizational representatives like middle managers in building a strong HPWP program that shapes and meets the expectations of workers (Bowen & Ostroff, 2004; Turnley & Feldman, 1999). However, in the case of obtaining additional training, workers may recognize the limitations of a supervisor in helping them obtain additional education or another job. In other words, frontline workers face many challenges in obtaining additional training and education, including childcare, transportation, and financial constraints. A supervisor is limited in their ability to address these issues.

Race/ethnicity, in contrast to my expectation, was not significantly related to perceived career opportunity. Women had higher perceived career opportunity than men, a finding I am unsure of how to interpret. On one hand, previous literature would predict that men would have higher perceived career opportunity. Past research has shown men's salaries and chance of promotion actually increase when they are in a field with a higher percentage of women (Barnett & Miner, 1992; Gerhart & Milkovich, 1989; Stovel, Savage, & Bearman, 1996). On the other hand, men may feel marginalized in a field that has been traditionally dominated by women. Men may feel that performing 'care work' is not a valuable occupation for men and therefore may have lower expectations about moving up within a hospital setting.¹⁴ Finally, workers who reported that they were dependent on their wages and workers living in areas with higher unemployment rates had lower perceived career opportunity, suggesting that the most vulnerable workers – or

¹⁴ In an effort to better understand why men had lower perceived career opportunity, I tested several interaction terms, including gender interacted with race, education, and immigration status. None of the interaction terms were significant and did not provide insight to the gender difference in perceived career opportunity. The sample used in this study is not representative; thus, it is likely that the finding is an artifact of the sample population and the cause is not measured in the model.

those with the least financial security – also have the lowest expectations for their careers.

Two findings were unexpected. First, explicit career ladders were not significantly related to perceived career opportunity. It is possible that organizations may have career ladders in place but fail to make such career pathways known to low-wage workers. Further, without the necessary educational (and sometimes social) supports needed by low-wage workers, career ladders can be inaccessible to workers who face time or financial barriers to accessing the next level. Second, workers in organizations with unionized frontline workers had lower perceived mobility than workers in organizations with non-union workers. Only about nine percent of our sample worked in organizations where the frontline workers were unionized (i.e., frontline workers in two organizations); consequently, this finding cannot be interpreted as representative of all unionized workers (and the organizations included in the sample cannot be considered representative of unionized organizations). However, interviews and focus groups with frontline workers suggest that there may be two reasons why there is a negative association between perceived career opportunity and unionization. First, unions place a high priority on seniority, rather than training, and were therefore often opposed to the development of career ladders based on skills or education. Second, many frontline workers in unionized settings were frustrated that they could not obtain a full-time permanent position. Instead, the organization had hired them as part-time workers, without access to health benefits or other employment benefits offered to full-time workers.

This study has many limitations. For example, I use a measure of perceived mobility rather than actual mobility, and it would be valuable to be able to examine both

measures. It is likely that perceived career opportunity plays an important mediating role between organizational policies and practices and an individual's career trajectory. However, I am not able to measure this relationship and was not able to find literature on the relationship between perceived career opportunity and actual mobility. Another substantial limitation of the study is a lack of a measure of past career mobility. It is likely that perceived mobility is heavily informed by whether a person has been promoted in the past. However, this measure was not collected. Further discussion of the limitations of this study and the implications for future research will be discussed in Chapter 5.

Table 3.1. Sample characteristics.

Organizational policies and characteristics		
Career ladders	Career planning and/or explicit career ladders for frontline workers.	29%
Educational release	Processes to provide release time for employee education.	65%
Tuition remission	No upfront tuition costs for frontline workers.	53%
Unionized	Frontline workers are unionized (1).	9%
Acute care	Hospitals or health systems.	49%
Behavioral health	Substance abuse or psychiatric treatment centers.	13%
Community health	Federally recognized community health centers.	20%
Long-term care	Skilled nursing or assisted living homes.	18%
Economic and geographic indicators		
Unemployment rate	County unemployment rate (2009).	4.71 (1.26)
Poverty	Percentage of residents below the poverty level in county.	13.54 (5.08)
Median income	Median income in county (divided by 10,000).	5.29 (1.07)
Population	County population size (divided by 100,000)	6.44 (4.13)
Northeast		24%
South		43%
Midwest / West		33%
Individual characteristics		
Age	Age in years.	36.93 (12.29)
Married	Respondent is married (1) or not married (0).	52%
Female	Respondent is female (1) or male (0).	88%
Black	Respondent identified themselves as Black (1).	24%
Hispanic	Respondent identified themselves as Hispanic (1).	27%
Other minority	Respondent identified themselves as another minority (not Black or Hispanic) (1).	24%
Education	Indicates whether the respondent has a high school degree or less (1) or more than a high school degree (0).	62%
Full-time status	Indicates if the respondent is a 1) full-time or 2) part-time employee.	89%
Employer insurance	Respondent has health insurance that is either partially or fully paid by employer (1).	71%
Children under 18	Respondent cares for children under the age of 18 (1).	52%
Single mother	Respondent is a single mother (1) or not a single mother (0).	19%
Need for wages	Indicates that the respondent answered “yes” to this statement: “I (or my family) depend completely on my paycheck.”	59%

n=1006

Table 3.2. Latent variable indicators, factor loadings, and measures of fit.

Latent variable		Factor loadings	R ²	CLI	TLI	RSMIEA
<i>Perceived Career Opportunity</i> (range: 1-4; mean: 2.84)				--	--	--
	There are opportunities for promotion with my employer.	.820	.673			
	This job is a stepping stone to other better-paying jobs with my employer.	.830	.689			
	If I complete education programs or degrees, I will be promoted within this employer.	.686	.471			
<i>Organizational Support for Education and Training</i> (range: 1-4; mean: 2.89)				--	--	--
	I am encouraged to take formal training or classes relevant to my job.	.816	.666			
	My employer helps me to acquire or improve my skills while at work.	.884	.782			
	My employer provides opportunities for workers to improve their math, reading or English as a second language skills.	.618	.382			
<i>Supervisor Support of Career Development</i> (range: 0-2; mean: 1.14)				.996	.991	.181
	My supervisor helps me identify career opportunities.	.949	.901			
	My supervisor advocates for me for wage increases or promotions.	.980	.961			
	My supervisor helps me identify educational opportunities.	.802	.643			
	My supervisor teaches me new skills through examples at work.	.890	.792			
	My supervisor creates a learning environment at work.	.894	.799			
<i>General Supervisor Support</i> (range: 0-2; mean: 1.59)				.998	.997	.065
	My supervisor treats me as an equal member of the health care team.	.900	.810			
	My supervisor listens carefully to my observations and opinions.	.925	.855			
	My supervisor gives me credit for my contributions.	.913	.833			
	My supervisor respects my ability to observe and report.	.978	.957			
	My supervisor lets me know how helpful my observations are.	.829	.687			
	My supervisor trusts me to do a good job.	.791	.626			
	My supervisor helps me with job tasks when help is needed.	.769	.592			
<i>Financial rewards</i> (range: 1-4; mean: 2.64)				--	--	--
	The pay is good.	.503	.253			
	The job security is good.	.659	.434			
	Your fringe benefits are good.	.831	.691			

Notes: Standardized factor loadings are reported. Tests of model fit cannot be calculated for latent variables that have only three indicator variables because the models are exactly identified. The chi-square statistic was significant ($p > .001$) for all latent variables where fit indices were calculated.

Table 3.3. Estimated correlation matrix for the latent variables.

	(1)	(2)	(3)	(4)	(5)
(1) Perceived career opportunity	1				
(2) Organizational support of education and training	0.872	1			
(3) Supervisor support	0.4	0.456	1		
(4) Supervisor career support	0.526	0.617	0.806	1	
(5) Financial rewards	0.505	0.479	0.471	0.543	1

Table 3.4. Structural models of perceived career opportunity.

	Model 1		Model 2		Model 3	
	Estimate	S.D.	Estimate	S.D.	Estimate	S.D.
Mediating variable						
Supervisor support -- supervisor career support			0.918***	(0.014)	0.935***	(0.014)
Perceived organizational support						
Organizational support of education and training			0.918***	(0.044)	0.899***	(0.045)
Supervisor career support			0.014	(0.031)	0.031	(0.032)
Financial rewards			-0.056	(0.085)	-0.085	(0.077)
Organizational policies and characteristics						
Career ladders for frontline workers	-0.116	(0.065)	-0.141	(0.096)		
Educational release time	0.244*	(0.122)	0.251*	(0.124)	0.257*	(0.13)
Tuition remission	0.280**	(0.104)	0.418***	(0.128)	0.362*	(0.158)
Unionized frontline workers	-0.411**	(0.123)	-0.508**	(0.162)	-0.535**	(0.157)
Health care setting						
Acute care setting	0.577***	(0.124)	0.664***	(0.110)	0.701***	(0.093)
Community health center	0.075	(0.123)	0.102	(0.147)	0.065	(0.131)
Behavioral health setting	0.364***	(0.101)	0.678***	(0.131)	0.596***	(0.113)
Contextual/geographic variables						
Region						
South	-0.234	(0.135)	-0.173	(0.184)	-0.281	(0.167)
West/Midwest	0.137	(0.137)	0.362*	(0.181)	0.201	(0.175)
Unemployment rate	-0.078**	(0.024)	-0.081**	(0.029)	-0.091***	(0.026)
Median income in county	-0.076	(0.042)	-0.125*	(0.052)	-0.146**	(0.045)
County population	0.018	(0.009)	0.032**	(0.010)	0.028*	(0.012)
Individual characteristics						
Age (logged)			-0.294*	(0.130)	-0.308**	(0.099)
Married			0.298***	(0.068)	0.21**	(0.061)
Female			0.397***	(0.109)	0.44***	(0.07)
Race						
Black			0.080	(0.101)		
Hispanic			0.086	(0.138)		
Other minority			0.043	(0.104)		
High school degree or less			0.074	(0.068)		
Full-time worker			-0.102	(0.138)		
Health insurance through employer			-0.009	(0.101)		
Kids			-0.056	(0.101)		
Single mother			0.117	(0.144)		
Dependent on wages			-0.181**	(0.069)	-0.19***	(0.054)
CFI		.986		.979		.983
TLI		.976		.977		.981
RSMEA		.027		.025		.031

Reference categories are “long term care” for type of organization and “Northeast” for region. * ≤ .05, ** ≤ .01, *** ≤ .001

Chapter 4:

Frontline hospital jobs: Career stepping stone or just another dead-end low-wage job?

BACKGROUND AND SIGNIFICANCE

The potential of hospital employment for low-wage workers

For a number of years, researchers and policy makers have been looking to the healthcare sector – and hospitals in particular – as a promising industry for low-wage workers (Bartik, 1997; Fitzgerald, 2006; Foster-Bey & Rawlings, 2002; Pindus et al., 1995; Wolf-Powers & Nelson, 2010). Many of the reasons for optimism about the healthcare sector as a low-wage employer have been discussed in Chapters 1 through 3, but I will summarize here. First, high growth in the healthcare sector has led to an increased demand for healthcare workers, which is only expected to grow over the next several decades as the population ages. Although there has been a movement towards outpatient and long-term care settings in healthcare utilization in the last several decades, hospitals remain a key component of the healthcare sector, accounting for more than a third of all health care employment. Hospital employment is expected to grow 10 percent between 2008 and 2018 (U.S. Department of Labor, 2010b). Second, several researchers have highlighted that acute care hospitals are often a central component of medical campuses within inner city neighborhoods. These institutions are often the only major employer in these neighborhoods and can play a central role in training medical professionals (Adams, 2003; Singh & Allen, 2006; Wolf-Powers & Nelson, 2010).

Third, as discussed earlier, the hierarchical nature of healthcare organizations, hospitals in particular, may make them especially well-suited to the development of career ladders and advancement for low-wage workers (Fitzgerald, 2006; Mitnik & Zeidenberg, 2007; Wilson, 2006). For example, the heavy emphasis on credentials in health care organizations means that often there are opportunities for frontline workers to

move up within the organization without significant investment in college-level education. Another feature of hospitals is their 24-hour operation, which provides more opportunity for entry-level employees to advance into supervisory roles than do industries with an 8-hour day (Pindus et al., 1995). Finally, as discussed in Chapter 2, increasing concerns about frontline worker shortages and quality of care create an impetus within the industry to reduce employee turnover and develop the returns to human capital of all levels of the healthcare workforce (Cheung & Aiken, 2006; Fitzgerald, 2006).

