

ABSTRACT

Title of Dissertation: INTERSECTING INEQUALITIES IN THE
PAID CARE WORK SECTOR UNDER
CHANGING SOCIAL AND ECONOMIC
CONTEXTS

Shengwei Sun, Doctor of Philosophy, 2018

Dissertation directed by: Professor Feinian Chen, Department of
Sociology

Professor Wei-hsin Yu, Department of
Sociology

This dissertation focuses on the expanding paid care work sector as a key terrain for examining labor market inequalities in the United States and China, with three papers attending to different aspects of social stratification. In the U.S., men's presence in care work jobs remains rare despite the fast job growth in education and health care and the decline in traditionally male-dominated manufacturing sectors. Despite growing public interest, little is known about the reasons and pathways of men's transition into care work jobs. The popular discourse attributes men's reluctance to a matter of gender identity, whereas scholars adopting a structural approach argue that men have little incentive to enter care work jobs mainly because those jobs are underpaid. The first paper examines how well the structural and cultural approaches, respectively, explain why men enter care work jobs or not. Moreover, care work jobs

have been increasingly polarized in terms of pay and job security since the 1970s, and the polarizing pattern of care work job growth is characterized by racial disparity. Is such pattern driven by racial disparity in education and labor market experience, and/or by racial discrimination? The second paper addresses this question by examining the changing determinants of entering into low-paying versus middle-to-high-paying care work jobs between two cohorts of young men who joined the workforce under different labor market conditions. Findings suggest a persisting logic of a racialized “labor queue” underlying the changing patterns of racial inequality. In the context of urban China, the transformation from a centrally planned socialist economy to a profit-oriented market economy has ended welfare-based, life-long employment in the cities, and fundamentally changed the social organization of care. The third paper examines how care workers fared in terms of earnings relative to non-care workers since the early 2000s and the factors contributing to the earnings disadvantages of care workers. Taken together, this dissertation aims to provide a better understanding of intersecting inequalities by gender, race, and class in the paid care work sector under changing social and economic contexts.

INTERSECTING INEQUALITIES IN THE PAID CARE WORK SECTOR
UNDER CHANGING SOCIAL AND ECONOMIC CONTEXTS

by

Shengwei Sun

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Advisory Committee:

Professor Feinian Chen, Co-Chair
Professor Wei-hsin Yu, Co-Chair
Professor Sonalde Desai
Associate Professor Kerry M. Green
Professor Michael S. Rendall

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Introduction

Care work is broadly defined as providing a particular kind of service that enhances the emotional and physical well-being or development of other people. The paid care work sector encompasses a diverse range of occupations, including both well-paying, high-status care work professions such as counselors, doctors, and nurses, and low-paying, low-status care work jobs such as domestic workers, elderly care workers, and janitors. The labor from care workers is indispensable for maintaining social well-being and economic production, yet care work is usually associated with “women’s work” and is found to be underpaid (England et al. 2002).

The expansion of the paid care work sector results from a confluence of macro-level factors, including women’s entry into the labor market, population aging, changing social organization of care, rising social inequalities, and the growth of the service economy in general (Duffy 2011; Milkman et al. 1998). As the paid care sector becomes an important source of employment, the composition of care work occupations and the demographics of care workers have become increasingly diversified. The complex terrain of the paid care work sector and the changing profile of care workers are implicated in the larger contexts of social and economic transformations in different societies. In the United States, care work jobs have been increasingly polarized between “good jobs” and “bad jobs” in terms of pay, work conditions, and job security. The growth of care work jobs is a key driver of the overall trend of job polarization in the U.S. since the 1970s, which is part of the larger context of economic restructuring (Dwyer 2013; Kalleberg 2011). The polarizing

pattern of care work job growth is linked to increasing income inequalities and is characterized by racial disparity (Dwyer 2013). In China, the transformation from a centrally planned socialist economy to a profit-oriented market economy fundamentally changed the social organization of care work away from socializing care needs through state policies and the urban work unit system towards marketization and privatization of welfare services. The reform also altered the employment conditions for workers in general and exacerbated gender inequalities in the labor market (Dong et al. 2006). The dismantling of the work unit-based welfare system and the transition to a market economy fueled the demand for paid care labor, which is mostly filled by rural-to-urban migrant women and laid-off urban workers.

Against this backdrop, two underlying questions motivate this dissertation. First, how does the growth of care work employment and the diversification of the care workforce reduce or reinforce existing social inequalities? I approach this question by examining the gender, racial, and class dynamics of men moving into care work jobs in the context of the United States. Examining who gets what jobs and why, I will show how existing racial labor market disparity and gendered notion of work are reflected in the patterns of men's sorting into different types of care work jobs. Second, are care work jobs universally devalued, and what factors – at the individual, occupational, and societal level – shape the value of paid care work? I examine the relative pay of care workers as compare to non-care workers in contemporary urban China to illustrate both commonalities with and differences from findings from previous studies in Western industrialized contexts. In the rest of this

section, I summarize the key questions, theoretical frameworks, and contributions to larger sociological inquiries for each chapter of this dissertation.

First, in the United States, men's presence in female-dominated care work jobs is rare despite the fact that jobs in education and health care are growing fast, while traditionally male-dominated manufacturing jobs are disappearing. Why do men enter care work jobs or not? The cultural approach looks at how the gender essentialist cultural norms shape gender identity and the gender-typing of work, thereby affecting men's preferences for or against working in gender-atypical occupations. In contrast, the structural approach explains men moving into care work occupations mainly as a labor market mobility issue implicated in intersecting gender, racial and class hierarchies. Whereas the cultural preference approach casts men mainly as gendered agents, motivated or deterred by individual gender ideologies that are cultivated within the broader gender culture, the structural perspective takes into account race and class-based inequalities in the labor market and emphasizes the constraints facing men with socioeconomic disadvantages. These aggregate-level studies, however, cannot reveal the motivations and processes by which men are sorted into care work jobs. Using nationally representative, individual-level data from the National Longitudinal Survey of Youth (NLSY) 79, the first paper investigates whether the difficulty in encouraging men to enter female-typed care occupations can be boiled down to a matter of rigid gender attitude or is better understood as a labor market mobility issue. The diversity of care work occupations in terms of pay, prestige, and gender composition affords the opportunity to empirically evaluate the cultural and structural approaches in a nuanced way. Understanding the motivations

and pathways of men who cross or don't cross gendered occupational boundaries will shed light on sociological inquiries about how to "uninstall" the gender revolution without reducing structural processes to a matter of individual men's preferences.

Building on the first paper, the second paper further investigates the racial disparity in men's entry into the expanding care work sector. Paid care work jobs grew substantially since the 1980s in the U.S., while employment opportunities in other sectors, especially in traditionally male-dominated sectors such as manufacturing, has been on the decline. Under this background, men have slowly increased their presence in paid care work jobs that have long been considered as "women's jobs." Moreover, this trend has taken place in the context of economic restructuring since the 1970s, with income inequality widening and the U.S. job structure becoming polarized between "good" jobs and "bad" jobs in terms of pay and job security. This polarizing pattern of care work job growth is further characterized by racial disparity among men and among women. The focus on the paid care work sector thus allows for exploring key dynamics in job polarization pattern, especially how new inequalities in career mobility are racialized, and the extent to which the changing configurations of racial inequalities are linked to inequalities in skill and labor market positions. Dwyer (2013) points out that conventional explanations of job polarization, either focusing on technological change such as computerization or on institutional changes such as deunionization, cannot fully explain the key features of job polarization, especially the strong growth of low-wage jobs and the differential job growth patterns by gender and race-ethnicity. Instead, Dwyer argues that the gender and racial labor market dynamics of job polarization can be best explained by

the growth of care work jobs – a sector that has grown substantially throughout the economic restructuring. The second paper investigates the factors contributing to the aggregate-level racialized job polarization pattern in the paid care work sector – for example, is it driven by racial disparity in education and labor market experience, and/or by racial discrimination? As in the first paper, the second paper uses nationally representative, individual-level data from NLSY 79 and 97, allowing me to examine the extent of racial disparity net of individual education and employment histories. Examining the patterns for two cohorts of young who entered the labor market in different periods would also allow me to examine the changing patterns of racial disparity under different labor market contexts.

The third paper turns to the devaluation of care work jobs. Previous studies have found that care workers suffer a “pay penalty” relative to non-care workers with the same skill levels, work experience and job characteristics (England et al. 2002). It is argued that one important reason of why care work is devalued is because care work has historically been performed by women, often women of color (England 2005). In Western industrialized societies, this “pay penalty” is most pronounced for low-status care workers who provide more direct care labor. High-status care workers, on the other hand, are found to enjoy a “wage bonus” in many contexts, likely due to the higher level of “social closure” within these occupations – the idea that high-status occupational groups can raise the rewards of their members by engaging in strategies such as restricting the labor supply, channeling demand, or signaling a particular quality of service (Weeden 2002). However, we know little about whether these patterns and mechanisms can be generalized to non-Western

contexts. Contemporary China differs from Western industrialized countries with its unique combination of socialist legacy, strong state intervention, and a rapidly growing capitalist economy. Since early 2000s, the Chinese government gradually implemented a series of welfare reforms to tackle the social tension arising from soaring social inequalities in the marketization process. To what extent have these two macro-level processes affected the relative pay of care workers in China remains an open question. The third paper addresses this question by using multiple waves from the Chinese General Social Survey. The goal is to explore how China's unique social and political contexts shape the values of caring labor, and how it may differ from Western contexts.

In summary, findings from the first chapter will facilitate understanding on whether the difficulty in recruiting men into care occupations can be boiled down to a matter of rigid gender attitude or is driven by structural factors, and could thereby help address important issues such the “stalled” gender revolution and the ongoing “care deficit” in the U.S. Findings from the second chapter will further illuminate the patterns and factors contributing to the racial inequalities under changing labor market contexts in the U.S. The third chapter will show how China's unique context of welfare expansion and marketization affects the wage gap between care workers and non-care workers in urban China. Taken together, this dissertation focuses on the diverse paid care work sector as a key terrain for examining intersecting labor market inequalities by gender, race, and class, and how they are shaped by macro-economic contexts, such as job polarization in the U.S., market reform in China, and the changing social organization of care in both countries.

References

- England, Paula. 2005. "Emerging Theories of Care Work." *Annual Review of Sociology* 31:381-399.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. "Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49(4):455-473.
- Dong, Xiao-yuan, Jianchun Yang, Fenglian Du, and Sai Ding. 2006. "Women's Employment and Public-Sector Restructuring: The Case of Urban China." Pp. 87-107 in Grace Lee and Malcolm Warner (eds.), *Unemployment in China: Economy, Human Resources and Labor Markets*. London: Routledge Contemporary China Series.
- Duffy, Mignon. 2011. *Making Care Count: A Century of Gender, Race, and Paid Care Work*. New Brunswick, NJ: Rutgers University Press.
- Dwyer, Rachel E. 2013. "The Care Economy? Gender, Economic Restructuring, and Job Polarization in the U.S. Labor Market." *American Sociological Review* 78(3):390-416.
- Kalleberg, Arne L. 2011. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. New York: Russell Sage.
- Milkman, Ruth, Ellen Reese, and Benita Roth. 1998. "The Macrosociology of Paid Domestic Labor." *Work and Occupations* 25: 483-510.
- Weeden, Kim A. 2002. "Why Do Some Occupations Pay More than Others? Social Closure and Earnings Inequality in the United States." *American Journal of Sociology* 108(1):55-101.

Chapter 1: Cultural or Structural? Explaining Men's Transition to Care Work Jobs

Abstract

Gender occupational integration has become stalled and the pattern is “uneven.”

Men's presence in gender-atypical occupations remains rare despite the fact that jobs in education and health care are growing fast, while traditionally male-dominated manufacturing jobs are disappearing. Why do men cross gendered work boundaries or not? The cultural approach looks at how the gender essentialist cultural norms shape gender identity and the gender-typing of work, thereby affecting men's preferences for or against working in gender-atypical occupations. In contrast, the structural approach emphasizes the differential constraints that men face in the labor market by race and class backgrounds, and it tends to focus on men on the lower end of the socioeconomic spectrum who are involuntarily pushed into female-dominated/care work jobs. This study investigates whether the difficulty in encouraging men to enter female-typed care occupations can be boiled down to a matter of rigid gender attitude and/or is to be understood as a labor market mobility issue. I use nationally representative, longitudinal data and employ discrete-time multinomial logit regressions to estimate the hazards of entering different types of care work jobs. Findings from this study provide support for both cultural and structural approaches, calling for a combination of both perspective in understanding the factors leading men to or preventing them from entering non-traditional jobs.

Introduction

Despite decades of progress since the 1970s, gender occupational segregation has remained persistent and the pattern of integration has been characterized as “uneven” (England 2010). In 1970, 69 percent of men worked in predominantly male (over 80 percent) occupations and 45.8 percent of women were employed in female-dominated occupations; The share of women in heavily female jobs decreased by 13 percent in 2009, as compared to a much smaller decrease of 3.9 percent for men (Blau et al. 2013). Gender occupational integration has been primarily driven by new cohorts of women, with better educations and encountering less labor market discrimination than their predecessors, making inroads into traditionally male-dominated managerial and professional occupations with higher pay and prestige, while men have been much less likely to transgress gender occupational boundaries (Blau and Kahn 2006; Mandel 2013; Reskin and Roos 1990). Reductions in gender occupational segregation were largest among college graduates and very low among high school dropouts (Blau et al. 2013).

The challenges that women face in entering traditionally male-dominated fields have been extensively researched in a range of Western contexts, investigating the conditions, barriers, and contributing factors to women’s advancement in business, medicine, law, and STEM professions (Padavic and Reskin 2002). Efforts to lessen gender segregation have also primarily focused on getting more women into male-dominated fields. In contrast, less attention was given to men’s movement into or their low presence in traditionally female-dominated jobs, a missing piece in the quest for “unstalling” the gender revolution (Friedman 2015). In the aftermath of the

Great Recession, however, there has been rising interest in the question of why men are not willing to take up jobs that are traditionally labeled as “women’s work” – typically located in education, health care, and service sectors – even though these sectors have been growing fast while traditionally male-dominated occupations in the manufacturing and construction sectors have been disappearing.

Why do men traverse gendered work boundaries or not? Theoretical approaches for understanding this issue revolve around the “cultural versus structural” debate. The cultural approach looks at how gendered cultural scripts and the social construction of masculinity affect men’s preferences for working in gender-atypical occupations. It offers a supply-side explanation by arguing that most men tend to avoid gender atypical work because doing so threatens their masculinity, on the one hand, while some men choose to enter these occupations because they find such work to be rewarding and feel less challenged about their masculinity, on the other. The cultural account of men’s gendered preferences frequently appears in the media and popular discourses, partly because the image of men doing “women’s work” – mostly care work jobs such as nursing, teaching, social services and so forth – evokes gendered cultural contradictions where caring behaviors and values have been constructed as antithetical to hegemonic notions of masculinity in the U.S. (Cottingham 2014).

In contrast, the structural approach explains men moving into care work occupations as a labor market mobility issue implicated in intersecting gender, racial and class hierarchies (Lupton 2006). The structural approach tends to focus on the experiences of racial minority men and men on the lower end of socioeconomic

spectrum who face labor market constraints and are thus involuntarily pushed into low-paying and low-status female-dominated jobs. In short, whereas the cultural preference approach casts men mainly as gendered agents, motivated or deterred by individual gender ideologies that are cultivated within the broader gender culture, the structural perspective takes into account race and class-based inequalities in the labor market and emphasizes the constraints facing men with socioeconomic disadvantages.

Can men's reluctance to doing "women's work" be explained by individual men's attitude about what is appropriate as "men's work," or can it be better approached as a labor market mobility issue embedded in intersectional hierarchies? To what extent can it be explained by a combination of both approaches? This study uses nationally representative, individual-level longitudinal data to simultaneously evaluate the cultural and structural approaches in explaining men's transition to female-typed occupations – in particular, paid care work occupations. Hypotheses deriving from both approaches will be evaluated. By doing so, this study aims to provide an investigation into whether the difficulty in encouraging men to enter female-typed care occupations can be boiled down to a matter of rigid gender attitude and/or is better understood as a labor market mobility issue.

The Cultural Versus Structural Debate

Much of the existing research on this topic has focused on understanding why men are willing or reluctant to move into gender-atypical jobs. Two major theoretical approaches are pertinent for understanding this issue. First, the cultural approach recognizes how hegemonic gender scripts, rooted in gender essentialist notions that

there are fundamental differences between men and women, shape individuals' gender identity and the gendered meaning of work. The cultural approach explains the barriers preventing men from entering female-dominated jobs mainly in terms of individual men's preferences and agentic decisions informed by the gender essentialist cultural ideology which imbues gendered meaning into the nature of work and dictates what kinds of work men are good at as compared to women. In this view, men tend to occupy STEM occupations which are associated with intelligence, and manufacturing jobs due to their emphasis on physical strength, both of which are perceived as masculine traits. Since caring behaviors and values have been constructed as antithetical to hegemonic notions of masculinity, men are usually reluctant to enter female-dominated and care-work jobs because they will face cultural disapproval and challenges to their masculinity. A reverse logic has been applied to explaining why some men do enter female-dominated occupations. Bradley (1993) explains men's "infiltration" into female-dominated occupations mainly in terms of individual men's "interests, talents, or inclinations" (p.22), for some men may reject hegemonic forms of masculine identity and find doing care work to be rewarding.

The crux of the cultural preference approach rests on the assumption that gender role attitudes influence one's occupational choices and that one's occupational destinations primarily reflect their preferences about gender roles. On the macro-level, "individual preferences contribute to patterns where traditionally masculine-typed blue-collar jobs remain dominated by men while management jobs in the

growing service sector have been more heavily integrated by women” (Scarborough and Risman 2017).

An alternative approach understands men’s transition into female-dominated/care work occupations as determined by a labor market process through which jobs are allocated along intersecting gender, racial and class hierarchies. The devaluation of female-dominated and care work occupations is reflected in the relative lower pay and lower status for workers in these occupations (Kilbourne et al. 1994; England et al. 2002). The devaluation theory suggests that men have little social or monetary incentive to move into feminine domains. “Queuing” theory provides another structural explanation of the persistence of gender and racial occupational segregation, suggesting that at any given time, there is a distinct labor queue which ranks white men at the top and racial minority women at the bottom. “Queuing” emphasizes how employers rank groups of potential workers and how workers rank jobs. It provides a demand-side driven corrective to the supply-side focused neoclassical economic approach to occupation segregation, emphasizing “the collective nature of sex segregation that results from socially structured rankings by groups in conflict” (Reskin 2001:727). It acknowledges the effects of social forces beyond individual preferences in the “queuing” process, such as employers’ prejudices, stereotypes as well as white and/or male workers’ desire to preserve their positions.

In summary, in contrast to the cultural approach which explains men’s entry of female-dominated/care work occupations as a matter of preference and agentic decision, the structural approach emphasizes the differential constraints that men face

in the labor market by race and class backgrounds. The structural approach focuses on men on the lower end of the socioeconomic spectrum who have fewer employment opportunities and are thus involuntarily pushed into devalued, low-status female-typed jobs. While it is likely that people's preferences for certain occupations are shaped by long-standing cultural predispositions that begin to develop at an early age and subsequently influence one's education and career paths (Charles and Bradley 2009; Scarborough and Risman 2017), whether such preferences can be translated into occupational outcomes, or whether one's occupational destination truly reflects one's gender preferences, remains an open question.

Men Doing "Women's" Jobs: Experiences, Motivations, and Patterns

Prior research on the topic of men doing "women's work" mostly focuses on men's actual experiences and how men "do masculinity" within the female-dominated occupations. This line of research identifies both advantages and difficulties that men encounter in these occupations. The challenges primarily have to do with dealing with the stigmatization of working in "women's jobs" and negative responses from peers, friends, family, and especially other men, which are framed within larger social expectations of masculinity (Lupton 2006; Pullen and Simpson 2009; Shen-Miller and Smiler 2005). Social scrutiny, a threatened sense of masculinity, in addition to the low-pay and low-prestige of many female-typed occupations, may explain why men avoid entering these occupations. On the other hand, men (especially white men) working in female-dominated occupations are found to be promoted more quickly than women to positions of higher pay and higher

status, a phenomenon called the “glass escalator” (Williams 1995). Such career advantages may attract men into female-dominated jobs, if men are aware of these advantages in advance and are able to achieve their career intention.

A few recent studies have looked into the processes and factors that lead some men to enter non-traditional occupations. Findings from sociological studies largely support the structural account more than the cultural preference approach. Seeking to understand men’s motivations and career choices in non-traditional jobs, qualitative sociological studies on this topic challenge the cultural preference approach by revealing complexity and contradiction in men’s motivations for their career choices in their own words and by pointing to the central salience of social class. Interviewing men who made unconventional career choices to become male social workers, librarians, teachers and nurses in the U.S., William (1995) finds that most of her respondents made the decisions to enter a female-dominated occupation later in life under a combination of circumstances, which usually don’t conform to one’s early career aspirations. They were much influenced by their friends, family, and changing circumstances. In another study, Williams (1993) find that their respondents did not see their occupational choices as repudiations of the conventional male role. Instead, they were drawn to these non-traditional professions expecting to achieve career advancement in a relative quick time (riding the “glass escalator”), a career motivation unrelated to gender identity. In other words, Williams suggests that many men who work in non-traditional occupations are motivated primarily by garnering career benefits rather than by a rejection of masculine values. Interviewing a small sample of British men in nontraditional jobs, Bagilhole and Cross (2006) similarly

find that male respondents in what would be classified as “care work occupations” such as primary teachers and social workers simply do not see their work as “feminine.” The respondents offered multifaceted and contradictory reasons for their career choices, including wanting to help other people, responding to changing labor market conditions (such as the expansion of the service sectors), influences from role models, and so forth.

Lupton’s (2006) study based on interviews with 27 working-class men in U.K. suggests that men in female-concentrated occupations are no less concerned about challenges to masculinity than are other men. He also finds that working in female-dominated occupations appears to create particular difficulties for working-class men with regard to their masculine identity, yet many working-class men still end up in such jobs, suggesting more structural forces at play. Lupton argues that his working-class respondents are not “choosing” female-typed jobs from a range of alternatives. On the one hand, they tend to be excluded from male-dominated higher status and higher-paid jobs, and on the other hand, female-typed occupations such as social work and teaching offer them important benefits such as job security and public-sector employment that are not offered by other male-dominated yet more precarious jobs that are open to working-class men. Lupton argues that social class is a more salient factor than gendered preferences in accounting for men’s motivation for working in female-dominated occupations.

Findings from these qualitative studies point to the limitation of the cultural preference approach as the primary basis for explaining men’s occupational destination by revealing much complexity, contradictions, and non-gender related

motivations. Findings from qualitative studies also reject a stable notion of gender attitude or masculinity that are fixed from an early age and across institutional contexts. Masculinity turns out to be a “slippery” concept that varies across occupational contexts (Williams 1995). Masculinities are “performed” and constantly reconstructed and negotiated in social interactions (Connell 1987). However, these studies are limited in their scale, use non-representative sample, and focus on only a few occupations that are relatively privileged (such as librarians, social workers, and teachers).

Insights from these qualitative studies nevertheless corroborate with the patterns found in quantitative studies. Jacobs (1993) finds that men’s employment in female-dominated jobs was often brief, as if they went through a “revolving door” that sent them back to more traditional occupations. The unusual and brief nature of men’s employment in female-dominated fields suggests that they did enter these fields by choice and faced both social and financial pressures when they do enter. Williams and Villemez (1993) developed a similar metaphor of a “trapdoor” to indicate the involuntary nature of men’s entry into female-dominated jobs under constrained labor market circumstances such as unemployment and lack of other options.

A few other quantitative studies using census data have revealed aggregate-level patterns that racial minority men are more likely than white men to work in female-dominated occupations and low-status care work occupations, that these patterns are observed across all levels of education but are more pronounced at lower levels of education (Duffy 2005; Dwyer 2013; Yavorsky et al. 2016). Whether it is

due to the devaluation of feminine domains, labor market “queuing”, or other structural factors that exclude marginalized men, the distribution of men across gender-typed jobs shows that the gender-typing of jobs intersects with class and racial hierarchies among men. Taken together, these quantitative studies suggest that men facing disadvantages in the labor market and socioeconomic status are involuntarily pushed into female-dominated occupations, which tend to be low-paid and are assumed to be in less desirable sectors of the labor market.

No study has used nationally representative data to simultaneously evaluate the cultural and structural determinants of men’s entry into non-traditional occupations. As mentioned earlier, key questions remain as to whether individual men’s gendered preferences can be translated into occupational outcomes, whether one’s occupational destination truly reflect one’s gender preferences, or whether such a relationship is mediated by one’s resources and constraints such as human capital and labor market position. Another limitation in existing literature is the assumption that female-dominated jobs are all low-paid and of low-status, and therefore men have little incentive to enter these jobs. As will be demonstrated in the next section, I focus on jobs in the paid care work sectors with a diverse range of occupational prestige and pay to investigate the determinants of men’s entry into non-traditional occupations. The complex composition of care work jobs as well as the diversified demographics of male workers means the motivations for, constraints of, and trajectories leading up to men’s entry of care work jobs are rather heterogeneous.

Diversity in Paid Care Work Occupations

Care work jobs are broadly defined as providing a particular kind of service that enhances the health, well-being, or development of other people, usually but not necessarily involving face-to-face interaction with the recipients (England et al. 2002; Duffy 2005; Dwyer 2013). These services are indispensable for maintaining social well-being and economic production, but tend to be undervalued due to their close association with “women work” and for a variety of reasons (England 2005). The paid care sector encompasses a broad occupational landscape, including care work jobs as in health care, child care, long-term care and elderly care, education, social work, domestic services, and other occupations with a wide range of pay, prestige, and work conditions (Duffy 2005; Duffy et al. 2013).

In this study I focus on men’s transition to paid care work occupations for two main reasons. First, care work occupations (especially the female-dominated ones) are theoretically pertinent to studying men crossing gendered work boundaries, given that caring values and caring labor are constructed as antithetical to hegemonic masculinity U.S. context. Many care work jobs in the health, education, and social service sectors have long been considered “women’s work” and are underpaid when compared to non-care workers with the same level of credentials or experience (England et al. 2002).¹ Even though not all care work occupations are female-

¹ It is true that the two categories do not entirely map onto each other. In England and colleague’s (2002) study, the inclusion of traditionally male-dominated occupations that do not fit the conventional definition of “care work” – such as physician, dentist and professors – has caused contention. The point of their study is to test the central hypothesis that regardless of the level of skill, sector, prestige or the content of the work, there is a wage penalty associated with care work involving a face-to-face service that contributes to people’s capabilities. This hypothesis is largely supported by their findings using the NLSY79 data.

dominated, there is much overlap between the two. The two lines of literature are highly intertwined – Most qualitative studies on men in female-dominated occupations mentioned above focus on care work occupations such as nurses, teachers, librarians, and social workers.

Second, the diversity of care work occupations in terms of pay, prestige, and gender composition affords the opportunity to empirically evaluate the cultural and structural approaches in a more nuanced way. Specifically, by cross-classifying care work jobs by wage level and gender composition (to be explained in the methods section), I can compare and contrast the roles of gender attitude, education, and labor market positions in predicting men's entry into four kinds of care work occupations: female-dominated well-paying, non-female dominated well-paying, female-dominated low-wage, non-female-dominated low-wage (see detailed explanations in the Measures section).

Research Questions and Hypotheses

Can men's presence in (or absence from) non-traditional occupations be explained by individual men's preferences about what is appropriate as "men's" work, or can it be better approached as a labor market mobility issue? To what extent can it be explained by a combination of both approaches? By focusing on specific mechanisms related to gender attitude, human capital, family background, and labor market positions, this study simultaneously evaluates the two approaches for understanding why men enter non-traditional occupations or not.

Because the cultural approach stresses men's avoidance of female-typed jobs, whereas the structural approach highlights the relatively low pay of care work jobs, I will take advantage of the diverse composition of the care economy and differentiate care work jobs according to both their wage and occupational gender composition. Specifically, I divide care work jobs into four categories: well-paying female-dominated, well-paying non-female-dominated, low-wage female-dominated, and low-wage non-female-dominated (for details see the Measures section). By doing so, I will be able to test how characteristics that typically enable men to have more and better job options, such as their human capital, are associated with their risks of entering these four different types of care work jobs.

I start by developing hypothesis based on the cultural approach. The main tenet of the cultural approach is that men who enter female-dominated jobs do so because they reject hegemonic forms of masculine identity and find doing care work to be rewarding. In other words, the cultural approach assumes that they hold more egalitarian gender attitudes than men who are reluctant to engage in "women's work." However, it is well-documented that higher education is associated with greater egalitarianism for both men and women (Bolzendahl and Myers 2004; Cassidy and Warren 1996; Mason and Lu 1988). Previous studies also found evidence for intergenerational transmission of gender ideologies, such that parental (especially mother's) gender ideologies are positively associated with child gender ideologies (Davis and Greenstein 2009). The cultural approach would expect egalitarian gender attitudes to have a positive effect on entering female-dominated care work jobs even after accounting for human capital, family background, and labor market positions:

H1: Men with more egalitarian gender attitudes are more likely to enter female-dominated care work jobs as compared to entering non-female-dominated jobs, after controlling for human capital, family background, and labor market position – among well-paying jobs and among low-wage jobs respectively.

In contrast, the structural approach focuses on human capital and labor market (dis)advantages as determinants of labor market destination. The prevailing structural perspective argues that disadvantaged men are involuntarily pushed into low-paying care work jobs. Building on this perspective, but taking into account the diversity of care work jobs in terms of occupational wage, I expect to see different pathways into well-paying and low-wage care work jobs. I argue that although high-paying care work jobs are still devalued relative to comparable non-care-work jobs (England et al. 2002), they can still be characterized as “good” jobs due to their decent wage levels, (semi-)professional status, and relatively high job security. Men are not necessarily “pushed” into these jobs. Getting these relatively high-paying jobs further requires high human capital endowment. Indeed, care work jobs in the top two wage quintiles consist of high-skill jobs that require a college degree or above (such as teachers, social workers, registered nurses, and doctors), whereas care work jobs in the bottom wage quintile consists mostly of reproductive labor jobs that require low levels of education (Dwyer 2013). I expect that men with more human capital and better family background have both the incentives and ability to enter well-paying care work jobs. Prior studies have also identified labor market positions and work experience as important mechanism for career mobility. Men with unemployment history or incarceration records are less likely to be hired (Pager 2003; Pager et al. 2009).

Considering having unemployment history and incarceration record as labor market disadvantages, I develop the following hypothesis based on the structural approach:

H2: Men with less human capital and more labor market disadvantages are more likely to enter low-wage care work jobs as compared to well-paying care work jobs.

Whereas the structural approach focuses on how men with varying qualifications and labor market experience may enter care work jobs with different wage levels, the cultural approach would predict that these men mainly diverge in their chances of entering care work jobs with different occupational gender compositions. If gender attitude does not matter, then well-paying female-dominated care work jobs should be equally attractive as well-paying non-female dominated care work jobs (same for the two kinds of low-wage care work jobs). But if gender attitude matters, then men would not only prefer high-paying care work jobs to low-wage jobs (the structural approach), they would also prefer non-female-dominated jobs to female-dominated jobs among jobs of similar wage status (the cultural approach). Given that men with more labor market advantages are more likely to realize their occupational preferences, I develop the following hypotheses based on a combination of the two approaches:

H3: Men with less human capital and more labor market disadvantages are more likely to enter female-dominated jobs than non-female-dominated jobs – among well-paying jobs and among low-wage jobs respectively.

But which of the two approaches plays a more prominent role? This question can be crystallized by examining the occupational destination of men with more

human capital and labor market advantages in low-paying non-female-dominated versus well-paying female-dominated care work jobs. For these more advantaged men, if the material concerns are more important, then they may be more likely to take up well-paying female-dominated jobs as compared to low-paying non-female-dominated jobs. But if gender identity matters more, then the opposite is likely to happen. I will therefore test two opposite hypotheses:

H4a (structural approach): Men with more human capital and labor market advantages are more likely to enter well-paying female-dominated care work jobs as compared to entering low-paying non-female-dominated care work jobs.

H4b (cultural approach): Men with more human capital and labor market advantages are more likely to enter low-paying non-female-dominated care work jobs as compared to entering well-paying female-dominated jobs.

Finally, in addition to the main effect of gender attitude, the cultural approach would expect gender attitude to moderate the effects of structural advantages or disadvantages:

H5: Egalitarian gender attitudes weaken the effects of human capital and labor market disadvantages on entering non-female-dominated care work jobs as compared to entering female-dominated jobs – among well-paying jobs and low-wage jobs respectively.

Data and Sample

This study uses data from the 1979 to 1994 waves of the National Longitudinal Survey of Youth 1979 (NLSY79), which contains comprehensive work

history information for a nationally representative sample of the late baby-boom cohort (born 1957 to 1963, age 14 to 22 in 1979). In addition to detailed employment information, NLSY79 also includes measures on gender attitude, human capital, incarceration information, and other contextual variables necessary for this study. The original sample contains 12,686 individuals, which consists of three independent probability subsamples: a cross-sectional sample of 6,111 civilian respondents, a supplemental oversample of 5,295 civilian Hispanic or Latino, black, and economically disadvantaged non-black/non-Hispanic respondents, and a sample of 1,280 military respondents. I retained the cross-sectional sample and the supplemental oversample of racial minority and economically disadvantaged racial-minority respondents, while excluding the military subsample which was dropped from the original survey following the 1984 interview. I further dropped respondents who turned 18 before the first interview round in 1979.

