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Native-immigrant occupational segregation and worker health in the United States, 2004–2014

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ABSTRACT

Immigrant workers are a growing share of the U.S. labor force and are overrepresented in certain occupations. This much is well documented, yet few studies have examined the consequences of this division of labor between foreign-born and native-born workers. This research focuses on one of the consequences of occupational segregation—worker health. We merge data from the 2004–2014 National Health Interview Surveys with occupational-level data from the Occupational Information Network 20.1 database and the American Community Surveys to examine the relationship between occupational segregation and health. First, logistic regression models show that working in an occupation with a higher share of immigrants is associated with higher odds of poor physical and psychological health. This relationship is more pronounced among native-born workers than among foreign-born workers. Second, we propose two explanations for the association between occupational segregation and health: (1) workers with less human capital are typically sorted into culturally devalued occupations with a higher concentration of immigrants, and (2) occupations with a higher percentage of immigrants generally have relatively poor work environments. We find sorting variables play a major role, whereas the smaller contribution of occupational environments to the segregation-health link is partly because of the heterogeneous (i.e., both positive and negative) indirect effects of different exposure measures. With the sustained high levels of immigration to the United States, the implications of integrated or segregated experiences in the labor market and their impact on workers are important avenues for health policies and future research.

1. Introduction

Immigrant workers have comprised a growing share of the U.S. labor force since passage of the 1965 Immigration Act. By 1970, there were 4.2 million foreign-born persons (we use the terms immigrants and foreign-born persons interchangeably) ages 16 and older working in the United States, representing 5.2% of the labor force (Newburger and Gryn, 2009). In 2014, 25.7 million foreign-born workers in the United States comprised 16.5% of the total labor force (Bureau of Labor Statistics 2015). Immigrants hoping for a piece of the American dream are finding jobs, but what kind of jobs? Statistics show a case of "new labor market segmentation" (Hudson, 2007) with immigrants disproportionately concentrated in occupations such as agriculture, building/cleaning and maintenance, and construction (Camarota and Zeigler, 2015; Zeigler and Camarota, 2016). These high-immigrant occupations, in which 20 percent or more of the workers are immigrants, consist primarily of jobs that require relatively little education, offer low wages, are physically demanding, and are increasingly being labeled as stereotypical "immigrants fields" (Camarota and Zeigler, 2015; Catanzarite, 2000; Orrenius and Zavodny, 2009). All of these factors are potential contributors to poor health. Despite the large and continuous influx of immigrants and the disproportionate distribution of immigrants in certain occupations, few studies have examined the implications of occupational segregation for worker health.

In light of this research gap, we draw on data from the 2004–2014 National Health Interview Surveys (NHIS), merged with occupational characteristics obtained from the Occupational Information Network (O*NET) database as well as occupational segregation measures from the American Community Surveys

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(ACS) to answer two important questions related to occupational segregation by nativity. First, what is the relationship between occupational segregation and health outcomes for foreign-born and native-born workers, respectively? We analyze physical and mental health to more comprehensively understand the health implications of native-immigrant occupational segregation. Second, does the relationship between occupational segregation and health reflect the sorting of workers with different human capital credentials into different occupations, or are health outcomes the result of exposure to different occupational-level physical, psychological, and social environments?

This study contributes to the literature on the social determinants of health. First, occupation, as an important indicator of social class, has long been found to shape health disparities since Kitagawa and Hauser's (1973) classic work, but factors linking occupation with health are less clearly understood (Elo, 2009). This study assesses an important but underexplored explanation—occupational segregation between immigrants and natives—for health. In doing so, this study advances the theoretical understandings of social class inequalities in physical and psychological health. Second, we begin to unpack the "black box" by assessing the processes that underlie the relationship between occupational segregation and health. Specifically, we integrate two lines of research to evaluate two potential explanations—the occupational sorting process derived from labor market studies (e.g., Dávila and Mora, 2000; Rosen, 1986) and the working environment mechanism revealed in the occupational health literature (e.g., Karasek and Theorell, 1990; Siegrist and Marmot, 2004). Third, in light of the recent decline in life expectancy among whites with less than a high school education (Olshansky et al., 2012), who are more likely to work in occupations with larger shares of immigrants (Camarota and Zeigler, 2015), it is important to understand how occupational segregation may have affected native-born and foreign-born workers differently in order to better address the life expectancy reversal. Ultimately, occupational segregation between foreign-born and native-born workers provides a fascinating lens into the linkage between occupation and health outcomes, the nature of immigration and assimilation, and the complexities of health disparities in the U.S. context. As such, this issue is a key avenue for the advancement of theoretical and empirical exploration.