Despite the optimism about the potential of healthcare occupations as “good” jobs for low-wage workers, few studies have examined the actual mobility of frontline workers in healthcare settings. The purpose of this study is to examine occupational, educational, and wage changes among low-wage workers in healthcare organizations. While researchers have noted the potential of low-wage healthcare jobs to be “stepping stones” to better jobs, there has been little work on the career trajectories of frontline healthcare workers. Looking at career trajectories will provide insight into whether these are indeed “better jobs” for workers with low education and provide opportunities for advancement, or if in fact they are more likely to be “dead end” low-wage jobs.

Low-wage worker wage growth

As discussed in Chapter 1, studies of low-wage workers across industries in the United States show that while many workers do obtain upward mobility, the majority do not experience substantial gains in income (Andersson et al., 2005; Gottschalk, 1997; Newman, 2006; Osterman, 2000). However, few studies have looked at the mobility of low-wage workers in the healthcare sector. Drawing from the findings of past studies of

low-wage worker wage growth, I propose several hypotheses to investigate wage mobility of low-wage workers in hospital settings. My hypotheses are grouped into four general categories: 1) gender and family, 2) race/ethnicity, 3) occupation and education, and 4) work-related circumstances. I begin with hypotheses related to individual characteristics (i.e., gender, family, and race/ethnicity) and then introduce hypotheses related specifically to work and education.

Hypothesis 1a: Female frontline healthcare workers will experience lower wage growth than males.

Hypothesis 1b: Frontline healthcare workers that are not married will have higher wage growth than non-married workers.

Hypothesis 1c: Frontline healthcare workers that are mothers of children under 18 will experience lower wage growth than non-mothers.

The majority of frontline healthcare workers are women; a report published by the Robert Wood Johnson Foundation (2006) estimates that 79 percent of frontline healthcare workers are female, while 21 percent are male. Over the last thirty years, there has been a narrowing in the gender wage gap among the less skilled, as less-skilled men's wages have fallen and women's wages have risen (Blank & Gelbach, 2006; Blank & Shierholz, 2006). This is due in part to declines in sectors that have traditionally employed men (e.g., manufacturing, construction) and increasing labor force participation – and subsequent work experience – on the part of women.

However, despite these macro-level trends in the low-wage workforce, I expect that men will have higher wages than women because they are a minority in a feminized occupation. Some researchers have argued that men, as members of the advantaged

group, benefit by virtue of being surrounded by weaker competitors for valued career outcomes (Barnett & Miner, 1992; Stovel et al., 1996). Consequently, males receive preferential treatment on the part of their supervisors. Indeed, past research has shown men's salaries and chance of promotion actually increase when they are in a field with a higher percentage of women (Williams, 1992). For example, in a study of workers in the California Civil Service, Barnett, Baron, and Stuart (2000) found that men in female dominated occupations moved more frequently across agencies and derived larger economic benefits as compared to their female counterparts.

I expect that marriage will have a positive association with wage growth for frontline healthcare workers. Previous research has shown that women in particular experience wage decreases after marriage (Fuller, 2008). For example, a recent study by Loughran & Zissimopoulos (2009) found that that marriage lowers female wages 2–4 percent in the year of marriage and lowers the wage growth of men and women by about two and four percentage points, respectively. However, studies specifically of low-skill workers have shown that married workers have higher productivity and, consequently, there is a positive correlation between marriage and higher wages for both men and women among low-wage workers (Blank & Shierholz, 2006).

Finally, I expect that mothers with children under the age of 18 will experience lower wage growth than non-mothers (Correll, Benard, & Paik, 2007; Waldfogel, 1997). Budig and England's oft-cited paper on the "motherhood penalty" suggests that women experience a wage penalty of 5 percent per child, even after controlling for work experience (Budig & England, 2001). While one might expect that the "motherhood penalty" would be the greatest for higher-skilled workers in professional jobs (which

supposedly require more effort and productivity), Anderson, Binder, and Krause (2002) found that high school graduates actually experienced the largest wage penalty as compared to workers with some college, college graduates, and high school drop-outs. Since high school graduates comprise a substantial percentage of the frontline healthcare workforce, I expect that mothers in this group will be disadvantaged in comparison to non-mothers.

Hypothesis 2: Black and Hispanic frontline healthcare workers will have lower wage growth than Whites.

Inequality in wages between Blacks and Whites has been well established by previous studies (Browne & Misra, 2003). In fact, while longitudinal research has shown that the gender gap has narrowed, the racial gap in earnings and wages has either stagnated or widened (Cancio, Evans, & Maume, 1996; Pettit & Ewert, 2009). For example, while the wage difference between White and Black men has remained nearly constant over the last twenty years, the wage differential between Whites and Hispanics has grown, most likely as a result of new patterns of Hispanic immigration, where many immigrants have low skill levels and occupy the lowest level jobs (Borjas, 2006). Looking at mobility out of poverty, Andersson et al. (2005) show that white males are the most successful in transitioning out of low earnings. Hispanic women are especially likely to be low earners as compared to all other groups. The data also imply a greater instability and lower frequency of employment among blacks (especially black men). Based on previous research, I expect that minorities in my sample will experience lower wage growth as compared to Whites.

Hypothesis 3a: Entry level and direct care frontline workers will have lower wage growth than frontline administrative, frontline allied health workers, and frontline managers.

Hypothesis 3b: Frontline healthcare workers with lower levels of education will experience lower wage growth than workers with higher education.

In this study, I examine mobility of individuals in occupations that I have categorized in five different frontline categories: entry level positions, direct care work, administrative positions, allied health workers, and frontline managers. Entry level positions, such as housekeeping or dietary jobs, require the least amount of skill and training, while allied health positions, such as surgical or pharmacy techs, require a greater amount of skill and pay higher wages. I anticipate individuals that are entry level and direct care workers at the beginning of the survey period will experience lower wage growth as compared to frontline administrative workers, frontline allied health workers, or frontline managers. Similarly, I expect that workers with the lowest levels of education will have lower wage growth than workers with more education.

Hypothesis 4a: Work experience will not be significantly related to wage growth among frontline healthcare workers.

Hypothesis 4b: Unionized frontline healthcare workers will have higher wage growth than non-unionized workers.

I expect that work experience will not have a significant effect on wage growth. Looking at the effect of total work experience on wages, Gladden & Taber (2000) estimate that low-skilled workers experience wage gains of 4-6% per year of full-time

work, a rate that is similar to medium-skilled workers. However, Connolly and Gottschalk (2000) have found that people with more education receive higher returns to both tenure and work experience as compared to lower-educated people. Research conducted by French, Mazumder, and Taber (2006) using the SIPP support the findings of Gladden and Tabor (2000); however, they note that the return to experience seems to change from year to year, varying from as much as 6 percent to as little as 2 percent. Given the low starting wages of frontline healthcare workers, however, I expect that work experience within the survey period will not be significantly related to wage growth, even if workers are seeing gains of 4-6% each year.

Finally, I expect that unionized workers will have higher wage growth than non-unionized workers. Méhaut et al. (2010) point out that the higher rate of unionization among low-skill hospital workers (20%) as compared to other service sectors is a reason why these workers often enjoy employment benefits such as paid vacation, sick days, overtime pay, and some form of pension plan for full-time workers.¹⁵ And while union wages have declined over the last ten years, unionized workers still make more on average than non-unionized workers in health care organizations. For example, non-unionized nursing assistants in hospitals made \$11.00 per hour in 2006, as compared to \$12.72 per hour for unionized workers (which was down from \$14.04 in 2000) (Mehaut et al., 2010).

In summary, while some researchers and policymakers have noted the potential of health care organizations – and hospitals in particular – as promising places of employment for low-wage workers to advance their careers and improve their wages,

¹⁵ However, while many hospital jobs do provide generous employment benefits, often workers are not eligible for these benefits because they are hired as part-time or non-permanent employees, making them ineligible for these benefits (even if they belong to the union).

there has been little research on the actual mobility of frontline healthcare workers. In this study, I examine the career advancement of frontline healthcare workers with the aim of gaining a better understanding of how most workers fair when they enter jobs in the hospital sector. Are these jobs that provide a stepping stone to better jobs, or are they just another low-wage, dead-end job? As described above, I expect that women, respondents with children, minorities, and those with lower education and skills will experience lower wage growth. I begin my analysis by looking descriptively at wages across these groups, as well as occupation and educational changes. I then use latent growth curve models to examine wage growth over the survey period.

METHODS

Data

The data used in this analysis come from the 1996 and 2001 panels of the Survey of Income and Program Participation, administered by the US Census Bureau. The SIPP universe includes the noninstitutionalized resident population living in the United States. Persons who were 15 years of age or older at the time of the interview were eligible to participate in the survey. The 1996 panel covers twelve waves of data collection over four years from April 1996 to March 2000, while the 2001 panel covers nine waves of data collection over three years from October 2000 to December 2003.¹⁶ All data used in this study were made available by the Center for Economic and Policy Research (Center of Economic and Policy Research, 2006).

¹⁶ Interviews in subsequent waves were conducted only for original sample members and those living with them. The time span covered by each wave varies depending on the respondent's rotation group. There are three waves of data collection per year, and each wave contains a four-month reference period for which data are collected. In the original longitudinally edited file, the unit of observation is one record for each person for each month in the sample, but for this analysis, the unit of observation was converted to a person-wave format.

The strengths of SIPP are its longitudinal basis, recording detailed monthly information on individuals for four years, its comprehensive inclusion of over 50 income sources, its better coverage of Hispanic and immigrant populations than other surveys (McKernan, 2002), and its unique identification of respondents' employers. SIPP weaknesses relate to the attrition bias resulting from its longitudinal character, which is of particular concern given that poorer persons might be more likely to leave the sample before the panel ends (Citro & Michael, 1995). Additionally, for the purposes of this analysis an even longer time span would improve our understanding of the dynamics of mobility in the low-wage labor market.

Sample

I select a subsample of all individuals in the SIPP who were 1) employed by a hospital, 2) working in a “frontline” healthcare occupation in their first survey observation,¹⁷ and 3) have a wage below \$19 per hour (roughly less than \$40,000 per year) in their first survey observation. Frontline healthcare occupations were identified as follows: first, I include Bureau of Labor Statistics 2000 Standard Occupational Classification (SOC) System occupations identified as “frontline occupations” by a study completed by the Robert Wood Johnson Foundation (RWJF) (Schindel et al., 2006). Schindel et al. (2006) identified the following criteria as defining characteristics of frontline workers:

- provide a high level of direct patient/client care or care delivery support services;

¹⁷ To be included in the sample, an individual had to be included in one of the following categories in their first observation: entry level worker, direct care worker, administrative worker, allied health worker, or frontline manager. The occupational categories used in this study are described in greater detail in the measurement section.

- require educational training of a bachelor’s degree or below; and
- earn annual wages of \$40,000 or less.¹⁸

Second, I include workers in the sample who are in other low-wage occupations within the hospital setting that support patient care, such as housekeepers and dietary staff. Although these workers were not considered to be “frontline healthcare workers” by (Schindel et al., 2006), like other frontline positions, these workers have low wages, low thresholds to entry, and provide necessary support services with the hospital. The occupations identified as frontline healthcare positions are included in the Appendix of Chapter 4 and will be discussed in greater detail in the measurement section. I exclude individuals who had only one hospital-based observation and this was in their last observation period. The sample includes 1,745 individuals and 14,015 observations.¹⁹ Respondents completed 5.6 survey waves on average.

The sample is 82 percent female, 56 percent are married, and 42 percent have children under the age of 18. Sixty-three percent are White, 24 percent are Black, 10 percent are Hispanic, and 4 percent are another minority. In 27 percent of observations, individuals are working as entry level or direct care workers, 27 percent are working in administrative positions, and 19 percent are in frontline allied health positions. About six percent are in frontline managerial positions. About half of the workers have some college and about 30 percent have a high school degree.

¹⁸ Exceptions were made for a few occupational groups. Social workers and counselors are included, although many do have a master’s degree, and two allied health roles (radiologic technologists/technicians and occupational health and safety specialists) are included despite median annual earnings slightly more than \$40,000. In these cases, it was determined that the occupational categories fit the overall definition and characteristics of the frontline workforce and should therefore be included.

¹⁹ The analytic sample is 1,654 individuals due to missing wage data. When individuals are not employed, there is no wage data for that quarter.

Measurement

A summary of all dependent and independent variables is included in Table 4.1. For all independent variables, only the measure from the respondent's first observation is used to predict the dependent variable, unless otherwise specified.²⁰

Wages. The dependent variable is the *log of hourly wages*. Coefficients can be interpreted approximately as a percentage difference in wages. All wages are adjusted to 2003 dollars using the Consumer Price Index.

Gender and family-related variables. *Sex* is coded as a dummy variable, with male as the reference category. I indicate whether a respondent is *married* (1) or has *children* under the age of 18 (1). I also include an interaction term of female and having children to test whether mothers have lower wage growth than non-mothers.