Respondents were interviewed on an annual basis between 1979 and 1994.² I construct person-year records for each respondent since they turned 18 until the 1994 survey round or an earlier date when they last appeared in the survey. I use the work history rosters to identify employment in care work occupations in both primary and secondary jobs.³ The NLSY79 provides complete work history for the main jobs held

² The initial response rate at the 1979 interview is over 91 percent for both the cross-section and supplemental samples. NLSY79 also has high year-on-year retention rates, with 89.2 percent of the original NLSY79 respondents remaining in the sample by the 1994 interview. See the NLSY website for more information: <https://www.nlsinfo.org/content/cohorts/nlsy79/intro-to-the-sample/retention-reasons-noninterview>.

³ There are two ways to extract employment information in NLSY79. Other than the work history rosters, the NLSY79 designates a “CPS employer” in each round, which refers to the current/most recent job held since the last interview by civilian respondents. This system provides detailed job information for the respondent’s main job at the current interview or the most recent job held since the last interview. If the respondents held multiple jobs in between

during each week since January 1978 as well as up to four additional jobs held concurrently with the main job. The unique employer ID for the main jobs and dual jobs on the work history roster can be used to link occupational codes to each job, which allows me to identify care work jobs (defined in the next section).

I conduct discrete-time event history analysis, using respondents' information at the time of the interview to predict whether he enters a care work job before the next interview round (one-year interval on average). As the event of interest is repeatable, the respondents enter the risk period when turning age 18, leave the risk set when they are holding care work jobs at the time of the interview, and can re-enter the risk set once they no longer hold a care work job. This process is repeated until the last interview round at or prior to the 1994 survey round. My final analytic sample includes 3,547 male respondents between 18 and 34 years old with a total of 37,416 person-years.

Measures

Dependent Variable

The event of interest is transition to care work job within the next round, conditional on not currently holding a care work job. As mentioned earlier, I adopt an

two interviews, or held dual jobs at the same time, these jobs would not be captured in this way. Because men's employment in care work occupations, especially female-dominated care work jobs, was not common and tend to be brief (Jacobs 1993), this way of extracting employment history would miss a substantial amount of care work jobs actually held in between the interviews and may result in lack of statistical power for practical concerns. The focus on "CPS jobs" would also bias towards more stable, high-status care work jobs while missing precarious, low-status care work jobs. The use of work array, in comparison, would allow me to more accurately model the effects of the predictors measured at the time of each round's interview on the subsequent entry into care work jobs.

expansive definition of care work jobs to include both “nurturant” care work jobs and “reproductive labor” jobs. Earlier theoretical formation of care work centers on the notion of “nurturant care” which emphasizes the emotional and relational nature of caring activities (e.g. Folbre 2001; Tronto 1993). Examples of nurturant care work include nursing, teaching, child care and elder care, counseling and social work. Informed by an intersectional framework, more recent scholarship on care work argues for a broader conceptualization of care work to include not only “nurturant” care work, but also “non-nurturant” reproductive labor such as cleaning, cooking, and laundry. While “nurturant” care work jobs are more relationally focused and are mostly professional jobs, “reproductive labor jobs” entails more physical labor and few achieved professionalization. In keeping with the existing theorization and operationalization of care work jobs, I adopt this expansive definition to include both nurturant care work jobs and reproductive labor jobs, but unlike previous studies, this study shifts the focus from women to men. Appendix A lists the detailed occupations defined as care work occupations using the 1990 Census occupational classification, with the list of nurturant care work occupations on the left and reproductive labor jobs on the right.

I further categorize care work jobs based on occupational wage status and gender composition in order to capture the diversity of the paid care work sector. The outcome variable for all event history models in this study is a time-varying variable with five outcome categories indicating transition into four kinds of care work occupations (well-paying female-dominated, well-paying non-female-dominated, low-wage female-dominated, low-wage non-female-dominated), and non-transition

(the reference category). I define the occupational status of care work jobs in terms of wage level, using the occupational earnings index developed by Hauser and Warren (1997). I categorize a care work job as “well-paying” if its occupational earnings score exceeds 40 percent of all jobs in the labor market, and otherwise as “low-wage.” Since not all care work jobs are female-dominated, I classify a job as female-dominated if women’s representation exceeds 70 percent (Jacobs 1989; Kmec 2005), using calculations from census data. Appendix B provides a comprehensive list of care work occupations for each of these four categories.

Independent Variables

To test claims by the cultural preference approach, I construct a time-varying measure of gender attitude using six items on gender role attitude that were asked in 1979, 1982, and 1987. In each of these three years, the respondents were originally asked whether they agree with the eight statements listed in Table 1. Although these statements do not directly measure men’s preferences for doing female-typed care work jobs, they generally indicate the level of support for a gendered division of labor based on the notion of separate spheres. It can be argued that the gender essentialist notion of “separate spheres” underpins both gendered division of labor at home and gender occupational segregation. Such a notion is especially relevant to understanding men’s reluctance to doing care work jobs. I dropped two items (“A working wife feels more useful than one who doesn’t hold a job”; “Employment of both parents is necessary to keep up with the high cost of living”) from the original eight statements because they are more about household utility than about gendered division of labor, which is not quite theoretically relevant to this study. In addition,

reliability analysis also indicated that these two items should be dropped. After dropping these two items, the Cronbach's alpha was over .70 for all years, which is consistent with previous studies using the NLSY 79 gender attitude measures (Kramer and Kramer 2016). In addition, I conducted principal factor analysis on the original eight items by each year for which they were administrated. Factor loading results shown in Table 1 suggest that one factor should be retained (Kaiser 1958).

– Table 1 about here –

The responses are on a 4-point scale (1 to 4) ranging from strongly agree to strongly disagree. I reverse-coded the responses to some of the questions so that for all items, higher values represent more egalitarian gender attitudes. I then summed the scores from the remaining six items and divided by six to obtain a mean score based these six items for each respondent in 1979, 1982, and 1987, respectively. For any given year at risk of transitioning to care work jobs, a respondent's gender attitude score is carried over from their most recently available score from these three years.⁴

Regarding variables of theoretical importance to the structural approach, respondents' own level of education consists of three categories (high school or below, some college, college or above). A continuous variable indicating years of education of the parent with the highest level of education is used to gauge family background or resources.⁵ Prior number of unemployment spells is calculated using

⁴ I constructed the gender attitude measure as time-varying using items from three survey years rather than using the 1979 measures only because previous analysis shows that age is associated with significantly less traditional gender ideology (Sassler et al. 2017). This is especially the case given that most NLSY 79 respondents have not yet received college education by the 1979 survey.

⁵ For example, if one's mother received 10 years of education while one's father received 12 years of education, this parental education variable will be 12 years – the highest value between the two parents.

one's work history information starting at age 18. A binary variable indicating whether a respondent has previously been incarcerated is constructed using a time-varying residence variable that identifies whether respondents were in prison or jail at the time of the interview (Western 2002).

I control for race-ethnicity (non-black non-Hispanic, Black, and Hispanic), marital status, residential region, whether employed at the time of the interview, number of care work jobs held previously, duration of exposure to the risk of transition to care work jobs, and its squared term. Given that the event of entering care work job is repeatable, the duration of exposure is measured as the number of months since the respondents turned 18 years old until transitioning to the first care work job after age 18, and as the number of months since leaving the last care work job. Table 2 reports the weighted descriptive statistics of the analytic sample overall. The means and percentages presented in this table are based on pooled person-year observations.

– Table 2 about here –

Empirical Strategy

This study estimates multivariate discrete-time event history models with multinomial logistic regression to test the various hypotheses deriving from the cultural approach and the structural approach. The outcome variable contains five categories which differentiates between transitioning into different kinds of care work jobs by occupational wage level and gender composition, with non-transition as the reference category. With person-year as the unit of analysis, the models use

respondents' information at the time of the interview to predict whether he enters a care work job before the next interview round, conditional on not holding a care work job at the time of the interview. In other words, the predictors are measured prior to the event of transition to care work jobs.

I begin by estimating the baseline model (Model 1), including only the gender attitude measure and control variables:

$$\ln[p_{it}/(1 - p_{it})] = \gamma_0 + \gamma_1 G_{it} + \sum \alpha_j X_{jit} \quad (1)$$

where P is the probability of transitioning to care work jobs; G_{it} is gender attitude; X_{jit} represents a vector of control variables (j) observed for individual i at time t , and α_j as their coefficients.

I next introduce a set of human capital and labor market position variables into the model, to both evaluate the claims by the structural approach and to examine the effect of gender attitude on transition to care work jobs net of these structural determinants. In particular, given that gender attitude is highly correlated with higher levels of education, Model 2 would show the effect of gender attitude net of one's human capital endowment:

$$\ln[p_{it}/(1 - p_{it})] = \gamma_0 + \gamma_1 G_{it} + \gamma_2 Edu_{it} + \gamma_3 PEdu_{it} + \gamma_4 UE_{it} + \gamma_5 Inc_{it} + \sum \alpha_j X_{jit} \quad (2)$$

where Edu_{it} , $PEdu_{it}$, UE_{it} , and Inc_{it} represent one's level of education, parental education, unemployment history, and incarceration records, respectively.

Model 3 includes interaction terms between gender attitude and one's own education, parental education, and unemployment history in order to examine whether and how gender attitude moderates one's structural (dis)advantages. The final model is as follow:

$$\ln[p_{it}/(1 - p_{it})] = \gamma_0 + \gamma_1 G_{it} + \gamma_2 Edu_{it} + \gamma_3 PEdu_{it} + \gamma_4 UE_{it} + \gamma_5 Inc_{it} + \gamma_6 G_{it} * Edu_{it} \\ + \gamma_7 G_{it} * PEdu_{it} + \gamma_8 G_{it} * UE_{it} + \sum \alpha_j X_{jit} \quad (3)$$

Results

Heterogeneous Profiles of Male Care Workers

Before turning to multivariate analysis, it is helpful to compare the profiles of workers doing different kinds of care work jobs. Table 3 presents weighted descriptive statistics of selected characteristics by care work job type as well as for the reference category which contains all the person-year observations when the respondents were not holding a care work job and did not transition to paid care work jobs within the next round.⁶ Between age 18 and 34, only a small proportion of men made the transition to well-paying female-dominated care work jobs (3.4 percent) or to well-paying non-female-dominated care work jobs (5.9 percent). About 14 percent of respondents have transitioned to low-wage female-dominated care work jobs, and 31 percent have entered low-wage non-female-dominated care work jobs. The majority of men's transitions to care work jobs fell in the last category, which mostly consists of "reproductive labor" jobs such as cooks, waiters, and janitors. Men working in these jobs on average had the lowest level of education and are most marginalized as compared to men in all other types of care work jobs.

It is no surprise that men who entering well-paying care work jobs were more advantaged and older than men entering low-paying care work jobs. Among well-

⁶ The unit of analysis is person-year, and therefore the proportions and means presented in the table are based on person-year observations, not individuals (unless noted).

paying care work jobs, none of the differences in average workers' characteristics between female-dominated and non-female-dominated jobs was statistically significant. Among men entering low-wage care work jobs, however, those entering female-dominated ones on average had higher levels of education (57.9 percent with high school education or below as compared to 76.0 percent for those entering non-female-dominated ones), more family resources (on average 0.8 more years of parental education), and fewer unemployment and incarceration experiences, even though they were younger (21.9 years old compared to 22.4). These differences were all statistically significant. This finding may reflect the fact that the few female-dominated low-wage care work occupations that men would consider entering were quite selective and required some postsecondary education, such as dental assistants and licensed practical nurses. In summary, the descriptive analyses of workers' profiles in different kinds of care work jobs reveal high similarity in workers' characteristics between well-paying female-dominated and well-paying non-female-dominated care work jobs, and contrary to popular notion, men working in female-dominated low-wage care work jobs were more advantaged than those in non-female-dominated low wage care work jobs.

What is also notable is that men entering low-wage non-female-dominated care work jobs on average held the least egalitarian gender attitude, although the magnitude of the difference is small. However, we cannot know from the descriptive analysis to what extent such a difference in gender attitude merely reflects one's educational and family background, or age.

Lastly, it should be noted that the reference category “non-transition” is a rather heterogeneous group, consisting of those who were not holding a care work job but remained jobless or transitioned to non-care work jobs within the next round. This category thus includes men from advantaged and disadvantaged backgrounds. The descriptive statistics for this group suggest that the average characteristics of men who did not transition to care work jobs within the next round resemble the characteristics of men who entered low-wage care work jobs more than the characteristics of men who entered well-paying care work jobs. They on average held a less egalitarian gender attitude than men who entered well-paying care work jobs and men who entered female-dominated low-wage care work jobs. A much higher percentage (64.8 percent) of men from the “non-transition” category did not have any college education than men who entered well-paying care work jobs (between 12.2 and 13.3 percent), but there is also a higher percentage (14.1 percent) of men from the “non-transition” category obtaining a college education than those who entered low-wage care work jobs.

– Table 3 about here –

Multivariate Results

I now turn to the results of multivariate analysis to examine the factors associated with transitioning to different kinds of care work jobs and evaluate the claims by the cultural and structural approaches. Table 4 shows the results from discrete-time multinomial logistic regression models predicting young men’s transitions to care work jobs in a given year, the reference category being currently not holding a care work job. Beginning with the baseline model (Model 1), when only

gender attitude was included as the key predictor, along with control variables, more egalitarian gender attitudes were associated with a higher risk of entering three types care work jobs – except the low-wage non-female-dominated type. Egalitarian gender attitudes were positively associated with entering both kinds of well-paying care work jobs. For men with a more egalitarian gender attitude, the relative risk of entering well-paying female-typed care work jobs was higher than the relative risk of entering well-paying non-female-dominated care work jobs (odds ratio of 2.7 and 2.4 respectively, calculated by exponentiating the log odds of 1.003 and 0.875 in Model 1), both as compared to non-transition. Among the low-wage care work jobs, egalitarian gender attitudes were only positively associated with transitioning to female-dominated ones, with an odds ratio of 1.4 (exponentiating the log odds of 0.362 in Model 1).

– Table 4 about here –

However, previous studies have consistently found that higher education and parental gender ideologies are associated with greater egalitarianism for both adult men and women (for a review, see Davis and Greenstein 2009). To what extent does such positive association between egalitarian gender attitudes and transition to well-paying and female-dominated care work jobs remain after accounting for respondents' education and family backgrounds? Model 2 includes one's own level of education, parental education, and variables indicating one's labor market positions. After taking these factors into account, the coefficients for gender attitude were no longer statistically significant for entering both types of well-paying care work jobs. However, this may have to do with a lack of statistical power due to the small number

of transitions to both types of well-paying care work jobs in the analytic sample. I therefore focus on comparing the size of the coefficients for gender attitude. Once education and family background were in the model, the parameters for the association between egalitarian gender attitudes and transitioning to various kinds of care work jobs were substantially reduced in magnitude: Men with a more egalitarian gender attitude were 1.6 times (exponentiating the log odds of 0.448 in Model 2) more likely to enter well-paying female-typed care work jobs and were 1.3 times (exponentiating the log odds of 0.235 in Model 2) more likely to enter well-paying non-female-dominated care work jobs, as compared to not entering any care work jobs. Nevertheless, the results suggest that egalitarian gender attitudes still facilitated transitions to both types of well-paying care work jobs. The positive association between egalitarian gender attitudes and entering low-wage female-typed care work job remained statistically significant even when controlling for one's education and family backgrounds. More specifically, men with a more egalitarian gender attitude were still 1.3 times (exponentiating the log odds of 0.284 in Model 2) more likely to enter low-wage female-dominated care work jobs than not transitioning to any care work jobs. These results are largely consistent with Hypothesis 1 according to the cultural approach.

Figure 1 visually compares the predicted average probabilities of entering the four types of care work jobs in a given year between “conservative” man (with the gender attitude score set at 2 on a scale of 1 to 4, with 4 representing the most egalitarian gender attitude) and “egalitarian” men (who scores 4 on the scale). Figure 1 shows that men with an egalitarian gender attitude had a higher probability of

entering all types of care work jobs except the low-wage non-female-dominated ones than men with a conservative gender attitude. However, the probabilities for the well-paying care work jobs were small.

– Figure 1 about here –

Moving on to evaluating the structural approach, college education facilitated the transition to well-paying care work jobs and lowered the risks of entering low-wage care work jobs, relative to non-transition. Men with some college education were also 1.5 times more likely (exponentiating the log odds of 0.415 in Model 2) to enter low-wage female-dominated care work jobs than non-transition. Figure 2 visualizes the disparities by education by plotting the predicted average probability of men's transition to different types of paid care work jobs in a given year by levels of education. Figure 2 shows that men with a high school education or below were most unlikely to enter well-paying care work jobs. The advantage of having a college education or above was most pronounced for non-female-dominated care work jobs. Men with some college education had a higher average probability of entering low-wage female-dominated jobs than men with only high school or less education.

– Figure 2 about here –

Parental education, as a proxy for family background and resources, was highly correlated with the respondents' own education level and therefore did not exert an independent effect, except on transitioning to low-wage female-dominated care work jobs. Unemployment history increased the risk of entering low-wage non-female-dominated “reproductive labor” jobs. Taken together, results from Model 2 largely support Hypothesis 2 derived from a structural perspective that men with

more human capital and labor market advantages are more likely to access well-paying care work jobs.

However, results from Model 2 complicate the prevailing structural account that treats all female-dominated jobs as low-paying and therefore less desirable jobs. It turns out that having some college education facilitates the transition to low-wage female-dominated care work jobs, but not low-wage non-female-dominated ones. Again, this may be due to the fact that the kind of low-wage, female-dominated care work jobs that men are willing to enter are the selective few which still pay better, require more credentials, and are more desirable than other types of low-wage care work jobs. Hypothesis 3, which states that men with less human capital and more labor market disadvantages are more likely to enter female-dominated jobs than non-female-dominated jobs, is thus only supported for well-paying jobs care work jobs but not for low-wage ones. Moreover, these results further suggest that men with more human capital and labor market advantages would rather enter female-dominated care work jobs (no matter the occupational wage-level) than enter low-wage non-female-dominated care work jobs, supporting the structural approach in Hypothesis 4.

Finally, Model 3 in Table 4 includes interaction terms between gender attitude and key structural variables in order to examine whether and how gender attitude moderates one's structural (dis)advantages. None of the coefficients for the interaction terms were statistically significant.

Supplementary Analysis

Given that the reference category of “non-transition” consists of a

heterogeneous group, including those holding a non-care work job as well as those being unemployed or out of the labor force at the time of the interview, these two groups may have different dynamics that affect the interpretation of the results. Depending on whether one was transitioning from a non-care work job or from a jobless status, entering low-wage care work jobs could entail either positive or negative meaning. As a supplementary analysis, I stratified the sample by the employment status (holding a non-care-work job, or without a job) at the time of the interview and performed the same analysis (as Model 2 in Table 2) for each subsample. Table 5 presents the results for key predictors for the two subsamples.

The overall findings remain consistent with those from the pooled sample, but more nuanced patterns emerge when the sample is stratified by initial employment status. Table 5 reveals that the statistically significant association between egalitarian gender attitudes and entrance into low-wage female-dominated care work jobs was driven by those transitioning from a non-care-work job, suggesting that such transitions imply a career change. The influences of education and unemployment history on entering various kinds of care work jobs were as expected. The effects of having incarceration records became statistically significant: Having incarceration records significantly hampered the transition to well-paying female-dominated care work jobs among those who were holding a non-care-work job. It also deterred transition to low-wage female-dominated care work jobs among those who were without a job, while increasing the risk of entering low-wage non-female-dominated “reproductive labor” jobs. Indeed, many health care, child care, elderly care occupations legally restrict employment due to criminal records, and these

occupations tend to be female-dominated.

– Table 5 about here –

Discussion and Conclusions

Since the 1970s, gender occupational integration in the U.S. has been primarily driven by women pursuing formerly male-dominated white-collar occupations but not the other way around, and many occupations remain highly gender segregated (England 2010). Occupational integration also has an uneven pattern, occurring mostly among white-collar occupations but not blue-collar jobs (Blau et al. 2013). Men's presence in non-traditional occupations remains rare despite the fact that jobs in education and health care are growing fast, while traditionally male-dominated manufacturing jobs are disappearing. This "incomplete" gender revolution calls for a more thorough understanding of why men are reluctant to traverse gendered occupational boundaries. The popular discourse attributes men's reluctance to a matter of gender identity, emphasizing masculinity as the key barrier that prevents men from taking on "feminine" jobs. The cultural approach emphasizes the role of individual men's preferences, suggesting that one's gender role attitude (and preference) is the most salient factor in predicting whether men enter gender-atypical jobs or not. In contrast, scholars adopting a structural approach argue that men's entry into female-dominated jobs should be taken as a labor market mobility issue. The structural approach assumes that men have little incentive to enter female-dominated jobs because of their low status and low pay, and therefore marginalized or disadvantaged men are more likely to be pushed into these jobs.

Using nationally representative, longitudinal data from the NLSY 79 cohort to examine the determinants of young men's entry into different kinds of care work occupations, this study empirically evaluates these two approaches, thereby furthering the theoretical understanding on this issue. Findings from this study provide support for a combination of the cultural and structural approaches. The structural approach is supported by the finding that men with more education and labor market advantages were more likely to access well-paying care work jobs (see Figure 2), as well as the finding that men with more human capital and labor market advantages would rather enter well-paying female-dominated care work jobs than enter low-wage non-female-dominated care work jobs. In fact, men with some college education were also rather enter (likely a selective few kinds of) low-wage female-dominated care work jobs than enter low-wage non-female-dominated care work jobs.

The cultural approach is supported by the finding that men with a more egalitarian gender attitude were more likely than less gender egalitarian men to enter low-wage female-dominated care work jobs, but they were no more likely than less gender egalitarian men to enter low-wage non-female-dominated care work jobs, both as compared to not entering care work jobs. More gender egalitarian men also appeared to be at a higher risk in entering both types of well-paying care work jobs than conservative men, and the difference between them appeared to be slightly larger for entering female-dominated care work jobs than non-female-dominated care work jobs (see Figure 1), although the effects were not statistically significant at the .05 level when controlling for one's education and family backgrounds.

The media and popular discourses tend to disproportionately focus on cultural

explanations on the individual level. In a recent New York Times op-ed article, for example, the authors claim that “There are no legal obstacles to men becoming school teachers or nurses, so this is largely a question of culture and attitude” (Reeves and Sawhill 2015). Because men’s reluctance to becoming teachers or nurses is primarily framed as a cultural issue, the authors’ prescription for getting more men into “women’s jobs” emphasizes transforming cultural notions of masculinity and through symbolic changes such as relabeling these occupations in more gender-neutral terms (e.g. calling nurses “health associates”). Moreover, focusing on individual men’s preferences leads to the simplistic suggestion that as long as individual men change their gender attitudes, they would be willing to take up gender atypical jobs.

I argue that there are two important limitations to the cultural approach. First, intersectionality scholars have long taken issue with the conceptual limitations in casting men and women as gendered actors only, whereas in reality men and women navigate complex structures of inequalities in an insecure economic climate with growing class inequality and persistent racial discrimination (McCall 2011). If men are equally, if not primarily, motivated by economic concerns rather than with gender identity, as findings from this study suggest, then focusing on the cultural argument alone would distract attention from improving the pay and working conditions for all care work jobs, men and women alike and especially for those who are in low-paying occupations.

Second, the cultural approach also fails to take into account the barriers that working-class and disadvantaged men face even when they want to enter female-typed care work jobs. McCall (2011) notes that the continuing decline in men’s

college completion rates since the 1970s and the diverging class and parental resources makes it difficult for working-class men who are displaced from industrial jobs to immediately seek more education or training to upgrade their jobs. Indeed, this study finds that it was men with higher levels of education and more labor market advantages who had an easier time accessing well-paying female-dominated care work jobs, and men with some college education were more likely to transition to low-wage female-dominated care work jobs. In addition, having an incarceration record significantly reduced men's chances of entering female-dominated care work jobs, as many of these jobs impose legal restrictions against job seekers with a criminal record. In short, working-class men face significant barriers in obtaining more education and training and are marginalized in the labor market, making it hard to enter many female-dominated care work jobs.

This study has several limitations. First, there may be measurement errors in gender attitude measures. It is possible that some aspects of the gendered occupational preferences were not captured by the gender attitude measures in NLSY 79. Conversely, the structural variables included in the models (respondents' education, parental education, unemployment history, and incarceration records) may not have fully absorb the structural effects, and some of the structural effects may still have been reflected in egalitarian gender attitudes. Perhaps some unobserved factors other than education, family background, and labor market experience led more advantaged men to both having more egalitarian gender attitudes and entering well-paying jobs. Second, this study does not engage in-depth with the intersectionality of gender, race, and class. Racial disparity in men's transition into care work jobs will

be explored in the next chapter. Finally, this study uses data from the NLSY 79 cohort and focus on young men's experiences between age 18 and 34, due to data limitations. Respondents in the NLSY79 belong to the late Baby Boomers cohort, who were born between 1967-1964 and went through young adulthood in the 1980s and early 1990s. Young men who were born later (so-called "Millennials") differ in their acceptance of gender egalitarianism and they entered a labor market characterized by high levels of income inequality and job polarization. Future studies may look at whether the determinants of entering care work jobs are different for today's young men, and how that complicates the cultural versus structural debate. Nevertheless, findings from this study shed light on the cultural versus structural debate in understanding why men are willing or reluctant to enter non-traditional occupations.

References

- Bagilhole, Barbara, and Simon Cross. 2006. "'It Never Struck Me as Female': Investigating Men's Entry into Female-dominated Occupations." *Journal of Gender Studies* 15(1):35-48.
- Blau, Francine D., and Lawrence M. Kahn. 2006. "The US Gender Pay Gap in the 1990s: Slowing Convergence." *Industrial & Labor Relations Review* 60(1):45-66.
- Blau, Francine D., Peter Brummund, and Albert Yung-Hsu Liu. 2013. "Trends in Occupational Segregation by Gender 1970–2009: Adjusting for the Impact of Changes in the Occupational Coding System." *Demography* 50(2):471-492.
- Bolzendahl, Catherine I., and Daniel J. Myers. 2004. "Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974–1998." *Social Forces* 83(2):759-789.
- Bradley, Harriet. 1993. "Across the Great Divide: The Entry of Men into Women's Jobs." Pp 10-27 in *Doing Women's Work: Men in Nontraditional Occupations*, edited by C. L. Williams. London: Sage Publications.
- Cassidy, Margaret L., and Bruce O. Warren. 1996. "Family Employment Status and Gender Role Attitudes: A Comparison of Women and Men College Graduates." *Gender & Society* 10:312-29.
- Charles, Maria, and Karen Bradley. 2009. "Indulging Our Gendered Selves? Sex Segregation by Field of Study in 44 Countries." *American Journal of Sociology* 114(4):924-976.
- Connell, Raewyn. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Cottingham, Marci D. 2014. "Recruiting Men, Constructing Manhood: How Health Care Organizations Mobilize Masculinities as Nursing Recruitment Strategy." *Gender & Society* 28(1):133-156.
- Davis, Shannon N., and Theodore N. Greenstein. 2009. "Gender Ideology: Components, Predictors, and Consequences." *Annual Review of Sociology* 35:87-105.
- Duffy, Mignon. 2005. "Reproducing Labor Inequalities Challenges for Feminists Conceptualizing Care at the Intersections of Gender, Race, and Class." *Gender & Society* 19(1):66-82.

- Duffy, Mignon, Randy Albelda, and Clare Hammonds. 2013. "Counting Care Work: The Empirical and Policy Applications of Care Theory." *Social Problems* 60(2):145-167.
- Dwyer, Rachel E. 2013. "The Care Economy? Gender, Economic Restructuring, and Job Polarization in the U.S. Labor Market." *American Sociological Review* 78(3):390-416.
- England, Paula. 2005. "Emerging Theories of Care Work." *Annual Review of Sociology* 31:381-399.
- England, Paula. 2010. "The Gender Revolution Uneven and Stalled." *Gender & Society* 24(2):149-166.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. "Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49(4):455-473.
- Folbre, Nancy. 2001. *The Invisible Heart: Economics and Family Values*. New York: New Press.
- Friedman, Sarah. 2015. "Still a 'Stalled Revolution'? Work/Family Experiences, Hegemonic Masculinity, and Moving Toward Gender Equality." *Sociology Compass* 9(2): 140-155.
- Hauser, Robert M., and John Robert Warren. 1997. "Socioeconomic Indexes for Occupations: A Review, Update, and Critique." *Sociological Methodology* 27(1):177-298.
- Jacobs, Jerry. 1989. *Revolving Doors: Sex Segregation and Women's Careers*. Stanford, CA: Stanford University Press.
- Jacobs, Jerry. 1993. "Men in Female-Dominated Fields: Trends and Turnover." Pp. 49-63 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by C. L. Williams. Newbury Park, CA: Sage Publications.
- Kaiser, Henry F. 1958. "The Varimax Criterion for Analytic Rotation in Factor Analysis." *Psychometrika* 23(3):187-200.
- Kilbourne, Barbara S., Paula England, George Farkas, Kurt Beron, and Dorothea Weir. 1994. "Returns to Skill, Compensating Differentials, and Gender Bias: Effects of Occupational Characteristics on the Wages of White Women and Men." *American Journal of Sociology* 100(3):689-719.
- Kmec, Julie A. 2005. "Setting Occupational Sex Segregation in Motion: Demand-Side Explanations of Sex Traditional Employment." *Work & Occupations* 32(3):322-354.

- Kramer, Karen Z., and Amit Kramer. 2016. "At-Home Father Families in the United States: Gender Ideology, Human Capital, and Unemployment." *Journal of Marriage and Family* 78(5):1315-1331.
- Lupton, Ben. 2006. "Explaining Men's Entry into Female-Concentrated Occupations: Issues of Masculinity and Social Class." *Gender, Work & Organization* 13(2):103-128.
- Mandel, Hadas. 2013. "Up the Down Staircase: Women's Upward Mobility and the Wage Penalty for Occupational Feminization, 1970–2007." *Social Forces* 91(4):1183-1207.
- Mason, Karen Oppenheim, and Yu-Hsai Lu. 1988. "Attitudes Toward Women's Familial Roles: Changes in the United States, 1977-1985." *Gender & Society* 2:39-57.
- McCall, Leslie. 2011. "Women and Men as Class and Race Actors: Comment on England." *Gender & Society* 25(1):94-100.
- Padavic, Irene, and Barbara F. Reskin. 2002. *Women and Men at Work*. Thousand Oaks, CA: Sage Publications, Inc.
- Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5):937-975.
- Pager, Devah, Bruce Western, and Bart Bonikowski. 2009. "Discrimination in a Low-Wage Labor Market A Field Experiment." *American Sociological Review* 74(5):777-799.
- Pullen, Alison and Ruth Simpson. 2009. "Managing Difference in Feminized Work: Men, Otherness and Social Practice." *Human Relations* 62(4):561-587.
- Reeves, Richard V., and Isabel V. Sawhill. (2015, November 14). "Men's Lib!" *The New York Times*. Retrieved from <https://www.nytimes.com/2015/11/15/opinion/sunday/mens-lib.html>. Accessed May 30, 2018.
- Reskin, Barbara. 2001. "Labor Markets as Queues: A Structural Approach to Changing Occupational Sex Composition." Pp. 719-733 in *Social Stratification in Sociological Perspective*, edited by D. B. Grusky. Boulder, CO: Westview Press.
- Reskin, Barbara F., and Patricia A. Roos. 1990. *Job Queues, Gender Queues: Explaining Women's Inroads into Male Occupations*. Philadelphia, PA: Temple University Press.

- Sassler, Sharon, Jennifer Glass, Yael Levitte, and Katherine M. Micheltore. 2017. "The Missing Women in STEM? Assessing Gender Differentials in the Factors Associated with Transition to First Jobs." *Social Science Research* 63:192-208.
- Scarborough, William J., and Barbara J. Risman. 2017. "Changes in the Gender Structure: Inequality at the Individual, Interactional, and Macro Dimensions." *Sociology Compass* 11(10).
- Shen-Miller, David, and Andrew P. Smiler. 2015. "Men in Female-dominated Vocations: A Rationale for Academic Study and Introduction to the Special Issue." *Sex Roles* 72(7-8):269-276.
- Tronto, Joan. 1993. *Moral Boundaries: Apolitical Argument for an Ethic of Care*. New York: Routledge.
- Western, Bruce. 2002. "The Impact of Incarceration on Wage Mobility and Inequality." *American Sociological Review* 67:526-546.
- Williams, Christine L. (ed.) 1993. *Doing "Women's Work": Men in Nontraditional Occupations*. London: Sage Publications.
- Williams, Christine L. 1995. *Still A Man's World: Men Who Do Women's Work*. Berkeley: University of California Press.
- Williams, L. Susan, and Wayne J. Villemez. 1993. "Seekers and Finders: Male Entry and Exit in Female Dominated Jobs." Pp. 64-90 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by C. L. Williams. London: Sage Publications.
- Yavorsky, Jill E., Philip N. Cohen, and Yue Qian. 2016. "Man Up, Man Down: Race-Ethnicity and the Hierarchy of Men in Female-Dominated Work." *Sociological Quarterly* 57:733-758.