2. Previous studies

2.1. Segregation and health: the missing links of occupation and immigrant status

Population health research has yielded much valuable insight into contextual effects, segregation in particular, on individual health. Much of the literature on residential segregation, for example, shows that residential segregation is associated with inferior health status especially among African Americans (Acevedo-Garcia et al., 2003; Takeuchi et al., 2010; Williams and Collins, 2001). Two explanations have been proposed. First, as individuals of lower socioeconomic status (SES) are disproportionately sorted into minority-segregated neighborhoods and individual-level SES is strongly related to health, the relationship between residential segregation and poor health may result from the confounder of SES-based sorting into neighborhoods (see Diez Roux, 2001 and Oakes, 2004 for reviews). Second, the relationship between residential segregation and health could reflect a mediation process through exposure to differential neighborhood conditions. For example, segregated neighborhoods are associated with disinvestment of services and necessary infrastructure. Limited access to health care and grocery stores constrains nutritional and health behavior choices for people living in segregated neighborhoods, and stressful social conditions due to concentrated poverty and exposure to high crime further exacerbate health problems (Takeuchi et al., 2010; Williams and Collins, 2001). Residential segregation, however, could have positive effects, especially for immigrant enclaves, if it were to foster salubrious social networks (Takeuchi et al., 2010). This line of research on residential segregation and health, as we will elaborate later, provides us a conceptual basis to propose the explanations for the link between occupational segregation by nativity and health.

Compared with residential segregation, work-related segregation has received little attention in health research, even though workers typically spend half of their waking time on the job. Work-related segregation can be conceptualized at the occupational or the workplace level, which describes the concentration of different socio-demographic groups in differential occupations or establishments, respectively (Reskin, 1993; Tomaskovic-Devey et al., 2006). Occupational and workplace segregation is commonly measured through the percentage of certain incumbents in each occupation and establishment, respectively (Reskin, 1993). Occupational segregation and workplace segregation can be related, as workers in segregated occupations may well work in (probably even more) segregated workplaces (Tomaskovic-Devey et al., 2006). But occupations and workplaces are distinct from each other in that they represent different settings whereby differential social processes play out to influence health: Workplaces constitute the settings in which people work and interact, whereas occupation is typically the level where devaluation and depreciation occur (e.g., some occupations being identified with a low-status group and labeled as "women's work" or "immigrant fields", see more discussion below) (Catanzarite, 2000; Piore, 1979; Reskin, 1993).

Among the limited research on work-related segregation and worker health, most focuses on workplace (rather than occupational) segregation and segregation by race, and yields mixed findings. Among studies that examined segregation at the workplace level, one nationally representative study showed that workers' perceptions of racial/ethnic *dissimilarity* (or integration) were negatively associated with white employees' life satisfaction, but positively associated with black and Hispanic employees' life satisfaction (Avery et al., 2010). This finding was replicated for job satisfaction among warehouse workers, although for a physical health outcome, actual racial/ethnic *similarity* in the workplace seemed to be associated with poorer lumbar back health among white workers whereas the association was the opposite for black and Latino workers (Hoppe et al., 2014). Other research showed that perceived workplace racial segmentation was negatively associated with African Americans' psychological well-being (Forman, 2003). A nonlinear pattern was reported by Enchautegui-de-Jesús et al. (2006), who found that frequency of symptoms (e.g., headaches, problems falling asleep) was higher among black and Latino workers who had either a low or high perceived proportion of co-ethnic workers. The discrepancies among previous findings may have to do with differential samples, measures of work-related segregation, and outcomes.

Existing studies on work-related segregation and health have mostly focused on racial segregation but have not honed in on segregation based on nativity. A parallel can be drawn between segregation based on race and that based on nativity, given that both involve the power imbalance resulting from the majority/minority status in the larger society. Like whites, native-born Americans are the socially dominant numerical majority group in American society. Like racial minorities, immigrants are the socially subordinated numerical minority group. Segregation based on nativity may nevertheless involve an extra layer of complexity given that legal status and language skills may constrain occupational options available to some immigrants. Following prior research that