Race/ethnicity variables. *Race* is coded in CEPR SIPP data as four categories: White, Black, Hispanic, or other, included as dummies in the analysis. White is the reference category.

Education and occupation variables. Occupations are grouped into eight categories (outlined in Table 4A.1 in the Appendix). Frontline healthcare occupations include: *frontline entry level workers* (e.g., housekeepers, dietary staff), *direct care workers* (e.g., nursing assistants), *frontline administrative workers* (e.g., medical records technicians), *frontline allied health workers* (e.g., pharmacy technicians), and *frontline managers*. The frontline manager category includes supervisors of frontline workers. While these workers are classified as managers in the occupational codes used in the

²⁰ I had initially intended to use longitudinal occupational and educational data lagged by one quarter to predict wages in the following quarter. However, there was not enough variation in occupation/educational levels between waves, leading to a problem with multicollinearity in the model. Consequently, I only use the first observation as a predictor of wages in the subsequent waves.

SIPP, their wages are not substantially higher than frontline workers and fall below the RWJF criteria of less than \$40,000 per year (see Footnote 17 above regarding measurement of these variables). I include a *midlevel employee* category (e.g., Registered Nurses, physical therapists) and categories for *hospital-based employed (not elsewhere classified)* and *non-hospital employment*.²¹ Midlevel occupations, hospital-based employment (not elsewhere classified) and non-hospital employment are not considered to be frontline occupations.²² *Educational attainment* level was coded into four categories: less than high school, high school graduate, some college, or a college degree or higher, also included as dummy variables. Having a high school degree is the reference category.

Work experience variables. I include the total number of months of *employment experience* within the survey time period, as well as an individual's *tenure* in their current position (in months). I include a measure of whether the individual *changed occupations in a hospital setting* during the survey period (1=ever changed occupations in a hospital).²³ I also indicate if an individual was ever unemployed during the survey period (1). Finally, I indicate whether an individual is working *full-time* (1=more than 30 hours per week) and if a respondent belonged to a *union* (1).

²¹ Occupations were sorted into categories using the Schindel et al. (2006) criteria for frontline healthcare occupations and occupational descriptions available through the Bureau of Labor Statistics Standard Occupational Classification (SOC) website (www.bls.gov/soc/). Non-hospital employment indicates that the individual was not employed by a hospital (SIC 831).

²² Since only individuals who began the survey as frontline healthcare workers were included in the sample, individuals could only be categorized in a midlevel, other hospital, or non-hospital occupation after the first observation. Consequently, in the model I include dummy variables indicating whether the individual was ever in a midlevel, other hospital, or non-hospital occupation. This is different from other independent variables, where I use the value of the first observation as a predictor of the outcome variable.

²³ This also includes individuals who were working in another sector and transitioned into a hospital-based occupation. However, this is only a small percentage of hospital-based transitions.

Other control variables. Age is included as three categorical variables: 15-30, 31-45, and 46-79 (reference category). Using the FIPS state codes, I created a variable for *region* with four categories: Northeast, Midwest, South, and West. Northeast is the reference category. Finally, I include a dummy variable that indicates if the individual was in the 2001 panel (1).

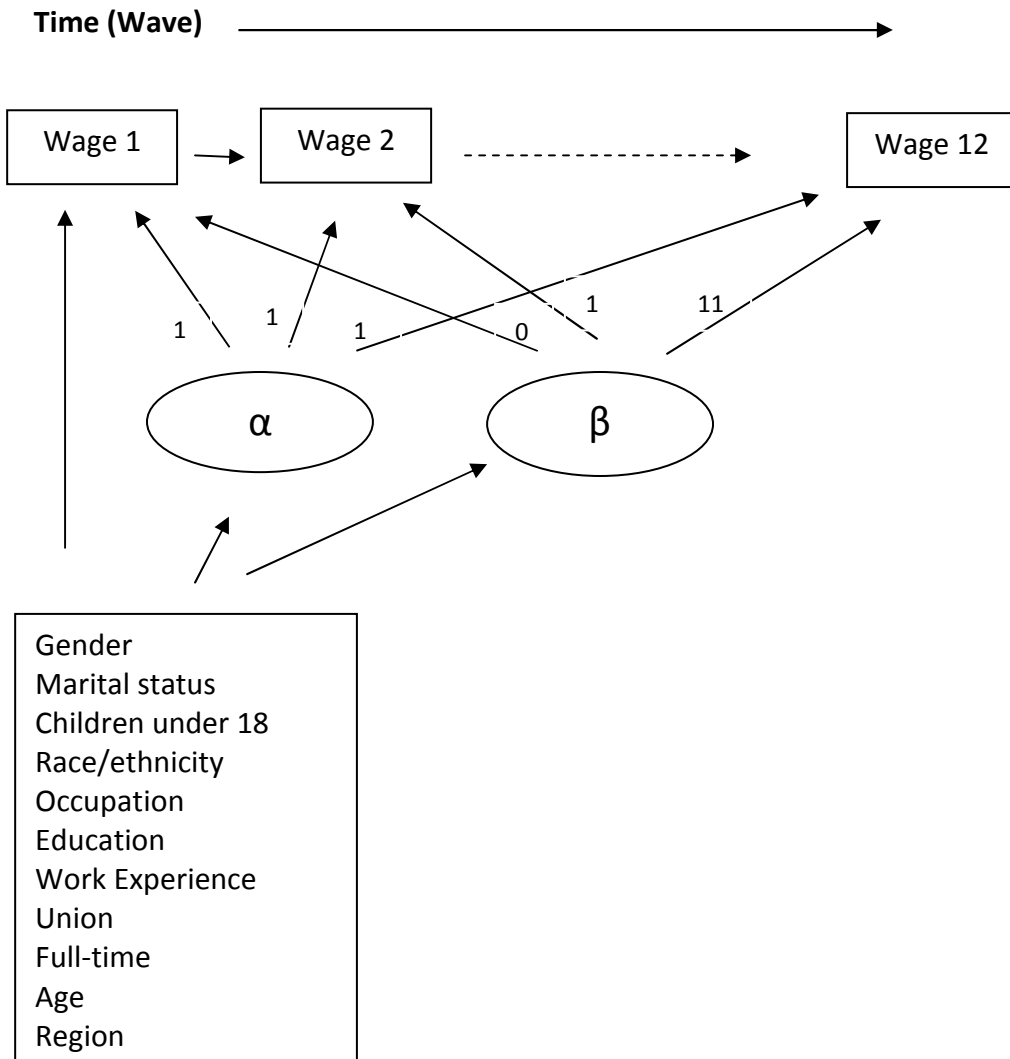
Analysis

Latent growth curve models will be used to model wage growth for individuals in the sample. Latent growth modeling is a longitudinal statistical analysis technique using structural equation modeling (SEM) to estimate growth over time. This approach assumes that there is an underlying latent continuous trajectory. The pattern of change in the repeated measures on wages within the longitudinal data provides the information on the trajectories. Latent means that the process is not observed directly; instead, the trajectory process is observed only indirectly using the repeated measures (which in this case is wages). These trajectories can vary by individual case (Bollen & Curran, 2006).

A simplified path diagram of the full structural equation model is presented in Figure 4.1 below. I sequentially introduce predictors of trajectories to test each hypothesis in the order in which they were presented in the background and significance section. I begin by examining trajectory differences by gender, marital status, and having children. I then add race/ethnicity variables, followed by occupation and educational variables. Next, I add in variables related to work-experience and a few additional control variables, including age, region, and cohort. Data management and descriptive statistics were performed with Stata 11 and latent curve modeling with Mplus 6 (Muthen & Muthen, 2010). Mplus provides several measures of fit that can be used to evaluate the

model. These include the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error (RMSEA). The recommended ranges for the measures of fit are as follows: CFI and TLI >.90, RMSEA <0.08.

Figure 4.1. Simplified path diagram of the full structural equation model.



FINDINGS

In the findings section, I first describe wage and yearly wage growth, occupational transitions, and educational transitions among individuals in the survey. I then report the results of latent growth curve models of wages among survey respondents.

Descriptive results

Wages and yearly wage change. Table 4.2 shows that survey respondents did experience real wage growth during the survey time period. In the 1996 cohort, the average adjusted wage (2003 dollars) increased 19 percent over the survey time period (\$11.30 to \$13.50). In the 2001 cohort, the average adjusted wage (2003 dollars) increased 16 percent over the survey time period (\$11.54 to \$13.44).²⁴ The average starting wage and overall wage for the 2001 cohort were slightly higher than the 1996 cohort, suggesting real wages rose slightly between 1996 and 2003; however, the differences in starting wages and average wages between the 1996 and 2001 cohorts are not statistically significant as determined by a t-test ($p > .05$).

A summary of wages and wage growth by occupation is shown in Table 4.3. Wages for frontline workers in hospital settings ranged from a median wage of \$9.80 for entry level workers to \$14.00 for allied health frontline workers and \$14.62 for managers (in 2003 dollars). Managers and frontline workers who moved into midlevel positions had the highest wages on average (\$15.32 and \$14.24, respectively). Entry level workers experienced the lowest real yearly wage growth (\$0.39 per year). Direct care, administrative, and allied health workers experienced wage growth of around \$1.00 per year. Mid-level workers, who are primarily registered nurses, experienced the highest

²⁴ The 2001 panel covers three years as compared the 1996 panel, which covers four years, so it is not surprising that the percentage of wage growth is lower for the 2001 cohort.

wage growth during the survey period, which is consistent with rising wages for nurses in the late 1990's due to the nursing shortage (Rother & Lavizzo-Mourey, 2009).

Occupational mobility. As shown in Table 4.3, there is a clear hierarchy among frontline occupations in hospital settings. Entry level work has the lowest wages (and lowest prestige), where allied health work, which generally requires some post high school training (either some kind of certification, an associate's degree, or in the case of social workers, sometimes even a master's degree) and managerial positions have higher levels of compensation. In this section, I look at whether frontline workers are moving into more prestigious, higher paying occupations. I focus on entry level workers and direct care workers, as these workers earn the lowest wages among frontline workers.

Among entry level workers, only five workers moved into direct care positions, seven moved into administrative positions, and three moved into allied health positions (6% of all entry level workers in sample). By far the greatest movement of entry level workers (n=60) was into "other" hospital jobs (e.g., jobs that are not classified as frontline jobs such as HVAC repair) or non-hospital jobs. A similar percentage of direct care workers moved into different occupations. For example, only ten individuals who began the survey as direct care workers moved into administrative positions, and eleven moved into allied health positions (6% of all direct care workers in sample).²⁵ For both entry level and direct care workers, only a handful to workers moved into managerial

²⁵ Because of the low number of individuals who transition into different occupational categories, comparing pre- and post-transition wages is not necessarily meaningful. However, it is clear that when entry level and direct care worker positions move into "better" occupations, or those with higher wages on average, they do not necessarily experience a wage increase. For example, the majority of individuals who transition from direct care jobs into administrative jobs experience a wage *decrease* (\$10.35 to \$8.16, n=10).²⁵ Entry level workers who transition to direct care workers positions also experience a wage decrease on average (\$14.56 to \$11.97, n=5). These findings suggest that low-wage workers are not necessarily experiencing upward wage mobility, even when they transition to occupations that generally have higher wages. However, when both entry level and direct care workers transitioned into allied health positions they experienced a wage increase, on average.

positions (2 in each group). A larger group of direct care workers were able to move into midlevel positions, usually becoming RNs (n=18). However, it should be noted that often individuals training to be RNs are required to work in direct care positions during their training. These individuals are typically not “career” low-wage workers and are only in frontline positions for a short time.