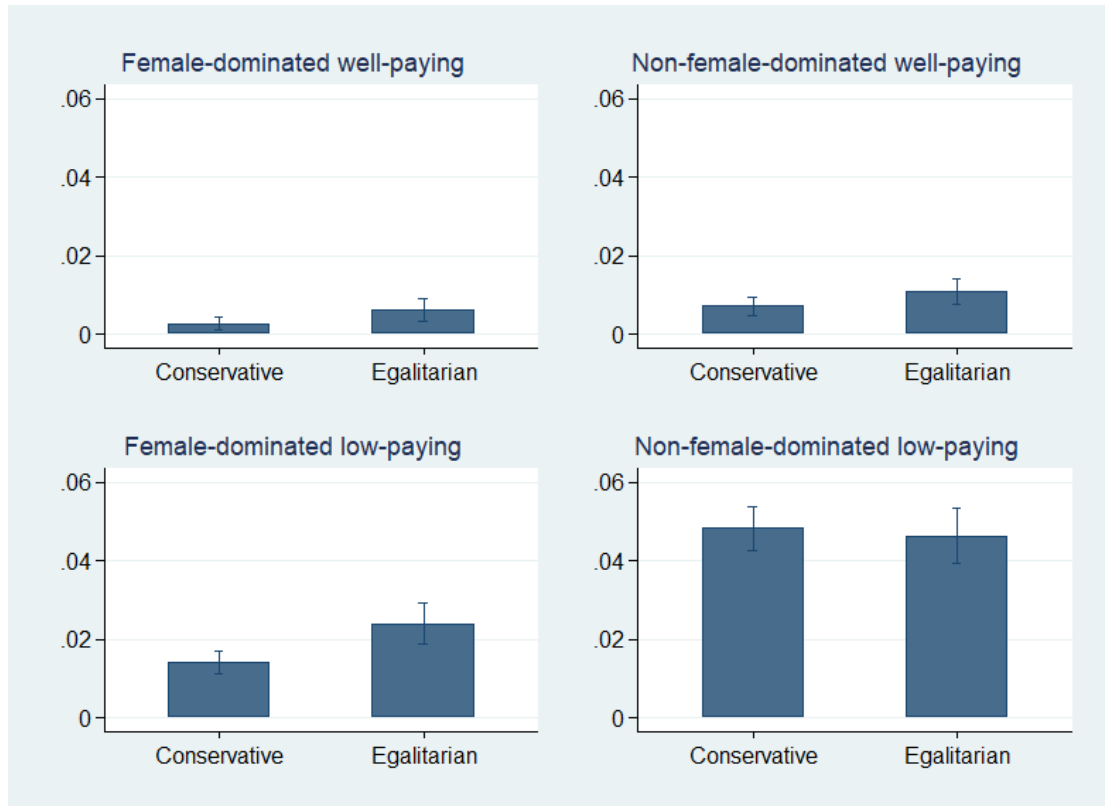


Figure 1. Predicted average probability of men's transition to paid care work jobs in a given year, by levels of gender egalitarian attitude.

Notes: Results derive from marginal predicted values from Model 2 in Table 4. "Conservative" gender attitude refers to a score of 2 on the gender attitude index (from a scale of 1 to 4, with 4 indicating the most egalitarian attitude). "Egalitarian" gender attitude refers to a score of 4 (the highest). The values of other variables in the model are set at mean.



Figure 2. Predicted average probability of men's transition to paid care work jobs in a given year, by levels of education and care work types.

Notes: Results derive from marginal predicted values from Model 2 in Table 4. The values of other variables in the model are set at mean.

Table 1. Factor Loading Results from the Principal Factor Analysis for NLSY 1979 Gender Attitudes Measures

Items	Statement	1979		1982		1987	
		Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
1 *	A woman's place is in the home, not the office or shop.	0.678	0.069	0.739	0.123	0.744	0.129
2 *	A wife who carries out her full family responsibilities doesn't have time for outside employment.	0.628	0.002	0.717	0.053	0.693	0.081
3	A working wife feels more useful than one who doesn't hold a job.	0.109	0.320	0.152	0.353	0.167	0.391
4 *	Employment of wives leads to more juvenile delinquency.	0.475	0.099	0.569	0.047	0.606	0.098
5	Employment of both parents is necessary to keep up with the high cost of living.	0.006	0.327	0.135	0.339	0.163	0.386
6 *	It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.	0.656	0.038	0.717	0.065	0.718	0.046
7	Men should share the work around the house with women, such as doing dishes, cleaning and so forth.	0.226	0.212	0.300	0.203	0.340	0.150
8 *	Women are much happier if they stay at home and take care of their children.	0.586	0.033	0.618	0.030	0.583	0.094

Notes: All items are available from the 1979, 1982, and 1987 waves. Items marked with * are reverse-coded such that higher values represent more egalitarian gender attitudes.

Table 2. Descriptive Statistics of the Analytic Sample (Men Aged 18 to 34)

	Mean or %	SD
Gender attitude index*	2.9	0.5
Education		
High school or below	64.6	
Some college	21.6	
College and above	13.9	
Parental education (year)	12.6	3.1
Number of prior unemployment spells	1.8	2.2
Previously incarcerated	2.6	
Race-ethnicity		
Non-black, non-Hispanic	80.7	
Black	13.1	
Hispanic	6.2	
Marital status		
Never married	63.0	
Married	31.1	
Separated, Divorced, Widowed	5.9	
Region		
Northeast	20.5	
North central	29.8	
South	32.1	
West	17.6	
Current employed	78.0	
Number of care work jobs held before	0.8	1.4
Duration of exposure (month)	60.3	46.9
Age	24.1	4.1
Person-year observations	37,416	
Number of respondents	3,547	

Notes: Data are from 1979-1994 rounds of NLSY 1979, with person-year as the unit of analysis. All values are weighted using the cross-sectional weight from the 1979 round. Numbers representing means are followed by standard deviations shown in parentheses.

* Higher values indicated more liberal attitudes.

Table 3. Selected Characteristics of the Analytic Sample, by Care Work Job Type

	Non- transition (<i>ref.</i>)	Female- dominated well-paying	Non-female- dominated well-paying	Female- dominated low-paying	Non-female- dominated low-paying
Number of transitions from non-care-work jobs	N/A	133	263	613	1,778
Percent of respondents who transitioned	N/A	3.1	5.3	13.9	33.6
Gender attitude index* (mean)	2.9	3.1	3.1	3.0	2.9 ^a
Education (%)					
High school or below	64.8	12.2	13.3	57.9	76.0
Some college	21.1	39.3	38.6	34.5	20.8
College and above	14.1	48.4	48.0	7.6	3.1
Parental education (mean, in year)	12.5	14.2	14.5	13.3	12.5 ^a
Number of prior unemployment spells (mean)	1.8	1.3	1.4	1.4	2.0 ^a
Previously incarcerated (%)	2.6	0.0	0.0	1.5	3.5 ^a
Duration of exposure (mean, in month)	62.9	35.8	33.2	26.6	29.4
Age (mean)	24.2	24.9	24.6	21.9	22.4 ^a

Notes: Data are from 1979-1994 rounds of NLSY 1979, with person-year as the unit of analysis. All values are weighted using the cross-sectional weight from the 1979 round.

* Higher values indicated more egalitarian attitudes.

^a indicates statistically significant differences in means between female-dominated low-paying care work jobs and non-female-dominated low-paying care work jobs.

Table 4. Discrete-time Multinomial Logistic Regression Models Predicting Young Men's Transitions to Care Work Jobs (Reference Category: Holding A Non-care-work Job or Without A Job)

	Model 1				Model 2				Model 3			
	Female-dominated Well-paying	Non-female-dominated Well-paying	Female-dominated Low-paying	Non-female-dominated Low-paying	Female-dominated Well-paying	Non-female-dominated Well-paying	Female-dominated Low-paying	Non-female-dominated Low-paying	Female-dominated Well-paying	Non-female-dominated Well-paying	Female-dominated Low-paying	Non-female-dominated Low-paying
Gender attitude	1.003*** (0.260)	0.875*** (0.147)	0.362*** (0.102)	-0.087 (0.064)	0.448 (0.264)	0.235 (0.154)	0.284** (0.106)	-0.006 (0.068)	0.388 (0.986)	1.364 (0.731)	0.286 (0.460)	-0.072 (0.264)
Education attainment (ref. High school or below)												
Some college					2.112*** (0.365)	2.094*** (0.228)	0.415*** (0.126)	-0.148 (0.086)	4.029* (1.937)	0.405 (1.294)	1.537* (0.751)	0.588 (0.518)
College and above					2.736*** (0.429)	3.116*** (0.270)	-0.488* (0.236)	-1.363*** (0.208)	6.181** (1.904)	5.399*** (1.300)	-0.076 (1.265)	1.186 (1.331)
Parental education					0.011 (0.038)	0.050 (0.028)	0.040* (0.019)	0.015 (0.011)	-0.146 (0.231)	0.236 (0.171)	0.021 (0.113)	-0.040 (0.060)
Prior unemployment					-0.086 (0.057)	-0.039 (0.043)	-0.033 (0.027)	0.065*** (0.016)	-0.414 (0.318)	0.197 (0.222)	-0.159 (0.137)	0.205** (0.073)
Previously incarcerated					-0.430 (1.030)	0.085 (0.463)	-0.449 (0.299)	0.023 (0.148)	-0.381 (1.034)	0.124 (0.464)	-0.437 (0.300)	0.007 (0.149)
Some college × Gender attitude									-0.645 (0.634)	0.519 (0.422)	-0.376 (0.246)	-0.253 (0.174)
College and above × Gender attitude									-1.123 (0.609)	-0.747 (0.420)	-0.143 (0.387)	-0.832 (0.437)
Parental education × Gender attitude									0.050 (0.078)	-0.060 (0.054)	0.006 (0.037)	0.019 (0.021)

Prior unemployment × Gender attitude									0.102 (0.097)	-0.077 (0.072)	0.042 (0.045)	-0.049 (0.025)
Race-ethnicity (<i>ref. Non-black, non-Hispanic</i>)												
Black	-0.573* (0.254)	-0.305 (0.168)	0.337** (0.105)	0.459*** (0.064)	0.006 (0.261)	0.322 (0.174)	0.466*** (0.106)	0.332*** (0.068)	0.002 (0.261)	0.321 (0.175)	0.466*** (0.107)	0.337*** (0.068)
Hispanic	0.427 (0.251)	-0.178 (0.215)	-0.209 (0.143)	0.043 (0.087)	0.710** (0.267)	0.307 (0.217)	-0.055 (0.151)	0.023 (0.093)	0.732** (0.268)	0.391 (0.217)	-0.051 (0.152)	0.019 (0.093)
Marital status (<i>ref. Never married</i>)												
Married	0.175 (0.261)	-0.266 (0.191)	-0.684*** (0.162)	-0.077 (0.093)	0.327 (0.263)	-0.138 (0.182)	-0.631*** (0.165)	-0.096 (0.093)	0.338 (0.264)	-0.134 (0.182)	-0.634*** (0.166)	-0.100 (0.093)
Separated, divorced, widowed	-2.729** (1.012)	-0.430 (0.380)	-0.116 (0.247)	0.421** (0.130)	-2.076* (1.014)	0.263 (0.373)	-0.029 (0.256)	0.227 (0.136)	-2.080* (1.015)	0.252 (0.374)	-0.015 (0.256)	0.226 (0.137)
Region (<i>ref. Northeast</i>)												
North Central	0.262 (0.317)	0.047 (0.210)	-0.411** (0.143)	0.197* (0.092)	0.209 (0.314)	0.132 (0.211)	-0.401** (0.144)	0.152 (0.093)	0.227 (0.317)	0.165 (0.210)	-0.405** (0.145)	0.153 (0.093)
South	0.516 (0.317)	0.184 (0.208)	-0.204 (0.137)	-0.041 (0.091)	0.436 (0.309)	0.220 (0.209)	-0.229 (0.136)	-0.045 (0.092)	0.435 (0.309)	0.214 (0.208)	-0.230 (0.136)	-0.044 (0.092)
West	-0.120 (0.359)	0.113 (0.243)	-0.056 (0.157)	0.090 (0.107)	-0.064 (0.345)	0.305 (0.247)	-0.090 (0.158)	0.034 (0.107)	-0.074 (0.341)	0.276 (0.248)	-0.096 (0.159)	0.029 (0.107)
Currently unemployed or out of the labor force	0.516* (0.249)	0.719*** (0.168)	0.600*** (0.105)	0.684*** (0.067)	0.578* (0.265)	0.759*** (0.186)	0.552*** (0.106)	0.638*** (0.067)	0.580* (0.265)	0.750*** (0.185)	0.556*** (0.106)	0.635*** (0.067)
Number of care work jobs held previously	0.343*** (0.038)	0.288*** (0.030)	0.158*** (0.025)	0.113*** (0.019)	0.208*** (0.049)	0.084* (0.042)	0.184*** (0.031)	0.131*** (0.023)	0.206*** (0.049)	0.079 (0.042)	0.182*** (0.031)	0.130*** (0.023)
Duration of exposure	-0.022** (0.008)	-0.022*** (0.006)	-0.028*** (0.004)	-0.032*** (0.003)	-0.030*** (0.008)	-0.035*** (0.006)	-0.028*** (0.004)	-0.032*** (0.003)	-0.030*** (0.008)	-0.035*** (0.006)	-0.028*** (0.004)	-0.032*** (0.003)
Duration squared	0.000 (0.000)	0.000 (0.000)	0.000* (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000** (0.000)	0.000** (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000** (0.000)	0.000** (0.000)	0.000*** (0.000)

Constant	-8.480*** (0.846)	-7.047*** (0.503)	-4.107*** (0.338)	-2.189*** (0.205)	-8.041*** (0.949)	-6.975*** (0.578)	-4.489*** (0.401)	-2.549*** (0.244)	-7.728** (2.833)	-10.39*** (2.213)	-4.468*** (1.412)	-2.351** (0.742)
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Notes: Number of person-year observations is 37,416. Robust standard errors in parentheses. Results are weighted using the 1979 cross-sectional weight.

*** p<0.001, ** p<0.01, * p<0.05

Table 5. Discrete-time Multinomial Logistic Regression Models Predicting Young Men's Transitions to Care Work Jobs, by Employment Status at the Time of Transition (Selected Results)

	Transition from Non-Care-Work Jobs				Transition from Unemployment or OLF			
	Female-dominated Well-paying	Non-female-dominated Well-paying	Female-dominated Low-paying	Non-female-dominated Low-paying	Female-dominated Well-paying	Non-female-dominated Well-paying	Female-dominated Low-paying	Non-female-dominated Low-paying
Gender attitude	0.570 (0.299)	0.243 (0.180)	0.295* (0.141)	-0.070 (0.090)	0.193 (0.580)	0.229 (0.285)	0.286 (0.161)	0.090 (0.105)
Education attainment (<i>ref. High school or below</i>)								
Some college	2.107*** (0.438)	1.985*** (0.265)	0.272 (0.166)	-0.242* (0.117)	2.249*** (0.640)	2.351*** (0.449)	0.627** (0.203)	-0.062 (0.131)
College and above	2.416*** (0.520)	2.533*** (0.305)	-0.891** (0.285)	-1.212*** (0.234)	3.582*** (0.675)	4.218*** (0.493)	0.471 (0.395)	-1.721*** (0.437)
Parental education	0.037 (0.048)	0.051 (0.038)	0.047 (0.027)	0.028 (0.016)	-0.035 (0.055)	0.048 (0.040)	0.025 (0.026)	-0.003 (0.016)
Prior unemployment	-0.144 (0.080)	-0.040 (0.049)	-0.037 (0.034)	0.082*** (0.020)	-0.038 (0.074)	-0.079 (0.086)	-0.028 (0.047)	0.033 (0.025)
Previously incarcerated	-23.642*** (0.305)	0.743 (0.556)	0.365 (0.388)	0.492* (0.224)	-0.153 (1.056)	-0.586 (0.786)	-1.085** (0.412)	-0.262 (0.196)
Control variables (included in the models)								
Constant	-8.516*** (1.120)	-6.557*** (0.654)	-4.474*** (0.544)	-2.384*** (0.325)	-6.549*** (1.803)	-7.043*** (1.093)	-4.025*** (0.588)	-2.204*** (0.359)
Observations	28,076				9,340			

Note: Robust standard errors in parentheses. Results are weighted using the 1979 cross-sectional weight.

*** p<0.001, ** p<0.01, * p<0.05

Appendices

Appendix A. Broad Care Work Classification

Nurturant Care Work

Physicians
Dentists
Veterinarians
Optometrists
Podiatrists
Other health and therapy
Registered nurses
Respiratory therapists
Occupational therapists
Physical therapists
Speech therapists
Therapists, n.e.c.
Physicians' assistants
Early childhood teachers
Elementary teachers
Secondary teachers
Postsecondary instructors
Special education teachers
Teachers, n.e.c.
Vocational and educational counselors
Librarians
Psychologists
Social workers
Recreation workers
Clergy and religious workers
Dental hygienists
Licensed practical nurses
Teachers' aides
Dental assistants
Health aides, except nursing
Nursing aides, orderlies, and attendants
Welfare service aides
Child care workers

Reproductive Labor

Housekeepers, maids, butlers, stewards
Private household cleaners and servants
Waiter/waitress
Cooks, variously defined
Food counter and fountain workers
Kitchen workers
Waiter's assistant
Misc. food prep workers
Supervisors, cleaning and building service
Janitors
Barbers
Hairdressers and cosmetologists
Laundry workers

Notes: This list is borrowed from Dwyer (2013), which is based on England and colleagues (2002) or Duffy (2005). Based on the 1990 Census Occupational Classification.

Appendix B. Care Work Occupations by Wage Level and Gender Composition

	Non-female-dominated	Female-dominated
Well-paying	Physicians Dentists Veterinarians Optometrists Podiatrists Physicians' assistants Health diagnosing practitioners, n.e.c. Postsecondary teachers (in STEM, law, business, social sciences, education, humanities, theology, etc.) Teachers, secondary school Counselors, educational and vocational Psychologists Social workers	Registered nurses Dietitians Occupational therapists Physical therapists Speech therapists Health specialties teachers (postsecondary) Home economics teachers (postsecondary) Teachers, elementary school Teachers, special education Librarians Dental hygienists
Low-paying	Respiratory therapists Clergy and religious workers Food preparation and service occupations Bartenders Cooks Waiters'/waitresses' assistants Cleaning and building service workers Janitors and cleaners Houseman Barbers Laundry and dry-cleaning workers	Teachers, prekindergarten and kindergarten Recreation workers Licensed practical nurses Private household workers (laundryers and ironers, cooks, housekeepers and butlers, child care workers, cleaners and servants) Waiters and waitresses Food counter, fountain and related occupations Kitchen workers, food preparation Dental assistants Health aides, except nursing Nursing aides, orderlies, and attendants Hairdressers and cosmetologists Welfare service aides Family child care providers Early childhood teacher's assistants Child care workers, n.e.c.

Notes: Based on the 1990 Census Occupational Classification. Occupations are categorized as “well-paying” if its occupational earnings score – based on Hauser and Warren (1997) – exceeds 40 percent of all jobs in the labor market. Female-dominated occupations are those with more than 70 percent women workers.

Chapter 2: Changing Patterns, Persisting Logic: Racial Inequality in Young Men's Transition to Paid Care Work Jobs

Abstract

With the expansion of the paid care work sector in the United States, men have slowly increased their presence in paid care work jobs that have long been considered as “women’s jobs.” This trend has taken place in the context of economic restructuring since the 1970s, with income inequality widening and the U.S. job structure becoming polarized between “good” jobs and “bad” jobs in terms of pay and job security. The growth of paid care work jobs is characterized by racial disparity, but the mechanisms behind the racialized patterns remain unclear. Using individual-level data from the National Longitudinal Survey of Youth 79 and 97, this study examines the determinants of entering low-paying versus well-paying care work jobs among two cohorts of young men (late Baby Boomers and early Millennials, aged 18 to 34) who joined the workforce under different labor market conditions. Findings suggest changing patterns of racial inequality corresponding to larger job growth patterns since the 1980s: In the 1980s which saw robust growth of middle- and high-wage jobs, being black was associated with higher odds of entering low-paying care work jobs. In contrast, during the 2000s when the job growth was predominantly driven by the growth of low-wage jobs, black men were more likely to be deterred from entering well-paying jobs, controlling for individual-level supply-side factors. This study argues that the persisting logic of a racialized “labor queue” underlies these changing patterns.

Introduction

Paid care work jobs – jobs involving “caring labor” – grew substantially since the 1980s, owing to a combination of factors such as women’s increasing participation in the labor force, population aging, the institutionalization of care work, and rising economic inequality which transformed the social organization of care (Duffy 2011; Milkman et al. 1998). Care work jobs provide a particular kind of service that enhances the health, well-being, or development of other people, many of which involve emotional labor while others entail more physical labor (Duffy 2005; England 1992). Broadly defined, they constitute a “care economy” which encompasses a wide range of occupations in education, health care, child care, long-term care, social work, domestic services and so forth. Most care work jobs have been historically performed by women, especially racial minority women, and are found to be devalued and underpaid (England et al. 2002). The growing demand for caring labor fueled the expansion of the care economy in the U.S. in recent years. With its strong expansion, coupled with the declining employment opportunities especially in traditionally male-dominated sectors such as manufacturing, an increasing number of men have entered paid care work occupations. Since most occupations within the paid care work sector are female-typed, the heightened visibility of men working in these sectors has been hailed as progress towards gender integration, exemplified in the proliferation of media coverage on “male nurses.”

Yet, the pattern of job growth within the paid care work sector was less equalizing with growth concentrating both at the top wage quintiles and at the bottom; the polarized pattern of care work job growth is further characterized by

racial disparity, with racial minority women and concentrating at the bottom of wage distribution (Duffy 2005; Dwyer 2013). Existing studies on this topic have looked at aggregate-level patterns, but the mechanisms contributing to the racialized job polarization patterns in the paid care sector remain unclear.

This trend of job polarization within the paid care work sector took place under the larger context of economic restructuring since the 1970s. Facing intensified global competition and declining profits in the 1970s, corporate employers adopted a series of strategies to undermine labor power, including hiring part-time, contingent workers, opting for temporary staffing agencies for personnel, and waging attacks on unions (Kalleberg 2009). The U.S. job structure has since become increasingly polarized between “good” jobs and “bad” jobs in terms of wage, status and relative job security, which generally worked against low-skilled workers while benefiting high-skilled workers (Kalleberg 2011). Dwyer (2013) finds that care work jobs contributed significantly to the overall job polarization pattern over the past three decades, and argues that theories of the rise of care work in the U.S. economy explain key dynamics of job polarization – including robust growth of low-paying jobs and the gendered and racialized pattern of job growth – better than the alternative theories such as skill-based technological change. Understanding the gender and racial dynamics in the paid care sector thus has broader implications for addressing labor market inequalities.

Moreover, the patterns of job growth have changed over the past three decades: The 1980s saw robust growth of jobs in the middle and top of the wage distribution, whereas job growth in the 2000s was largely driven by the growth of

low-wage jobs (Autor 2015; Holzer 2010). The changing patterns of job growth may have different implications for racial inequalities in who can access the “good” jobs over time. In the context of the paid care work sector, the racial stratification processes underlying the overall polarized job growth trend may have changed under different labor market conditions.

Given this background, this study investigates the changing patterns of two cohorts of young men’s entry into increasingly polarized care work jobs to reveal how economic restructuring affects racial inequality in the labor market over time. The focus on the paid care work sector allows for exploring key dynamics in the job polarization pattern, especially how new inequalities in career mobility are racialized, and the extent to which the changing configurations of racial inequalities are linked to inequalities in skill and labor market positions. Using event history analysis and individual-level data from the National Longitudinal Survey of Youth (NLSY) 79 and 97, this study examines the determinants of entering low-paying versus well-paying care work jobs for the first time among two cohorts of young men (late Baby Boomers and early Millennials, aged 18 to 34) who joined the workforce under different labor market conditions. The late Boomer cohort launched their careers in the 1980s when there was robust growth in well-paying jobs, whereas the early Millennial cohort entered the labor market around 2000 and thereafter when the job growth was primarily driven by the growth of low-paying jobs.

The goals of this study are to identify the changing patterns of racial disparity in men’s transition into paid care work jobs under different labor market conditions and to examine the factors contributing to the racialized job polarization in the paid

care work sector – for example, is it driven by racial disparity in education and labor market experience, and/or by racial discrimination? Understanding the pathways of men with different socio-economic backgrounds into various kinds of care work jobs can shed light on how a celebrated trend towards gender occupational integration in the U.S. is accompanied by persisting racial and class inequalities.

Economic Restructuring and Changing Patterns of Job Growth since the 1980s

To understand the dynamics of job polarization in the paid care work sector, it is important to situate the trend within the larger context of economic restructuring since the 1970s. The landscape of the workplace has been dramatically transformed in the United States over the past few decades, characterized by growing job polarization between high- and low-wage jobs (Autor et al. 2006; Wright and Dwyer 2003). The trend of job polarization is not only manifested in terms of widening wage and income inequalities, but also in terms of diverging job qualities between “good” jobs at the higher end of the occupational distribution with standard employment relationships and “bad” jobs that are part-time, temporary, and precarious (Kalleberg 2011). Existing literature has attributed this transformation of the labor market in the U.S. since the 1970s to a combination of factors, including skill-based technological changes such as computerization of routine work (Autor et al. 2006; Kristal 2013), intensifying global competition and the offshoring of manufacturing jobs, the erosion of “equalizing” institutions and policies such as unions, the public sector, and trade regulation which weakened workers’ power (Doussard et al. 2009; Western and Rosenfeld 2011; Wright and Dwyer 2003) as well as changes in the demographic

composition of the workforce such as the increasing share of women, racial/ethnic minorities and foreign-born workers and a greater diversity in workers' education and skill attainment (Kalleberg 2011).

The economic restructuring has generally worked against low-skilled workers while benefiting many high-skilled workers. While work has become less stable and less secure across the board, high-skilled workers may have more bargaining power with which to negotiate the terms of employment (Kalleberg 2011; McCall 2005). The decline of the manufacturing sector displaced millions of high-paying jobs that required less than college education. For men in particular, the result is that workers with high school degrees but not bachelor's degrees face a weakened demand for their labor, reduced bargaining power, and decreasing or stagnant wages (Kristal 2013; Western and Rosenfeld 2011). Meanwhile, the service sector expanded with a polarized set of high-skill, high-wage and low-skill, low-wage jobs, and men's employment in low-skilled, low-paying service sectors has increased (Autor 2010), many of which are care work jobs in the education, health, and social work sectors.

Moreover, the job polarization trend has not been monotonic over the past three decades. Some scholars question the "job polarization" thesis which depicts strong job growth at both the bottom and top ends of the wage distribution, in contrast to a "hollowing out" of middle-wage jobs (Holzer 2010). Part of the dispute can be attributed to the time-varying patterns of job growth: Disaggregation by time periods reveals that employment growth in the 1980s was robust in the middle and strong at the top of the wage spectrum, whereas the employment growth in the 2000s was largely driven by the growth of bottom-paying jobs (Autor 2015; Holzer 2010). It

means that young adults who entered the workforce in the 1980s and 2000s faced very different labor market conditions, especially the availability of “good” jobs. Comparing wage mobility patterns among the late Boomer and early Millennial cohorts of young men, for example, Maume and Wilson (2015) find that more millennial men suffered wage stagnation in their early careers and fewer enjoyed rapidly growing wages over their careers, as they entered the job market at a time when full-time jobs become less available.

Paid Care Work Sector: A Key Driver of Job Polarization

The ongoing trend of job polarization is usually attributed to computerization of routine manual jobs that increased the demand for high-skilled jobs on the one hand, and deskilled middle-skilled jobs on the other (Autor et al. 2006). This skill-based technological explanation has been criticized for its emphasis on a single mechanism and for ignoring the political and institutional factors influencing the labor market (Dwyer 2013; Mishel et al. 2013). Alternatively, institutionalist explanations of job polarization emphasize the roles of macroeconomic and political arrangements, paying attention to how political processes such as deunionization and deregulation undermined workers’ collective power (Doussard et al. 2009; Western and Rosenfeld 2011; Wright and Dwyer 2003). However, care work scholars point out that neither the skill-based technological explanation nor the conventional institutionalist approach fully explains the key features of job polarization, especially the robust growth of low-wage jobs and the differential job growth patterns by gender and race/ethnicity (Dwyer 2013). Instead, these gendered and racialized labor market

dynamics of job polarization can be best explained by the growth of care work jobs – a sector that has grown substantially throughout the economic restructuring.

Building on feminist theorization of care work, Dwyer (2013) argues that care work scholarship depicts changes in the U.S. labor market as highly structured by gendered and racialized division of labor and suggests that the changing social organization of care plays a major role in shaping the job polarization patterns. Care work, or “caring labor”, can be broadly conceptualized as providing a particular kind of service that enhances the health, well-being, or development of other people, usually involving face-to-face interaction with the recipients (England et al. 2002). The paid care work sector encompasses a diverse occupational landscape, including care work jobs as in health care, child care, long-term care and elderly care, education, social work, domestic services, and so forth. Care work scholars have further theorized about the differentiation between “nurturant” care work job such as nursing, teaching, child care and elder care, counseling and social work, and “reproductive labor” such as cleaning, cooking and other non-relational tasks (Duffy 2005). Both nurturant care work jobs and reproductive labor jobs enhance the well-being of the recipients, but the former emphasizes the emotional and relational nature of caring activities and is taken up mostly by white women, whereas the latter involves more physical labor, is extremely low-paid, and has historically been performed by racial minority women (Duffy 2007).

Dwyer (2013) argues that the division between nurturant care work and reproductive labor jobs already suggests polarizing tendencies in care work job growth. Measuring job polarization across quintiles of median job wage, she finds

that care work job growth contributed significantly to the overall job polarization trend between 1983 and 2007, and its growth was heavily weighted to the bottom wage quintile than to the top. Jobs with wages in the bottom quintile include both “nurturant” care work jobs such as child care workers and “reproductive labor” jobs such as domestic aides. Jobs belonging to the fourth quintile are mostly “nurturant” care work jobs that require a college degree, including elementary and secondary teachers, allied health professions, and so forth. Jobs in the top wage quintile usually require a postgraduate degree such as physicians, professors and registered nurses.

The polarizing pattern of care work job growth is further characterized by gender and racial disparity, with white women and men concentrating in jobs from the top two wage quintiles, while racial minority women and men tend to occupy jobs in the bottom wage distribution (Dwyer 2013). Most of the growth for racial minority men was in reproductive labor jobs such as cleaning and cooking. In contrast, white men in care work occupations tend to work in the highest-paying jobs. These patterns are consistent with findings by other care work scholars on the racialized gender division of labor in the U.S. history (e.g. Duffy 2005, 2007; Nanako Glenn 1992). As a substantial part of the economy, the paid care work sector constitutes a key site for examining the racialized patterns of job polarization in the “new economy.”

Racial Labor Market Inequalities in the New Economy

These macroeconomic changes have important implications for the existing configurations of racial inequalities in the labor market. Some scholars highlight the negative effects of deindustrialization and skill mismatch on working-class black men

in terms of high rates of male incarceration, mortality, and unemployment (Western 2002; Wilson 1996). Racial minority workers tend to experience more pronounced labor market disadvantages under large-scale labor market shifts such as deindustrialization (Hill and Negrey 2010) and economic recession (Hout et al. 2011). The incarceration and unemployment rates among black men in turn reinforce their marginalized labor market positions, as having prior unemployment experience or incarceration records reduces one's chance of being hired (Pager 2003; Western 2002). Race thus intersects with other bases of discrimination to exacerbate the labor market disadvantages among black men.

Prior studies have also consistently documented racial discrimination in the hiring process (e.g. Pager and Quillian 2005; Pager et al. 2009), as racial differences in employment outcomes cannot be fully explained by human capital differences in education, work experience, or job training (Kaufman 2002). From a structural perspective, “queueing” theory suggests that employers, for various reasons, potentially rank racial minorities lower than white men in the labor queue, evaluating them as either less productive or costlier, or taking advantage of their marginalized status and limited options (Reskin and Roos 1990). A “queueing” perspective views labor market as composed of both labor queue (how employers rank potential workers) and job queues (how workers rank the jobs), and variation in the relative sizes of these two elements influences each group of potential workers' access to jobs of varying desirability (Reskin 2001). The changing job growth pattern since the 1980s – with middle- and high-wage jobs having robust growth in the 1980s while the

growth of low-wage jobs predominated in the 2000s – could differentially impact the racial minority workers’ access to middle- and high-paying jobs.

In addition, the erosion of “equalizing institutions,” especially the public sector, has hurt the career mobility of racial minority men. Since the Civil Rights movement in the 1960s, the U.S. government has provided favorable employment opportunities for racial minority workers in an effort to address racial discrimination in the private employment sector. However, beginning in the early 1990s, a series of “New Governance” reforms on the state and federal levels have gradually moved public-sector employment towards privatization by subjecting it to labor market principals, which reduced not only the size but also job security of public-sector jobs (Bowman and West 2007). Studies have shown that the public-sector reform undermined the career mobility and prospects for African American men as compared to white men, thus widening the racial gap in the public sector (Wilson et al. 2013; Wilson and Roscigno 2016). Given that workers in care industries are disproportionately concentrated in the public sector (Folbre and Smith 2016), the privatization of the public sector could lead to a diminishing number of “good” jobs in the paid care sector since the 1990s.

Gaps in Previous Literature

Recent studies using census data have shown aggregate-level trends of the changing gender and racial components for care work jobs. For example, between 1983 and 2007, care work job growth for white women and men was more likely to be in the top wage quintiles, whereas for non-white women and men it was concentrated at the bottom (Dwyer 2013). Another study using 2010-2012 American

Community Survey found that black and Hispanic men were more likely than white men to occupy “feminized” jobs across education levels (Yavorsky et al. 2016). However, aggregate-level studies cannot reveal the mechanisms behind these patterns. Since aggregate-level studies do not control for workers’ human capital and labor market positions, it is hard to know to what extent the racial disparity in sorting into high-paying versus low-paying care work jobs among men is due to the disadvantage in educational attainment and labor market marginalization of racial minority men, and/or by racial discrimination. Analysis using individual-level, longitudinal data will be able to examine the extent of racial disparity net of individual education and employment histories.

Moreover, Dwyer’s (2013) study combines the entire period of 1983 to 2007 together, but the nature of job growth has significantly shifted between the 1980s and the 2000s (Autor 2015; Holzer 2010). The changing pattern of job growth has important implications for racial inequality in the labor market. Although on the aggregate-level white men appear to be more likely than minority men to occupy higher-paying care work jobs throughout the 30-year period, the underlying racial stratification processes could have changed over time. Using data from NLSY 79 and 97 for two cohorts of young men, this project investigates how changing patterns of racial disparity correspond to the changing economic contexts.