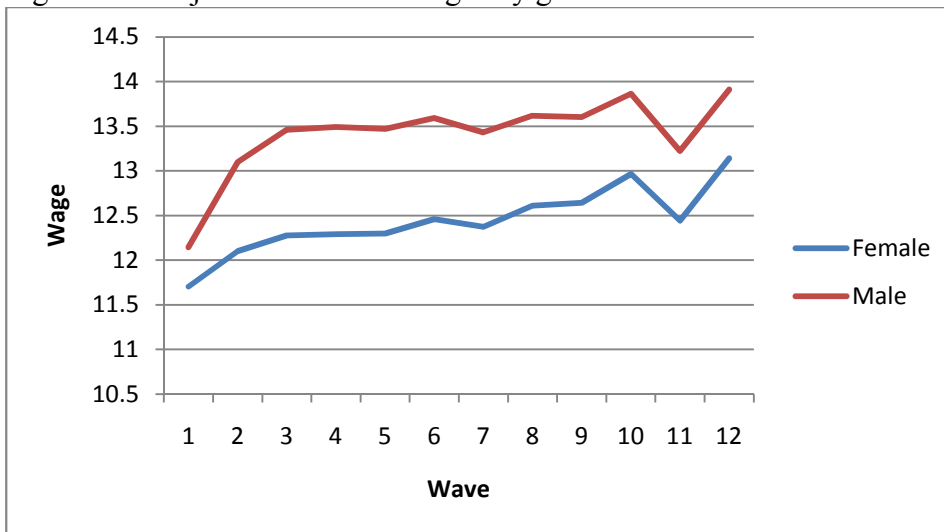
Educational mobility. Educational levels among frontline workers are relatively low. Out of 1,659 workers, about forty percent have a high school degree or less (n=695) at the beginning of the survey. The largest category consists of workers who have completed some training beyond high school but do not have a college degree (n=780). Workers with a college degree constitute approximately eleven percent of the sample. Educational mobility, or obtaining additional education, was fairly consistent among workers with different levels of training when they started the survey. Seven out of 137 individuals (5%) with less than a high school obtained their high school degree during the survey period. Six percent of individuals with high school degrees went back to school for some post-high school training, and four percent of those with some college completed their college degree. At all levels of education, individuals’ wages went up on average in the quarter after completing additional training as compared to the quarter before completing training.

Latent Growth Curve Models of Logged Wages

Results for the growth curve models are reported in Table 4.4. Model 1 tests hypotheses 1a, 1b, and 1c by examining the effects of gender and family-related variables on wage trajectories. Model fit indices indicate an excellent fit (CFI=.984, TLI=.981, RMSEA=.035). Model 1 shows that being female is not a significant predictor of the

intercepts, slope, or first observed wage in Model 1; however, in Models 3 and 4 (described below), being female has a significant negative effects on the intercept growth factor. There is a significant positive effect for married respondents on the intercept growth factor but a significantly lower slope as compared to non-married respondents. The dummy variable for having kids and the interaction term of gender and having kids is not significant. Overall, the results support hypotheses 1a, indicating that women have lower wage growth trajectories than men when controlling for race, occupation, education, and work-related circumstances. Hypothesis 1b is somewhat supported; married respondents do have higher starting wages, but they are experiencing slower wage growth than non-married respondents. A “motherhood penalty” (Hypothesis 1c) is not supported by the data. Wages by gender are illustrated in Figure 4.2 below.

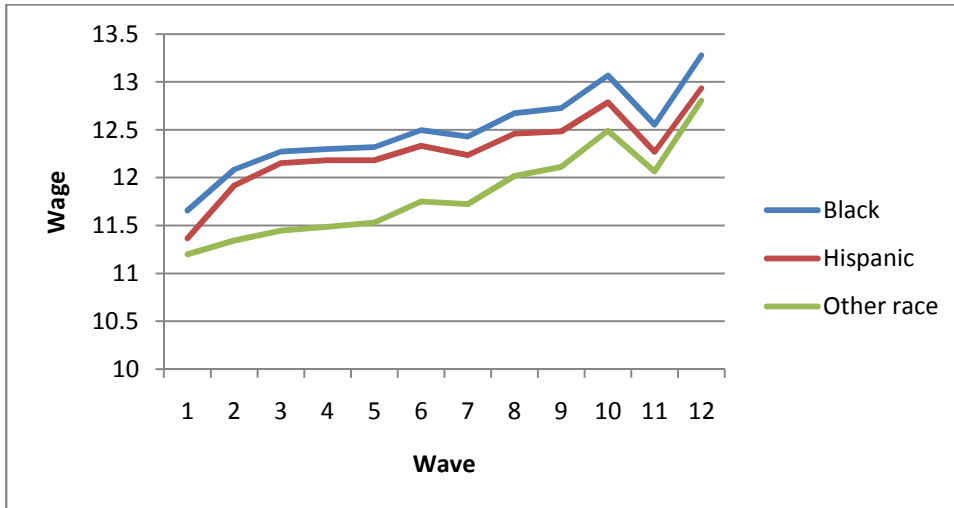
Figure 4.2. Adjusted estimated wages by gender.



Model 2 examines hypothesis 2 by including race/ethnicity variables as predictors of wage growth. Results show being Black or Hispanic has a significant negative effect on the intercept growth factor. Race/ethnicity does not significantly impact the slope or first wage observation. The results support Hypothesis 2, indicating that there are racial

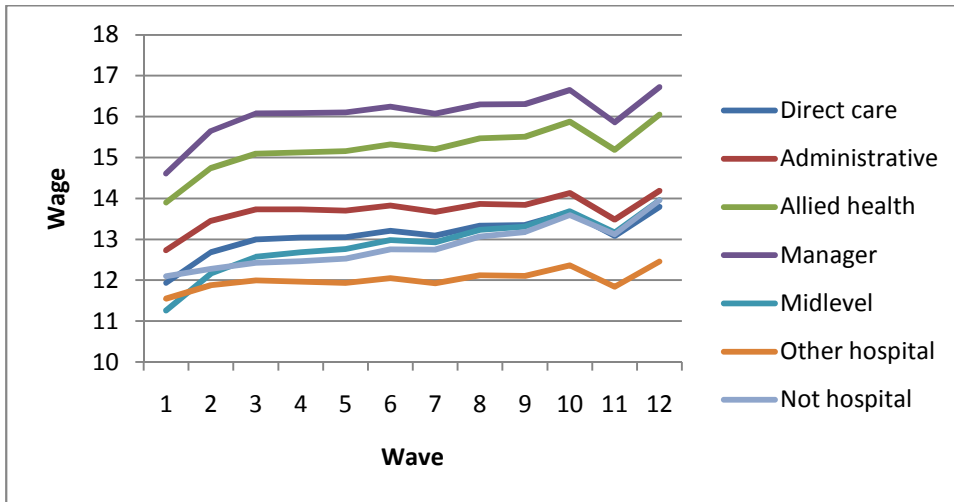
differences in wage trajectories for low-wage hospital workers. Wages by race/ethnicity are illustrated in Figure 4.3 below.

Figure 4.3. Adjusted estimated wages by race/ethnicity.



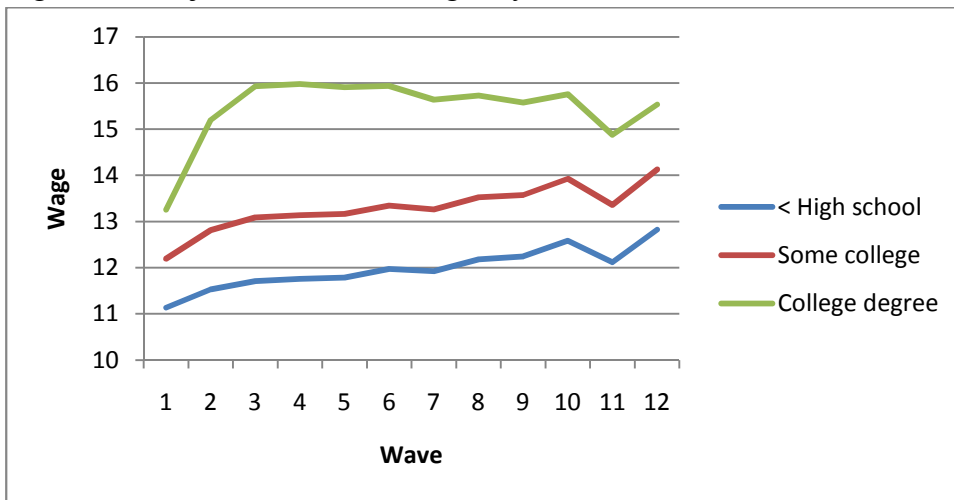
In Model 3, I add in education and occupation variables. Results show that administrative, allied health, and manager occupations have a significant positive effect on the intercept growth factor (frontline entry level is the reference group). Working in a direct care occupation is not significantly different than entry level work. Those that ever worked in jobs that were not hospital-based jobs had significantly lower intercepts as compared to those who only did hospital-based work during the survey period. Being in a frontline allied health occupation is also significantly related to higher wages in the first wave. Occupation is not significantly related to the slope growth factor. Occupational wage differences are shown in Figure 4.4 below.

Figure 4.4. Adjusted estimated wages by occupation.



As expected, those with less than a high school degree have a significantly lower intercept than those with a high school degree, while respondents with some college or a college degree have a high intercept. One finding was unexpected: workers with a college degree have a significantly lower slope growth factor and significantly lower wages in their first observation as compared to workers with a high school degree (estimated wage trajectories by educational level are shown in Figure 4.5 below). Nonetheless, the findings in Model 3 support hypotheses 3a and 3b and suggest that workers with lower education and working in lower-level frontline occupations (e.g., entry level or direct care work) have lower wage trajectories than more highly skilled frontline workers.

Figure 4.5. Adjusted estimated wages by education.



In Model 4, I include work-related variables that test the effect of work experience on wage growth (hypothesis 4a) and other control variables. The measures of fit for Model 4 (the full model) are excellent (CFI=.982, TLI=.977, RMSEA=.020). Total work experience during the survey period work experience does not have a significant effect on wages. Tenure is significantly related to both the intercept growth factor and the slope, but both coefficients are essentially zero, indicating a very small effect. Therefore, the data do support my hypothesis that work experience would not be significantly associated with wage growth (hypothesis 4a). Unionized workers have a significantly higher intercept than non-unionized workers, supporting hypothesis 4b. Full-time workers have a higher intercept growth factor than part-time workers. Hospital-based occupational change or ever having a period of unemployment during the survey period are not significantly related to wage growth.

Finally, Model 4 shows that younger workers (15-30 yrs.) have a lower intercept than older workers (46+), but younger workers have a higher slope growth factor. Workers in the Midwest and South have lower intercepts. Workers in the 2001 cohort (as

compared to the 1996) also have higher intercepts, suggesting that there was some real wage growth for workers in these occupations between 1996 and 2003, when controlling for other factors.

DISCUSSION

In 1995, the Urban Institute published a report authored by Pindus and colleagues entitled *Improving the Upward Mobility of Low-Skill Workers: The Case of the Health Industry*. As suggested by the title, the report outlines how the changing healthcare sector may affect employment and advancement opportunities for low-wage workers and addresses the labor market, skill requirements, training, and career mobility implications for these workers. The report presents many case studies of health organizations that provided (and are still providing) training programs for frontline healthcare workers, allowing them to gain additional skills and climb a career ladder within the healthcare sector. In fact, many of the organizations highlighted in the 1995 Urban Institute report are the same organizations highlighted in the earlier chapters of this dissertation. The report – like this dissertation – expands on the possibilities for career ladders and wage growth opportunities for low-skill, low-wage workers within the health care sector and calls for further study on frontline worker wage and occupational mobility.

The study presented here helps to answer this call for further research on frontline worker careers and inform whether the health care industry is providing upward mobility for low-wage workers. Is there evidence of upward mobility among frontline healthcare workers? Andersson, Holzer and Lane (2005) note that the health sector is one of the few sectors where we actually see some advancement among low-wage workers. Further, Andersson et al. (2005) show that some health care employers consistently help low-

wage workers increase their earnings and escape low-wage work – organizations like those highlighted in the Urban Institute report, in Fitzgerald’s (2006) chapter on career ladders in health care, and in earlier chapters of this dissertation.

However, the findings on frontline healthcare worker wage mobility in this chapter of my dissertation are mixed. On one hand, workers do experience real wage growth of between 16-19 percent over the survey period (3-4 years), above and beyond inflation. This is consistent with previous literature that has shown that low-wage workers see returns of 4-6 percent in wage increases for every year of work experience, a rate that is similar to wage growth of middle-income workers (Gladden & Taber, 2000). Further, workers who ever leave the hospital as a place of employment during the survey period and take a job in a different sector have lower wage growth than those who remain in hospital-based jobs throughout the survey period, suggesting that hospital-based employment provides marginally better compensation than other low-wage work.

On the other hand, there is a lot of variability in both starting wages and wage growth over time by occupation. Entry level workers (e.g., housekeepers and dietary staff) and direct care workers (e.g., nursing assistants) are clearly more disadvantaged in terms of starting wages and wage growth as compared to administrative and allied health workers, and as described above, I do not find a lot of mobility out of entry level and direct care positions during the survey period. Entry level and direct care workers are also less likely to enjoy the social benefits of working in a hospital – health insurance, paid time off, and retirement contributions – as compared to more skilled frontline workers. These findings suggest that the lowest levels of frontline healthcare positions (e.g., entry level and direct care work) are not consistent stepping stones in a career ladder for

frontline workers. Instead, these jobs share many of the multiple disadvantages present in other low-wage service sector jobs in retail and food service – low wages, poor working conditions, and few opportunities for advancement. Women and minorities are particularly disadvantaged in frontline healthcare jobs, although mothers of young children do not appear to experience a wage penalty. This finding is consistent with previous research that has found that African Americans and Hispanics (one-third of the sample in the current study) do not experience the motherhood wage penalty to the same degree as Whites (Glauber, 2007).

The potential to create career ladders in the health care sector that was documented by Pindus and colleagues in the Urban Institute report still exists today; in fact, the potential is probably greater, as U.S. hospitals have been even more reliant on frontline workers at all levels (Standing & Chowdhury, 2008). The findings reported in this chapter show that there are clear wage advantages for workers who can move from entry or direct care frontline positions into administrative or allied health frontline positions, or into managerial or midlevel positions. The findings suggest that internal labor markets and career ladders to help entry level and direct care workers move into more skilled frontline workers (and eventually midlevel positions) could turn “bad jobs” into much better jobs because of the opportunity for advancement. However, Mehaut and colleagues, in a chapter on hospital nursing assistants and cleaners in six developed countries, suggest that efforts to improve the jobs of these frontline workers and create career ladders are not widespread (Méhaut et al., 2010).²⁶ Consequently, as is supported

²⁶ Fitzgerald (2006) states that workforce development programs for low-wage are more common in the healthcare sector as compared to any other sector. However, even with this level of activity within the healthcare sector, Mehaut et al. (2010) do not see industry-wide, sustained investment in the development of internal labor markets for frontline healthcare workers in the U.S.

by the findings presented here, mobility among frontline healthcare workers is low, particularly among entry level and direct care workers.

This study is limited in scope. I am only able to follow individuals over a relatively short period of time in their careers (3-4 years); a longer timeframe would provide more comprehensive information about career transitions. I would also like to include the 2004 SIPP panel, which was released after I had made significant progress on this project. Adding in 2004 data (which covers 2004-2007) would provide more information on more recent working conditions for these workers.²⁷ Further, I do not attempt to model occupational and educational transitions. Expanding the analysis to look at these outcomes in addition to wage growth may provide additional insights about frontline worker career trajectories. I will further discuss the implications of this study and directions for future research in Chapter 5.

²⁷ The 2004 panel ends before the impact of the recession that started in late 2007 would have been felt, so unfortunately it is limited in its ability to reflect today's working conditions. There is a 2008 panel of the SIPP, but it does not end until 2013.

Table 4.1. Dependent and independent variables included in wage growth model.

Name of variable	Description	Percent or Mean (SD)
<i>Dependent variable</i>		
Wages	The log of hourly wages. Coefficients can be interpreted approximately as a percentage difference in wages.	2.54 (0.34)
<i>Gender and family variables</i>		
Female	Indicates if the respondent is female (1) or male (0).	82%
Married	Indicates if the respondent is married (1) or not married (0).	56%
Children under 18	Indicates if the respondent has children under 18 (1).	42%
<i>Race</i>		
White	Reference category.	63%
Black		24%
Hispanic		10%
Other		4%
<i>Occupation and education variables</i>		
<i>Occupational categories</i>		
Entry level	Employees that provide ancillary support services (e.g., dietary, housekeeping, or laundry services). Reference category.	12%
Direct care work	Employees that work directly with patients (e.g., nursing assistants or medical technicians).	15%
Administrative	Employees that perform administrative duties (e.g., unit clerks).	27%
Allied health	Semi-specialized paraprofessionals (e.g., radiology technicians, health technicians, licensed practical nurses).	19%
Frontline manager	Lower-level management.	6%
Mid-level	Skilled healthcare workers (e.g., registered nurses, physical therapists).	2%
Other hospital job	Occupations not elsewhere classified; employed in a hospital (SIC 831).	1.4%
Non-hospital employment	Not employed in a hospital.	17%
<i>Education</i>		
Less than high school		8%
High school degree	Reference category.	33%
Some college		47%
College degree		12%
<i>Work experience variables.</i>		
Work experience	Number of months of total work experience within the timeframe of the panel.	36.13 (12.32)
Tenure	Number of months in current position.	99.86 (101.6)

Hospital-based occupational change	Indicates whether an individual ever switched occupations in a hospital setting (1).	26%
Not employed	Indicates that the individual did not have a job at the time of the survey (1)	7.9%
Full-time/part-time	Indicates if a respondent work full-time (1), or greater than 30 hours per week, or part-time (0).	80%
Union	Indicates if the individual belongs to a union (1).	12%
<i>Other control variables.</i>		
Age		
	15-30 years	21%
	31-45 years	41%
	46+ years	Reference category. 37%
Geographic location		
	Indicates if the respondent lives in the Midwest, South, or West. The Northeast is the reference category.	
	Northeast	21%
	Midwest	26%
	South	37%
	West	16%
2001 Cohort	Indicates that the individual was in the 2001 SIPP panel (1), rather than the 1996 panel (0).	37%

Source: Study for Income and Program Participation (SIPP), 1996 and 2001 panels. Obs=14,015

Table 4.2. Wages by survey wave and cohort.

Wave	1996 cohort		2001 cohort	
	Mean	(SD)	Mean	(SD)
1	\$11.30	(\$3.41)	\$11.54	(\$3.30)
2	\$11.65	(\$4.26)	\$11.88	(\$4.29)
3	\$12.09	(\$5.36)	\$12.61	(\$5.27)
4	\$11.98	(\$4.95)	\$12.53	(\$5.16)
5	\$12.33	(\$5.05)	\$12.77	(\$5.16)
6	\$12.46	(\$5.39)	\$12.74	(\$4.94)
7	\$12.47	(\$4.87)	\$13.12	(\$5.69)
8	\$12.70	(\$5.18)	\$12.89	(\$5.19)
9	\$13.04	(\$5.40)	\$13.44	(\$5.54)
10	\$13.11	(\$5.41)		
11	\$12.84	(\$4.74)		
12	\$13.50	(\$6.38)		
Total	\$12.37	(\$5.04)	\$12.52	(\$4.92)

Source: Study for Income and Program Participation (SIPP), 1996 and 2001 panels. Wages adjusted to 2003 dollars.

Table 4.3. Wages and yearly wage change for workers in hospital settings.

Worker type	Obs	Mean		Median Wage	Yearly wage change	
		wage	SD		change	SD
Entry level	1607	\$10.34	\$3.57	\$9.82	\$0.36	\$3.44
Direct care work	1939	\$10.93	\$4.42	\$10.21	\$0.87	\$4.55
Administrative	3437	\$12.27	\$4.33	\$11.78	\$0.77	\$3.67
Allied health	2506	\$14.22	\$4.29	\$14.00	\$1.07	\$4.18
Frontline manager	814	\$15.33	\$6.42	\$14.66	\$1.76	\$7.04
Midlevel	215	\$14.24	\$5.51	\$14.25	\$2.14	\$4.65
Other hospital	180	\$13.65	\$4.76	\$12.87	\$0.25	\$4.25
Not hospital job	2123	\$12.10	\$6.13	\$10.64	\$0.96	\$5.62
Total	12,821	\$12.42	\$5.00	\$11.68	\$0.91	\$4.63

Source: Study for Income and Program Participation (SIPP), 1996 and 2001 panels. Wages adjusted to 2003 dollars.

Table 4.4. Parameter estimates of latent growth curve models of inflation-adjusted logged wages.

Parameter	Model 1	Model 2	Model 3	Model 4
Intercept (α)	1.578	1.576	1.574	1.566
Linear slope (β)	-0.006	-0.005	-0.003	-0.003
Female $\rightarrow\alpha$	-0.03	-0.032	-0.056**	-0.064***
Married $\rightarrow\alpha$	0.069***	0.06***	0.046***	0.023*
Kids $\rightarrow\alpha$	-0.039	-0.027	-0.05	-0.025
Female*kids $\rightarrow\alpha$	0.015	0.011	0.031	0.035
Black $\rightarrow\alpha$		-0.048**	-0.021	-0.027*
Hispanic $\rightarrow\alpha$		-0.071**	-0.01	-0.015
Other race $\rightarrow\alpha$		0.002	-0.035	-0.063*
Direct care work $\rightarrow\alpha$			0.021	0.029
Administrative $\rightarrow\alpha$			0.081***	0.09***
Allied health $\rightarrow\alpha$			0.139***	0.149***
Frontline manager $\rightarrow\alpha$			0.179***	0.167***
Ever midlevel $\rightarrow\alpha$			0.000	0.016
Ever not hospital $\rightarrow\alpha$			-0.052***	-0.02
Ever other hospital $\rightarrow\alpha$			-0.006	-0.009
< high school $\rightarrow\alpha$			-0.05*	-0.054*
Some college $\rightarrow\alpha$			0.046**	0.056***
College degree $\rightarrow\alpha$			0.192***	0.201***
Work experience $\rightarrow\alpha$				0.001
Tenure $\rightarrow\alpha$				0.000***
Hospital occupation change $\rightarrow\alpha$				-0.003
Ever not employed $\rightarrow\alpha$				-0.002
Full-time $\rightarrow\alpha$				0.056***
Union $\rightarrow\alpha$				0.039*
Age (15-30) $\rightarrow\alpha$				-0.003***
Age (31-45) $\rightarrow\alpha$				-0.002
Midwest $\rightarrow\alpha$				-0.062***
South $\rightarrow\alpha$				-0.108***
West $\rightarrow\alpha$				-0.007
2001 cohort $\rightarrow\alpha$				0.035**
Female $\rightarrow\beta$	0.002	0.002	0.002	0.003
Married $\rightarrow\beta$	-0.004*	-0.003*	-0.003	-0.001
Kids $\rightarrow\beta$	0.004	0.004	0.004	0.002
Female*kids $\rightarrow\beta$	-0.005	-0.005	-0.005	-0.005
Black $\rightarrow\beta$		0.001	0.000	0.002
Hispanic $\rightarrow\beta$		0.000	0.000	0.000
Other race $\rightarrow\beta$		0.001	0.003	0.004
Direct care work $\rightarrow\beta$			0.001	0.000

Administrative→β			-0.002	-0.003
Allied health→β			0.000	0.000
Frontline manager→β			-0.004	-0.002
Ever midlevel→β			0.004	0.000
Ever not hospital→β			0.000	-0.002
Ever other hospital→β			0.004	0.002
< high school→β			0.002	0.003
Some college→β			0.003	0.002
College degree→β			-0.008**	-0.009***
Work experience→β				0.000
Tenure→β				0.008**
Hospital occupation change→β				0.002
Ever not employed→β				-0.002
Full-time→β				-0.003
Union→β				-0.001
Age (15-30)→β				0.006*
Age (31-45)→β				0.001
Midwest→β				0.004
South→β				0.002
West→β				0.002
2001 cohort→β				-0.001
<hr/>				
Female→wage ₁	0.042*	0.041	0.033	0.033
Married→wage ₁	0.028*	0.027*	0.026*	0.022
Kids→wage ₁	0.044	0.047	0.033	0.03
Female*kids→ wage ₁	-0.049	-0.05	-0.04	-0.038
Black→wage ₁		-0.003	0.003	0.011
Hispanic→wage ₁		-0.03	-0.02	-0.016
Other race→wage ₁		0.006	0.018	0.017
Direct care work→wage ₁			-0.018	-0.022
Administrative→wage ₁			0.018	0.02
Allied health→wage ₁			0.055*	0.056*
Frontline manager→wage ₁			0.049	0.046
Ever midlevel→wage ₁			-0.047	-0.047
Ever not hospital→wage ₁			0.008	0.015
Ever other hospital→wage ₁			0.044	0.042
< high school→wage ₁			-0.02	-0.012
Some college→wage ₁			0.009	0.01
College degree→wage ₁			-0.061**	-0.065**
Work experience→wage ₁				0.000
Tenure→ wage ₁				0.000
Hospital occupation change→ wage ₁				.003
Ever not employed→ wage ₁				0.000

Full-time→wage ₁				0.019
Union→wage ₁				0.027
Age (15-30)→wage ₁				0.003
Age (31-45)→wage ₁				-0.031
Midwest→wage ₁				0.021
South→wage ₁				-0.015
West→wage ₁				0.018
2001 cohort→wage ₁				-0.004
CFI	.984	.983	.985	.982
TLI	.981	.979	.981	.977
RMSEA	.035	.031	.022	.020

Notes: N=1654 individuals. Reference category is “white” for race, “entry level frontline worker” for occupation, “high school degree” for education, and “Northeast” for region. *p<.05 **p<.01 ***p<.001

Chapter 5

Conclusions and directions for future research

Health care researchers, policy makers, and administrators are interested in frontline workers because of the impact that these workers have on quality of care and patients. Thus, most studies of frontline workers in healthcare organizations are focused on outcomes that directly impact the organization with little interest in the worker, apart from how the worker will affect the organization. In this study, however, I am primarily interested in frontline healthcare workers as a case of low-wage workers. In other words, I am interested in the workers themselves and their career trajectories, and while I sometimes link worker career advancement to quality of care outcomes, I am primarily interested in whether these are “good jobs” or “bad jobs” for low-wage workers.