Research Questions and Hypotheses

In light of these limitations, this study focuses on young men’s transition into paid care work jobs to examine the changing patterns and mechanisms of how white

men and racial minority men were sorted into care work jobs with different wage levels by examining the extent to which the racial disparity can be explained by individual-level factors such as education, work experience, and labor market positions, as compared to racial discrimination. I use work history data from two cohorts of young men (late Baby Boomers and early Millennials) who joined the workforce under different labor market conditions. The late Boomer cohort launched their careers in the 1980s when the economic restructuring was in its initial stage. The early Millennial cohort entered the labor market around 2000 and thereafter, when rising wage inequality and the shrinking of “good” jobs were well underway.¹ They also experienced the Great Recession which augmented these trends.

The first question this study seeks to address is how the overall racial disparity in men’s transition into care work jobs of differing wage levels has changed over time. Findings from aggregate-level studies – that the growth in care work jobs for racial minority men between 1983 and 2007 was concentrated at the bottom wage quintile, whereas for white men the growth was predominantly among high-wage jobs (Dwyer 2013) – would suggest that the higher risk of racial minority men entering low-paying care work jobs and the higher risk of white men entering high-paying care work jobs become more pronounced over time (Hypothesis 1).

Next, to what extent does the racial disparity in transitioning into different kinds of care work jobs remain after accounting for differences in educational

¹ Job quality also contains other dimensions such as work schedule, the availability of health insurance, retirement benefits, and other types of fringe benefits. In this study, I focus on the wage dimension of care work jobs to indicate “good” and “bad” job, not only because wages are a fundamental dimension of job quality, but also in keeping with existing studies on the topics of job polarization (e.g. Autor et al. 2006) and care work jobs (Dwyer 2013).

attainment and labor market position? Given the disadvantages of racial minority men (especially black men) relative to white men in education level, labor market experience, and the disproportionate impact of mass incarceration, and given the persistent racial discrimination in hiring documented in previous studies, controlling for these individual-level factors should attenuate but not eliminate the effects of race/ethnicity on transitioning into high-paying or low-paying care work jobs in both cohorts (Hypothesis 2).

Third, is the racial disparity of men's transition into care work jobs linked to the disparities in education and labor market experience in the same way for high-paying care work jobs as for entering low-paying care work jobs? And are the sorting mechanisms similar across cohorts? Given the changing patterns of job growth between the 1980s and 2000s, I expect that the underlying racial stratification process in who can access well-paying care work jobs have also changed. Specifically, when the demand for labor in "good" jobs is high, workers ranked lower in the racialized labor queue may have a higher chance of accessing these jobs than they normally would. Conversely, when the availability of "good" jobs decreased relative to "bad" jobs, these jobs tend to be monopolized by groups ranked higher in the labor queue through the process of "social closure" (Reskin and Roos 1990; Weber 1968). In the 1980s, there was sufficiently strong growth of middle quintile jobs in a number of service sectors which compensated for the decline in well-paying manufacturing jobs (Wright and Dwyer 2003), whereas the job growth in the 2000s was predominantly driven by the growth of low-wage jobs. This does not mean that the absolute number of well-paying jobs has declined, but rather the relative demand for these jobs

weakened as compared to the demand for low-paying jobs. As a result, it may have become more difficult for young racial minority men ranked lower in the labor queue to access well-paying care work jobs if they entered the labor market in the 2000s. This racial disparity could be exacerbated by the privatization of public sector employment where care work jobs are highly concentrated, as subjecting the public sector to free market principles, including increasing employer discretion at the hiring stage, allowed for more room for racial discrimination (Wilson and Roscigno 2016). I therefore hypothesize that, net of differences in education and labor market experience, it is more difficult for racial minority men to access well-paying care work jobs in the later cohort (Hypothesis 3). Finally, I test the interaction effect between race/ethnicity and having a college degree to see if the effect of completing a college education differs for white men and racial minority men.

Data and Sample

This study draws on the 1979 and 1997 cohorts of the National Longitudinal Survey of Youth (NLSY) data sets, which have similar data structures and measures of socioeconomic status, human capital, (un)employment histories, and contextual variables such as resident region. The primary focus of NLSY surveys was to examine the labor market experience of young adults, making the data ideal for this analysis. Both NLSY 79 and 97 data sets include oversamples of racial minority youth, which facilitates the investigation of racial differences in men's transition into different kinds of care work jobs. The late Boomer cohort was born between 1957-1964 and were 14 to 22 years old during the first interview round of NLSY79. They

launched their careers in the 1980s, at the initial stage of economic restructuring. The early Millennial cohort was born between 1980-1984 and were 12 to 16 years old in 1997. They entered the labor market around 2000 and thereafter, when the labor market was characterized by high income inequality and job polarization. Both NLSY surveys have high initial response rates and high retention rates.²

I use the 1979–1994 waves of the NLSY79 and the 1997–2013 waves of the NLSY97, matched to ensure age comparability. For both cohorts, I restrict the sample to men and observe their transitions into any care work jobs between age 18 and 34 (or at an earlier age if they left the survey before the 1994 round for NLSY79 and 2013 round for NLSY97). The upper age bound of 34 is determined by the age of the oldest respondents during the most recent survey round from NLSY97. I restrict the lower age bound to 18 because the work and unemployment experience prior to age 18 may not be of the same nature or has the same influence on future labor market experience as the jobs and unemployment spells after age 18. Respondents from the NLSY79 military subsample are also dropped from the analytic sample.

Respondents' information at the time of each round's interview is used to predict the subsequent transition into care work jobs within the next round. I first use work history rosters from NLSY79 and 97 to construct a monthly work history for each respondent starting from the month turning age 18. The constructed monthly

² NLSY79 has an initial response rate of over 91% for both the cross-section and supplemental samples (see <https://www.nlsinfo.org/sites/nlsinfo.org/files/attachments/130212/NLSY79%20Tech%20Samp%20Rpt.pdf>). NLSY97 has an initial response rate of 92% (see <https://www.bls.gov/nls/nlsy97techsmp.pdf>). By the 1994 survey, 89.2 percent of the original NLSY79 respondents remained in the sample (see <https://www.nlsinfo.org/content/cohorts/nlsy79/intro-to-the-sample/retention-reasons-noninterview>). The retention rate for NLSY97 respondents by the 2013 survey is 79.5 percent (see <https://www.nlsinfo.org/content/cohorts/nlsy97/intro-to-the-sample/retention-reasons-non-interview>).

work history records the employment status (employed, unemployed, and out of the labor force) for each month, with a unique employer ID assigned to the months when the respondents were employed, which could then be linked to detailed employer characteristics including occupation and hourly wage. I use such information to identify care work jobs of different wage levels. I identify care work jobs from the monthly work history, rather than the main or most recent job at each round's interview, because the monthly work history records would allow me to capture care work jobs held in between the interview months of two survey rounds.³ Moreover, because many care work jobs are part-time, I further use information from the dual job history array to capture care work jobs that are held as a second job in addition to the main job held during each month.⁴

As this study uses a discrete-time event history model, respondents enter the risk set since turning age 18 and leave the risk set before the last survey round (1994 for NLSY79 and 2013 for NLSY97). Since the respondent must be at risk for entering care work jobs within the subsequent round, he cannot be holding a care work job at the time of the interview (i.e. the person-year observations when the respondent is currently holding a care work job are dropped from the analytic sample). Because the event of transition into care work jobs are lagged, it is impossible to know whether the event occurs after the last round that the respondents appeared in the surveys. I therefore exclude the person-year observations of the last interview round from the

³ For example, if a respondent entered a care work job after the first round's interview, then left that job before second round's interview, such a job would only be captured by the monthly work history data, but may not appear as the "main or most recent job" at the time of each round's interview.

⁴ For example, if in a certain month, a respondent's main job is not a care work job, but his second job is, then he would be counted as holding a care work job.

analysis. In summary, all rounds from age 18 to 34 (or an earlier age when the respondents left the survey) are pooled to create person-year data sets that are suitable for event history analysis, with time-varying information for each respondent. The final analytical sample contains 3,719 individuals and 38,790 person-years from NLSY79, and 4,349 individuals and 38,256 person-years from NLSY97.

Measures

Dependent Variable

Following previous care work studies (Duffy 2005, 2007; Dwyer 2013), I adopt a more expansive definition of paid care work to include both “nurturant” care work such as teaching, counseling, and nursing, and “reproductive labor” work such as cleaning, cooking, and laundry. In this study, I define the occupational standing of care work jobs in terms of wage level, using the occupational income scores first developed by Hauser and Warren (1997) and recently updated by Frederick (2010) to be compatible with the 2002 Census occupational classifications.⁵ I categorize a care work job as “well-paying” if its occupational income score exceeds 40 percent of all jobs in the labor market, and otherwise as “low-wage.” A complete list of care work jobs based on the 1990 Census occupational classification is available in Appendices A, B, and C.⁶

⁵ Hauser and Warren (1997) define occupational income score as the percentage of occupational incumbents who make more than \$14.30 per hour. As noted by Frederick (2010), \$14.30 per hour works out to \$25,000 per year based on 35 hours worked per week for 50 weeks per year.

⁶ Appendix A lists the care work job by the “nurturant care” versus “reproductive labor” jobs as used in previous studies. Appendix B lists the “well-paying” care work jobs as defined in this study, including both categories using the 1990 Census occupational classification and

The outcome variable for the event history analysis in this study is a time-varying three-category variable indicating transitions to well-paying care work jobs or low-paying care work jobs within the next interview round, with the reference category being non-transition. The reference category of “non-transition” further includes several employment statuses – A respondent could be unemployed, out of the labor force, or holding a non-care work job. The event of entering care work jobs lags behind the respondents’ conditions at the time of the interview for each survey round. I include all transitions into care work jobs during the observation period, instead of just first-time transitions, in order to retain the respondents who first entered care work jobs prior to turning age 18. This means that the transition into care work jobs is a repeatable event in my analysis, and therefore the respondents can transition to care work jobs multiple times throughout the observation window.⁷

Since the study examines the work history of two cohorts of young men spanning across a few decades, during which the Census occupational codes have changed substantively, I need to make sure that the definition of care work jobs in this study remains consistent over time. I harmonized the occupational coding for care work jobs across the 1970, 1980, 1990, and 2000/2002 Census occupational classification systems primarily based on a cross-walk developed by Meyer and Osborne (2005) from the Bureau of Labor Statistics. I also manually compared

those based on the 2002 Census occupational classification. Appendix C does the same for the “low-wage” care work jobs.

⁷ I have tried alternative models, with the dependent variable being transition to first care work jobs only, a one-time event. The key findings remain consistent. Results from the alternative models are shown in the tables appended at the end (Appendix 2-4). I did not use the one-time transition to first care work jobs as the dependent variable because there are few black and Hispanic men in the analytic sample who transitioned to well-paying jobs as their first care work jobs, which may affect the power of analysis.

coding for care work occupations across different Census coding systems to ensure they map onto each other in the most sensible way.

Independent Variables

For both NLSY79 and NLSY97 samples, race/ethnicity is constructed as three categories: 1) black, 2) Hispanic, and 3) non-black, non-Hispanic. Such categorization is due to the limitation of the NLSY79 data – The NLSY79 respondents were initially classified as Hispanic, black, or non-Hispanic/non-black based on the information collected during 1978 screener interviews. This created variable is the official race classification for NLSY79 respondents and is used to compute sampling weights and to define racial minority subsamples (Light and Nandi 2007). The “non-black, non-Hispanic” category is comprised of over 90 percent of respondents who identified themselves as “white” in a subsequent question on self-reported “origin of descent.” In keeping with the NLSY79 coding of the race/ethnicity variable, the “non-Hispanic white” and “non-Hispanic others” categories are combined into “non-black, non-Hispanic”, which also consists of more than 90 percent non-Hispanic whites. In addition to the small percentage of “other race,” the combination of “white” and “other race” categories may not affect the results in a substantial way based on previous empirical finding that black and Hispanic men are more likely than white men to occupy low-wage care work jobs while “other race” men saw growth in care work jobs that are weighted to the top wage quintile (Dwyer 2013). I use the term “non-Black and non-Hispanics” instead of “white” in the results and discussion sections.

All key explanatory variables regarding education and labor market positions

are measured at the interview month of each survey round and therefore vary with time. For both cohorts, educational attainment is constructed as a binary variable indicating whether the respondent has completed 16 years of schooling as of each round's interview. Since regular college education usually takes 16 years of schooling, this variable approximately indicates whether one has completed a college education or not. Alternative coding of the education variable into four categories does not change the results in a substantive way. I decided to use the dummy variable indicating college education to make the interaction terms between race/ethnicity and education more straightforward. For labor market experience, I use the work history rosters from NLSY 79 and 97 to construct a cumulative work history (months employed) since turning age 18 up to each round's interview month. One's labor market position (or marginalization) is indicated by two time-varying variables. First, work history rosters are used to calculate the total number of prior unemployment spells experienced by the respondent since age 18 up to each round's interview. Second, a binary variable indicating whether a respondent has previously been incarcerated (coded as 0 if no incarceration history, 1 if one has ever been incarcerated) is constructed using a time-varying residence variable from NLSY79 that identifies whether respondents were in prison or jail at the time of interview (Western 2002), and using the monthly incarceration event history arrays from NLSY97.⁸ Having unemployment history and/or incarceration record indicates

⁸ Since NLSY79 does not provide monthly incarceration records, and incarceration history has to be indirectly obtained from the type of residence at the time of each survey, incarceration is likely to be undercounted as the incarceration records in between the survey interview months would be left out.

marginalized position in the labor market.

The statistical models control for one's marital status (never married, married, and separated, divorced, or widowed), resident region (Northeast, North Central, South, and West), the employment status at the time of the interview (employed in a non-care work job, unemployed, or out of the labor force), number of previously held care work jobs, and duration (in month) of exposure to the risk of entering care work jobs since turning age 18. A squared term of duration is also included in the models to capture the potential nonlinear relationship.

Table 1 presents weighted descriptive statistics from the analytic samples for NLSY 79 and 97, with person-year as the unit of analysis.⁹ Comparing key characteristics between the two samples, the percentage of non-black, non-Hispanic (over 90 percent of whom are “white”) has declined from 79.7 percent in the NLSY79 cohort to 71.2 percent in the NLSY97 cohort, while the Hispanic population has increased from only 6.6 percent to 13.5 percent across the two cohorts. The percent of college graduates (who completed 16 years of education) slightly increased. The percent of previously incarcerated increased more than twofold from 3.0 percent in the NLSY79 cohort to 7.8 percent in the NLSY97 cohort. Both the average length of cumulative work history as well as the previous number of unemployment spells are both lower in the younger cohort, likely reflecting more time spent in school, especially higher education, for this cohort. In contrast, the mean duration of exposure shortened for the younger cohort, meaning on average

⁹ Both NLSY79 and NLSY97 oversamples racial minority respondents. I use the initial sampling weight obtained during the first interview round of each survey in calculating descriptive statistics and estimating event history models.

they entered their care work jobs sooner than the older cohort.

– Table 1 about here –

Analytic Strategy

This study uses discrete-time hazard models – a form of event history analysis – to track whether one transitions into care work jobs within the next survey round (approximately one year), given that one is not currently holding a care work job and thus at risk of transitioning into one. A respondent is considered being exposed to the “risk” of transitioning into paid care work job since age 18. With person-year as the unit of analysis, I estimate a series of discrete-time event history multinomial logit regression models for NLSY 79 and 97, separately, to examine the changing patterns of and factors contributing to the racial disparity in men’s transition to well-paying versus low-paying care work jobs. I start by pooling the NLSY79 and NLSY97 samples together and fit a reduced model including only race/ethnicity as the main predictor, along with control variables. I then include an interaction between race/ethnicity and a cohort dummy to test whether racial disparity in entering well-paying or low-paying care work jobs has become more pronounced for younger cohort. To test the second hypothesis on whether the racial disparity in sorting into high-paying versus low-paying care work jobs remains after accounting for differences in educational attainment and labor market positions for both cohorts, as well as the third hypothesis regarding the changing patterns of racial disparity net of human capital and labor market experience and positions, I estimate a series of nested models separately for NLSY79 and 97: First, I estimate a reduced model including

only race-ethnicity as the main predictor along with control variables, and then fit two additional models with college education added as a key explanatory variable in Model 2, and variables indicating one's labor market position and experience (cumulative work history, unemployment history, and incarceration history) further added in Model 3. Finally, Model 4 includes an interaction between race/ethnicity and college education to explore whether the effect of having a college education differs by race/ethnicity.

Results

Table 2 displays the results from the discrete-time event history models predicting the transition into well-paying or low-paying care work jobs within the next survey round (approximately 12 months), conditional on not currently holding a care work job, among men between age 18 and 34. With samples from the two cohorts pooled together, and not controlling for education and labor market experience, the purpose of Table 2 is to estimate the overall effect of race/ethnicity and to statistically test whether the effect of race/ethnicity has become more pronounced for the younger cohort. Model 1 (without race by cohort interaction) shows that overall, being black and Hispanic are associated with lower odds of transitioning into well-paying care work jobs, and black men are at a higher risk than non-black, non-Hispanic men to enter low-paying care work jobs. Specifically, the odds that black and Hispanic men will transition into well-paying care work jobs are 42 percent ($\exp[-0.539] = 0.583$) and 30 percent ($\exp[-0.361] = 0.697$), respectively, lower than the odds of non-black, non-Hispanic men. Black men are 1.34 times

($\exp[0.294] = 1.34$) as likely as non-black, non-Hispanic men to enter low-paying care work jobs.

Model 2 includes interactions between race/ethnicity and cohort, with the main effects of race/ethnicity showing the results for the late Boomer cohort. Results show that the risk of transitioning to well-paying care work jobs is lower for black men than for non-black, non-Hispanic men among the Boomer cohort. The negative and statistically significant coefficient for the interaction term between being black and cohort in the left column further indicates that black men's disadvantage relative to non-black, non-Hispanic men in transitioning into well-paying care work job increased significantly over time, suggesting the increasing difficulty for black men to enter these jobs. Whereas black men in the late Boomer cohort had a much higher risk than non-black, non-Hispanic men in transitioning to low-paying care work jobs, such disparity decreased in the early Millennial cohort (although the coefficient of the interaction term is not significant at the $\alpha=0.05$ level). This result seems to contradict the findings from previous studies using aggregate-level data that the job growth in the paid care sector for racial minority concentrated in the lowest wage quintile, which would suggest that early Millennial black men are at a higher risk of entering low-paying care work jobs. However, considering that in the 2000s the availability of well-paying jobs has declined in general, non-black, non-Hispanic men and especially those without a college education may be pushed into low-paying jobs too.

– Table 2 about here –

To what extent can the racial disparity in entering different kinds of care work jobs be explained by differences in educational attainment and labor market position?

Tables 3 and 4 present results separately for the two cohorts. In both tables, Model 1 presents results from the baseline model with race/ethnicity as the only key predictor, along with control variables. The cohort-specific results facilitate the overall findings from Table 2: without controlling for education and labor market experience, black men are significantly more likely than non-black, non-Hispanic men to transition to low-paying care work jobs in both cohorts. Black and Hispanic men have significantly lower odds of transitioning to well-paying care work jobs only among the early Millennial cohort. Once educational attainment, cumulative work experience, and one's labor market position indicated by unemployment history and incarceration record are in the model, the disparity between black men and non-black, non-Hispanic men in transitioning into low-paying care work jobs, as well as the disparity between Hispanic men and non-black, non-Hispanic men in transitioning into well-paying care work jobs, among the early Millennial cohort are reduced in magnitude and no longer statistically significant at the $\alpha=0.05$ level (Model 2 and 3 in Table 4).

– Tables 3 and 4 about here –

However, even when controlling for educational attainment and labor market positions, the disparity between black men and non-black, non-Hispanic men remains statistically significant in divergent patterns between two cohorts depending on the kind of care work jobs, supporting my second hypothesis. As shown in Model 3, differences in education and labor market position cannot explain away the higher odds of black men entering low-paying care work jobs relative to non-black, non-Hispanic men for the late Boomer cohort (in Table 3). In contrast, differences in

education and labor market position can only partially account for the lower odds of black men transitioning into well-paying care work jobs relative to non-black, non-Hispanic men for the early Millennial cohort (in Table 4). More specifically, after controlling for these factors, black men are still 1.34 times ($\exp[0.290] = 1.34$) as likely as non-black, non-Hispanic men to transition to low-paying jobs for the late Boomer cohort, while for the early Millennial cohort the odds that black men transition to well-paying care work jobs are about 40 percent lower ($\exp[-0.520] = 0.595$) than the odds for non-black, non-Hispanic men. Based on these results, figures 1 and 2 visually present the racial disparity in the average estimated probability of transitioning to care work jobs of different wage levels in a given year, for the two cohorts separately.

– Figures 1 and 2 about here –

These patterns suggest that black men may have been relegated to low-paying jobs when the late Boomer cohort entered the labor market in the 1980s and early 1990s, whereas from the 2000s onwards, black men from the early Millennial cohort are increasingly deterred from accessing the “good” jobs in the paid care work sector. Taken together, these findings suggest that the patterns of racial disparity in men’s transition into well-paying or low-paying care work jobs, net of differences in education and labor market experience, change under different labor market conditions over time. I will elaborate on how these patterns reflect the changing labor market conditions in the discussion section.

The effects of college education and labor market positions themselves generally work in the expected direction and are consistent across the models. A

college education facilitates transition to well-paying care work jobs while reducing the risk of entering low-paying care work jobs. Both unemployment history and incarceration records deter the transition to well-paying care work jobs. Having more cumulative work experience delays the transition to care work jobs in general, which may reflect the fact that young men would prefer work in non-care work jobs if they had such option. The effects of the duration variable suggest that it takes longer for young men to enter well-paying care work jobs as compared to entering low-paying ones.

Finally, the interaction between race-ethnicity and college education appears to be statistically significant only between being black and completing a college education with regard to entering well-paying care work jobs among the early Millennial cohort (Table 4, Model 4). In other words, the positive effect of having a college degree on transitioning to well-paying care work jobs is more pronounced for early Millennial black men. Figure 3 visually displays the odds ratios of college-educated men – as compared to men without college education – entering care work job by wage level. As shown in Figure 3, the odds ratio of college-educated Millennial black men entering well-paying jobs, compared to non-college-educated Millennial black men, is the highest when comparing across race/ethnic categories and cohort, in addition to being statistically significant.

– Figure 3 about here –

Is such a pattern driven by the fact that Millennial black men with college education are more likely than college-educated non-black, non-Hispanic men to enter well-paying care work jobs, or alternatively, the fact that non-black, non-

Hispanic men with less than a college education have an easier time entering well-paying care work jobs than black men of the same education level? Figure 4 plots the predicted probability of transitioning to well-paying care work jobs in a given year by level of education and race/ethnicity for the early Millennial men (based on Model 4, Table 4). Figure 4 shows that both dynamics are at play, but the disadvantage of being black among men with less than a college education is more pronounced, with black men with less than college education having a substantial disadvantage.

– Figure 4 about here –

Discussion and Conclusions

Economic restructuring since the early 1970s has fundamentally altered the demand for labor and workers' power relative to the employers, resulting in widening income inequality and polarization between “good” jobs and “bad” jobs in terms of pay and job security. The growing care economy has contributed significantly to the job polarization trend and is further characterized by gendered and racialized patterns (Dwyer 2013). Typically considered as “women’s work”, caring labor tend to be devalued and men are usually reluctant to enter care work jobs. In the “new economy”, well-paying jobs that require less than a college degree and are traditionally male-dominated have been on the decline, replaced by a polarizing set of high-skill, high-wage and low-skill, low-wage jobs in the service sector, including the paid care work sector. The demand for labor in the paid care work sector has grown due to a combination of socio-economic and demographic factors, including women’s rising participation in the labor force, population aging, and the outsourcing of caring

labor within an increasingly unequal society. Under these contexts, men have slowly increased their presence in the expanding paid care work sector. While the increasing presence of men in paid care work jobs may signal some level of gender integration, this trend is accompanied by persisting racial and class inequalities.

It remains unclear to what extent the racialized pattern of job polarization in the paid care sector can be explained by racial disparity in education, labor market experience, or racial discrimination. Using individual-level data from the National Longitudinal Survey of Youth 79 and 97, this study examines the determinants of entering low-paying versus well-paying care work jobs for two cohorts of young men (late Baby Boomers and early Millennials, aged 18 to 34) who joined the workforce under different labor market conditions. Results suggest that individual-level differences in educational attainment, work experience, and labor market marginalization attenuate but fail to explain away racial disparities in the hazard of transitioning into care work jobs of different wage levels, for both cohorts of young men. Such a finding is consistent with the argument that racial disparity, in particular the black-white disparity, cannot be reduced to a matter of human capital or economic disparity, which is supported by many previous studies on racial discrimination in labor market as well as racial gaps in health outcomes (Kaufman 2002; Phelan and Link 2015).

Moreover, the job polarization trend was not monotonic over the past three decades. The 1980s saw robust growth of jobs in the middle and the top of wage spectrum, whereas job growth in the 2000s was largely driven by the growth of low-wage jobs (Autor 2015; Holzer 2010). The changing patterns of job polarization may

have different implications for racial inequalities in who can access the “good” jobs over time. The second goal of this study is to investigate whether the racial stratification processes underlying the racialized job polarization pattern in the growing paid care sector have shifted. Findings suggest changing patterns of racial inequality corresponding to larger job growth patterns since the 1980s: In the 1980s, which saw robust growth of middle- and high-wage jobs, black men were at a significantly higher risk of entering low-paying care work jobs, controlling for one’s education and labor market position. In contrast, during the 2000s when the job growth was predominantly driven by the growth of low-wage jobs, black men were more likely to be deterred from entering well-paying jobs, after controlling for individual-level, supply-side factors. I argue that an enduring logic of a racialized labor queue underlies these changing patterns, and the racial queue logic is made evident when interpreting these changing racial disparity patterns against the background of changing job growth patterns since the 1980s.

At the early stage of economic restructuring, the 1980s saw robust growth of middle- and high-wage jobs, providing sizable opportunities for decent-paying jobs (whether care work jobs or not). Given that many low-wage care work jobs were among the lowest-paying jobs of the entire job market, non-black, non-Hispanic men without a college education might both have the incentive and better opportunities in non-care work sectors to avoid entering low-wage care work jobs in this period. Since the 1990s, middle-wage jobs that do not require high levels of education and training have slowed down in growth. Although middle- and high-wage care work jobs in the education and health care sector kept growing, employment growth throughout the

2000s was predominantly driven by the growth of low-wage jobs (Autor 2015), many of which were in the service sector. Young men from the early Millennials cohort who entered the labor market under such context, white and racial minority alike, were thus confronted with increasingly limited alternatives other than taking up low-paying care work jobs. From the perspective of the employers, when the demand for low-wage jobs are high, employers may not have such a strong preference for workers ranked higher in the labor queue (Reskin 2001).

In the skilled market, the increasingly scarce job opportunities at the higher end of wage structure may trigger more intense dynamics of social closure, benefiting those who are ranked higher in the labor queue. In addition, the eroding protection of public sector employment resulting from the “New Governance” reform since the 1990s may also help explain why black men are increasingly excluded from accessing well-paying care work jobs, half of which are located in the public sector. This study’s finding on the differential effect of college education for black and white men from the early Millennial cohort on entering well-paying care work jobs may further illustrate the dynamics of social closure in the skilled labor market. In conclusion, findings from this study demonstrate the persisting logic of a racialized labor queue, although manifested in different patterns under changing labor market conditions. Given the projected strong growth of the care work sector, insights from this chapter can help inform how labor market inequalities by race and class may decline or intensify in the future.

References

- Autor, David H. 2010. *The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings*. Washington, DC: Center for American Progress and The Hamilton Project.
- Autor, David H. 2015. "Polanyi's Paradox and the Shape of Employment Growth." Pp. 129-179 in *Re-Evaluating Labor Market Dynamics*. Federal Reserve Bank of Kansas City.
- Autor, David H., Lawrence F. Katz, and Melissa S. Kearney. 2006. "The Polarization of the U.S. Labor Market." *American Economic Review: Papers and Proceedings* 96:189-194.
- Bowman, James, and Jonathan Page West. 2006. *American Public Service: Radical Reform and the Merit System*. New York, NY: Taylor and Francis.
- Doussard, Marc, Jamie Peck, and Nik Theodore. 2009. "After Deindustrialization: Uneven Growth and Economic Inequality in 'Postindustrial' Chicago." *Economic Geography* 85(2):183-207.
- Duffy, Mignon. 2005. "Reproducing Labor Inequalities Challenges for Feminists Conceptualizing Care at the Intersections of Gender, Race, and Class." *Gender & Society* 19(1):66-82.
- Duffy, Mignon. 2007. "Doing the Dirty Work Gender, Race, and Reproductive Labor in Historical Perspective." *Gender & Society* 21(3):313-336.
- Duffy, Mignon. 2011. *Making Care Count: A Century of Gender, Race, and Paid Care Work*. New Brunswick, NJ: Rutgers University Press.
- Dwyer, Rachel E. 2013. "The Care Economy? Gender, Economic Restructuring, and Job Polarization in the U.S. Labor Market." *American Sociological Review* 78(3):390-416.
- England, Paula. 1992. *Comparable Worth: Theories and Evidence*. New York: Aldine.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. "Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49(4):455-473.
- Folbre, Nancy, and Kristin Smith. 2016. "Wages of Power vs. Wages of Care." Unpublished manuscript. Retrieved from <https://www.aeaweb.org/conference/2017/preliminary/paper/ae62fSBQ>. Accessed October 11, 2017.

- Frederick, Carl. 2010. "A Crosswalk for Using Pre-2000 Occupational Status and Prestige Codes with Post-2000 Occupation Codes." *Center for Demography and Ecology, University of Wisconsin-Madison*, 2010-03. PMID 25506974.
- Hauser, Robert M., and John Robert Warren. 1997. "Socioeconomic Indexes for Occupations: A Review, Update, and Critique." *Sociological Methodology* 27(1):177-298.
- Hill, Richard C., and Cynthia Negrey. 2010. 'Deindustrialization and Racial Minorities in the Great Lakes Region, USA.' Pp. 55-76 in M. Cross (ed.) *Ethnic Minorities and Industrial Change in Europe and North America*. New York, NY: Cambridge.
- Holzer, Harry J. 2010. "Is the Middle of the U.S. Job Market Really Disappearing? A Comment on the 'Polarization' Hypothesis'." Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/economy/reports/2010/05/13/7843/is-the-middle-of-the-u-s-job-market-really-disappearing/>. Accessed October 30, 2017.
- Hout, Michael, Asaf Levannon, and Erin Cumberworth. 2011. "Job Loss and Unemployment During the Great Recession." Pp. 59-91 in David Grusky, Bruce Western, and Christopher Wimer (eds.) *The Great Recession*. New York: Russell Sage Foundation.
- Kalleberg, Arne L. 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." *American Sociological Review* 74(1):1-22.
- Kalleberg, Arne L. 2011. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. New York: Russell Sage.
- Kaufman, Robert L. 2002. "Assessing Alternative Perspectives on Race and Sex Employment Segregation." *American Sociology Review* 67:547-572.
- Kristal, Tali. 2013. "The Capitalist Machine: Computerization, Workers' Power, and the Decline in Labor's Share Within U.S. Industries." *American Sociological Review* 78(3):361-389.
- Light, Audrey, and Alita Nandi. 2007. "Identifying Race and Ethnicity in the 1979 National Longitudinal Survey of Youth." *Population Research and Policy Review* 26(2):125-144.
- Maume, David J., and George Wilson. 2015. "Determinants of Declining Wage Mobility in the New Economy." *Work and Occupations* 42(1):35-72.

- McCall, Leslie. 2005. "Gender, Race, and the Restructuring of Work: Organizational and Institutional Perspectives." Pp. 74-94 in S. Ackroyd, R. Batt, P. Thompson, and P. Tolbert (eds.) *The Oxford Handbook of Work and Organization*. New York: Oxford University Press.
- Meyer, Peter B., and Anastasiya M. Osborne. 2005. *Proposed Category System for 1960-2000 Census Occupations*. U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity & Technology. Retrieved from <https://www.bls.gov/osmr/pdf/ec050090.pdf>
- Milkman, Ruth, Ellen Reese, and Benita Roth. 1998. "The Macrosociology of Paid Domestic Labor." *Work and Occupations* 25: 483-510.
- Mishel, Lawrence, Heidi Shierholz and John Schmitt. 2013. "Assessing the Job Polarization Explanation of Growing Wage Inequality," EPI-CEPR Working Paper. Retrieved from <http://www.epi.org/publication/wp295-assessing-job-polarization-explanation-wage-inequality/>. Accessed March 3, 2018.
- Nakano Glenn, Evelyn. 1992. "From Servitude to Service Work: Historical Continuities in the Racial Division of Paid Reproductive Labor." *Signs* 18(1):1-43.
- Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5):937-975.
- Pager, Devah, Bruce Western, and Bart Bonikowski. 2009. "Discrimination in a Low-Wage Labor Market: A Field Experiment." *American Sociological Review* 74(5):777-799.
- Pager, Devah, and Lincoln Quillian. 2005. "Walking the Talk? What Employers Say Versus What They Do." *American Sociological Review* 70(3):355-380.
- Phelan, Jo C., and Bruce G. Link. 2015. "Is Racism a Fundamental Cause of Inequalities in Health?." *Annual Review of Sociology* 41: 311-330.
- Reskin, Barbara F. 2001. "Labor Markets as Queues: A Structural Approach to Changing Occupational Sex Composition." Pp. 719-733 in David B. Grusky (ed.) *Social Stratification in Sociological Perspective*, 2nd edition. Boulder, CO: Westview Press.
- Reskin, Barbara F., and Patricia A. Roos. 1990. *Job Queues, Gender Queues: Explaining Women's Inroads into Male Occupations*. Philadelphia, PA: Temple University Press.
- Weber, Max. 1968. *Economy and Society*. Berkeley, CA: University of California Press.

- Western, Bruce. 2002. "The Impact of Incarceration on Wage Mobility and Inequality." *American Sociological Review* 67:526-546.
- Western, Bruce, and Jake Rosenfeld. 2011. "Unions, Norms, and the Rise in US Wage Inequality." *American Sociological Review* 76(4):513-537.
- Wilson, George, and Vincent J. Roscigno. 2016. "Public Sector Reform and Racial Occupational Mobility." *Work and Occupations* 43(3):259–293.
- Wilson, George, Vincent J. Roscigno, and Matt L. Huffman. 2013. "Public Sector Transformation, Racial Inequality and Downward Occupational Mobility." *Social Forces* 91(3):975-1006.
- Wilson, William Julius. 1996. *When Work Disappears: The World of the New Urban Poor*. Vintage.
- Wright, Erik Olin, and Rachel E. Dwyer. 2003. "The Patterns of Job Expansions in the United States: A Comparison of the 1960s and 1990s." *Socio-Economic Review* 1:289-325.
- Yavorsky, Jill E., Philip N. Cohen, and Yue Qian. 2016. "Man Up, Man Down: Race/ethnicity and the Hierarchy of Men in Female-Dominated Work." *Sociological Quarterly* 57(4):733-758.

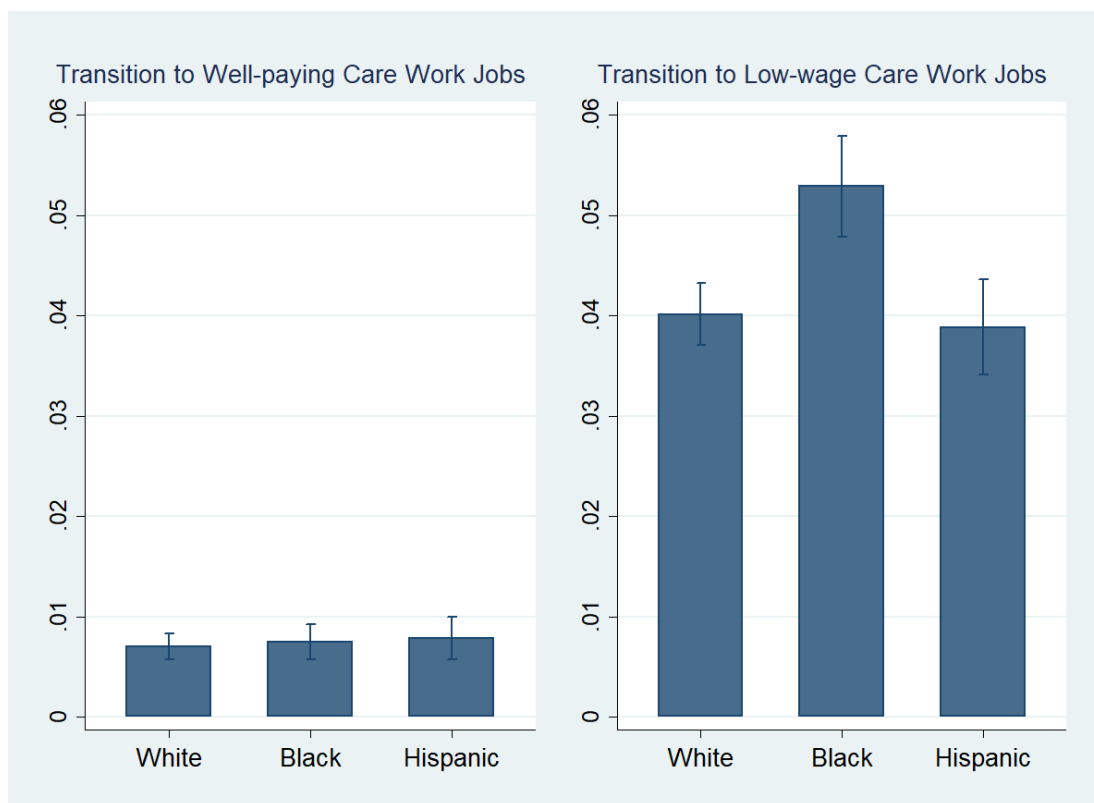


Figure 1. Predicted average probability of transitioning to well-paying and low-wage care work jobs in a given year for the late Boomer cohort (NLSY79) by race/ethnicity. Note: The bar graphs are based on weighted results from Model 3, Table 3, after controlling for education level and labor market position/experience.

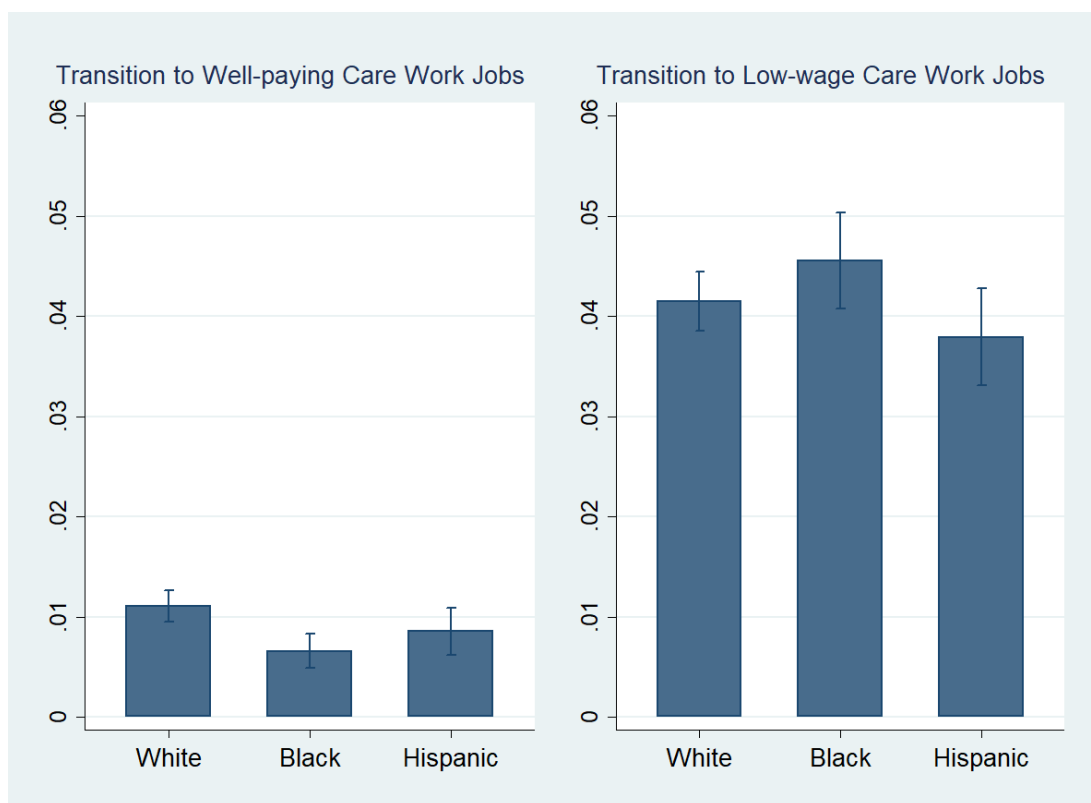


Figure 2. Predicted average probability of transitioning to well-paying and low-wage care work jobs in a given year for the early Millennial cohort (NLSY97) by race/ethnicity. Note: The bar graphs are based on weighted results from Model 3, Table 4, after controlling for education level and labor market position/experience.

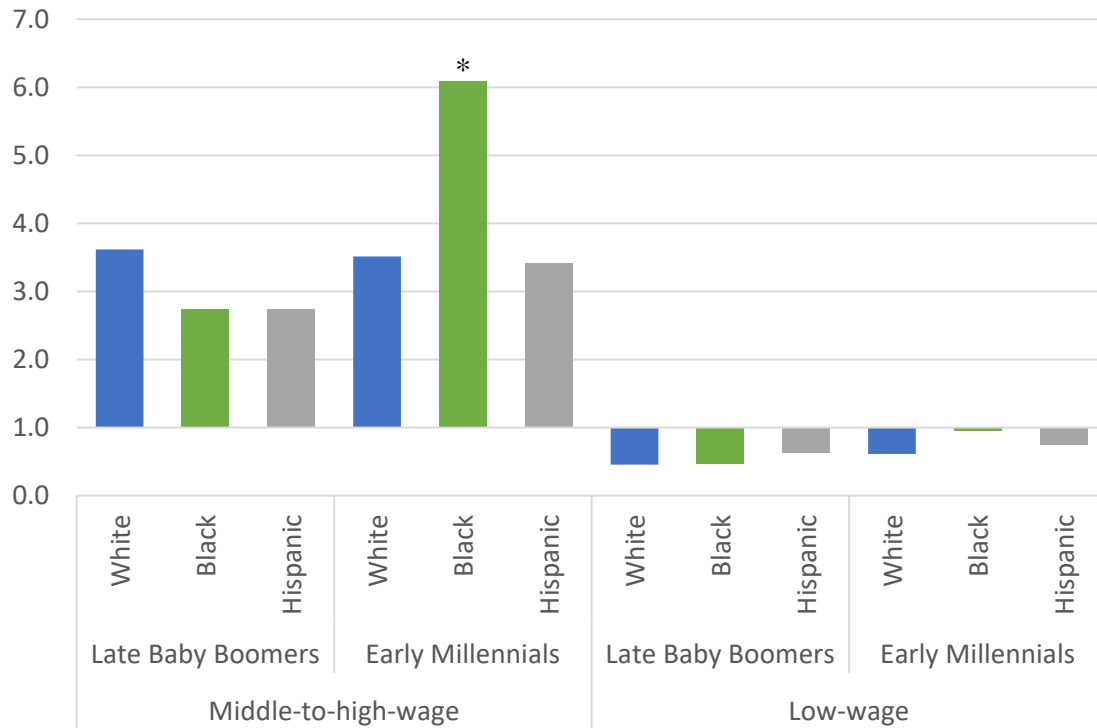


Figure 3. Odds ratios of college-educated men entering first care work jobs as compared to men without college education (baseline), by race/ethnicity, cohort, and wage level.
 Notes: The odds ratios are calculated using the log odds coefficients of college education, race-ethnicity, and the interaction term between the two, from Model 4, Table 4. The only statistically significant coefficient of the interaction term is between black and college-educated (marked with * in the graph).

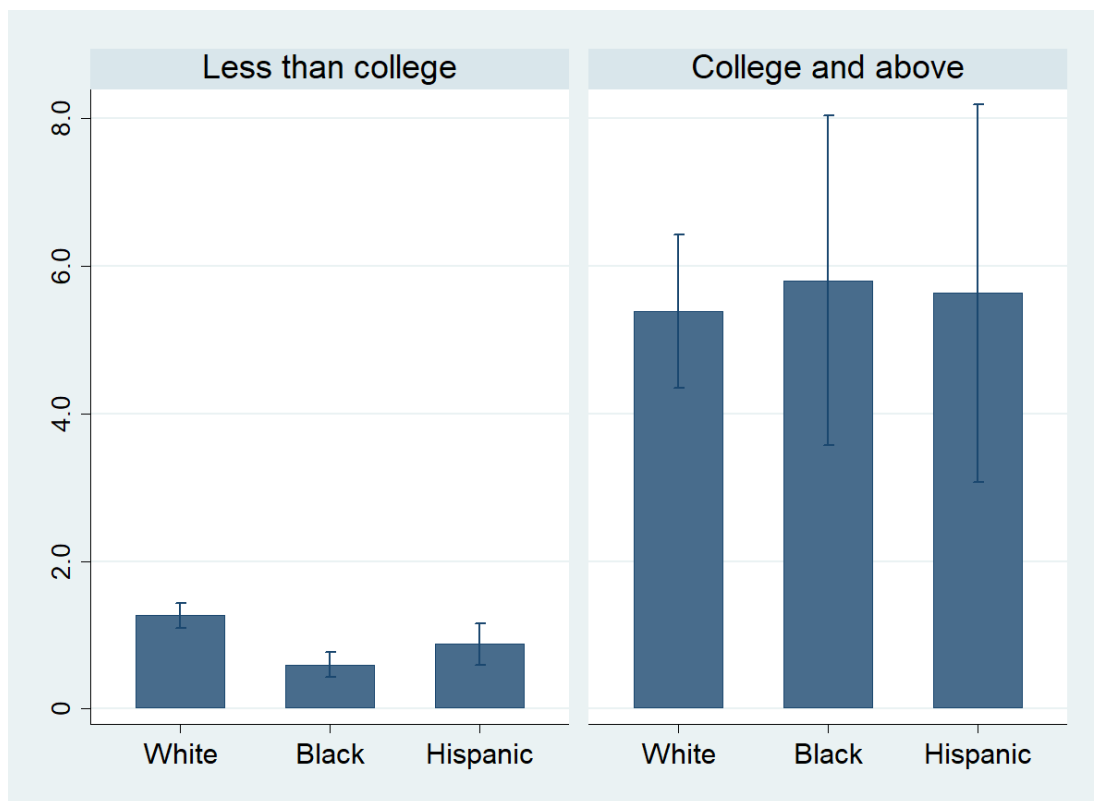


Figure 4. Predicted average probability of transitioning to well-paying care work jobs in a given year for the early Millennial cohort (NLSY97) by level of education and race/ethnicity. Note: The bar graphs are based on weighted results from Model 4, Table 4.

Table 1. Descriptive Statistics of the Analytic Sample (men aged 18 to 34, weighted)

	NLSY 79		NLSY 97	
Race-ethnicity				
Non-black, non-Hispanic	79.7		71.2	
Black	13.7		15.3	
Hispanic	6.6		13.5	
College-educated	13.4		15.1	
Cumulative work history (month)	61.7	(45.5)	52.6	(39.4)
Number of prior unemployment spells	1.9	(2.3)	1.3	(1.8)
Previously incarcerated	3.0		7.8	
Marital status				
Never married	62.1		79.0	
Married	31.6		17.9	
Separated, Divorced, Widowed	6.3		3.1	
Region				
Northeast	19.8		17.6	
North central	29.0		25.7	
South	32.9		35.5	
West	18.3		21.3	
Current employment status				
Employed	78.0		73.3	
Unemployed	6.7		6.3	
Out of the labor force	15.3		20.4	
Number of care work jobs held before	0.8	(1.3)	0.7	(1.2)
Duration of exposure (month)	62.5	(47.5)	55.2	(41.2)
Age	24.3	(4.1)	23.4	(3.6)
Person-year observations	39,590		38,256	
Number of respondents	3,719		4,349	

Notes: The descriptive statistics are based on the analytical samples for NLSY 79 and 97, with person-year as the unit of analysis and using cross-sectional weights from the initial round from each survey. Numbers representing means are followed by standard deviations shown in parentheses. The rest of the numbers are in percent.

Table 2. Discrete-time multinomial logistic regression models predicting transitions to care work jobs among men (age 18 to 34)

	Model 1		Model 2	
	Well-paying	Low-wage	Well-paying	Low-wage
Race-ethnicity (<i>ref.</i> non-black, non-Hispanic)				
Black	-0.539*** (0.092)	0.294*** (0.039)	-0.330** (0.122)	0.354*** (0.051)
Hispanic	-0.361*** (0.106)	-0.008 (0.050)	-0.165 (0.144)	0.034 (0.067)
Cohort 97	0.144† (0.073)	-0.049 (0.035)	0.219* (0.085)	-0.013 (0.044)
Black x Cohort 97			-0.462** (0.173)	-0.141† (0.073)
Hispanic x Cohort 97			-0.341† (0.202)	-0.080 (0.094)
Marital status (<i>ref.</i> never married)				
Married	-0.208† (0.110)	-0.351*** (0.060)	-0.206† (0.110)	-0.349*** (0.060)
Separated, Divorced, Widowed	-0.726** (0.246)	0.136 (0.093)	-0.730** (0.246)	0.134 (0.093)
Region (<i>ref.</i> Northeast)				
North Central	-0.058 (0.108)	0.053 (0.053)	-0.055 (0.108)	0.053 (0.053)
South	0.004 (0.104)	-0.063 (0.051)	0.006 (0.104)	-0.061 (0.051)
West	-0.076 (0.119)	0.035 (0.058)	-0.078 (0.119)	0.034 (0.058)
Employment status (<i>ref.</i> employed)				
Unemployed	0.242† (0.143)	1.003*** (0.051)	0.241† (0.143)	1.002*** (0.051)
OLF	0.768*** (0.087)	0.562*** (0.041)	0.769*** (0.087)	0.563*** (0.041)
Number of care work jobs held before	0.361*** (0.017)	0.171*** (0.011)	0.362*** (0.017)	0.171*** (0.011)
Duration of exposure	-0.018*** (0.003)	-0.033*** (0.002)	-0.018*** (0.003)	-0.033*** (0.002)
Duration squared	0.000** (0.000)	0.000*** (0.000)	0.000** (0.000)	0.000*** (0.000)
Constant	-3.994*** (0.117)	-1.976*** (0.059)	-4.031*** (0.120)	-1.991*** (0.061)
Observations	77,846	77,846	77,846	77,846

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Table 3. Discrete-time multinomial logistic regression models predicting transitions to care work jobs among men from NLSY79 (age 18 to 34)

	Model 1		Model 2		Model 3		Model 4	
	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage
Race/ethnicity (<i>ref.</i> Non-Black, Non-Hispanic)								
Black	-0.315*	0.375***	-0.016	0.319***	0.075	0.290***	0.001	0.300***
	(0.127)	(0.052)	(0.132)	(0.052)	(0.132)	(0.053)	(0.158)	(0.054)
Hispanic	-0.170	0.027	0.105	-0.020	0.115	-0.033	0.122	-0.039
	(0.149)	(0.068)	(0.152)	(0.069)	(0.152)	(0.069)	(0.175)	(0.069)
College-educated			1.930***	-1.008***	1.851***	-0.972***	1.828***	-0.941***
			(0.147)	(0.133)	(0.149)	(0.135)	(0.163)	(0.147)
Black × College							0.224	-0.509
							(0.269)	(0.323)
Hispanic × College							-0.031	0.327
							(0.338)	(0.396)
Cumulative work history					0.004*	-0.003*	0.004*	-0.003*
					(0.002)	(0.001)	(0.002)	(0.001)
Number of prior unemployment spells					-0.068*	0.040**	-0.069*	0.041**
					(0.032)	(0.013)	(0.032)	(0.013)
Previously incarcerated					-0.949*	-0.180	-0.936*	-0.182
					(0.385)	(0.121)	(0.383)	(0.121)
Marital status (<i>ref.</i> never married)								
Married	-0.078	-0.263***	-0.045	-0.269***	-0.149	-0.221**	-0.152	-0.220**
	(0.144)	(0.074)	(0.138)	(0.075)	(0.147)	(0.078)	(0.147)	(0.078)
Separated, Divorced, Widowed	-1.038**	0.174	-0.590†	0.083	-0.648†	0.116	-0.654†	0.117
	(0.353)	(0.109)	(0.348)	(0.111)	(0.356)	(0.116)	(0.357)	(0.116)
Region (<i>ref.</i> Northeast)								
North Central	0.066	-0.018	0.154	-0.038	0.136	-0.055	0.134	-0.054
	(0.165)	(0.073)	(0.165)	(0.073)	(0.164)	(0.073)	(0.164)	(0.073)

South	0.161 (0.161)	-0.143* (0.071)	0.251 (0.162)	-0.163* (0.071)	0.244 (0.161)	-0.154* (0.071)	0.245 (0.162)	-0.154* (0.071)
West	0.067 (0.184)	-0.011 (0.083)	0.235 (0.186)	-0.046 (0.083)	0.208 (0.186)	-0.043 (0.083)	0.206 (0.186)	-0.042 (0.083)
Current employment status (<i>ref.</i> employed)								
Unemployed	0.012 (0.235)	0.964*** (0.071)	0.283 (0.238)	0.923*** (0.071)	0.412† (0.243)	0.864*** (0.073)	0.416† (0.243)	0.863*** (0.073)
OLF	0.770*** (0.138)	0.506*** (0.062)	0.936*** (0.145)	0.481*** (0.062)	1.051*** (0.156)	0.435*** (0.065)	1.054*** (0.156)	0.434*** (0.065)
Number of prior unemployment spells	0.389*** (0.024)	0.158*** (0.016)	0.207*** (0.031)	0.206*** (0.017)	0.191*** (0.039)	0.215*** (0.023)	0.192*** (0.039)	0.214*** (0.023)
Duration of exposure	-0.018*** (0.004)	-0.030*** (0.002)	-0.026*** (0.004)	-0.029*** (0.002)	-0.025*** (0.004)	-0.029*** (0.002)	-0.025*** (0.004)	-0.029*** (0.002)
Duration squared	0.000* (0.000)	0.000*** (0.000)	0.000** (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)
Constant	-4.197*** (0.173)	-1.971*** (0.078)	-4.468*** (0.184)	-1.943*** (0.078)	-4.539*** (0.196)	-1.906*** (0.080)	-4.530*** (0.198)	-1.907*** (0.080)
Observations	39,590	39,590	39,590	39,590	39,590	39,590	39,590	39,590

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Table 4. Discrete-time multinomial logistic regression models predicting transitions to care work jobs among men from NLSY97 (age 18 to 34)

	Model 1		Model 2		Model 3		Model 4	
	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage
Race/ethnicity (<i>ref.</i> Non-Black, Non-Hispanic)								
Black	-0.808*** (0.134)	0.184** (0.058)	-0.564*** (0.137)	0.136* (0.058)	-0.520*** (0.140)	0.093 (0.059)	-0.751*** (0.163)	0.085 (0.060)
Hispanic	-0.506*** (0.147)	-0.041 (0.070)	-0.274† (0.149)	-0.089 (0.070)	-0.265† (0.150)	-0.096 (0.070)	-0.389* (0.178)	-0.111 (0.072)
College-educated			1.618*** (0.117)	-0.771*** (0.107)	1.566*** (0.126)	-0.688*** (0.108)	1.460*** (0.136)	-0.728*** (0.121)
Black × College							0.850** (0.278)	0.152 (0.329)
Hispanic × College							0.458 (0.320)	0.390 (0.338)
Cumulative work history					-0.004† (0.002)	-0.003** (0.001)	-0.004* (0.002)	-0.003** (0.001)
Number of prior unemployment spells					-0.053 (0.036)	0.044** (0.015)	-0.054 (0.036)	0.044** (0.015)
Previously incarcerated					-0.764** (0.280)	0.151† (0.085)	-0.749** (0.280)	0.152† (0.085)
Marital status (<i>ref.</i> never married)								
Married	-0.525** (0.171)	-0.585*** (0.098)	-0.558*** (0.167)	-0.568*** (0.099)	-0.495** (0.172)	-0.508*** (0.102)	-0.491** (0.173)	-0.508*** (0.102)
Separated, Divorced, Widowed	-0.202 (0.333)	0.032 (0.174)	-0.021 (0.324)	-0.004 (0.175)	0.151 (0.326)	0.006 (0.177)	0.148 (0.326)	0.006 (0.177)
Region (<i>ref.</i> Northeast)								
North Central	-0.176 (0.136)	0.170* (0.074)	-0.151 (0.137)	0.164* (0.074)	-0.136 (0.138)	0.152* (0.075)	-0.135 (0.138)	0.152* (0.075)

South	-0.136 (0.130)	0.053 (0.071)	-0.064 (0.132)	0.042 (0.071)	-0.063 (0.132)	0.040 (0.071)	-0.076 (0.133)	0.039 (0.071)
West	-0.239† (0.146)	0.110 (0.079)	-0.252† (0.146)	0.113 (0.079)	-0.252† (0.146)	0.111 (0.079)	-0.253† (0.146)	0.111 (0.079)
Current employment status (<i>ref.</i> employed)								
Unemployed	0.495** (0.174)	1.052*** (0.073)	0.654*** (0.176)	1.020*** (0.073)	0.676*** (0.181)	0.949*** (0.075)	0.682*** (0.180)	0.949*** (0.075)
OLF	0.780*** (0.105)	0.621*** (0.055)	0.878*** (0.108)	0.602*** (0.055)	0.824*** (0.116)	0.533*** (0.058)	0.830*** (0.116)	0.533*** (0.058)
Number of prior unemployment spells	0.319*** (0.024)	0.190*** (0.016)	0.181*** (0.032)	0.221*** (0.017)	0.254*** (0.041)	0.224*** (0.024)	0.262*** (0.041)	0.225*** (0.024)
Duration of exposure	-0.018*** (0.005)	-0.038*** (0.002)	-0.025*** (0.004)	-0.036*** (0.002)	-0.022*** (0.005)	-0.036*** (0.002)	-0.022*** (0.005)	-0.036*** (0.002)
Duration squared	0.000 (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000*** (0.000)
Constant	-3.642*** (0.145)	-2.047*** (0.079)	-3.802*** (0.151)	-2.019*** (0.079)	-3.719*** (0.156)	-1.958*** (0.080)	-3.686*** (0.156)	-1.955*** (0.080)
Observations	38,256	38,256	38,256	38,256	38,256	38,256	38,256	38,256

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Appendices

Appendix A. Broad Care Work Classification

Nurturant Care Work

Physicians
Dentists
Veterinarians
Optometrists
Podiatrists
Other health and therapy
Registered nurses
Respiratory therapists
Occupational therapists
Physical therapists
Speech therapists
Therapists, n.e.c.
Physicians' assistants
Early childhood teachers
Elementary teachers
Secondary teachers
Postsecondary instructors
Special education teachers
Teachers, n.e.c.
Vocational and educational counselors
Librarians
Psychologists
Social workers
Recreation workers
Clergy and religious workers
Dental hygienists
Licensed practical nurses
Teachers' aides
Dental assistants
Health aides, except nursing
Nursing aides, orderlies, and attendants
Welfare service aides
Child care workers

Reproductive Labor

Housekeepers, maids, butlers, stewards
Private household cleaners and servants
Waiter/waitress
Cooks, variously defined
Food counter and fountain workers
Kitchen workers
Waiter's assistant
Misc. food prep workers
Supervisors, cleaning and building service
Janitors
Barbers
Hairdressers and cosmetologists
Laundry workers

Note: This list is borrowed from Dwyer (2013), which is based on England and colleagues (2002) or Duffy (2005).

Appendix B. List of “Well-paying” Care Work Jobs

1990 Census Codes

Physicians
Dentists
Veterinarians
Optometrists
Podiatrists
Health diagnosing practitioners, n.e.c.
Registered nurses
Physicians' assistants
Dental hygienists
Dietitians
Therapists
Teachers, post-secondary
Teachers, elementary school
Teachers, secondary school
Teachers, special education
Teachers, n.e.c.
Counselors, educational and vocational
Psychologists
Librarians
Social workers

2002 Census Codes

Physicians and Surgeons
Dentist
Veterinarians
Optometrists
Podiatrists
Health Diagnosing and Treating
Practitioners, All Other
Registered Nurses
Physician Assistants
Dental Hygienists
Chiropractors
Audiologists
Other Healthcare Practitioners and
Technical Occ.
Therapists
Postsecondary Teachers
Elementary and Middle School
Teachers
Secondary School Teachers
Special Education Teachers
Other Teachers and Instructors
Counselors
Psychologists
Librarians
Social Workers
Miscellaneous Community and Social
Service Specialists
First-Line Supervisors/Managers of
Food Preparation and Serving Workers

Appendix C. List of “Low-wage” Care Work Jobs

1990 Census Codes

Licensed practical nurses
Dental assistants
Health aides, except nursing
Nursing aides, orderlies, and attendants
Teachers, prekindergarten and kindergarten
Recreation workers
Clergy
Religious workers, n.e.c.
Private household workers (Launderers, cleaners, servants, cooks, housekeepers, child care workers)
Food preparation and service occupations
Food counter, fountain and related occupations
Cooks
Bartenders
Waiters and waitresses
Waiters'/waitresses' assistants
Kitchen workers, food preparation
Miscellaneous food preparation occupations
Barbers
Hairdressers and cosmetologists
Welfare service aides
Family child care providers
Early childhood teacher's assistants
Child care workers, n.e.c.
Personal service occupations supervisors
Personal service occupations, n.e.c.
Cleaning and Building Service Occupations supervisors

2002 Census Codes

Licensed Practical and Licensed Vocational Nurses
Nursing, Psychiatric, and Home Health Aides
Therapist Assistants and Aides
Massage Therapists
Dental Assistants
Medical Assistants and Other Healthcare Support Occupations
Dietitians and Nutritionists
Preschool and Kindergarten Teachers
Teacher Assistants
Clergy; Religious Activities and Education Directors
Chefs and Head Cooks; Cooks
Food Preparation Workers
Bartenders
Combined Food Preparation and Serving Workers, Including Fast Food
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
Waiters and Waitresses
Food Servers, Non-restaurant
Dining Room and Cafeteria Attendants and Bartender Helpers
Dishwashers
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
Food Preparation and Serving Related Workers, All Other
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers
Janitors and Building Cleaners
Maids and Housekeeping Cleaners
Nonfarm Animal Caretakers
Barbers
Hairdressers, Hairstylists, and Cosmetologists
Child Care Workers
Personal and Home Care Aides
Residential Advisors

Appendix Table 1. Discrete-time multinomial logistic regression models predicting transitions to first care work jobs among men aged 18 to 34, by cohort

	Model 1		Model 2	
	Well-paying	Low-wage	Well-paying	Low-wage
Race/ethnicity (<i>ref.</i> non-black, non-Hispanic)				
Black	-0.592*** (0.163)	0.437*** (0.057)	-0.250 (0.225)	0.565*** (0.074)
Hispanic	-0.407* (0.174)	0.081 (0.073)	-0.158 (0.245)	0.144 (0.099)
Cohort (97)	0.305* (0.124)	-0.008 (0.050)	0.396** (0.142)	0.059 (0.064)
Black × Cohort			-0.672* (0.305)	-0.296** (0.110)
Hispanic × Cohort			-0.397 (0.329)	-0.125 (0.136)
Marital status (<i>ref.</i> never married)				
Married	-0.499** (0.186)	-0.252* (0.099)	-0.495** (0.186)	-0.248* (0.099)
Separated, Divorced, Widowed	-1.14* (0.527)	0.332* (0.163)	-1.15* (0.527)	0.329* (0.163)
Region (<i>ref.</i> Northeast)				
North Central	0.021 (0.176)	0.091 (0.077)	0.026 (0.177)	0.093 (0.077)
South	0.139 (0.169)	-0.105 (0.074)	0.148 (0.169)	-0.100 (0.074)
West	-0.029 (0.203)	0.051 (0.085)	-0.031 (0.203)	0.050 (0.085)
Current employment status (<i>ref.</i> employed)				
Unemployed	0.233 (0.282)	0.676*** (0.082)	0.229 (0.282)	0.674*** (0.082)
OLF	0.876*** (0.145)	0.357*** (0.061)	0.877*** (0.145)	0.359*** (0.061)
Duration of exposure	0.024*** (0.007)	-0.026*** (0.002)	0.024*** (0.007)	-0.026*** (0.002)
Duration squared	-0.000*** (0.000)	0.000*** (0.000)	-0.000*** (0.000)	0.000*** (0.000)
Constant	-5.69*** (0.267)	-1.98*** (0.098)	-5.74*** (0.271)	-2.01*** (0.100)
Observations	54,935	54,935	54,935	54,935

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05

Appendix Table 2. Discrete-time multinomial logistic regression models predicting transitions to first care work jobs among men from NLSY79 (age 18 to 34)

	Model 1		Model 2		Model 3		Model 4	
	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage
Race/ethnicity (<i>ref.</i> Non-Black, Non-Hispanic)								
Black	-0.321 (0.233)	0.599*** (0.076)	-0.143 (0.235)	0.583*** (0.076)	-0.092 (0.236)	0.516*** (0.077)	-0.054 (0.259)	0.521*** (0.077)
Hispanic	-0.259 (0.255)	0.162 (0.103)	-0.122 (0.261)	0.149 (0.103)	-0.102 (0.260)	0.105 (0.103)	-0.070 (0.279)	0.103 (0.104)
College-educated			1.69*** (0.250)	-0.748** (0.275)	1.26*** (0.254)	-0.821** (0.280)	1.29*** (0.273)	-0.789** (0.304)
Black × College							-0.222 (0.624)	-0.508 (0.669)
Hispanic × College							-0.205 (0.693)	0.223 (0.810)
Cumulative work history					-0.016*** (0.005)	-0.009*** (0.003)	-0.016*** (0.005)	-0.009*** (0.003)
Number of prior unemployment spells					-0.157* (0.075)	0.033 (0.022)	-0.157* (0.075)	0.033 (0.022)
Previously incarcerated					-1.85* (0.732)	-0.272 (0.206)	-1.86* (0.730)	-0.274 (0.206)
Marital status (<i>ref.</i> never married)								
Married	-0.439 (0.246)	-0.183 (0.121)	-0.272 (0.255)	-0.201 (0.120)	-0.142 (0.280)	-0.119 (0.120)	-0.143 (0.280)	-0.118 (0.120)
Separated, Divorced, Widowed	-1.42 (0.728)	0.254 (0.201)	-0.934 (0.731)	0.186 (0.200)	-0.690 (0.730)	0.265 (0.201)	-0.690 (0.730)	0.266 (0.201)