My findings suggest that frontline healthcare jobs can be “good jobs” for low-wage workers. In fact, they can be excellent jobs. For example, I recently conducted an interview with a former frontline worker in a Seattle-based health system that had started working at the organization in a medical technician position.²⁸ With the support of the organization she was able to get an Associates Registered Nurse (RN) degree. The organization then had an RN to Bachelors of Nursing (BSN) degree program that was offered through a local university with classes taught on-site at the health system once a week. The organization covered over 75 percent of the cost of the BSN degree. After completing her BSN degree, this former frontline worker moved into a management position, managing about 40 frontline workers and nurses at a clinical outpatient center. When I spoke with her, she had recently completed a master’s degree from a major university in healthcare administration. I also talked with another former frontline worker, a former Marine, who had started working in the same Seattle-based health

²⁸ This summer I have been conducting interviews with frontline hospital workers for a research project that is not a part of my dissertation. However, the work is highly relevant to my dissertation and the interpretation of my dissertation results.

system as a surgical technician and was able to earn her Associates RN degree with the support of the organization. She was currently working on her BSN degree through the same on-site BSN program. Clearly, the organization that employed these workers created “good” frontline jobs by providing the support that these workers needed to move out of frontline positions and into midlevel positions with higher compensation, responsibility, and prestige.

Building “good” frontline healthcare jobs

Organizations with excellent frontline healthcare jobs provide workers with a variety of supports to help them move up into better jobs with higher wages. As discussed in Chapters 2 and 3, important components of building career ladders and promoting a sense of mobility among low-wage workers include building partnerships with educational institutions and having educators provide classes onsite, providing tuition support that goes beyond limited tuition reimbursement, and allowing workers either paid release time from work or employment benefits for part-time workers. These policies and practices both shape employees’ expectations of what is possible for them in their careers and provide them with the necessary assistance to move into better positions.

I want to note that the two workers used as examples above at the Seattle-based health system began their careers in higher level frontline positions (e.g., frontline allied health positions). These positions typically require higher levels of training than direct care or entry level positions and have higher compensation. Thus, these workers began their career trajectories with a higher level of training and more skills to draw on as they sought higher education and training. Lower-level frontline workers, such as housekeepers or nursing assistants, have a much longer journey to escape frontline work.

However, organizations can support lower-level frontline workers by outlining for workers how they can move into better compensated occupations through the use of explicit career ladders. As described in Chapter 2, particularly in hospitals there are positions that workers can move into without significant investment in college-level training; however, lower-level frontline workers may not be aware of these career pathways. Further, organizations can assist these workers with additional training by providing on-site remedial education or funding for prerequisite coursework, which is often a necessity for workers with little training past high school.

As a result of many of the policies and practices discussed above, the workers at the Seattle-based health system were able to make *substantial* advancements in their careers and wages. Consequently, they were highly dedicated to their jobs and their employer; the manager discussed above had worked at the health system for over 30 years, and an employment tenure of this length was not at all unusual at this organization. The organization received clear benefits from their investment in the training and promotion of their workers.

The organizational policies and practices presented in Chapters 2 and 3 – and the subsequent impact that the policies have on worker mobility – support the work of Andersson et al. (2005) in their book *Moving Up, Moving On*. Andersson and colleagues find that some healthcare organizations consistently help low-wage workers advance, but these organizations are few and far between. The workers in the healthcare sector that experienced the most wage growth over their careers were those that job searched in the beginning of their career until they found an employer that offered the kind of benefits

described above and then stayed with that employer. These workers were the most likely to escape low earnings.

The “average” frontline healthcare job – just another low-wage job

Unfortunately, as shown in Chapter 4, most frontline jobs are not excellent low-wage jobs. Instead, frontline workers – particularly entry level and direct care frontline workers – appear to experience relatively low wage growth and limited mobility. Using a nationally representative sample of 1,745 frontline hospital workers, I found that frontline workers did experience wage growth on average that was similar to middle-income workers (4-6% a year) (Gladden & Taber, 2000). However, the lower wages of frontline workers make this wage growth less substantial, amounting to less than a \$2 per hour gain in 4 years. Further, there is variation between occupations, with entry level and direct care workers experiencing far lower wage growth than frontline allied health workers or frontline managers; for example, entry level workers experience wage growth of \$.36 per year, while allied health workers have wage growth of \$1.07 per year. Women and minorities are also at a disadvantage in terms of wage growth. These findings are consistent with other studies that show low mobility among frontline healthcare workers (Andersson et al., 2005; Ribas, Dill, & Cohen, under review). In sum, for workers with the lowest levels of education and skills, the health care sector is unlikely to give them a boost out of low earnings – that is, without the intervention of an organization committed to helping workers move up.

There is evidence that frontline healthcare work is just another low-wage job for these workers rather than first step in a career path. In the study presented in Chapter 4, I found that 497 individuals out of a sample of 1,745 (28%) held jobs that were not in a

hospital during the survey period. Many of these workers were transitioning to other health care settings, but many were transitioning to other low-wage service sector jobs (see Chapter 4 Appendix). This suggests that for many of these workers, particularly in the lower rungs of the frontline workforce, these workers do not view hospital work as a step up on a career ladder. Instead, frontline healthcare work is just another dead-end, low-wage job, albeit one that often includes a very heavy and physically demanding workload. Thus, it is not surprising that workers transition out of hospital-based work for other low-wage job options.

Policy implications: Promoting the development of career ladders

Previous studies have shown that organizations can make an important difference in whether low-wage workers are able to move into better jobs (Andersson et al., 2005; Appelbaum & Schmitt, 2009). Human resource policies, job structures, and organizational culture can all contribute to frontline healthcare jobs as stepping stones to jobs with higher wages. Unfortunately, in their study of hospitals across six developed countries, Mehaut and colleagues conclude that “despite a number of attempts to improve work organizations that we came across in our case studies, there is nothing to suggest that high-road strategies are gaining any ground” (Mehaut et al., 2010: p.359). While Fitzgerald (2006) and Pindus et al. (1995) highlight organizations that are making efforts to improve frontline worker positions, Mehaut et al. (2010) suggest that such “high road” efforts are not widespread in the healthcare sector.

Healthcare organizations in the U.S. are facing pressure to keep costs down, and have for some time, which encourages disinvestment in workforce development and the use of low-wage workers, particularly in today’s economic climate. However, the

question is why some firms choose to respond to economic pressures by adopting policies that are detrimental to low-wage workers, while other firms respond with policies and practices that are beneficial to low-wage workers. In Chapter 2, I discussed organizational motivations for investing in their frontline workforce. My analysis focused on motivations internal to the organization, including improving quality of care through improvement in worker skills and retention, increasing revenue, and concern for the workers themselves.

The editors of *Low-Wage America*, a compilation of case studies of industries where low-wage workers are employed, offer a broader analysis of external contextual factors that contribute to organizations providing “better” frontline jobs (Appelbaum, Burnhardt, & Murnane, 2003). First, the editors cite union representation within a firm. Studies have found that labor unions are strategic institutional actors that advance workers’ life changes by organizing them, engaging in collective bargaining, and shaping policy through legislative lobbying and political campaigns (Cornfield & Fletcher, 2001; Cornfield & McCammon, 2003).

Another key factor identified by Appelbaum, Burnhardt, and Murnane is the presence of strong regional labor market institutions (e.g., a multi-employer training fund that provides skill-upgrading and promotion for low-wage workers traditionally stuck in dead-end jobs). Regional labor market institutions and workforce intermediaries can also encourage employers and educational institutions to work together to develop training programs and career ladders for low-wage workers (Osterman, 2001).

Finally, the editors of *Low-Wage America* suggest that the quality of information available to managers makes a difference in the quality of low-wage positions.

Alternatives to reducing wages, such as reorganizing work processes to improve worker productivity, often require specialized knowledge that many employers do not have. Not surprisingly, firms that employ these innovative practices, such as high performance work practices, tend to be located near metropolitan areas, where they have access to colleges, well-trained managers, and other vehicles for exposure to changing practices within the industry.

Both the internal organizational motivation for building career ladders presented in Chapter 2 of this dissertation and the external motivators for building career ladders identified by Appelbaum, Burnhardt, and Murnane (2003) are important in the improvement of frontline worker jobs through the use of career ladders. In the section below, I discuss improving frontline jobs through greater skill requirements and higher wages, making these better jobs not because they are “stepping stones” but because the jobs have “good job” qualities.

Policy implications: Raising wages for frontline workers

One approach to improving frontline healthcare jobs is to view them as “stepping stones” to better jobs and build structures and supports to help workers access better jobs through frontline work. Another approach is to improve the overall quality of frontline jobs, viewing these jobs not “stepping stones,” but as good jobs that provide workers with good careers. Mehaut et al.’s (2010) international perspective is helpful in this respect, as the authors provide many examples of countries in which frontline hospital work is not the low-wage, low-skill work that it is in the United States. As discussed earlier in this dissertation, Mehaut et al. (2010) hold Denmark up as a virtuous example: a low incidence of poorly paid work owing to a strong collective regulation of all wages, few if

any contract or temporary workers, a reorganization of work supported by the trade unions, which has driven up workforce skills, and extensive use of training. Denmark, as well as the Netherlands, France, and Germany, make very little use of nursing assistants, reflecting a preference for a decidedly high-skill approach to nursing tasks. However, in many countries even housekeepers and cleaners earn wages that are not “low wages,” which for Mehaut et al. (2010) means less than two-thirds of the gross hourly median wage.²⁹

In contrast to frontline workers in many of the European countries, frontline workers in the U.S. “suffer from cumulative disadvantages, including low pay, poor working conditions, and low mobility prospects” (Mehaut et al., 2010, p.361). Mehaut et al. attribute the lower pay and status of frontline workers in the U.S. in comparison to their European counterparts to a number of factors, including a higher overall incidence of low-wage work in the U.S. compared to European countries, the use of “exit options” by healthcare organizations, such as temporary agencies or contract companies, and the falling minimum wage. As the wage floor has fallen, it has created room for temp agencies and subcontractors to offer services at lower costs than what were possible in-house, where long-term workers may have acquired seniority and be working at higher than the minimum wage.

While not mentioned by Mehaut and colleagues, I would argue that high level of inequality in wages in the healthcare sector is also contributing to low wages for frontline

²⁹I thought it would be interesting to see how the U.S. compares to other countries using the sample from the SIPP that I examine in Chapter 4. The median hourly wages for entry level and direct care workers in the SIPP sample in Chapter 4 are \$9.82 and \$10.21, respectively, in 2003 dollars. The median hourly wage in 2003 was \$13.53 (<http://www.bls.gov/oes/2003/may/major.pdf>). According to the threshold used by Mehaut et al. (2010), the median hourly wages for entry level and direct care workers are just above “low-wage,” falling at about 70 percent of the national median hourly wage. However, this means that slightly less than half of both entry level and direct care workers are in jobs that are “low-wage” jobs.

workers. A physician specialist can easily make 10-20 times what a typically frontline worker makes in a hospital, and until this degree of inequality is reduced, we will continue to see low wages for frontline workers (Butter, Carpenter, Kay, & Simmons, 1985; Butter, Carpenter, Kay, & Simmons, 1987).

The international work presented by Mehaut et al. (2010) suggests that “bad jobs” in healthcare are not inevitable. Other countries have structured work and wages in ways that contribute to much better working conditions for frontline workers in healthcare settings. However, Mehaut et al. (2010) argue that the national model of healthcare has a strong impact on frontline worker jobs; for example, they argue that American hospitals’ greater dependence on fragmented and competing sources of finance and the absence of funding for populations not covered by health insurance explain why their responses are so diverse and why it is difficult to put high-road strategies in place. And while we know that organizations make a difference in low-wage worker advancement, Mehaut et al. argue that organizations are fully embedded in their respective national models, the effects and dynamics of which they reproduce and sometime exaggerate. Thus, the improvement of frontline worker jobs depends not only on the efforts of organizations, but on national policies and practices as well if we are to see widespread changes.

Directions for future research

The research presented in this dissertation points to future research that is relevant to both the study of the low-wage workforce and healthcare organizations. Below I discuss four areas in which research on frontline healthcare workers could be expanded.