Region (<i>ref.</i> Northeast)								
North Central	0.039 (0.310)	0.129 (0.108)	0.081 (0.307)	0.125 (0.108)	0.060 (0.307)	0.109 (0.108)	0.060 (0.307)	0.109 (0.108)
South	0.465 (0.277)	-0.134 (0.104)	0.536* (0.273)	-0.142 (0.104)	0.421 (0.281)	-0.145 (0.104)	0.423 (0.281)	-0.144 (0.104)
West	0.323 (0.340)	0.038 (0.126)	0.499 (0.332)	0.022 (0.126)	0.461 (0.332)	0.021 (0.125)	0.465 (0.331)	0.022 (0.125)
Current employment status (<i>ref.</i> employed)								
Unemployed	0.548 (0.390)	0.612*** (0.109)	0.651 (0.396)	0.605*** (0.109)	0.544 (0.406)	0.465*** (0.115)	0.546 (0.406)	0.464*** (0.115)
OLF	1.08*** (0.242)	0.262** (0.093)	1.12*** (0.248)	0.258** (0.092)	0.801** (0.285)	0.113 (0.105)	0.803** (0.286)	0.113 (0.105)
Duration of exposure	0.032** (0.010)	-0.020*** (0.003)	0.018 (0.010)	-0.019*** (0.004)	0.032** (0.010)	-0.015*** (0.004)	0.032** (0.010)	-0.015*** (0.004)
Duration squared	-0.000** (0.000)	0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)
Constant	-6.48*** (0.452)	-2.17*** (0.140)	-6.25*** (0.440)	-2.19*** (0.140)	-6.10*** (0.449)	-2.11*** (0.141)	-6.11*** (0.450)	-2.11*** (0.141)
Observations	27,858	27,858	27,858	27,858	27,858	27,858	27,858	27,858

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05

Appendix Table 3. Discrete-time multinomial logistic regression models predicting transitions to first care work jobs among men from NLSY97 (age 18 to 34)

	Model 1		Model 2		Model 3		Model 4	
	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage	Well-paying	Low-wage
Race/ethnicity (<i>ref.</i> Non-Black, Non-Hispanic)								
Black	-0.828*** (0.226)	0.225* (0.090)	-0.656** (0.232)	0.214* (0.090)	-0.607* (0.237)	0.126 (0.091)	-0.961*** (0.277)	0.118 (0.092)
Hispanic	-0.480* (0.232)	0.009 (0.101)	-0.334 (0.233)	-0.001 (0.101)	-0.310 (0.232)	-0.029 (0.102)	-0.380 (0.260)	-0.035 (0.103)
College-educated			1.66*** (0.216)	-0.391 (0.208)	1.39*** (0.234)	-0.440* (0.211)	1.26*** (0.255)	-0.489* (0.240)
Black × College							1.51** (0.470)	0.316 (0.505)
Hispanic × College							0.350 (0.553)	0.233 (0.635)
Cumulative work history					-0.011* (0.005)	-0.012*** (0.002)	-0.011* (0.005)	-0.012*** (0.002)
Number of prior unemployment spells					-0.136* (0.060)	-0.008 (0.022)	-0.137* (0.060)	-0.008 (0.022)
Previously incarcerated					-1.914** (0.713)	0.246 (0.143)	-1.871** (0.712)	0.248 (0.143)
Marital status (<i>ref.</i> never married)								
Married	-0.752** (0.290)	-0.544** (0.171)	-0.645* (0.288)	-0.548** (0.171)	-0.604* (0.289)	-0.408* (0.173)	-0.601* (0.289)	-0.409* (0.173)
Separated, Divorced, Widowed	-0.746 (0.740)	0.424 (0.270)	-0.354 (0.747)	0.384 (0.271)	-0.192 (0.750)	0.474 (0.272)	-0.186 (0.750)	0.474 (0.272)

Region (<i>ref.</i> Northeast)								
North Central	0.010 (0.208)	0.054 (0.106)	0.043 (0.209)	0.052 (0.106)	0.058 (0.209)	0.053 (0.106)	0.057 (0.210)	0.053 (0.106)
South	-0.152 (0.208)	-0.056 (0.102)	-0.127 (0.209)	-0.056 (0.102)	-0.172 (0.210)	-0.068 (0.102)	-0.196 (0.212)	-0.068 (0.102)
West	-0.322 (0.238)	0.058 (0.110)	-0.314 (0.238)	0.058 (0.110)	-0.355 (0.238)	0.039 (0.110)	-0.355 (0.238)	0.039 (0.110)
Current employment status (<i>ref.</i> employed)								
Unemployed	-0.105 (0.373)	0.772*** (0.120)	-0.038 (0.376)	0.767*** (0.120)	-0.060 (0.385)	0.611*** (0.125)	-0.049 (0.384)	0.612*** (0.125)
OLF	0.727*** (0.168)	0.454*** (0.080)	0.731*** (0.170)	0.453*** (0.080)	0.543*** (0.199)	0.245** (0.091)	0.558** (0.198)	0.245** (0.091)
Duration of exposure	0.027** (0.010)	-0.033*** (0.003)	0.015 (0.010)	-0.032*** (0.003)	0.026** (0.010)	-0.026*** (0.004)	0.026** (0.010)	-0.026*** (0.004)
Duration squared	-0.000*** (0.000)	0.000*** (0.000)	-0.000** (0.000)	0.000*** (0.000)	-0.000** (0.000)	0.000*** (0.000)	-0.000** (0.000)	0.000*** (0.000)
Constant	-4.98*** (0.338)	-1.77*** (0.126)	-4.71*** (0.332)	-1.78*** (0.126)	-4.61*** (0.337)	-1.66*** (0.126)	-4.58*** (0.337)	-1.66*** (0.126)
Observations	27,077	27,077	27,077	27,077	27,077	27,077	27,077	27,077

Notes: Robust standard errors in parentheses. Results are weighted using the cross-sectional weight from the initial round of each survey.

*** p<0.001, ** p<0.01, * p<0.05

Chapter 3: Relative Earnings of Care-work Employment in China's Transitional Society, 2003-2015

Abstract

Using four waves of data from the Chinese Social General Survey (CGSS 2003, 2005, 2013, 2015), this study examines the difference in earnings between care workers and non-care workers in urban China since early 2000s, when the government started to expand social welfare along with the deepening of market reform. Existing studies conducted in Western, industrialized, and democratic contexts find wage penalties for low-status care workers and “wage bonuses” for high-status care workers. The patterns, mechanisms, and processes shaping the “devaluation” of care work may be different in non-Western contexts. Findings from OLS regression indicate that on average, care workers earn less than non-care workers, but such difference was primarily driven by gender disparity. Moving beyond average difference, results from unconditional quantile regression further reveal that among high-income workers, care workers still earn less than non-care workers even when controlling for individual and job characters. Moreover, the wage penalty for high-status care workers increased over time. Such pattern contradicts findings from previous studies in Western industrialized contexts of a “wage bonus” for high-status care workers. I argue that these patterns have to be understood under the particular socioeconomic and political contexts in China.

Introduction

There has been increasing scholarly attention on care work in advanced industrialized countries as these countries face a “crisis of care” resulting from a multitude of social, economic, and demographic changes (Razavi 2007). While much of the public concern focuses on the implication of the care shortage on the access and quality of care services for the recipients, less attention has been paid to the pay and working conditions of paid care workers who provide care services that contribute to the well-being and development of the recipients. Empirical research in the United States has found a 5-6 per cent wage penalty associated with working in care work occupations after controlling for workers’ qualifications, skills, and other job characteristics (England 1992; England et al. 2002).

Further disaggregating the care work occupations by occupational status, previous study in the U.K. context has found wage penalty for low-status care work jobs and a wage premium for high-status care work jobs (Barron and West 2013). While low-status care work occupations suffer wage penalties for reasons stated above, certain high-status care work occupations may accrue wage premium through the mechanism of “social closure”, the idea that occupational groups may adopt strategies to create barriers around the occupation in order to enhance their financial rewards (Weeden 2002).

Cross-national research further reveals that the size of the care wage gap varies across national contexts with different state welfare policies, labor market regulation and cultural norms. Care workers are more likely to earn pay bonuses in contexts with low income inequality, high union density, large public sector, and high

public spending on care, such as in Sweden, the Netherlands and Germany (Budig and Misra 2010). The earnings penalty is found to be larger for care workers – particularly for low-status care workers – in countries with a “liberal” care regime (Lightman 2017).

The vast majority of existing research on the wage effect of care-work employment, however, has focused almost exclusively on high-income industrialized countries that have been well theorized in the welfare regime type literature. We know little about whether these patterns can be generalized to non-Western contexts that do not conform to the classical welfare regime framework.¹ The patterns, mechanisms, and processes shaping the “devaluation” of care work may be different in these contexts.

This study adds to the thin literature of the wage effect of care-work employment in transitional societies through the case of contemporary urban China. Contemporary China differs from Western contexts with its unique combination of socialist legacy, strong state intervention, and a rapidly growing capitalist economy. Since the early 2000s, the Chinese government has repositioned itself as a social welfare provider mainly out of concerns for maintaining social stability and political legitimacy in the face of rising economic inequality and employment insecurity

¹ An emerging line of literature has extended the scholarly interest on social organization of care to wealthy East Asian societies, especially Japan and South Korea (e.g. works by Ito Peng). The East Asian welfare model is characterized as “productivist developmental” that subordinates welfare policies to the goal of fostering economic development (explained in the next section). Studies have also compared the situation of paid care workers between industrialized East Asian societies and North American societies (Lightman 2017; Mishel and Peng 2012). The welfare or care regime of China has not been well theorized.

unleashed by the market reform (Shen et al. 2018). The government has increased social welfare expenditures as the market reform deepens during this period.

Empirical questions remain as to how the paid care workers fared in terms of their income during China's transition to a "state capitalist welfare state" in the context of deepened marketization. The development of state welfare provision would lead to the expectation of more investment in the paid care sector and improvement in care workers' pay. On the other hand, the deepening of market reform and rising income inequalities would exacerbate existing social inequalities in the labor force, which would be reflected care workers' earnings. Complicating the picture is the strong state regulation in the provision and organization of welfare services, including health care, education, and direct care services. Is there a wage penalty for care workers in China? Has it changed over time?

Furthermore, do the mechanisms and processes shaping the wage penalty or wage bonus associated with the care-employment differ in Chinese context? For example, to what extent is the earnings difference between care workers and non-care workers in China driven by differences in the level of education, job characteristics, or ascriptive characteristics? Does the wage effect of care-work employment differ for low-status and high-status care workers? If so, why? This study addresses these questions using OLS regression and unconditional quantile regression methods. While OLS regression shows the average wage effect of care-work employment, unconditional quantile regression would allow me to compare the wage penalty for care workers on the higher end and on the lower end of income distribution. The case of China's transition allows for examining how different institutional contexts affect

the wage effects of care work within the same national context over time, with the advantage of better controlling for unobserved influences that affect the selectivity of care workers.

“Care Pay Gap” Across Welfare Regimes

Most of the existing theories and empirical research on the pay gap between care workers and non-care workers have been developed in the context of the U.S. Early empirical research in the United States has found a 5-6 per cent wage penalty associated with working in care work occupations after controlling for workers’ qualifications, skills, and other job characteristics (England et al. 2002). The social organization of care and its implications for care workers, however, differ across countries depending on how the state provides, funds, and regulates remunerated forms of care (Razavi and Staab 2010).

Welfare scholars have theorized about “care regimes,” which refers to the institutional arrangements through which care responsibility is distributed among the state, the market, and the family (Lister et al. 2007), as well as the norms and discourses regarding care provision (Williams 2012). According to care regime typologies, the “liberal” care regimes as in the U.S. and the U.K assign key roles to labor markets and families in care provision, rely on market solutions to welfare problems, and are characterized by relatively low levels of social spending, limited regulation of labor markets, and high levels of overall inequality (Mahon et al. 2012; Lightman 2017). In comparison, Nordic countries (Denmark, Sweden and Finland) are categorized as “caring states” where care is an integral part of social citizenship

and the state assumes primary role in providing high-quality care through the public sector (Daly 2001). Conservative care regimes as in Southern Europe offer few alternatives to family care.

The care regime typology highly aligns with the classical welfare regime typology developed by Esping-Anderson (1990), with the former focusing on care arrangements and the latter broadly concerns the politics of welfare in three aspects, including the relationship between individual and the state, the importance of the class structure in society, and employment structures and regulations. Theorization about care regimes emerged as Western post-industrial societies, facing demographic challenges such as low-fertility and population aging, coupled with increasing women's labor force participation rates and the politics around gender equality, adapt to these processes according to their particular welfare regime type. An extension of the Western welfare regime typology in the East Asian contexts commonly identifies Japan, South Korea, and Taiwan as "productivist developmental" regimes that are thought to subordinate social welfare policies to foster economic growth and is typically characterized by extensive investments into education and healthcare paired with flexible labor regulations (Gough 2004; Powell and Kim 2014). Care regimes in East Asian societies rely on family as the primary care giver, while the governments have in recent years selectively expanded care services (especially child care) in the face of a series of demographic problems (Mishel and Peng 2012).

When it comes to the wage of paid care workers, both care regimes and welfare regimes matter, as cultural norms around care and care provision would affect how care work is valued, and employment structure and regulations would affect the

bargaining power of care workers. Recent cross-national research indeed reveals that the size of the care wage gap varies across care regimes with different state welfare policies, labor market regulation and cultural norms regarding care. Comparing twelve high-income countries, Budig and Misra (2010) find that care workers are more likely to earn wage bonuses in contexts with low income inequality, high union density, large public sector, and high public spending on care, such as in Sweden, the Netherlands and Germany. The size of the care wage gap is found to be larger for care workers in countries with a “liberal” care regime (Budig and Misra 2010), since weakly regulated labor markets are more likely to rely on low-wage labor in private care services (Morgan 2005). In another study, Lightman (2017) found that the wage penalty for low-status care workers is greater in the “liberal” care regime such as U.S. and Canada, likely due to their less regulated labor markets and lack of government investment in care services, as compared to wealthy East Asian countries. In summary, the employment situation of care workers is embedded in the broader institutional context and is shaped by economic and social policies as well as their interaction with social values and norms (Neetha 2010).

Further disaggregating the care work occupations by occupational status, previous study in the U.K. context has found wage penalty for low-status care work jobs and a wage premium for high-status care work jobs (Barron and West 2013). While low-status care work occupations suffer wage penalties, certain high-status care work occupations may enjoy wage bonuses through the mechanism of “social closure”, the idea that occupational groups may adopt strategies to manipulate supply and demand, usually by creating social and legal barriers around the occupation to

enhance their financial rewards (Weeden 2002). “Wage bonuses” for high-status care work jobs were also found in the U.S., Canada, South Korea, and Taiwan (Lightman 2017).

Existing research on the wage effect of care-work employment has focused on high-income industrialized countries that have been well theorized in the welfare regime type literature. We know little about whether these patterns can be generalized to non-Western contexts that do not conform to the classical welfare regime framework. The patterns, mechanisms, and processes shaping the “devaluation” of care work may be different in these contexts.

The Context of Urban China

Contemporary China differs from Western and other East Asian countries with its unique combination of socialist legacy, strong state control, and a capitalist economy. Over the past three decades, China has undergone profound social and economic transformations from a socialist, centrally planned economy to a market economy. The reform fundamentally changed the social organization of care work away from socializing care needs through state policies and the urban work unit system towards marketization and privatization of welfare services. This section provides a summary of the social, economic, and political changes along with the market reform (and the concomitant welfare reforms) since 1978 that are pertinent for understanding the changing care wage gap in contemporary China.

China’s welfare reforms accompanying the transition to a market-oriented economy can be divided into two main phases: The period up until 2002 during which

the state retreated from welfare provision, work-unit system was dismantled, and life-long employment was abolished; and the period from 2003 to present during which the state expanded welfare provision in order to reduce the tension between economic development and social well-being (Cook and Dong 2017). The focus of this paper is the on the second phase, whereas historical background from earlier periods is necessary for understanding the current situation.

1978-2002: From Welfare Socialism to Market Economy

Under China's socialist system prior to the economic reform, government agencies and state-owned enterprises (SOEs) provided lifetime employment, housing, health care, child care and retirement pensions to a majority of urban workers. Nearly all urban residents, including workers in care-related sectors such as education and healthcare, were included in a work-unit ("*danwei*") based welfare system (Hu 2014). In the first two decades of economic reform, the Chinese government was dedicated to restructuring the economy to in pursuit of economic growth through enhancing efficiency and productivity. The reform efforts were intensified in the mid-1990s, when the government began to restructure state-owned enterprises (SOE). The public sector's share of employment declined by more than 30 percent between 1995 and 2002, putting an end to the state sector as the main source of urban employment (Dong and Xu 2009).

The reform brought an end to the "iron rice bowl" of guaranteed life-time employment and benefits for China's urban workers (Cai 2008). Public sector downsizing led to the layoffs of millions of workers, who then had to seek jobs in the informal sector or exited the labor force all together. Women were disproportionately

hard-hit by the labor retrenchment with a higher probability of being laid off and a lower likelihood of finding re-employment in the private sector (Appleton et al. 2002; Dong et al. 2006). The government actively promoted “flexible” employment and nurtured the domestic service industry to deal with high urban unemployment rates (Hu 2011).

The economic restructuring and public-sector downsizing have not only shifted the structure of employment for urban workers, but also imply a fundamental change in the organization of social reproduction away from socializing care needs through state policies and the urban work unit system towards marketization and privatization of welfare services. Under the pressure of market competition, the government also began to regard social reproduction expenditures in the state-owned enterprises as burden to market efficiency and economic growth.

It is to be noted that gender equality in the labor market has significantly declined during the market reform (Attané 2012). In urban China, women were hit particularly hard during the public-sector downsizing (Dong et al. 2006). More importantly, the privatization of care has shifted the care responsibilities to individual families and especially to women. The unproportionate care responsibility on the shoulder of women, coupled with the lack of public support in care services, have led to more severe gender discrimination in the labor market. A plethora of studies have documented the deteriorating status of women in the labor market during China’s market reform (for a review, see Ji et al. 2017).

2003 to Present: Towards a “State Capitalist Welfare State”

The abolishment of employment security and the privatization of social welfare services in China during the 1990s have resulted in negative consequences, including intensifying social inequalities which led to widespread social unrest (Mok et al. 2017). In an attempt to reduce inequality and prevent social instability, the Chinese government has drastically expanded its social welfare programs and increased social security expenditure since the early 2000s. Social welfare benefits were mainly transferred to various social insurance programs and fee-based services. Some observed that China's new public welfare system is primarily a social insurance system, designed to provide very basic levels of security and biased in favor of the urban population (Ringgen and Ngok 2017).

The unique feature of the newly developed Chinese welfare system is that “it serves not only a newly developed state capitalist economy, but also a paternalist state that bases its legitimacy in part by its promises to deliver welfare benefits to the members of the society” (Shen et al. 2018:18). The first part means that the welfare programs were developed to remedy – on a minimal level – the social and demographic problems brought about by the economic development so as to prevent social instability that would threaten the political legitimacy of the state. The second part means that although the economy is largely capitalistic, the Chinese state has not abandoned its ideological claim to be socialist. Some scholars therefore concluded that China has made the transition from a socialist welfare state to a “state capitalist welfare state” in which the state plays an active and dominant role in developing a capitalist economy, with selective elements of socialist ideology and welfare provision (Gao et al. 2013).

Out of political and ideological concerns, the Chinese government is unwilling to relegate key welfare institutions, especially hospitals and education, to market rule. Health services in China are provided mainly by the public system, covering 90% of emergency and inpatient services (WHO 2018). Between 1990s and 2000s, direct government financing to public hospital budgets remained low, decreasing to less than 10 percent of public hospital budgets (Liu et al. 2017). The lack of direct funding created significant financial pressures on the part of public medical facilities, and they had to generate income from selling drugs/medicine and other services. This had led to problems such as drug cost inflation and rising expense for other kinds of health services, creating social discontent around the affordability of health care. In response to these concerns, the 2009 Health Sector Reform re-established the provision of public goods as the goal of public hospitals, as opposed to making profits. The pay of health care workers, including doctors, nurses, and nursing aides, are funded by the government and subject to bureaucratic restrictions.

The provision of child care, elderly care, and other domestic care services during this period involves different dynamics than public hospitals and schools. In the earlier period of the market reform, the state retreated from providing child care and elderly care services through the dismantling of the work unit system in the urban areas. The care responsibilities were shifted back to individual families, creating a large demand for care services that were no longer provided by the state or the employer. Under such context, the number of private sector child care enterprises has grown rapidly. The share of private kindergartens in China rose from 17.0 to 67.2 percent from 1998 to 2013 (Connelly et al. 2018).

The Chinese government was also responding to demographic concerns of an aging population has sought to involve more sectors in service provision since the 2000s (Chan et al. 2011). The elderly care industry has begun to receive support from the government through several channels (Shang and Wu 2011). With more purchasing power, middle-class urban Chinese families are now able to acquire high-quality care services from the private sector. Meanwhile, migrant workers and low-income workers in the urban areas had to rely on low-quality commercial child care services (Cook and Dong 2017).

During the same period, China also experienced accelerated marketization and significant socioeconomic development. The deepening of marketization was propelled by China's accession to the World Trade Organization (WTO) in 2001, which signaled China's integration into the global market. The "golden decade" of economic boom also witnessed rising social inequalities and the polarization at the higher and lower ends of socioeconomic hierarchy.

In summary, the recent expansion of China's welfare system took place against the backdrop of economic boom and rising social inequalities. Concerns over political legitimacy and social stability in the face of rising social inequalities prompted the Chinese government to expand basic welfare coverage, mostly in the form of social insurance programs. Key welfare institutions such as hospitals, schools and universities, however, remain highly regulated by the state. On the other hand, markets for private services grew substantially in the areas of child care, elderly care, and other kinds of domestic services, in the void of public care provision and as the demand for care services increased. These contexts are fundamentally different than

wealthy industrialized democratic societies in the West and East Asia, suggesting different political, social, and economic processes shaping the value of paid care work.

Research Questions and Hypotheses

The first goal of this study is to empirically examine whether care workers are paid less than non-care workers in contemporary urban China. Based on the findings from existing studies documenting the pervasiveness of pay penalty associated with care work employment, I expect that there is a wage penalty for care workers as compared to non-care workers in urban China (Hypothesis 1).

What factors contribute to the wage penalty for care workers in contemporary China? Previous literature mostly based in the Western contexts offers several major explanations, and I develop a set of hypotheses corresponding to these explanations. First, human capital theory suggest that individuals are negatively selected into care work based on low levels of education and other human capital endowments, resulting in their lower pay (England 2005). However, previous studies have found that across countries, care workers have higher levels of education than non-care workers, and that the higher level of education among care worker help mitigate the earnings gap between care and non-care workers (Budig and Misra 2010; Lightman 2017). I expect similar patterns in urban China that controlling for education increases the wage penalty for care workers (Hypothesis 2a).

The second type of mechanism has to do with the characteristics of care work occupations (Folbre 2008). Previous studies have found that on average, care workers

are more likely to be employed part-time and in the public sector, but controlling for job characteristics does not explain away the wage penalty or wage bonuses for care workers (Budig and Misra 2010; Lightman 2017). I expect that controlling for full-/part-time employment reduces the wage penalty for care workers given that care workers tend to have part-time employment (Hypothesis 2b), while controlling for public-sector employment increases the wage penalty for care workers as they are more likely to be in the public sector than non-care workers (Hypothesis 2c).

The third type of mechanism concerns the ascriptive characteristics of care workers themselves, such as gender, race, and migrant status, that incur labor market disadvantages (Duffy 2005). Previous studies found that accounting for workers' own gender (Lightman 2017) or the gender composition of jobs (Budig and Misra 2010) significantly reduces the wage penalty and increases the wage bonus for care workers. In the context of urban China, there are significant labor market disadvantages for women and migrant workers. I therefore expect that controlling for gender and *hukou* (migrant) status would substantially reduce the difference between care workers and non-care workers (Hypothesis 2d).

Next, I examine whether the wage penalty for care workers has increased during China's transition to a "state capitalist welfare state" in the context of deepened marketization. There are institutional forces that could lead to opposite expectations. On the one hand, previous studies suggest that marketization of care services tend to be associated with lower pay and more precarious employment conditions for care workers (Morgan 2005; Razavi and Staab 2010). The deepening of market reform and rising income inequalities would also exacerbate existing social

inequalities in the labor force and lead to further devaluation of care work. On the other hand, the development of state welfare provision might lead to the expectation of more investment in the paid care sector and improvement in care workers' pay. Nevertheless, the recent welfare reform primarily takes the form of expanding basic social insurance for various populations. Whether care workers directly benefited from the recent welfare reform remains uncertain. I therefore expect that the wage penalty for care workers, on average, has increased in urban China since the early 2000s (Hypothesis 3).

Moreover, do high-status care workers fare better than low-status care workers in terms of their relative pay to non-care workers? Existing studies conducted in wealthy industrialized societies have found a “wage bonus” instead of a wage penalty associated with high-status care workers (Barron and West 2013; Lightman 2017).² They argue that high-status occupational group benefit from practices of “social closure” to improve their earnings. Low-status care workers, on the other hand, are relegated to informal, precarious labor markets and lack bargaining power to negotiate earnings. I test the hypothesis that there is wage penalty for care workers in the low-income sector of the economy and a wage bonus for care-workers in the higher paid sector of the economy, both compared to non-care workers of similar income level in the context of China (Hypothesis 4).

In addition, have the recent welfare reform and the deepening of marketization affected the relative wage of care work differently between high-status workers and

² “Wage bonus” is found for high-status care workers after controlling for individual and job characteristics in U.K. in Barron and West’s study and U.S., Canada, South Korea, and Taiwan in Lightman’s study.

low-status workers differently? As mentioned earlier, as the state began to increase funding in certain welfare service sectors that are of utility to addressing the pressing problem of population aging, the welfare expansion may benefit the low-status care workers (e.g. elderly care workers). Meanwhile, the state was unwilling to marketize key welfare institutions such as hospitals and schools. High-status care workers in these institutions remain under much bureaucratic restrictions that prevent them from making profits. These trends should be captured by the effects of public-sector employment on pay among low-income and among high-income workers. Welfare expansion since the 2000s therefore mainly affects dynamics in the public sector. During the same period, marketization has led to increasing social inequality. At the lower end of the income distribution, marketization may lead to deteriorating employment situation for both care and non-care workers. At the higher end, there are reasons to believe that non-care workers may capitalize on marketization more than care workers. As a crude indicator, a large number of socioeconomic elites emerged during this period in China, but none of them were care workers. I therefore expect that over time, the wage penalty of high-status care workers relative to high-status non-care workers increased, but not for the low-status care workers relative to low-status non-care workers (Hypothesis 5).

Data and Measures

I use multiple waves from the Chinese General Social Survey (CGSS) to examine the changing wage effect of care-work employment in urban China since early 2000s when the Chinese government embarked on transitioning to a new

welfare state. CGSS is an annual or biannual cross-sectional survey of the adult population over 18 years old in both rural and urban China with a multi-stage stratified random sampling design (for details see Bian and Li 2012). Launched in 2003, CGSS is the earliest nationally representative questionnaire survey project providing detailed information on a wide range of demographic and socioeconomic characteristics of the respondents in China. More importantly, it is the first nationally representative survey that contains detailed, standard occupational coding that would allow me to identify care occupations. The availability of more detailed occupational codes is crucial for classifying workers in care work occupations.

The survey consists of two phases: the first phase from 2003 to 2008, and the second from 2010 onward. Although survey waves from the two phases may include different modules, all waves have collected key demographic and employment information that are required for this study. To compare the changing care wage gaps over time and to enlarge sample size, this study pools the first two waves (2003 and 2005) to capture the picture in early 2000s, and combines the most recent two waves (2013 to 2015) reflecting the situation in early 2010s.³ Doing so allows me to capture change in wage effect of care-work employment over the past ten years. I restrict my sample to individuals aged 18 to 50 (the official retirement age for urban women) who were working for pay in the urban areas at the time of each survey. This definition includes both urban residents with urban *hukou* (household registration) as

³ The response rate is 75.3% for CGSS 2003 and drops to 62.1% for CGSS 2005 (see the survey data pages on <http://cnsda.ruc.edu.cn/index.php?r=projects/index>). The lower response rate for CGSS 2005 is primarily due to not using government assistance in the urban area, producing a much larger number of rejections from sampled households (Bian and Li 2012). CGSS 2013 has a response rate of 72.2%. The information is not available for CGSS 2015.

well as rural-to-urban migrants. The final analytic sample size is 9,560 respondents from the four waves.

The dependent variable is the natural log of the respondents' earnings from work in the previous year. Such transformation normalizes the earnings distribution. The transformed regression coefficients (multiplied by 100) can then be interpreted as approximate percentage changes in earnings for a one-unit change in the independent variable (Budig and Misra 2010). Substantively, one unit change in the transformed coefficient represents in approximate percentage terms how much more (or less) care workers earn as compared to non-care workers with similar credentials or characteristics.

The main independent variable is employment in care work occupations. I adopt a broad conceptualization of care work as providing a particular kind of service that enhances the health, well-being, or development of other people, usually but not necessarily involving face-to-face interaction with the recipients (England et al. 2002; Duffy 2005). This definition includes both so-called "nurturant care work" involving face-to-face interactions, such as teachers, nurses, child care workers, social workers, and "reproductive labor work" such as cooking and cleaning. Meanwhile, I exclude more generic service occupations that are not related to care or social reproduction.

In order to examine the wage effect of care-work employment net of individual and job characteristics, I include three groups of explanatory variables. Human capital is captured by the level of education (below high school, high school, some college, college and above). The effect of job characteristics is captured by including two variables: employment in the public sector (as compared to private

sector) and whether employed full-time.⁴ Finally, key ascriptive characteristics include gender and *hukou* status (indicating migrant or urban resident).⁵ I control for one's marital status, region (at the province level), age and a squared term of age.⁶ Missing values on any of these variables contribute to less than 6 percent of the original sample.

Research Design

To test Hypotheses 1 through 3, I start by fitting conventional OLS regression models to a pooled sample of all four waves from the two periods. The baseline model (Model 1) includes only care-work employment as the key predictor, a dummy variable for period (with 1 indicting the later period 2013-2015), and basic control variables (marital status, region, age, and age-squared). The baseline model examines whether there is an overall wage penalty for care workers, against which I compare

⁴ It would be ideal to include more job characteristics, but information on work contract is not available for the 2003 and 2005 surveys. I am also not able to calculate the percent female or percent migrants for each occupation because access to the 2010 National Population Census data is restricted.

⁵ Since the 1950s, the Chinese government has relied on the household registration ("*hukou*") system to record and control internal migration. Under the *hukou* system, each Chinese resident was assigned to a particular place of residence under the two general categories of agricultural and nonagricultural (i.e. rural and urban). One's house registration status is determined at birth, and it is very difficult for an ordinary person to change hukou from rural to urban areas, or from smaller cities to larger cities (Chan 2009). Since China embarked on economic and social reforms in late 1970s, there has been a continuation of massive internal migration from rural to urban areas in search of work opportunities.

⁶ In results not shown (available upon request), I also controlled for the number of children living in household in all the models. The results changed minimally in terms of the size of coefficients for main predictors. Given that the definition of number of children living in the same household is somewhat different between the 2003-2005 surveys (defined as children living in the household during the week of interview) and the 2013-2015 waves (defined as children living or eating together in the household beyond the week of the interview), I did not include this variable in the final models. As marriage and childbearing are closely linked in the context of China, and few people have more than two children in the urban area, controlling for marriage is sufficient to capture the family structure for adult workers.

the explanatory power of three sets of theoretically informed variables. To explore the factors contributing to the wage effect of care-work employment, I add three sets of explanatory variables corresponding to the main theoretical perspectives on the devaluation of care-work occupations. Model 2 adds education to examine the extent of the wage effect of care-work employment that could be attributed to workers' human capital. Given that the two job characteristics may exert opposite influences on wage penalty for care workers, I add public sector employment in Model 3 and full-time employment in Model 4, separately. Model 5 further includes workers' ascriptive characteristics – gender and rural *hukou* status. By including all three groups of explanatory variables, Model 5 would allow me to examine whether there is a remaining wage effect of care-work occupation that is not attributable to these factors. Finally, Model 6 adds an interaction term between care-work employment and period to examine whether wage penalty for care workers (on average) increased over time.

While OLS regression shows the average wage effect of care-work employment, unconditional quantile regression has the advantage of estimating varying association between predictors and outcome at different points of the outcome distribution, instead of just showing the average effect in linear regression models.⁷ This would allow me to examine how the explanatory variables influence

⁷ There are two types of quantile regression models, namely the “conditional quantile regression” (CQR) and the “unconditional quantile regression” (UQR). CQR estimates the association of key predictors and the outcome variable for individuals with similar covariate values (Killewald and Bearak 2014). One's conditional quantile depends on the covariates included in the model (Koenker 2005). CQR therefore does not identify individuals along the unconditional wage distribution, and it assesses the impacts of predictors within subgroups defined by covariates. For example, if education is the only regressor in the model, the conditional quantile of workers with low education would be their income quantile relative to

the wage effect of care-work employment differently across income distribution in order to compare between high-status and low-status workers. I therefore test the last two hypotheses involving further differentiating the workers into high-status and low-status by using unconditional quantile regression. Estimates of unconditional quantile regression models can be obtained by regressing a transformation of the response variable, defined by the re-centered influence function (RIF), on explanatory variables. The re-centered influence function is defined as follows:

$$\text{RIF}(Y; q_\tau, F_Y) = q_\tau + (\tau - \mathbf{1}\{Y \leq q_\tau\}) / f_Y(q_\tau)$$

where q_τ is the value of the outcome variable Y at a given quantile, τ , $f_Y(q_\tau)$ is the density of Y at q_τ and F_Y is the cumulative distribution function of Y . $\mathbf{1}\{Y \leq q_\tau\}$ is the indicator function that takes the value of 1 when the value of the outcome variable, Y , is below q_τ . Otherwise it takes the value of 0 (cf. Firpo et al. 2009; Killewald and Bearak 2014). To test Hypothesis 4, I include all explanatory and control variables in the unconditional quantile regression model, with two periods pooled together. To test Hypothesis 5 involving the time trend, I add an interaction term between care-work employment and period.

other low-educated workers, and the conditional quantile of a highly-educated worker would be their income quantile relative to other highly educated counterparts (Huffman et al. 2017). If there are two regressors in the model – care work employment and education, the results of CQR can be interpreted as indicating the relative pay of care work employment at different points of wage distribution *within* each educational group (Killewald and Bearak 2014). In comparison, in UCQ, quantiles are defined as the actual, observed wage distribution, unaffected by the inclusion of covariates. UCQ is thus more appropriate for addressing the question posed by this study, which is to compare the relative pay of care work employment among low- and high-paying jobs.

Results

Descriptive Analyses

Table 1 shows the weighted descriptive statistics for care workers and non-care workers by the two periods. With regard to demographic characteristics, the paid care workforce was predominantly female (about 65 per cent in both periods), whereas only about 40 per cent of non-care workforce was female. The proportion of rural-to-urban migrants in the workforce increased substantially over time from about 14 per cent in the early 2000s to over 40 per cent in ten years' time, but there were no significant differences between the care and non-care workforce in the share of migrant workers. On average, care workers and other types of workers were also similar in age. The mean age for both types of workers were about 35 years old in both periods, although the care workers in the early period were slightly younger on average.

On the whole, care workers had higher levels of education than workers in non-care occupations. About one-fifth of the care workers in early 2000s and about one-third of them in early 2010s were college-educated, as compared to only 7.3 per cent of the non-care workforce in early 2000s and 22.2 per cent in the later period. This pattern is consistent with patterns in other countries from previous studies (e.g. Budig and Misra 2010).

Regarding employment characteristics, a slightly lower proportion of care workers were employed full-time as compared to the non-care workers, which is consistent with expectations. The difference between the two in the proportion employed in the public sector was large. The proportion working in the public sector

among non-care workers declined dramatically from 70 per cent in early 2000s to merely 26 per cent in just ten years. Such pattern reflects the dismantling the state-owned enterprises during the radical public-sector reform starting in the late 1990s. In comparison, the public-sector reform did not affect care workers as much. More than half of the care workers were employed in the public sector even after the public-sector downsizing. This trend suggests that even though private markets for care provision were allowed, the care sector, including key welfare institutions such as hospital and schools, remained highly regulated by the government.

Taken together, the three key features differentiating the care workforce from the non-care workforce were the proportion of female workers, the level of education, and proportion employed in the public sector, with all of the three features being higher for care workers. However, they may operate in contradictory ways in influencing the relative income level of the care workers. Without controlling for any of these factors, care workers and non-care workers on average had similar levels of earning in early 2000s, whereas and the gap between the two groups slightly increased over the ten years.

– Table 1 about here –

Multivariate Analyses

I turn to multivariate analyses to examine the impact of care-work employment on mean earnings as well as the factors that may affect such relationship in the context of urban China. Table 2 presents results from conventional OLS regression models, showing the wage effects of care-work employment for a series of nested models. The baseline model includes only care-work employment as the key

predictor along with basic control variables and a dummy for period. The bivariate association in the baseline model indicates that care workers on average earn 14 per cent less in annual income than non-care workers (coefficient of care-work employment -0.139 in Model 1, multiplied by 100).

– Table 2 about here –

Next, I explore factors influencing the earnings differences between care workers and non-care workers. After controlling for educational attainment in Model 2, the wage penalty for care workers was enlarged (from 14 per cent to 23 per cent), and the negative association became stronger. In other words, if care workers did not higher levels of education, their wage penalty would be larger than observed. Such finding is consistent with previous studies and refutes the neoclassical theory that attributes the lower pay of care workers to having lower human capital endowments. In fact, care workers on average had higher levels of human capital than non-care workers in urban China, as shown in the descriptive analyses. The same pattern was observed when public-sector employment was controlled for in Model 3.⁸ The opposite pattern was observed when full-time employment was introduced in Model 4, slightly reducing the wage penalty for care workers by about 1 per cent. This pattern reflects the fact that a smaller percentage of care workers were employed full-time than non-care workers.

When ascriptive characteristics (gender and migrant status) are controlled for in Model 4, the wage penalty for care workers was eliminated and the size of the

⁸ Additional analysis (not shown) reveals that this pattern is driven by the later period (2013-2015) where a higher percentage of care workers were employed in the public sector than non-care workers.

effect diminished substantially. Hypothesis 1 on wage penalty for care workers in China is thus rejected. The wage penalty for care workers appeared to be primarily driven by gender disparity – the fact that care workers are predominantly women, and that women on average are paid less than men in China. The coefficient for gender indicates that women earned significantly lower than men. The coefficients of having a rural *hukou* (indicating rural-to-urban migrant status) were negative but not statistically significant.⁹ Taken together, these results support Hypotheses 2a-c regarding the factors influencing the wage penalty for care workers in urban China.

To examine whether the pay penalty for care workers has increased over time, Model 6 includes an interaction between care-work employment and period. The interaction term is not statistically significant, indicating that the average wage effect of care-work employment did not change over time. Hypothesis 3 is rejected in terms of changing average difference between care workers and non-care workers.

Comparing Low-income Workers and High-income Workers

The results based on conventional linear regression analyses show results on the effect of each variable on the average income. But do high-status care workers fare better than low-status care workers in terms of their relative pay to non-care workers? Moving beyond treating care workers as homogeneous group, previous literature suggests that low-status care workers tend to be more disadvantaged as compared to high-status care workers who even enjoy “wage bonuses” instead of wage penalty due to processes of “social closure.” Is such pattern also observed in the

⁹ In additional analyses, the effect of having a rural *hukou* was statistically significant when education was not included in the model.

Chinese context? Using unconditional quantile regression, I compare the patterns of and factors affecting the wage effect of care-work employment across income distributions, paying special attention to the comparison between workers on the higher end and the lower end of income distribution. Following convention, I report regression results at .05, .10, .25, .50, .75, .90, and .95 quantiles in Table 3. Given that the average wage effect of care work employment was not found to have changed between the two periods, I do not stratify the sample by periods.

– Table 3 about here –

In Table 3, the coefficients of care-work employment were not statistically significant on the lower end of income distribution (quantiles 0.05, 0.10, and 0.25), but its effect became statistically significant and more negative towards the higher end of the income hierarchy, controlling for education, job characteristics, ascriptive characteristics, and other background variables. Figure 1 visualizes the effects of care-work employment on earnings across the income distribution, controlling for individual and job characteristics.

– Figure 1 about here –

This pattern suggests that for low-income, low-status care workers in urban China, there were no additional earning disadvantages associated with working in care occupations. Differences in human capital, job characteristics, gender, and migrant status accounted for the differences in pay between low-income care workers and low-income non-care workers. The signs of the care-work employment coefficients were even positive towards the lower end of income distribution. On the contrary, care workers earned less than non-care workers towards the higher end of

the income distribution, and such difference was fully accounted for by workers' differences in human capital, job characteristics, and ascriptive characteristics. Care workers in the middle of the income distribution (0.50) suffered a wage penalty (relative to non-care workers) of 12.2 per cent. The wage penalty for care workers net of individual and job characteristics increased to 17.2 per cent at the 0.75 quantile, and further increased to 33.1 per cent at the 0.95 quantile.

In summary, whereas the OLS regression models reveal that the wage penalty for care workers (on average) was primarily driven by the income penalty for women, results from unconditional quantile regression further reveal that net of individual and job characteristics, there was a persisting wage penalty for high-status, high-income care workers in urban China. This is different from the patterns observed in most Western industrialized contexts. Hypothesis 4 stating that high-status care workers enjoy a “wage bonus” in China is rejected.

Also of note is the changing relationship between public-sector employment and earnings across the income distribution. Public-sector employment was positively associated with earnings at the lower end of income distribution, but the relationship was flipped at the higher end, suggesting that employment in the public sector protects low-income workers while hurting high-income workers when compared to non-care workers in terms of earning. Moreover, the earnings disadvantages for women relative to men was particularly strong for workers at the bottom of the income distribution, suggesting the hardship facing low-income women.

Have the recent welfare reform and the deepening of marketization affected the relative wage of care work differently between high-status workers and low-status

workers differently? This question is addressed by adding an interaction term between care-work employment and period to the unconditional quantile regression model presented in Table 3. The new results with the interaction term are presented in Table 4. Although the interaction term between care-work employment and period was not statistically significant in the OLS regression model, indicating there was no change over time in wage penalty for care workers on average, results from unconditional quantile regression showed that the wage penalty for care workers in the top wage quantiles (0.90 and 0.95) worsened in the later period. The results support Hypothesis 5.

– Table 4 about here –

Discussion and Conclusions

The “care economy” is essential for social well-being and is indispensable for economic productivity, but care work occupations are usually associated with “women’s work” and is found to be underpaid. Findings from cross-national studies suggest that the employment situation of care workers is embedded in the broader institutional context and is shaped by economic and social policies of different welfare regimes. Earning disadvantages of care workers are found to be smaller in contexts with low income inequality, high union density, large public sector, and high public spending on care (Budig and Misra 2010). Existing studies conducted in Western and wealthy industrialized East Asian countries further find that although low-status care workers universally suffer from wage penalties, high-status care workers tend to enjoy “wage bonuses” (advantages) relative to non-care workers

(Barron and West 2013; Lightman 2017). Borrowing the theory of “social closure”, previous studies argue that high-status occupational group benefit from practices of “social closure” to improve their earnings. Whether these patterns and processes shaping the value of paid care work can be generalized in other contexts that do not conform to the classical welfare regime framework has received little scholarly attention.

This study examines the gap between care workers and non-care workers in urban China since early 2000s, when the government started to expand social welfare along with the deepening of market reform. Contemporary China differs from Western, industrialized, and democratic societies with its unique combination of socialist legacy, strong state intervention, and a rapidly growing capitalist economy. By studying how the paid care workers fared in terms of their income during this period, this study addresses the following questions: 1) whether care workers are also disadvantaged in earnings in contemporary urban China, 2) the factors contributing to the earnings disadvantages of care workers, and 3) whether and how the patterns changed over time and 4) differ for high-status versus low-status care workers. This study finds that gender disparity plays a primary role in driving the wage penalty for care workers (especially low-status care workers) in the context of urban China. Moreover, different patterns emerged with regard to the advantages and disadvantages for high-status and low-status care workers, suggesting unique social and political process shaping the value of care work in urban China.

Specifically, findings from OLS regression indicate that the average wage penalty for care workers cannot be attributed to the negative selection of care workers

due to low levels of education. On the contrary, care workers in urban China have higher levels of education than non-care workers on average, and the higher human capital endowment of care workers mitigated the wage penalty for care workers. Neither can differences in job characteristics such as public-sector employment and full-time employment fully account for the gap. The average wage gap between care workers and non-care workers was entirely accounted for by gender disparity – the fact that care workers were disproportionately women and women were paid less than men in China.

The average wage effect of care-work employment, net of individual, job, and contextual characteristics, was not found to be more pronounced in the later period. One possible explanation may be there were contradictory institutional forces affecting paid care workers in opposite directions during the period under examination. On the one hand, marketization of the care services and the decline in employment security could have led to lower pay and insecure employment for care workers. On the other hand, the expansion of a welfare state and the state's concern with tackling population aging might lead to the expectation of more investment in the paid care sector and improvement in care workers' pay. Another possible reason may have to do with the changing composition of the care workforce over time that counteracts the devaluation of care work. A third explanation may have to do with the heterogeneity among care workers who have been differentially impacted by China's welfare transition and market reform since the early 2000s. Indeed, further examining patterns across income distribution over time, this study finds that the wage penalty

for high-status care workers increased over the period under study (early 2000s to early 2010s).

Moreover, contrary to the finding of wage penalty for low-status care workers and “wage bonuses” for high-status care workers in previous studies in wealthy industrialized societies, this study did not find wage penalty for low-income care workers net of individual and job attributes, whereas a wage penalty was found for high-income care workers in urban China that could not be attributed to human capital, job characteristics, gender, and migrant status. And again, the wage penalty for high-status care workers increased over time. “Social closure” theory is thus inadequate for understanding the situation of high-status care workers in urban China.

Such finding can only be made sense of within China’s unique social and political context during the market reform, and in particular, as China transitions to a “state capitalist welfare state” in the context of deepening marketization. The radical market reform since the late-1990s has ended life-long employment in the cities, abolished the state-provided welfare system, and significantly reduced the share of public employment. Since the early 2000s, the Chinese government has increased investment in social welfare, mainly out of concerns for maintaining social stability and political legitimacy in the face of rising economic inequality and employment insecurity unleashed by the market reform. The recent welfare expansion was also pragmatic, as the state began to increase funding in certain welfare service sectors that are of utility to addressing the pressing problem of population aging. Elderly care workers and perhaps other types of care workers providing direct care may benefit from the welfare expansion. Due to political and ideological concerns, the Chinese

government is unwilling to relegate key welfare institutions, especially hospitals and education, to market rule. The strong state regulation in the provision and organization of welfare services means that the occupational groups providing welfare services in public institutions face more wage-setting restrictions. As a result, high-status care workers, who are likely to be employed in the public sector, were less likely to profit from the market reform.

In addition, the market reform significantly reduced size of public-sector employment, putting an end to the state sector as the main source of urban employment. The decline in the public sector has also been accompanied by an expanding private sector, characterized by much heterogeneity. Income inequality soared as the marketization deepens with China's further integration into the global economy. More wealth accumulation opportunities were available for socioeconomic elites, whereas regular job employment in the lower-tier of the private-sector labor market has become increasingly informalized. In the low-income segment of the labor market, marketization may lead to deteriorating employment situation for care and non-care workers alike. On the other end, care work may be especially punishing for workers in high-income bracket, as non-care workers in industries such as finance, e-commerce, and real estate benefited much more from the wealth accumulation opportunities brought about from marketization and China's integration to the global economy during the period under study.

This study has several limitations. First, although the models controlled for individual-level job characteristics, they do not control for occupational-level characteristics such as the proportion of women or proportion of full-time workers,

due to restricted access to census data in China. Relatedly, this study does not account for the selection into care work occupations across the two periods. Future studies may look into how much of the “care pay gap” can be attributed to the composition of the care workforce as compared to the return to characteristics, and how do they change over time. Third, the measure of earnings is yearly income from work, which is less precise than hourly wage associated with particular care-work employment. If the respondent was employed in care occupations at the time of the survey but had switched from a non-care occupation within the past year, then his or her income last year would not be entirely from his or her current care-work employment. Unfortunately, such detailed information was not available in any nationally representative social surveys in China. Fourth, domestic workers tend to be uncounted in standard Chinese household surveys (Dong et al. 2017). Given that domestic care workers tend to be low-paid, undercounting them would upwardly bias the earning levels for low-status care workers. Therefore, the finding that there was no wage penalty net of individual and job characteristics for the low-status care workers in urban China should be taken with caution. Finally, this study is restricted to urban China. The situation in rural China may be radically different and call for new theoretical perspectives for thinking about the value of care work in relation to various social and political processes. Nevertheless, this study provides the first systematic investigation of how care workers fared relative to non-care workers in terms of earnings in reform-era urban China. Findings from this study point to China’s unique social and political contexts in shaping how the values of caring labor are remunerated relative to non-care workers.

References

- Appleton, Simon, John Knight, Lina Song, and Qingjie Xia. 2002. "Labor Retrenchment in China: Determinants and Consequences." *China Economic Review* 13(2-3):252-275.
- Attané, Isabelle. 2012. "Being a woman in China today: A demography of gender." *China Perspectives* 4:5-15.
- Barron, David N., and Elizabeth West. 2013. "The Financial Costs of Caring in the British Labour Market: Is There a Wage Penalty for Workers in Caring Occupations?." *British Journal of Industrial Relations* 51(1):104-123.
- Bian, Yanjie, and Lulu Li. "The Chinese General Social Survey (2003-8): Sample Designs and Data Evaluation." *Chinese Sociological Review* 45(1):70-97.
- Budig, Michelle J., and Joya Misra. 2010. "How Care-work Employment Shapes Earnings in Cross-national Perspective." *International Labour Review* 149(4):441-460.
- Cai, Fang. 2008. "The Development of Labor Market and Expansion of Employment in China." Pp. 80-100 in Fang Cai (ed.), *Transforming the Chinese Economy, 1978-2008*. Beijing: Social Sciences Academic Press (in Chinese).
- Chan, Kam Wing. 2009. "The Chinese *Hukou* System at 50." *Eurasian Geography and Economics* 50(2):197-221.
- Chan, Raymond K. H., Naoko Soma, and Junko Yamashita. 2011. "Care Regimes and Responses: East Asian Experiences Compared." *Journal of Comparative Social Welfare* 27(2):175-186.
- Connelly, Rachel, Xiao-yuan Dong, Joyce Jacobsen, and Yaohui Zhao. 2018. "The Care Economy in Post-Reform China: Feminist Research on Unpaid and Paid Work and Well-Being." *Journal Feminist Economics* 24(2):1-30.
- Cook, Sarah, and Xiao-yuan Dong. 2017. "Gender, Welfare and the Economy of Care in Reform-Era China: How the Welfare System Shapes Women's Opportunities and Gender Equality." Pp. 266-84 in *Handbook of Welfare in China*, edited by B. Carrillo, J. Hood, and P. I. Kadetz. Northampton, MA: Edward Elgar Publishing, Inc.
- Daly, Mary. 2001. "Care policies in Western Europe." Pp. 33-56 in Mary E. Daly (ed.), *Care Work: The Quest for Security*. International Labour Organization, Geneva.

- Dong, Xiao-yuan, Jianchun Yang, Fenglian Du, and Sai Ding. 2006. "Women's Employment and Public-Sector Restructuring: The Case of Urban China." Pp. 87-107 in Grace Lee and Malcolm Warner (eds.), *Unemployment in China: Economy, Human Resources and Labor Markets*. London: Routledge Contemporary China Series.
- Dong, Xiao-yuan, Jin Feng, and Yangyang Yu. 2017. "Relative Pay of Domestic Eldercare Workers in Shanghai, China." *Feminist Economics* 23(1):135-159.
- Dong, Xiao-yuan, and Xu Lixin. 2009. "Labor Restructuring in China: Toward a Functioning Labor Market." *Journal of Comparative Economics* 37(2):287-305.
- Duffy, Mignon. 2005. "Reproducing Labor Inequalities Challenges for Feminists Conceptualizing Care at the Intersections of Gender, Race, and Class." *Gender & Society* 19(1):66-82.
- England, Paula. 1992. *Comparable Worth: Theories and Evidence*. New York, NY: Aldine De Gruyter.
- England, Paula. 2005. "Emerging Theories of Care Work." *Annual Review of Sociology* 31:381-399.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. "Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49(4):455-473.
- Esping-Andersen, Gosta. 1990. *Three Worlds of Welfare Capitalism*. London: Polity Press.
- Firpo, Sergio, Nicole M. Fortin, and Thomas Lemieux. 2009. "Unconditional Quantile Regressions." *Econometrica* 77(3):953-73.
- Folbre, Nancy. 2008. "Reforming Care." *Politics & Society* 36(3):373-387.
- Gao, Qin, Sui Yang, and Shi Li. 2013. "The Chinese Welfare State in Transition: 1988–2007." *Journal of Social Policy* 42 (4):743-64.
- Gough, Ian. 2004. "East Asia: The Limits of Productivist Regimes." Pp. 169-201 in *Insecurity and Welfare Regimes in Asia, Africa and Latin America*, edited by I. Gough, and G. Wood. Cambridge: Cambridge University Press.
- Hu, Xinying. 2011. *China's New Underclass: Paid Domestic Labour*. London and New York: Routledge.

- Hu, Xinying. 2014. "Childcare Policy Reform and Women's Labour Force Participation in China." Pp. 155-177 in Y. Atasoy (ed.), *Global Economic Crisis and the Politics of Diversity*. UK: Palgrave Macmillan.
- Huffman, Matt L., Joe King, and Malte Reichelt. 2017. "Equality For Whom? Organizational Policies and the Gender Gap Across the German Earnings Distribution." *ILR Review* 70(1):16-41.
- Ji, Yingchun, Xiaogang Wu, Shengwei Sun, Guangye He. 2017. "Unequal Care, Unequal Work: Toward a more Comprehensive Understanding of Gender Inequality in Post-Reform Urban China." *Sex Roles* 77(11-12):765-778.
- Killewald, Alexandra, and Jonathan Bearak. 2014. "Is the Motherhood Penalty Larger for Low-Wage Women? A Comment on Quantile Regression." *American Sociological Review* 79(2):350-57.
- Koenker, Roger. 2005. *Quantile Regression*. New York: Cambridge University Press.
- Lightman, Naomi. 2017. "Discounted Labour? Disaggregating Care Work in Comparative Perspective." *International Labour Review* 156(2):243-267.
- Lister, Ruth, Fiona Williams, Anneli Anttonen, Jet Bussemaker, Ute Gerhard, Jacqueline Heinen, SStina Johansson, Arnlaug Leira, Birte Siim, Constanza Tobio, and Anna Gavanas. 2007. *Gendering citizenship in Western Europe*. Bristol: Policy Press.
- Liu, Gordon G., Samantha A. Vortherms, and Xuezhi Hong. 2017. "China's Health Reform Update." *Annual Review of Public Health* 38:431-448.
- Mahon, Rianne, Anneli Anttonen, Christina Bergqvist, Deborah Brennan and Barbara Hobson. 2012. "Convergent Care Regimes? Childcare Arrangements in Australia, Canada, Finland and Sweden." *Journal of European Social Policy* 22(4):419-431.
- Michel, Sonya, and Ito Peng. 2012. "All in the Family? Migrants, Nationhood, and Care Regimes in Asia and North America." *Journal of European Social Policy* 22(4):406-418.
- Mok, Ka Ho, Stefan Kühner, and Genghua Huang. 2017. "The Productivist Construction of Selective Welfare Pragmatism in China." *Social Policy & Administration* 51(6):876-897.
- Morgan, Kimberly J. 2005. "The 'Production' of Child Care: How Labor Markets Shape Social Policy and Vice Versa." *Social Politics* 12(2):243-263.

- Neetha, N. 2010. "The Social Organization of Care Work in India: Challenges and Alternative Strategies." *Development* 53(3):362-367.
- Powell, Martin, and Ki-tae Kim. 2014. "The 'Chameleon' Korean Welfare Regime." *Social Policy & Administration* 48(6):626-646.
- Razavi, Shahra. 2007. *The Political and Social Economy of Care in a Development Context: Conceptual Issues, Research Questions and Policy Options*. Geneva: United Nations Research Institute for Social Development.
- Razavi, Shahra, and Silke Staab. 2010. "Underpaid and Overworked: A Cross-national Perspective on Care Workers." *International Labour Review* 149(4):407-422.
- Ringen, Stein, and Kinglun Ngok. 2017. "What kind of welfare state is emerging in China?" Pp. 213-237 in *Towards Universal Health Care in Emerging Economies*, edited by I. Yi. London: Palgrave Macmillan.
- Shang, Xiaoyuan, and Xiaoming Wu. 2011. "The Care Regime in China: Elder and Child Care." *Journal of Comparative Social Welfare* 27(2):123-131.
- Shen, Ke, Feng Wang, Yong Cai. 2018. "A Benevolent State Against an Unjust Society? Inequalities in Public Transfers in China." *Chinese Sociological Review*. Advance online publication.
- Weedon, Kim A. 2002. "Why Do Some Occupations Pay More Than Others? Social Closure and Earnings Inequality in the United States." *American Journal of Sociology* 108(1):55-101.
- Williams, Fiona. 2012. "Converging Variations in Migrant Care Work in Europe." *Journal of European Social Policy* 22(4):363-376.
- World Health Organization. 2018. "Fact Sheet: Health sector reform in China." Retrieved from http://www.wpro.who.int/china/mediacentre/factsheets/health_sector_reform/en/. Accessed May 30, 2018.

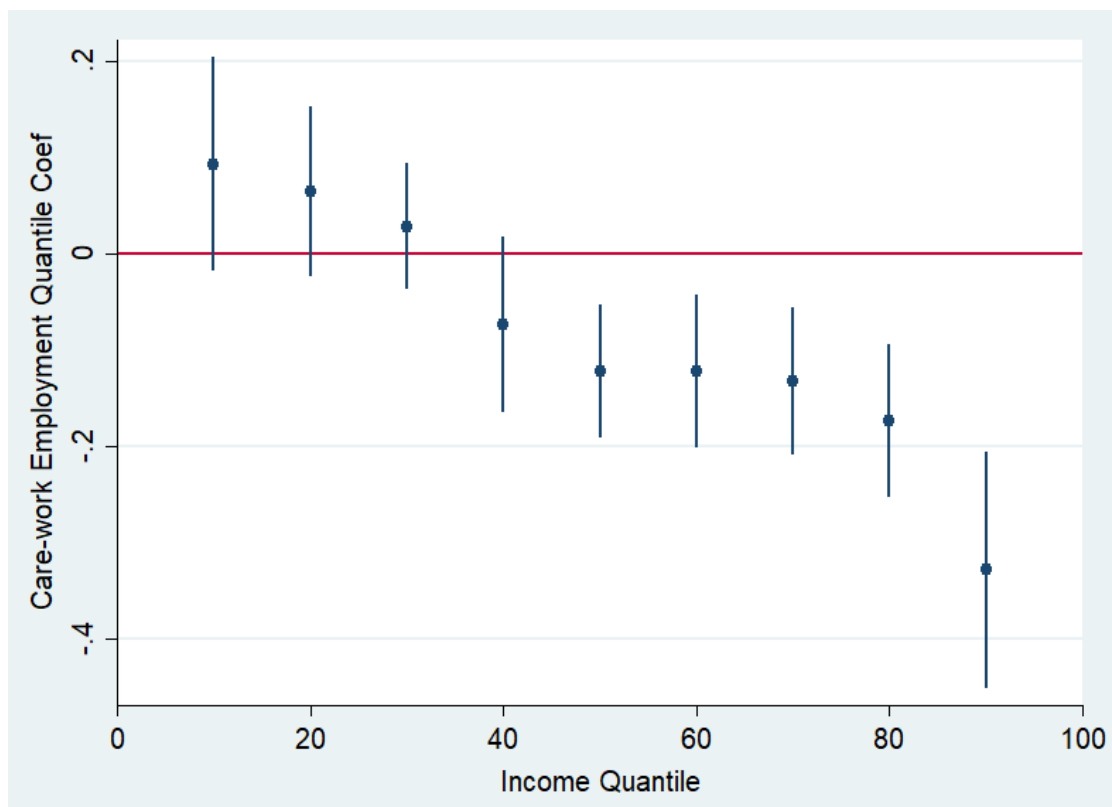


Figure 1. The Effect of Care-work Employment on Logged Income across Income Distribution, 2003-2015.

Notes: The graph derives from the results from Table 3.

Table 1. Descriptive Statistics of Care Workers and Non-care Workers in Urban China

	2003-2005		2013-2015		
	Care Workers	Non-care Workers	Care Workers	Non-care Workers	
Total income (logged)	9.1 (1.5)	9.1 (1.3)	9.9 (2.1)	10.2 (1.9)	^b
Female	66.1	41.7	64.1	39.9	^{a b}
Rural <i>hukou</i>	13.8	13.8	43.3	41.1	
Educational attainment					
Below high school	41.4	52.9	40.0	44.8	
High school	13.2	23.2	7.8	15.0	
Some college	25.6	16.5	18.2	18.0	
College and above	19.8	7.3	34.0	22.2	
<u>Job Characteristics</u>					
Public sector	58.2	70.0	51.2	26.0	^{a b}
Full-time employment	79.2	81.1	72.2	83.1	^b
Marital status					
Never married	16.8	14.4	24.7	27.9	
Married	79.9	83.4	68.7	67.0	
Divorced or widowed	3.4	2.3	6.6	5.1	
Geographical region					
East	43.0	38.2	53.2	59.2	
Central	35.7	37.1	30.8	28.0	
West	21.3	24.7	16.0	12.8	
Age	34.0 (8.0)	35.6 (8.0)	35.5 (8.9)	35.7 (8.6)	^a
N	643	3,931	795	4,191	

Notes: The figures shown are in percentage and mean. Numbers representing means are followed by standard deviations shown in parentheses. Results are weighted.

^a indicates statistically significant differences in means between care-work employment and non-care-work employment during 2003-2005.

^b indicates statistically significant differences in means between care-work employment and non-care-work employment during 2013-2015.

Table 2. OLS Regression Estimates of Logged Total Income, 2003-2015

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Care-work employment	-0.139* (0.067)	-0.228*** (0.067)	-0.238*** (0.068)	-0.229*** (0.069)	-0.112 (0.069)	-0.016 (0.085)
Education (<i>ref.</i> below high school)						
High school		0.206*** (0.052)	0.200*** (0.052)	0.198*** (0.051)	0.179*** (0.051)	0.179*** (0.051)
Some college		0.532*** (0.054)	0.513*** (0.055)	0.511*** (0.055)	0.490*** (0.057)	0.485*** (0.057)
College and above		0.663*** (0.071)	0.641*** (0.076)	0.642*** (0.076)	0.598*** (0.078)	0.596*** (0.078)
Public sector			0.065 (0.048)	0.061 (0.048)	0.035 (0.047)	0.039 (0.047)
Full-time				0.120* (0.058)	0.103 (0.058)	0.099 (0.058)
Female					-0.460*** (0.044)	-0.460*** (0.044)
Rural <i>hukou</i>					-0.075 (0.061)	-0.074 (0.061)
Marital status (<i>ref.</i> never married)						
Married	-0.105 (0.091)	-0.009 (0.088)	-0.012 (0.088)	-0.011 (0.088)	0.062 (0.088)	0.063 (0.088)
Divorced or Widowed	-0.355* (0.177)	-0.200 (0.172)	-0.199 (0.173)	-0.191 (0.173)	-0.075 (0.170)	-0.075 (0.170)
Geographical region (<i>ref.</i> east)						
Central	- 0.415*** (0.044)	-0.358*** (0.044)	-0.360*** (0.044)	-0.356*** (0.044)	-0.371*** (0.043)	-0.369*** (0.043)
West	- 0.503*** (0.056)	-0.449*** (0.055)	-0.453*** (0.055)	-0.450*** (0.055)	-0.459*** (0.054)	-0.456*** (0.054)
Age	0.297*** (0.034)	0.254*** (0.034)	0.254*** (0.034)	0.253*** (0.034)	0.243*** (0.034)	0.243*** (0.034)
Age-squared	- 0.004*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)	-0.003*** (0.000)
Period (2013-2015)	1.022*** (0.040)	0.954*** (0.040)	0.975*** (0.044)	0.973*** (0.044)	0.989*** (0.046)	1.018*** (0.048)
Care-work x Period						-0.178 (0.129)
Constant	4.090*** (0.595)	4.467*** (0.598)	4.456*** (0.599)	4.379*** (0.596)	4.779*** (0.587)	4.766*** (0.588)
Observations	9,560	9,560	9,560	9,560	9,560	9,560
R-squared	0.136	0.157	0.157	0.158	0.174	0.174

Notes: Robust standard errors in parentheses. Results are weighted.

*** p<0.001, ** p<0.01, * p<0.05

Table 3. Unconditional Quantile Regression Estimates of Log Income, 2003-2015

	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Care-work employment	0.140 (0.126)	0.093 (0.056)	0.028 (0.033)	-0.122*** (0.035)	-0.172*** (0.041)	-0.328*** (0.063)	-0.331*** (0.055)
Education (<i>ref.</i> below high school)							
High school	0.220 (0.113)	0.235*** (0.056)	0.128*** (0.034)	0.160*** (0.033)	0.153*** (0.036)	0.143** (0.053)	0.074 (0.048)
Some college	0.352*** (0.105)	0.405*** (0.049)	0.454*** (0.031)	0.486*** (0.035)	0.455*** (0.041)	0.472*** (0.064)	0.331*** (0.064)
College and above	-0.000 (0.128)	0.212*** (0.054)	0.399*** (0.031)	0.645*** (0.040)	0.830*** (0.049)	1.244*** (0.088)	1.124*** (0.096)
Full-time employment	0.389** (0.121)	0.282*** (0.056)	0.194*** (0.030)	0.053 (0.030)	-0.026 (0.035)	-0.188** (0.059)	-0.241*** (0.063)
Public sector	0.327*** (0.098)	0.166*** (0.046)	0.053* (0.026)	-0.063* (0.026)	-0.096** (0.032)	-0.282*** (0.052)	-0.335*** (0.052)
Female	-0.583*** (0.089)	-0.377*** (0.041)	-0.254*** (0.023)	-0.283*** (0.025)	-0.285*** (0.028)	-0.218*** (0.045)	-0.182*** (0.046)
Rural <i>hukou</i>	-0.142 (0.116)	-0.041 (0.051)	0.040 (0.027)	0.052 (0.031)	0.031 (0.038)	-0.033 (0.059)	-0.039 (0.060)
Marital status (<i>ref.</i> never married)							
Married	0.225 (0.151)	0.127* (0.063)	0.058 (0.036)	0.052 (0.043)	0.019 (0.058)	-0.144 (0.104)	-0.068 (0.113)
Divorced or Widowed	-0.070 (0.318)	-0.053 (0.130)	-0.013 (0.070)	0.001 (0.086)	-0.046 (0.102)	-0.246 (0.163)	-0.169 (0.169)
Geographical region (<i>ref.</i> east)							
Central	-0.168 (0.089)	-0.214*** (0.043)	-0.229*** (0.026)	-0.393*** (0.028)	-0.462*** (0.031)	-0.500*** (0.046)	-0.346*** (0.046)
West	-0.510*** (0.123)	-0.350*** (0.058)	-0.292*** (0.033)	-0.432*** (0.034)	-0.400*** (0.035)	-0.425*** (0.051)	-0.291*** (0.053)

Age	0.349*** (0.063)	0.128*** (0.027)	0.065*** (0.014)	0.082*** (0.016)	0.089*** (0.018)	0.157*** (0.028)	0.118*** (0.030)
Age-squared	-0.005*** (0.001)	-0.002*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)
Period (2013-2015)	0.562*** (0.097)	0.665*** (0.045)	0.858*** (0.026)	1.477*** (0.030)	1.097*** (0.033)	0.781*** (0.048)	0.565*** (0.046)
Constant	1.263 (1.106)	5.744*** (0.471)	7.417*** (0.242)	7.843*** (0.265)	8.714*** (0.299)	8.372*** (0.451)	9.558*** (0.495)
Observations	9,560	9,560	9,560	9,560	9,560	9,560	9,560
R-squared	0.038	0.088	0.261	0.448	0.323	0.163	0.112

Notes: Robust standard errors in parentheses. Results are weighted.