- 1) *Linking career ladders and mobility*. There is little research available that examines the relationship between career ladders in healthcare and actual occupational or wage

mobility. In Chapter 3, I link policies and practices used to build career ladders to perceived career mobility, but I do not have measures of actual mobility over time or past mobility, which limits my analysis. Likewise, the reports by Pindus et al. (1995) and Fitzgerald (2006) which highlight career ladder development at various healthcare organizations provide primarily anecdotal or qualitative evidence to support claims of program “success” or “effectiveness.” The reason that there is little quantitative research on career ladders and mobility is clear: such data are extremely difficult to collect, particularly among this population. Low-wage workers change jobs often, often have periods of unemployment, and move often, making it difficult to track these workers over time. Further, career ladder programs often involve a small number of individuals at an organization and vary widely between organizations, making it difficult to obtain a large enough sample size to detect differences. Nonetheless, longitudinal research on career ladders and mobility would contribute substantially to our understanding of low-wage work.

- 2) *Comparing frontline healthcare worker mobility to other low-wage workers.* Another important expansion of the work presented in this dissertation would be to compare the wage growth and occupational mobility of frontline healthcare workers to other low-wage workers. In Chapter 4 I use the SIPP to examine wage growth among frontline hospital workers; I would like to expand this study to compare wage growth among frontline hospital workers, frontline workers in other healthcare settings, and low-wage workers in other service sector jobs.
- 3) *Examining partnerships between educational institutions and healthcare employers.* Educational institutions are vital components of career ladders in healthcare, where

many jobs require some type of certification or license. However, creating partnerships between educational institutions and employers to develop career ladders is a significant feat, or as Fitzgerald (2006) states, “monuments to cooperation.” Such cooperation between firms, educational institutions, and other organizations can be very challenging to cultivate and requires substantial effort on the part of all partners. Professional barriers can also inhibit the development of career ladders; for example, in healthcare, four-year nursing programs have discouraged the development of on-the-job RN training programs. These conflicts can stunt the growth of career ladders and undermine their effectiveness. During my postdoctoral fellowship, I plan to use fuzzy sets Qualitative Comparative Analysis to examine the relationship between employers and educational institutions in the development of career ladders.

- 4) *Linking healthcare worker mobility and quality of care.* Finally, I think it would be useful to link employee mobility and quality of care outcomes in healthcare organizations. Again, finding and/or collecting such data is extremely difficult. However, since career development for frontline workers is primarily driven by individual organizations in the United States – rather than national policies or unions – and organizations are primarily interested in patient outcomes, linking frontline worker mobility and quality of care may be an important impetus for the further promotion and development of improved frontline worker jobs.

The link between income inequality and health is well-established (Marmot et al., 1991; Wilkinson & Pickett, 2006), and the effect of low incomes and high inequality is evident every day in the patients that health care organizations serve. And yet, U.S. health care organizations are highly dependent on low-wage workers. In conclusion, I want to

suggest that health care organizations and our national health care policies and practices should aim to reduce inequality within the healthcare workforce, both as a model for employment relationships and low-wage work in general and as a reflection of the values of care and prevention within the field of health care.

CHAPTER 4 APPENDIX

	Mean Wage	SD	Obs.
FRONTLINE HEALTHCARE OCCUPATIONS: Entry level			
Cashiers (4364)	\$11.33	\$2.79	95
Guards and police, except public service (5144)	\$11.12	\$2.72	61
Cooks (5214, 5215)	\$9.96	\$2.58	141
Food counter, fountain and rel. occupations (5216)	\$6.98	\$0.13	3
Kitchen workers, food preparation (5217)	\$9.46	\$2.39	4
Waiters'/waitresses' assistants (5218)	\$7.98	\$0.69	4
Miscellaneous food preparation occupations (5219)	\$10.23	\$3.45	213
Maids and housemen (5242, 5249)	\$10.10	\$3.86	684
Janitors and cleaners (5244)	\$11.02	\$3.04	198
Welfare service aides (5263)	\$15.69	\$5.46	18
Groundskeepers and gardeners, except farm (5622)	\$10.39	\$0.78	15
Bakers (6872)	\$7.98	\$0.20	3
Laundering and dry cleaning machine operators (6855, 7658)	\$8.21	\$2.59	56
Furnace, kiln, and oven operators, except food (7675)	\$18.48	\$0.43	9
Miscellaneous machine operators, n.e.c. (part 7479, 7665, 7679)	\$10.14	\$1.88	40
Production inspectors, checkers, and examiners (782, 787)	\$14.86	\$5.76	12
Truck drivers (8212-8214)	\$8.76	\$0.85	10
Driver-sales workers (8218)	\$6.39	\$0.37	12
BUS drivers (8215)	\$10.87	\$1.68	9
Misc material moving equipment operators (8319)	\$7.12	\$0.09	2
Freight, stock, and material handlers, n.e.c. (8726)	\$6.75	\$3.21	6
Laborers, except construction (8769)	\$9.00	\$2.85	12
Total	\$10.34	\$3.57	1607
FRONTLINE HEALTHCARE OCCUPATIONS: Direct care worker occupations			
Recreation workers (2033)	\$7.06	\$0.68	3
Dental assistants (5232)	\$16.51	\$3.20	13
Health aides, except nursing (5233)	\$10.75	\$4.92	333
Nursing aides, orderlies, and attendants (5236)	\$10.93	\$4.29	1590
Total	\$10.93	\$4.42	1939
FRONTLINE HEALTHCARE OCCUPATIONS: Administrative occupations			
Accountants and auditors (1412)	\$15.61	\$3.71	64
Other financial officers (1415, 1419)	\$18.83	\$8.12	39
Personnel, training, and labor relations specialists (143)	\$14.44	\$5.37	44
Purch. agents and buyers, n.e.c. (1449)	\$14.33	\$4.03	42
Health record technologists and technicians (364)	\$10.97	\$3.17	52
Computer programmers (3971, 3972)	\$12.93	\$4.15	3
Technicians, n.e.c. (399)	\$14.93	\$2.91	33
Computer operators (4612)	\$12.46	\$4.62	65
Secretaries (4622)	\$12.69	\$3.74	861
Stenographers (4623)	\$12.87	\$3.99	89
Typists (4624)	\$11.34	\$2.43	72
Interviewers (4642)	\$10.30	\$2.63	136
Receptionists (4645)	\$10.83	\$2.45	319
Information clerks, n.e.c. (4649)	\$11.47	\$1.77	46
Personnel clerks, except payroll and timekeeping (4692)	\$14.88	\$2.86	11

File clerks (4696)	\$11.96	\$11.21	64
Records clerks (4699)	\$11.24	\$3.65	73
Bookkeepers, accounting, and auditing clerks (4712)	\$14.16	\$8.02	178
Payroll and timekeeping clerks (4713)	\$15.89	\$1.85	7
Billing clerks (4715)	\$12.78	\$4.08	127
Billing, posting, and calculating machine operators (4718)	\$12.63	\$2.46	58
Telephone operators (4732)	\$11.73	\$2.32	86
Mail clerks, except postal service (4744)	\$10.75	\$4.05	7
Messengers (4745)	\$10.24	\$1.88	35
Dispatchers (4751)	\$10.43	\$2.38	15
Production coordinators (4752)	\$12.93	\$1.98	36
Traffic, shipping, and receiving clerks (4753)	\$8.32	\$0.70	13
Stock and inventory clerks (4754)	\$10.53	\$3.32	86
Eligibility clerks, social welfare (4784)	\$12.90	\$2.31	83
Bill and account collectors (4786)	\$11.63	\$1.85	42
General office clerks (463)	\$10.77	\$3.78	217
Data-entry keyers (4793)	\$12.44	\$3.57	44
Statistical clerks (4794)	\$10.41	\$2.85	151
Administrative support occupations, n.e.c. (4787, 4799)	\$13.32	\$3.26	239
Total	\$12.27	\$4.33	3437
FRONTLINE HEALTHCARE OCCUPATIONS: Allied health occupations			
Respiratory therapists (3031)	\$16.33	\$4.37	144
Social workers (2032)	\$14.33	\$3.92	90
Clinical laboratory technologists and technicians (362)	\$14.52	\$5.06	651
Radiologic technicians (365)	\$15.75	\$3.40	186
Licensed practical nurses (366)	\$13.99	\$3.58	604
Health technologists and technicians, n.e.c. (369)	\$13.42	\$4.09	831
Total	\$14.22	\$4.29	2506
FRONTLINE HEALTHCARE OCCUPATIONS: Managerial occupations			
Purchasing managers (124)	\$8.12	\$0.63	11
Managers, medicine and health (131)	\$15.16	\$5.69	370
Managers, food serving and lodging establishments (1351)	\$13.81	\$2.51	15
Managers, service organizations, n.e.c. (127, 1352, 1354, part 1359)	\$17.81	\$5.37	28
Managers and administrators, n.e.c. (121, 126, 132-1343, 136-139)	\$20.87	\$11.88	69
Management rel. occupations, n.e.c. (149)	\$14.20	\$3.78	107
Supervisors and Proprietors, Sales Occupations (40)	\$12.31	\$0.67	13
Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)	\$15.48	\$4.44	67
Supervisors, computer equipment operators (4512)	\$12.05	\$2.59	4
Supervisors, financial records processing (4521)	\$14.34	\$4.62	23
Supervisors, distribution, scheduling, and adjusting clerks (4522, 4524-4528)	\$15.78	\$5.10	5
Supervisors, police and detectives (5112)	\$15.87	\$6.16	12
Supervisors, guards (5113)	\$15.49	\$4.49	22
Supervisors, food preparation and service occupations(5211)	\$14.85	\$9.31	33
Supervisors, cleaning and building service workers (5241)	\$12.67	\$4.10	35
Total	\$15.33	\$6.42	814
Mid-level occupations			
Registered nurses (29)	\$14.22	\$5.04	200

Dieticians (302)	\$7.32	\$0.18	4
Physical therapists (3033)	\$9.96	\$0.00	1
Therapists, n.e.c. (3039)	\$6.42	\$0.07	4
Counselors, Educational and Vocational (24)	\$25.33	\$6.93	6
Total	\$14.24	\$5.51	215
Other hospital-based employment (not elsewhere classified)			
Computer systems analysts and scientists (171)	\$16.47	\$3.46	13
Chemists, except biochemists (1845)	\$15.22	\$0.74	2
Biological and life scientists (1854)	\$15.24	\$0.00	1
Biological and life scientists (1854)	\$20.86	\$1.66	4
Medical scientists (1855)	\$18.51	\$3.30	4
Physicians (261)	\$11.01	\$6.17	11
Pharmacists (301)	\$13.03	\$9.36	16
Physicians' assistants (304)	\$10.77	\$0.76	10
Teachers, n.e.c. (236, 239)	\$13.38	\$1.29	9
Psychologists (1915)	\$10.48	\$0.26	5
Photographers (326)	\$17.85	\$1.73	4
Public relations specialists (332)	\$21.95	\$2.72	6
Securities and financial services sales	\$12.90	\$0.00	1
Sales representatives, mining, manufacturing, and wholesale (423, 424)	\$11.88	\$2.17	26
Insurance adjusters, examiners, and investigators (4782)	\$13.89	\$1.68	10
Investigators and adjusters, except insurance (4783)	\$11.42	\$1.83	21
Bank tellers (4791)	\$22.64	\$2.41	3
Private hhd cleaners and servants (502)	\$11.46	\$0.00	1
Guides (5255)	\$9.35	\$0.16	3
Data processing equipment repairers (61)	\$14.98	\$0.00	1
Heating, air conditioning, and refriger	\$14.67	\$0.00	1
Specified mechanics and repairers, n.e.c. (6177, 6179)	\$12.91	\$3.68	12
Not specified mechanics and repairers	\$16.90	\$0.82	9
Operators, lathe and turning machine (7)	\$12.70	\$0.55	3
Photoengravers and lithographers (6842, 7444, 7644)	\$11.04	\$0.03	4
Total	\$13.65	\$4.76	180
Non-hospital employment			
Administrators and officials, public administration (1132-1139)	\$12.82	\$2.89	12
Financial managers (122)	\$15.53	\$1.91	9
Personnel and labor relations managers (123)	\$23.28	\$2.23	6
Managers, marketing, advertising, and public relations (125)	\$14.42	\$13.89	4
Admin, education and rel. fields (128)	\$21.45	\$7.92	15
Managers, medicine and health (131)	\$18.03	\$6.34	36
Managers, food serving and lodging establishments (1351)	\$11.71	\$6.68	13
Managers, service organizations, n.e.c. (127, 1352, 1354, part 1359)	\$12.64	\$5.27	5
Managers and administrators, n.e.c. (121, 126, 132-1343, 136-139)	\$19.84	\$13.88	53
Accountants and auditors (1412)	\$13.43	\$1.52	18
Other financial officers (1415, 1419)	\$13.56	\$6.64	7
Management analysts (142)	\$11.83	\$9.55	4
Personnel, training, and labor relations specialists (143)	\$12.49	\$4.84	8
Purch. agents and buyers, n.e.c. (1449)	\$14.82	\$3.26	4
Management rel. occupations, n.e.c. (149)	\$15.02	\$4.56	30
Civil engineers (1628)	\$10.51	\$3.33	5

Engineers, industrial (1634)	\$7.62	\$0.00	1
Computer systems analysts and scientists (171)	\$18.19	\$5.02	10
Operations and systems researchers and analysts (172)	\$23.21	\$3.71	8
Chemists, except biochemists (1845)	\$13.72	\$6.01	4
Forestry and conservation scientists (1852)	\$7.69	\$0.22	5
Medical scientists (1855)	\$12.03	\$0.00	1
Registered nurses (29)	\$16.10	\$5.09	74
Pharmacists (301)	\$7.70	\$0.29	6
Dietitians (302)	\$8.37	\$0.11	4
Respiratory therapists (3031)	\$16.26	\$1.01	9
Physical therapists (3033)	\$7.70	\$2.67	3
Therapists, n.e.c. (3039)	\$11.61	\$3.65	13
Physicians' assistants (304)	\$16.24	\$0.21	3
Education teachers (2237)	\$24.94	\$0.00	1
Theology teachers (2245)	\$8.57	\$10.78	11
Postsecondary teachers, subject not specified	\$15.74	\$4.88	14
Teachers, prekindergarten and kindergarten (231)	\$11.87	\$3.71	5
Teachers, elementary school (232)	\$16.08	\$8.71	16
Teachers, secondary school (233)	\$13.06	\$2.65	19
Teachers, special education (235)	\$10.23	\$0.13	3
Teachers, n.e.c. (236, 239)	\$9.88	\$5.90	5
Counselors, Educational and Vocational (24)	\$19.46	\$8.11	2
Psychologists (1915)	\$21.34	\$26.20	2
Social workers (2032)	\$11.75	\$3.31	50
Religious workers, n.e.c. (2049)	\$7.16	\$0.00	1
Authors (321)	\$9.29	\$0.70	5
Designers (322)	\$7.73	\$0.00	2
Musicians and composers (323)	\$16.51	\$9.72	7
Painters, sculptors, craft-artists, and artist printmakers (325)	\$12.17	\$2.91	5
Photographers (326)	\$6.59	\$0.00	1
Editors and reporters (331)	\$8.72	\$0.11	2
Clinical laboratory technologists and technicians (362)	\$12.77	\$4.02	36
Radiologic technicians (365)	\$19.49	\$4.78	22
Licensed practical nurses (366)	\$14.44	\$5.40	74
Health technologists and technicians, n.e.c. (369)	\$13.33	\$7.19	51
Electrical and electronic technicians (3711)	\$16.55	\$6.83	14
Engineering technicians, n.e.c. (3719)	\$21.56	\$9.01	18
Drafting occupations (372)	\$13.39	\$0.00	1
Computer programmers (3971, 3972)	\$14.50	\$0.00	1
Legal assistants (396)	\$14.50	\$1.15	13
Technicians, n.e.c. (399)	\$10.52	\$0.23	4
Supervisors and Proprietors, Sales Occupations (40)	\$14.99	\$9.85	11
Insurance sales occupations (4122)	\$13.41	\$5.73	6
Real estate sales occupations (4123)	\$9.39	\$0.00	1
Securities and financial services sales occupations (4124)	\$15.32	\$5.98	8
Advertising and rel. sales occupations (4153)	\$9.66	\$0.28	4
Sales occupations, other business services (4152)	\$10.25	\$3.78	6
Sales representatives, mining, manufacturing, and wholesale (423, 424)	\$16.77	\$9.49	19
Sales workers, apparel (4346)	\$8.95	\$1.15	3
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Sales workers, shoes (4351)	\$7.90	\$0.00	1
Sales workers, hardware and building supplies (4353)	\$12.29	\$1.65	8
Sales workers, other commodities (4345, 4347, 4354, 4356, 4359, 4362, 4369)	\$8.36	\$3.22	15
Sales counter clerks (4363)	\$14.30	\$4.75	8
Cashiers (4364)	\$7.56	\$1.63	61
Street and door-to-door sales workers (4366)	\$10.43	\$0.00	1
News vendors (4365)	\$2.35	\$0.00	1
Supervisors, general office (4511, 4513, 4514, 4516, 4519, 4529)	\$15.27	\$6.30	6
Computer operators (4612)	\$20.99	\$6.09	4
Secretaries (4622)	\$10.68	\$3.92	93
Stenographers (4623)	\$15.82	\$7.54	10
Typists (4624)	\$12.75	\$3.06	18
Interviewers (4642)	\$11.27	\$6.23	5
Hotel clerks (4643)	\$7.17	\$0.00	1
Transportation ticket and reservation agents (4644)	\$27.89	\$16.76	3
Receptionists (4645)	\$9.99	\$3.45	67
Information clerks, n.e.c. (4649)	\$9.42	\$1.55	20
Order clerks (4664)	\$12.08	\$11.58	10
File clerks (4696)	\$11.75	\$1.80	8
Records clerks (4699)	\$21.73	\$7.20	12
Bookkeepers, accounting, and auditing clerks (4712)	\$11.52	\$2.97	40
Billing clerks (4715)	\$11.15	\$3.07	14
Cost and rate clerks (4716)	\$11.92	\$0.63	3
Billing, posting, and calculating machine operators (4718)	\$10.85	\$3.11	13
Office mach. operators, n.e.c. (4729)	\$13.03	\$2.12	4
Telephone operators (4732)	\$9.21	\$2.32	10
Postal clerks, except mail carriers (4742)	\$13.46	\$0.00	1
Mail carriers, postal service (4743)	\$11.99	\$1.86	6
Mail clerks, except postal service (4744)	\$7.47	\$1.89	4
Dispatchers (4751)	\$10.15	\$2.10	11
Production coordinators (4752)	\$10.89	\$2.43	8
Traffic, shipping, and receiving clerks (4753)	\$8.58	\$0.63	4
Stock and inventory clerks (4754)	\$8.74	\$2.96	4
Expeditors (4758)	\$8.71	\$0.00	1
Insurance adjusters, examiners, and investigators (4782)	\$18.69	\$3.60	12
Investigators and adjusters, except insurance (4783)	\$13.74	\$3.95	19
Eligibility clerks, social welfare (478)	\$9.90	\$0.29	7
Bill and account collectors (4786)	\$11.94	\$3.36	8
General office clerks (463)	\$9.57	\$1.85	21
Bank tellers (4791)	\$7.12	\$1.15	17
Data-entry keyers (4793)	\$12.45	\$1.72	13
Statistical clerks (4794)	\$9.49	\$1.25	15
Teachers' aides (4795)	\$16.60	\$15.32	4
Administrative support occupations, n.e.c. (4787, 4799)	\$12.33	\$3.01	18
Child care workers, private hhd (506)	\$6.47	\$0.06	3
Private hhd cleaners and servants (502)	\$9.73	\$5.04	18
Supervisors, police and detectives (5112)	\$7.67	\$0.00	1
Firefighting occupations (5123)	\$11.62	\$0.69	5
Police and detectives, public service (5132)	\$13.64	\$0.00	1

Correctional institution officers (5133)	\$13.06	\$2.87	8
Crossing guards (5142)	\$2.91	\$0.31	2
Guards and police, except public service (5144)	\$12.97	\$3.35	3
Protective service occupations, n.e.c.	\$14.39	\$0.37	5
Bartenders (5212)	\$5.37	\$2.42	7
Waiters and waitresses (5213)	\$4.71	\$2.11	22
Cooks (5214, 5215)	\$9.21	\$1.85	42
Food counter, fountain and rel. occupations (5216)	\$6.50	\$0.00	1
Waiters'/waitresses' assistants (5218)	\$7.40	\$3.37	17
Miscellaneous food preparation occupations (5219)	\$8.40	\$2.90	27
Billing, posting, and calculating machine operators (4718)	\$10.74	\$2.25	34
Nursing aides, orderlies, and attendants (5236)	\$9.07	\$2.80	158
Maids and housemen (5242, 5249)	\$9.23	\$3.77	23
Janitors and cleaners (5244)	\$10.17	\$3.84	24
Hairdressers and cosmetologists (5253)	\$9.47	\$0.88	4
Public transportation attendants (5257)	\$5.86	\$0.00	1
Baggage porters and bellhops (5262)	\$12.27	\$0.00	2
Welfare service aides (5263)	\$7.69	\$0.27	2
Family child care providers (part 5264)	\$7.25	\$2.76	2
Early childhood teacher's assistants (part 5264)	\$8.36	\$2.65	19
Child care workers, n.e.c. (part 5264)	\$9.87	\$7.57	3
Personal service occupations, n.e.c. (5258, 5269)	\$9.12	\$1.17	9
Managers, farms, except horticultural (5522-5524)	\$4.39	\$0.00	1
Farm workers (5612-5617)	\$7.18	\$1.98	18
Groundskeepers and gardeners, except farm (5622)	\$10.53	\$3.26	20
Graders and sorters, agricultural products (5625)	\$6.75	\$0.00	1
Supervisors, mechanics and repairers (60)	\$7.73	\$0.00	1
BUS, truck, and stationary engine mecha	\$10.42	\$2.29	3
Industrial machinery repairers (613)	\$11.72	\$1.85	2
Data processing equipment repairers (61	\$21.20	\$8.36	8
BUS, truck, and stationary engine mechanics (6112)	\$10.49	\$0.78	2
Millwrights (6178)	\$11.43	\$0.00	2
Specified mechanics and repairers, n.e.c. (6177, 6179)	\$12.15	\$0.00	1
Supervisors, construction, n.e.c. (6311, 6318)	\$9.14	\$0.07	4
Carpenters (part 6422)	\$7.83	\$1.90	9
Electricians (part 6432)	\$7.34	\$0.00	1
Electrician apprentices (part 6432)	\$4.20	\$0.00	1
Plumbers, pipefitters, and steamfitters (part 645)	\$21.11	\$0.00	1
Plumber, pipefitter, and steamfitter apprentices (part 645)	\$9.38	\$0.00	1
Supervisors, extractive occupations (632)	\$10.17	\$0.00	1
Supervisors, production occupations (67, 71)	\$14.72	\$7.60	10
Dental laboratory and medical appliance technicians (6865)	\$10.74	\$3.43	8
Butchers and meat cutters (6871)	\$9.09	\$0.37	2
Bakers (6872)	\$14.83	\$6.62	5
Water and sewage treatment plant operators (691)	\$7.18	\$0.00	1
Stationary engineers (part 693, 7668)	\$11.50	\$0.00	1
Printing press operators (7443, 7643)	\$12.11	\$1.71	7
Winding and twisting machine operators (7451, 7651)	\$9.80	\$0.07	4
Textile sewing machine operators (7655)	\$11.85	\$9.54	6

Pressing machine operators (7657)	\$8.62	\$4.43	2
Laundering and dry cleaning machine operators (6855, 7658)	\$10.20	\$1.19	8
Packaging and filling machine operators (7462, 7662)	\$10.96	\$3.14	10
Mixing and blending machine operators (7664)	\$8.17	\$0.00	1
Furnace, kiln, and oven operators, except food (7675)	\$11.02	\$0.03	2
Slicing and cutting machine operators (7478, 7678)	\$17.88	\$0.50	3
Miscellaneous machine operators, n.e.c. (part 7479, 7665, 7679)	\$10.55	\$0.00	1
Machine operators, not specified	\$17.00	\$15.57	5
Assemblers (772, 774)	\$9.76	\$3.09	11
Production inspectors, checkers, and examiners (782, 787)	\$10.66	\$5.45	7
Graders and sorters, except agricultural (785)	\$12.90	\$0.00	1
Truck drivers (8212-8214)	\$8.90	\$2.59	8
BUS drivers (8215)	\$11.47	\$3.89	14
Crane and tower operators (8315)	\$14.01	\$1.73	8
Helpers, construction trades (8641-8645, 8648)	\$6.98	\$0.50	3
Construction laborers (871)	\$10.23	\$0.00	2
Stock handlers and baggers (8724)	\$8.67	\$2.12	14
Machine feeders and offbearers (8725)	\$12.80	\$0.00	1
Freight, stock, and material handlers, n.e.c. (8726)	\$8.69	\$3.90	7
Garage and service station rel. occupations (873)	\$6.70	\$0.12	4
Vehicle washers and equipment cleaners (875)	\$10.48	\$2.18	15
Laborers, except construction (8769)	\$8.55	\$2.61	8
Persons whose current labor force status is unemployed and last job was Armed Forces	\$13.35	\$1.91	2
Total	\$12.10	\$6.13	2123

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