*** p<0.001, ** p<0.01, * p<0.05

Table 4. Unconditional Quantile Regression Estimates of Log Income (Interaction with Period)

	0.05	0.10	0.25	0.50	0.75	0.90	0.95
Care-work employment	0.328 (0.191)	0.164 (0.097)	0.089 (0.057)	-0.121* (0.047)	-0.093* (0.038)	-0.140* (0.057)	-0.131*** (0.034)
Period (2013-2015)	0.619*** (0.103)	0.687*** (0.049)	0.877*** (0.028)	1.477*** (0.032)	1.121*** (0.035)	0.837*** (0.052)	0.625*** (0.052)
Care-work x Period	-0.348 (0.245)	-0.132 (0.112)	-0.114 (0.065)	-0.003 (0.068)	-0.146 (0.075)	-0.350** (0.108)	-0.371*** (0.098)
Education (<i>ref.</i> below high school)							
High school	0.220 (0.113)	0.235*** (0.056)	0.128*** (0.034)	0.160*** (0.033)	0.152*** (0.036)	0.143** (0.053)	0.074 (0.048)
Some college	0.344** (0.105)	0.402*** (0.049)	0.451*** (0.031)	0.485*** (0.035)	0.452*** (0.041)	0.463*** (0.064)	0.323*** (0.064)
College and above	-0.003 (0.128)	0.211*** (0.054)	0.398*** (0.031)	0.645*** (0.040)	0.829*** (0.049)	1.241*** (0.088)	1.121*** (0.096)
Full-time employment	0.382** (0.121)	0.280*** (0.056)	0.192*** (0.030)	0.053 (0.030)	-0.028 (0.035)	-0.194** (0.059)	-0.247*** (0.063)
Public sector	0.335*** (0.099)	0.169*** (0.047)	0.056* (0.026)	-0.063* (0.027)	-0.092** (0.032)	-0.273*** (0.052)	-0.326*** (0.052)
Female	-0.583*** (0.089)	-0.377*** (0.041)	-0.253*** (0.023)	-0.283*** (0.025)	-0.285*** (0.028)	-0.218*** (0.045)	-0.182*** (0.046)
Rural <i>hukou</i>	-0.141 (0.116)	-0.040 (0.051)	0.040 (0.027)	0.052 (0.031)	0.032 (0.038)	-0.031 (0.059)	-0.037 (0.060)
Control variables (included in the models)							
Constant	1.239 (1.108)	5.735*** (0.472)	7.409*** (0.242)	7.843*** (0.265)	8.704*** (0.299)	8.348*** (0.450)	9.533*** (0.496)
Observations	9,560	9,560	9,560	9,560	9,560	9,560	9,560
R-squared	0.039	0.088	0.261	0.448	0.323	0.164	0.113

Notes: Robust standard errors in parentheses. Results are weighted.

*** p<0.001, ** p<0.01, * p<0.05

Conclusion

This dissertation focuses on the expanding paid care work sector as a key terrain for examining labor market inequalities in the United States and China, with three papers attending to different aspects of social stratification. Two underlying questions motivate this dissertation: First, how does the growth of care work employment and the diversification of the care workforce reduce or reinforce existing social inequalities? And second, are care work jobs universally devalued, and what factors – at the individual, occupational, and societal level – shape the value of paid care work? In addressing these questions, I pay special attention to how social inequalities intersects with each other as well as how macro-level contexts shape the nature and manifestation of social inequalities.

The first paper investigates whether the difficulty in getting more men into female-typed care occupations can be boiled down to a matter of rigid gender attitude or is better understood as a labor market mobility issue. The first paper contributes to the literature by using nationally representative, individual-level data with a longitudinal structure to simultaneously evaluate the attitudinal and structural determinants of men's entry into non-traditional occupations. Another contribution of this study is to take advantage of the diversity in the paid care sector. Disaggregating paid care work jobs into four categories – by occupational levels and by gender composition – allows me to compare the effects of the determinants on entering female-typed versus not female-typed occupations of similar wage levels, thereby

showing the heterogeneous trajectories and motivations of men entering different kinds of care work jobs.

Findings from the first study provide support for a combination of cultural and structural approaches in making sense of why men enter female-dominated care work jobs or not. On the whole, men with more gender egalitarian attitudes are more likely to enter female-dominated care work jobs than non-transition, as compared to entering non-female-dominated care workers of the same wage level than non-transition. The cultural approach offers a supply-side explanation by focusing on individual men's preferences and assuming that one's occupational destination reflects one's preferences. The policy implication for addressing men's reluctance to doing "women's work" from this approach is to both ask individual men to change their notions about gender-appropriate work as well as to change conceptions about masculinity and gendered division of labor on the societal level.

While the cultural aspect is certainly important, findings from the first chapter suggests that cultural changes alone would not solve the "care crisis" or encourage more men to enter female-dominated jobs. In reality, individuals face constraints that prevent them from realizing their preferences. Findings from the first paper show that men with higher levels of education and labor market advantages had an easier time accessing well-paying female-dominated care work jobs and were less like to enter low-paying non-female-dominated care work jobs. Working-class men had a harder time entering many female-dominated care work jobs as they face significant barriers in obtaining more education and training and are marginalized in the labor market.

The first paper has policy implications for addressing important issues such as the “care crisis”, the “stalled” gender revolution, and the “mismatch” between growing job opportunities in education and health care sectors and male workers who are reluctant to enter care work jobs. The paid care work sector is projected to continue its growth in the coming decades, but men’s presence in female-dominated care work occupations is still rare, even as they are losing jobs in traditionally male-dominated sectors. By pointing to the limitations of the cultural preference approach, and by complicating the prevailing account of the structural approach, the first paper suggests that the solution to the aforementioned challenges lies in a combination of efforts – transforming the gendered notion of work, reducing inequalities in educational and training opportunities, and improving the pay and job qualities of low-wage care work jobs, which would further require a revaluation of how much caring labor is valued.

The second study aims to identify the changing patterns of racial disparity in men’s transition into paid care work jobs in an increasingly precarious labor market resulting from the economic restructuring since the 1970s, and to examine the factors contributing to the racial disparity in the job polarization trend in the paid care work sector. The second chapter finds changing patterns of racial inequality corresponding to larger job growth patterns since the 1980s: In the 1980s which saw robust growth of middle- and high-wage jobs, black men had a higher chance of entering low-paying care work jobs than white men, controlling for human capital and labor market experience. In contrast, during the 2000s when the job growth was predominantly driven by the growth of low-wage jobs, black men are more likely to be deterred from

entering well-paying jobs, controlling for individual-level supply-side factors. I argue that these patterns suggest that a persisting logic of racialized “labor queue” that manifests itself different under different labor market conditions.

Paid care work jobs not only outperformed other sectors in adding jobs during the economic recovery after the Great Recession, they are also projected to continue their strong growth in the upcoming decade (Pew 2011; IWPR 2013). With its strong expansion, coupled with the declining employment opportunities especially in traditionally male-dominated sectors such as manufacturing, an increasing number of men have entered paid care work occupations. Since most occupations within the paid care work sector are female-typed, the heightened visibility of men working in these sectors has been hailed as progress towards gender integration, exemplified in the proliferation of media coverage on “male nurses.” However, findings from my second chapter shows that the entry of men into care work jobs reflects enduring racial inequalities in the labor market. The proposals to diversify the middle-class care work force tend to focus on the supply side, as in raising the training level among racial minority workers. While these approaches are certainly important, this study finds persisting racial disparity after controlling for individual-level, supply-side factors, raising concerns about enduring racial discrimination.

The third chapter focuses on the question of how specific social and political contexts shape the value (or devaluation) of paid care work. The first key finding from this chapter is that on average, care workers earn less than non-care workers in contemporary urban China, but such difference was primarily driven by gender disparity. The fact that care-workers are predominantly women and their earning

disadvantages are primarily driven by women's labor market disadvantages reflects the intertwined nature of gender and care work. Women have long performed the majority of unpaid care work in the household, but the gendered division of labor is also reinforced in the realm paid work. China currently faces a host of demographic and economic concerns, including population aging, low fertility rate, and a slowing economy, which would bring the politics of gender and care work to the center of policymaking. The expansion of a "care economy" has been proposed to address these demographic challenges in the face of current "care shortages." However, the expansion of care services may continue to capitalize on the devalued labor of women, thus reinforcing gender inequality at work.

The second main finding is that while in Western industrialized societies, high-status care workers tend to have a "wage bonus" relative to non-care workers after controlling for individual and job characteristics, high-status care workers in contemporary urban China suffer a wage penalty and the size of the penalty increased with the deepening of marketization. I argue that such finding has to be understood within the particular socioeconomic and political contexts in China. For one thing, previous studies on high-status care workers were mostly situated in liberal democratic settings with limited government intervention in the labor markets. "Social closure" theory has been developed in liberal democratic settings where the market forces of supply and demand are relatively free from state intervention, and occupational groups are able to engage in closure strategies to maximize their interests. In the context of reform-era China, however, the strong state regulation in the provision and organization of welfare services means that the occupational groups

providing welfare services face more wage-setting restrictions. Another reason that care work turned out to be especially punishing for high-income workers during the period of intensifying marketization may be that certain non-care industries became much more lucrative and profitable as China integrated to the global economy. Meanwhile, the pay of doctors, nurses, professors, and other medical and teaching professionals have been stagnating.

In sum, the three papers from this dissertation together provide a better understanding of various aspects of social stratification processes through examining the labor market dynamics and outcomes in the paid care work sector. Insights from these papers reinforce the importance of conceptualizing social inequalities in intersectional ways, with the first two papers on the U.S. highlighting the structural constraints facing men from disadvantaged socioeconomic backgrounds in accessing “good” care work jobs, thereby shedding light on how a celebrated trend towards gender occupational integration in the U.S. is accompanied by increasing racial and class inequalities. The third paper on China highlights the intertwined relationship between gender labor market inequalities and devaluation of care work. The second and third chapters of this dissertation also contribute to our understanding of how macro-level contexts shape the nature and manifestation of social inequalities.

References

- Hartmann, Heidi, Elyse Shaw, and Elizabeth Pandya. 2013. "Women and Men in the Recovery: Where the Jobs Are." IWPR #C408. Institute for Women's Policy Research, Washington, DC.
- Kochhar, Rakesh. 2011. *In Two Years of Economic Recovery, Women Lost Jobs, Men Found Them*. Pew Research Center, Social & Demographic Trends, Washington, DC. Retrieved from http://www.pewsocialtrends.org/files/2011/07/Employment-by-Gender_FINAL_7-6-11.pdf. Accessed October 30, 2016.

Bibliography

- Appleton, Simon, John Knight, Lina Song, and Qingjie Xia. 2002. "Labor Retrenchment in China: Determinants and Consequences." *China Economic Review* 13(2-3):252-275.
- Attané, Isabelle. 2012. "Being a woman in China today: A demography of gender." *China Perspectives* 4:5–15.
- Autor, David H. 2010. *The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings*. Washington, DC: Center for American Progress and The Hamilton Project.
- Autor, David H. 2015. "Polanyi's Paradox and the Shape of Employment Growth." Pp. 129-179 in *Re-Evaluating Labor Market Dynamics*. Federal Reserve Bank of Kansas City.
- Autor, David H., Lawrence F. Katz, and Melissa S. Kearney. 2006. "The Polarization of the U.S. Labor Market." *American Economic Review: Papers and Proceedings* 96:189-194.
- Bagilhole, Barbara, and Simon Cross. 2006. "'It Never Struck Me as Female': Investigating Men's Entry into Female-dominated Occupations." *Journal of Gender Studies* 15(1):35-48.
- Barron, David N., and Elizabeth West. 2013. "The Financial Costs of Caring in the British Labour Market: Is There a Wage Penalty for Workers in Caring Occupations?." *British Journal of Industrial Relations* 51(1):104-123.
- Bian, Yanjie, and Lulu Li. "The Chinese General Social Survey (2003-8): Sample Designs and Data Evaluation." *Chinese Sociological Review* 45(1):70-97.
- Blau, Francine D., and Lawrence M. Kahn. 2006. "The US Gender Pay Gap in the 1990s: Slowing Convergence." *Industrial & Labor Relations Review* 60(1):45-66.
- Blau, Francine D., Peter Brummund, and Albert Yung-Hsu Liu. 2013. "Trends in Occupational Segregation by Gender 1970–2009: Adjusting for the Impact of Changes in the Occupational Coding System." *Demography* 50(2):471-492.
- Bolzendahl, Catherine I., and Daniel J. Myers. 2004. "Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974–1998." *Social Forces* 83(2):759-789.

- Bowman, James, and Jonathan Page West. 2006. *American Public Service: Radical Reform and the Merit System*. New York, NY: Taylor and Francis.
- Bradley, Harriet. 1993. "Across the Great Divide: The Entry of Men into Women's Jobs." Pp 10-27 in *Doing Women's Work: Men in Nontraditional Occupations*, edited by C. L. Williams. London: Sage Publications.
- Budig, Michelle J., and Joya Misra. 2010. "How Care-work Employment Shapes Earnings in Cross-national Perspective." *International Labour Review* 149(4):441-460.
- Cai, Fang. 2008. "The Development of Labor Market and Expansion of Employment in China." Pp. 80-100 in Fang Cai (ed.), *Transforming the Chinese Economy, 1978-2008*. Beijing: Social Sciences Academic Press (in Chinese).
- Cassidy, Margaret L., and Bruce O. Warren. 1996. "Family Employment Status and Gender Role Attitudes: A Comparison of Women and Men College Graduates." *Gender & Society* 10:312-29.
- Chan, Kam Wing. 2009. "The Chinese *Hukou* System at 50." *Eurasian Geography and Economics* 50(2):197-221.
- Chan, Raymond K. H., Naoko Soma, and Junko Yamashita. 2011. "Care Regimes and Responses: East Asian Experiences Compared." *Journal of Comparative Social Welfare* 27(2):175-186.
- Charles, Maria, and Karen Bradley. 2009. "Indulging Our Gendered Selves? Sex Segregation by Field of Study in 44 Countries." *American Journal of Sociology* 114(4):924-976.
- Connell, Raewyn. 1987. *Gender and Power*. Stanford, CA: Stanford University Press.
- Connelly, Rachel, Xiao-yuan Dong, Joyce Jacobsen, and Yaohui Zhao. 2018. "The Care Economy in Post-Reform China: Feminist Research on Unpaid and Paid Work and Well-Being." *Journal Feminist Economics* 24(2):1-30.
- Cook, Sarah, and Xiao-yuan Dong. 2017. "Gender, Welfare and the Economy of Care in Reform-Era China: How the Welfare System Shapes Women's Opportunities and Gender Equality." Pp. 266-84 in *Handbook of Welfare in China*, edited by B. Carrillo, J. Hood, and P. I. Kadetz. Northampton, MA: Edward Elgar Publishing, Inc.
- Cottingham, Marci D. 2014. "Recruiting Men, Constructing Manhood: How Health Care Organizations Mobilize Masculinities as Nursing Recruitment Strategy." *Gender & Society* 28(1):133-156.

- Daly, Mary. 2001. "Care policies in Western Europe." Pp. 33-56 in Mary E. Daly (ed.), *Care Work: The Quest for Security*. International Labour Organization, Geneva.
- Davis, Shannon N., and Theodore N. Greenstein. 2009. "Gender Ideology: Components, Predictors, and Consequences." *Annual Review of Sociology* 35:87-105.
- Dong, Xiao-yuan, and Xu Lixin. 2009. "Labor Restructuring in China: Toward a Functioning Labor Market." *Journal of Comparative Economics* 37(2):287-305.
- Dong, Xiao-yuan, Jianchun Yang, Fenglian Du, and Sai Ding. 2006. "Women's Employment and Public-Sector Restructuring: The Case of Urban China." Pp. 87-107 in Grace Lee and Malcolm Warner (eds.), *Unemployment in China: Economy, Human Resources and Labor Markets*. London: Routledge Contemporary China Series.
- Dong, Xiao-yuan, Jin Feng, and Yangyang Yu. 2017. "Relative Pay of Domestic Eldercare Workers in Shanghai, China." *Feminist Economics* 23(1):135-159.
- Doussard, Marc, Jamie Peck, and Nik Theodore. 2009. "After Deindustrialization: Uneven Growth and Economic Inequality in 'Postindustrial' Chicago." *Economic Geography* 85(2):183-207.
- Duffy, Mignon, Randy Albelda, and Clare Hammonds. 2013. "Counting Care Work: The Empirical and Policy Applications of Care Theory." *Social Problems* 60(2):145-167.
- Duffy, Mignon. 2005. "Reproducing Labor Inequalities Challenges for Feminists Conceptualizing Care at the Intersections of Gender, Race, and Class." *Gender & Society* 19(1):66-82.
- Duffy, Mignon. 2007. "Doing the Dirty Work Gender, Race, and Reproductive Labor in Historical Perspective." *Gender & Society* 21(3):313-336.
- Duffy, Mignon. 2011. *Making Care Count: A Century of Gender, Race, and Paid Care Work*. New Brunswick, NJ: Rutgers University Press.
- Dwyer, Rachel E. 2013. "The Care Economy? Gender, Economic Restructuring, and Job Polarization in the U.S. Labor Market." *American Sociological Review* 78(3):390-416.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. "Wages of Virtue: The Relative Pay of Care Work." *Social Problems* 49(4):455-473.

- England, Paula. 1992. *Comparable Worth: Theories and Evidence*. New York, NY: Aldine De Gruyter.
- England, Paula. 2005. "Emerging Theories of Care Work." *Annual Review of Sociology* 31:381-399.
- England, Paula. 2010. "The Gender Revolution Uneven and Stalled." *Gender & Society* 24(2):149-166.
- Esping-Andersen, Gosta. 1990. *Three Worlds of Welfare Capitalism*. London: Polity Press.
- Firpo, Sergio, Nicole M. Fortin, and Thomas Lemieux. 2009. "Unconditional Quantile Regressions." *Econometrica* 77(3):953-73.
- Folbre, Nancy, and Kristin Smith. 2016. "Wages of Power vs. Wages of Care." Unpublished manuscript. Retrieved from <https://www.aeaweb.org/conference/2017/preliminary/paper/ae62fSBQ>. Accessed October 11, 2017.
- Folbre, Nancy. 2001. *The Invisible Heart: Economics and Family Values*. New York: New Press.
- Folbre, Nancy. 2008. "Reforming Care." *Politics & Society* 36(3):373-387.
- Frederick, Carl. 2010. "A Crosswalk for Using Pre-2000 Occupational Status and Prestige Codes with Post-2000 Occupation Codes." *Center for Demography and Ecology, University of Wisconsin-Madison, 2010-03*. PMID 25506974.
- Friedman, Sarah. 2015. "Still a 'Stalled Revolution'? Work/Family Experiences, Hegemonic Masculinity, and Moving Toward Gender Equality." *Sociology Compass* 9(2): 140-155.
- Gao, Qin, Sui Yang, and Shi Li. 2013. "The Chinese Welfare State in Transition: 1988–2007." *Journal of Social Policy* 42 (4):743-64.
- Gough, Ian. 2004. "East Asia: The Limits of Productivist Regimes." Pp. 169-201 in *Insecurity and Welfare Regimes in Asia, Africa and Latin America*, edited by I. Gough, and G. Wood. Cambridge: Cambridge University Press.
- Hartmann, Heidi, Elyse Shaw, and Elizabeth Pandya. 2013. "Women and Men in the Recovery: Where the Jobs Are." IWPR #C408. Institute for Women's Policy Research, Washington, DC.
- Hauser, Robert M., and John Robert Warren. 1997. "Socioeconomic Indexes for Occupations: A Review, Update, and Critique." *Sociological Methodology* 27(1):177-298.

- Hill, Richard C., and Cynthia Negrey. 2010. 'Deindustrialization and Racial Minorities in the Great Lakes Region, USA.' Pp. 55-76 in M. Cross (ed.) *Ethnic Minorities and Industrial Change in Europe and North America*. New York, NY: Cambridge.
- Holzer, Harry J. 2010. "Is the Middle of the U.S. Job Market Really Disappearing? A Comment on the 'Polarization' Hypothesis'." Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/economy/reports/2010/05/13/7843/is-the-middle-of-the-u-s-job-market-really-disappearing/>. Accessed October 30, 2017.
- Hout, Michael, Asaf Levannon, and Erin Cumberworth. 2011. "Job Loss and Unemployment During the Great Recession." Pp. 59-91 in David Grusky, Bruce Western, and Christopher Wimer (eds.) *The Great Recession*. New York: Russell Sage Foundation.
- Hu, Xinying. 2011. *China's New Underclass: Paid Domestic Labour*. London and New York: Routledge.
- Hu, Xinying. 2014. "Childcare Policy Reform and Women's Labour Force Participation in China." Pp. 155-177 in Y. Atasoy (ed.), *Global Economic Crisis and the Politics of Diversity*. UK: Palgrave Macmillan.
- Huffman, Matt L., Joe King, and Malte Reichelt. 2017. "Equality For Whom? Organizational Policies and the Gender Gap Across the German Earnings Distribution." *ILR Review* 70(1):16-41.
- Jacobs, Jerry. 1989. *Revolving Doors: Sex Segregation and Women's Careers*. Stanford, CA: Stanford University Press.
- Jacobs, Jerry. 1993. "Men in Female-Dominated Fields: Trends and Turnover." Pp. 49-63 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by C. L. Williams. Newbury Park, CA: Sage Publications.
- Ji, Yingchun, Xiaogang Wu, Shengwei Sun, Guangye He. 2017. "Unequal Care, Unequal Work: Toward a more Comprehensive Understanding of Gender Inequality in Post-Reform Urban China." *Sex Roles* 77(11-12):765-778.
- Kaiser, Henry F. 1958. "The Varimax Criterion for Analytic Rotation in Factor Analysis." *Psychometrika* 23(3):187-200.
- Kalleberg, Arne L. 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." *American Sociological Review* 74(1):1-22.

- Kalleberg, Arne L. 2011. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. New York: Russell Sage.
- Kaufman, Robert L. 2002. "Assessing Alternative Perspectives on Race and Sex Employment Segregation." *American Sociology Review* 67:547-572.
- Kilbourne, Barbara S., Paula England, George Farkas, Kurt Beron, and Dorothea Weir. 1994. "Returns to Skill, Compensating Differentials, and Gender Bias: Effects of Occupational Characteristics on the Wages of White Women and Men." *American Journal of Sociology* 100(3):689-719.
- Killewald, Alexandra, and Jonathan Bearak. 2014. "Is the Motherhood Penalty Larger for Low-Wage Women? A Comment on Quantile Regression." *American Sociological Review* 79(2):350-57.
- Kmec, Julie A. 2005. "Setting Occupational Sex Segregation in Motion: Demand-Side Explanations of Sex Traditional Employment." *Work & Occupations* 32(3):322-354.
- Kochhar, Rakesh. 2011. *In Two Years of Economic Recovery, Women Lost Jobs, Men Found Them*. Pew Research Center, Social & Demographic Trends, Washington, DC. Retrieved from http://www.pewsocialtrends.org/files/2011/07/Employment-by-Gender_FINAL_7-6-11.pdf. Accessed October 30, 2016.
- Koenker, Roger. 2005. *Quantile Regression*. New York: Cambridge University Press.
- Kramer, Karen Z., and Amit Kramer. 2016. "At-Home Father Families in the United States: Gender Ideology, Human Capital, and Unemployment." *Journal of Marriage and Family* 78(5):1315-1331.
- Kristal, Tali. 2013. "The Capitalist Machine: Computerization, Workers' Power, and the Decline in Labor's Share Within U.S. Industries." *American Sociological Review* 78(3):361-389.
- Light, Audrey, and Alita Nandi. 2007. "Identifying Race and Ethnicity in the 1979 National Longitudinal Survey of Youth." *Population Research and Policy Review* 26(2):125-144.
- Lightman, Naomi. 2017. "Discounted Labour? Disaggregating Care Work in Comparative Perspective." *International Labour Review* 156(2):243-267.
- Lister, Ruth, Fiona Williams, Anneli Anttonen, Jet Bussemaker, Ute Gerhard, Jacqueline Heinen, SStina Johansson, Arnlaug Leira, Birte Siim, Constanza Tobio, and Anna Gavanas. 2007. *Gendering citizenship in Western Europe*. Bristol: Policy Press.

- Liu, Gordon G., Samantha A. Vortherms, and Xuezhi Hong. 2017. "China's Health Reform Update." *Annual Review of Public Health* 38:431-448.
- Lupton, Ben. 2006. "Explaining Men's Entry into Female-Concentrated Occupations: Issues of Masculinity and Social Class." *Gender, Work & Organization* 13(2):103-128.
- Mahon, Rianne, Anneli Anttonen, Christina Bergqvist, Deborah Brennan and Barbara Hobson. 2012. "Convergent Care Regimes? Childcare Arrangements in Australia, Canada, Finland and Sweden." *Journal of European Social Policy* 22(4):419-431.
- Mandel, Hadas. 2013. "Up the Down Staircase: Women's Upward Mobility and the Wage Penalty for Occupational Feminization, 1970–2007." *Social Forces* 91(4):1183-1207.
- Mason, Karen Oppenheim, and Yu-Hsai Lu. 1988. "Attitudes Toward Women's Familial Roles: Changes in the United States, 1977-1985." *Gender & Society* 2:39-57.
- Maume, David J., and George Wilson. 2015. "Determinants of Declining Wage Mobility in the New Economy." *Work and Occupations* 42(1):35-72.
- McCall, Leslie. 2005. "Gender, Race, and the Restructuring of Work: Organizational and Institutional Perspectives." Pp. 74-94 in S. Ackroyd, R. Batt, P. Thompson, and P. Tolbert (eds.) *The Oxford Handbook of Work and Organization*. New York: Oxford University Press.
- McCall, Leslie. 2011. "Women and Men as Class and Race Actors: Comment on England." *Gender & Society* 25(1):94-100.
- Meyer, Peter B., and Anastasiya M. Osborne. 2005. *Proposed Category System for 1960-2000 Census Occupations*. U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity & Technology. Retrieved from <https://www.bls.gov/osmr/pdf/ec050090.pdf>.
- Michel, Sonya, and Ito Peng. 2012. "All in the Family? Migrants, Nationhood, and Care Regimes in Asia and North America." *Journal of European Social Policy* 22(4):406-418.
- Milkman, Ruth, Ellen Reese, and Benita Roth. 1998. "The Macrosociology of Paid Domestic Labor." *Work and Occupations* 25: 483-510.
- Mishel, Lawrence, Heidi Shierholz and John Schmitt. 2013. "Assessing the Job Polarization Explanation of Growing Wage Inequality," EPI-CEPR Working

- Paper. Retrieved from <http://www.epi.org/publication/wp295-assessing-job-polarization-explanation-wage-inequality/>. Accessed March 3, 2018.
- Mok, Ka Ho, Stefan Kühner, and Genghua Huang. 2017. "The Productivist Construction of Selective Welfare Pragmatism in China." *Social Policy & Administration* 51(6):876-897.
- Morgan, Kimberly J. 2005. "The 'Production' of Child Care: How Labor Markets Shape Social Policy and Vice Versa." *Social Politics* 12(2):243-263.
- Nakano Glenn, Evelyn. 1992. "From Servitude to Service Work: Historical Continuities in the Racial Division of Paid Reproductive Labor." *Signs* 18(1):1-43.
- Neetha, N. 2010. "The Social Organization of Care Work in India: Challenges and Alternative Strategies." *Development* 53(3):362-367.
- Padavic, Irene, and Barbara F. Reskin. 2002. *Women and Men at Work*. Thousand Oaks, CA: Sage Publications, Inc.
- Pager, Devah, and Lincoln Quillian. 2005. "Walking the Talk? What Employers Say Versus What They Do." *American Sociological Review* 70(3):355-380.
- Pager, Devah, Bruce Western, and Bart Bonikowski. 2009. "Discrimination in a Low-Wage Labor Market: A Field Experiment." *American Sociological Review* 74(5):777-799.
- Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5):937-975.
- Phelan, Jo C., and Bruce G. Link. 2015. "Is Racism a Fundamental Cause of Inequalities in Health?." *Annual Review of Sociology* 41: 311-330.
- Powell, Martin, and Ki-tae Kim. 2014. "The 'Chameleon' Korean Welfare Regime." *Social Policy & Administration* 48(6):626-646.
- Pullen, Alison and Ruth Simpson. 2009. "Managing Difference in Feminized Work: Men, Otherness and Social Practice." *Human Relations* 62(4):561-587.
- Razavi, Shahra, and Silke Staab. 2010. "Underpaid and Overworked: A Cross-national Perspective on Care Workers." *International Labour Review* 149(4):407-422.
- Razavi, Shahra. 2007. *The Political and Social Economy of Care in a Development Context: Conceptual Issues, Research Questions and Policy Options*. Geneva: United Nations Research Institute for Social Development.

- Reeves, Richard V., and Isabel V. Sawhill. (2015, November 14). "Men's Lib!" *The New York Times*. Retrieved from <https://www.nytimes.com/2015/11/15/opinion/sunday/mens-lib.html>. Accessed May 30, 2018.
- Reskin, Barbara F. 2001. "Labor Markets as Queues: A Structural Approach to Changing Occupational Sex Composition." Pp. 719-733 in David B. Grusky (ed.) *Social Stratification in Sociological Perspective*, 2nd edition. Boulder, CO: Westview Press.
- Reskin, Barbara F., and Patricia A. Roos. 1990. *Job Queues, Gender Queues: Explaining Women's Inroads into Male Occupations*. Philadelphia, PA: Temple University Press.
- Ringen, Stein, and Kinglun Ngok. 2017. "What kind of welfare state is emerging in China?" Pp. 213-237 in *Towards Universal Health Care in Emerging Economies*, edited by I. Yi. London: Palgrave Macmillan.
- Sassler, Sharon, Jennifer Glass, Yael Levitte, and Katherine M. Micheltore. 2017. "The Missing Women in STEM? Assessing Gender Differentials in the Factors Associated with Transition to First Jobs." *Social Science Research* 63:192-208.
- Scarborough, William J., and Barbara J. Risman. 2017. "Changes in the Gender Structure: Inequality at the Individual, Interactional, and Macro Dimensions." *Sociology Compass* 11(10).
- Shang, Xiaoyuan, and Xiaoming Wu. 2011. "The Care Regime in China: Elder and Child Care." *Journal of Comparative Social Welfare* 27(2):123-131.
- Shen, Ke, Feng Wang, Yong Cai. 2018. "A Benevolent State Against an Unjust Society? Inequalities in Public Transfers in China." *Chinese Sociological Review*. Advance online publication.
- Shen-Miller, David, and Andrew P. Smiler. 2015. "Men in Female-dominated Vocations: A Rationale for Academic Study and Introduction to the Special Issue." *Sex Roles* 72(7-8):269-276.
- Tronto, Joan. 1993. *Moral Boundaries: Apolitical Argument for an Ethic of Care*. New York: Routledge.
- Weber, Max. 1968. *Economy and Society*. Berkeley, CA: University of California Press.
- Weedon, Kim A. 2002. "Why Do Some Occupations Pay More Than Others? Social Closure and Earnings Inequality in the United States." *American Journal of Sociology* 108(1):55-101.

- Western, Bruce, and Jake Rosenfeld. 2011. "Unions, Norms, and the Rise in US Wage Inequality." *American Sociological Review* 76(4):513-537.
- Western, Bruce. 2002. "The Impact of Incarceration on Wage Mobility and Inequality." *American Sociological Review* 67:526-546.
- Williams, Christine L. (ed.) 1993. *Doing "Women's Work": Men in Nontraditional Occupations*. London: Sage Publications.
- Williams, Christine L. 1995. *Still A Man's World: Men Who Do Women's Work*. Berkeley: University of California Press.
- Williams, Fiona. "Converging Variations in Migrant Care Work in Europe." *Journal of European Social Policy* 22(4):363-376.
- Williams, L. Susan, and Wayne J. Villemez. 1993. "Seekers and Finders: Male Entry and Exit in Female Dominated Jobs." Pp. 64-90 in *Doing "Women's Work": Men in Nontraditional Occupations*, edited by C. L. Williams. London: Sage Publications.
- Wilson, George, and Vincent J. Roscigno. 2016. "Public Sector Reform and Racial Occupational Mobility." *Work and Occupations* 43(3):259-293.
- Wilson, George, Vincent J. Roscigno, and Matt L. Huffman. 2013. "Public Sector Transformation, Racial Inequality and Downward Occupational Mobility." *Social Forces* 91(3):975-1006.
- Wilson, William Julius. 1996. *When Work Disappears: The World of the New Urban Poor*. Vintage.
- World Health Organization. 2018. "Fact Sheet: Health sector reform in China." Available at http://www.wpro.who.int/china/mediacentre/factsheets/health_sector_reform/en/. Accessed May 30, 2018.
- Wright, Erik Olin, and Rachel E. Dwyer. 2003. "The Patterns of Job Expansions in the United States: A Comparison of the 1960s and 1990s." *Socio-Economic Review* 1:289-325.
- Yavorsky, Jill E., Philip N. Cohen, and Yue Qian. 2016. "Man Up, Man Down: Race-Ethnicity and the Hierarchy of Men in Female-Dominated Work." *Sociological Quarterly* 57:733-758.