Labor market integration of non-Chinese immigrants in Hong Kong from 1991 to 2011: Structure of global market or White privilege?

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Abstract
Previous studies of Hong Kong immigrants have largely focused on those Chinese from the mainland, and less attention has been paid to non-Chinese immigrants. As exceptions to this, a few studies have focused on the channels of non-Chinese immigrants to Hong Kong, but less research has examined their labor market outcomes. This is partly because theories about immigrants in Asia’s global city are underdeveloped, and the traditional labor market assimilation theory based on the North American and European experience may not easily translate to the case of global cities in Asia. In this research, we examine the employment status, occupational rank, and earnings outcomes of Chinese and non-Chinese immigrants from the perspectives of global economic structure and White privilege. Using 5% Hong Kong census/by-census data from 1991, 1996, 2001, 2006, and 2011, we draw two major conclusions. First, in the Hong Kong labor market, immigrants from more developed countries enjoy a labor market advantage, which demonstrates the advantages of core-nation origin. In contrast, their counterparts from peripheral nations are penalized. The labor market gap

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between immigrants from core nations and peripheral nations grew at the turn of the 21st century but narrowed in 2006. Second, White immigrants are privileged in the Hong Kong labor market, showing that White privilege has been transmitted to a non-White-dominant society.

Keywords
Immigrants, labor market, global market structure, White privilege, Hong Kong

Introduction

Economic adaptation is essential for immigrants’ integration into the host society (Alba and Nee, 2003). Classical immigration scholarship argues for gradual earnings mobility for immigrants experiencing economic adaptation. Immigrants are thought to have lower earnings upon arrival in the host society, but they gradually catch up with accumulation of local human capital and work experience (Borjas, 1982; Chiswick, 1982; Gordon, 1961, 1964). Some scholars, however, have challenged this argument by contending that immigrant quality varies across time and thus that certain cohorts or groups may never experience mobility (Borjas, 1985, 1995). Researchers thus argue that social contexts matter for the economic adaptation of immigrants (Hirschman, 2001; Portes, 1995; Portes and Böröcz, 1989). To supplement this idea, sociologists have claimed that immigrants experience considerable discrimination in the labor market because of their racial and ethnic minority status (Oreopoulos, 2011; Pager and Shepherd, 2008).

However, despite the emphasis on the role of social contexts in immigrants’ economic adaptation, previous research on immigrants’ labor market assimilation often rests on several assumptions. First, there exists a country-specific mainstream labor market in which the dominant group enjoys certain privileges over newcomers or ethnic minorities. Second, in order to adapt to the mainstream labor market, it is critical to accumulate local human, social, and cultural capital. For example, immigrants who possess local training qualifications and share a similar cultural background will more easily adapt to the labor market than those who do not. However, in global cities such as Hong Kong, it is debatable whether there exists a local mainstream labor market in which the dominant local Chinese people enjoy privileges over immigrants or ethnic minorities (Friedmann, 1986; Sassen, 1991, 1998). It is also questionable whether the local human and cultural capital matters in immigrants’ economic adaptation (Chen, 2014; Evans and Green, 2001), given the experience of economic polarization or the divided labor market in the global city of Hong Kong (Chiu and Lui, 2004). Therefore, against previous modes of immigrant economic assimilation, we hope to answer the following three questions in the Hong Kong context: First, in a global city such as Hong Kong, do immigrants from different foreign countries have to achieve acculturation to
succeed in the local labor market? Second, if a disparity exists, how does it change over time? And third, to what extent does acculturation matter by nationality and/or by ethnicity?

Drawing on Hong Kong census/by-census data from 1991 to 2011, we aim to answer the above research questions by examining the labor market outcomes of non-Chinese immigrants in Hong Kong and their changes over time when Hong Kong transitions to a global city. In the remainder of the paper, we introduce the theoretical background and the study context, followed by data, methodology, and results. In the final section, we discuss our conclusions and their implications.

**Theoretical background**

Since the 1960s, a large body of research has confirmed that human capital, especially educational attainment, is one of the most important determinants for labor market attainment (Becker, 1993; Schultz, 1963). However, educational attainment may shape the process of social mobility differently within different social contexts, especially for immigrants (Portes and Böröcz, 1989). For instance, researchers have found that immigrant’s skills, foreign credentials, and foreign work experience cannot be fully transferred to destination countries (Friedberg, 2000; Tong, 2010; Zeng and Xie, 2004). Their lack of familiarity with the local social and cultural norms, especially those involved in the job application and interview processes, exacerbates immigrants’ difficulties in the stiff competition for stable, well-paying jobs (Preston and Man, 1999; Siu, 1996; Zhang and Wu, 2011). The effort to adapt to the labor market in the host society is only one side of the story. How well immigrants adapt to the labor market also depends on the local structural context (Portes, 1995; Portes and Böröcz, 1989; Portes and Zhou, 1993; Zhou, 1997), such as economic conditions, government policy, local residents’ attitudes, and ethnic community resources. The interactions between these factors and their own human capital stock give rise to different modes of incorporation and levels of attainment (Portes and Böröcz, 1989).

However, previous arguments on structural factors influencing the labor market outcome of immigrants mainly focus on the local structural barriers. That is, the host society has a set of established boundaries that prevent immigrants from receiving equal treatment in the labor market and minimize competition from immigrants. Such barriers include the distrust and undervaluing of foreign educational credentials, restricted access into particular occupations or fields such as medical services or legal services, and open or stealthy discrimination toward immigrants in job promotions (Bratsberg and Ragan, 2002; Fong and Cao, 2009; Oreopoulos, 2011; Pager and Shepherd, 2008). This is especially true for people migrating from less developed to more developed countries (Adsera and Chiswick, 2007; Baker and Benjamin, 1994; Schoeni, 1998).

Yet, we argue that the international economic and political structures, such as a power imbalance between the core and peripheral nations (Wallerstein, 1974a, 1974b) in a global economic system, may also influence immigrants’ labor market
outcomes. That is to say, when people migrate from one country to another, not all immigrant groups face structural barriers upon arrival in a particular country or city under the global economic context. Core nations are in an advantaged position in terms of their economic power in the global market. Thus, immigrants from core nations may be in a more advantageous position in global cities such as Hong Kong. These immigrants are often attracted for their talent to global cities by (regional) headquarters concentrated in such places for the purpose of conducting global business. In contrast, immigrants from peripheral nations may have difficulty transferring their overseas education or working experience in global cities. They may suffer from labor market disadvantages due to their racial minority and immigrant status as well as the vulnerable status of their original countries in the global economic and political power structure. Therefore, our first hypothesis is as follows:

\[ H1.1: \text{Other factors being equal, immigrants from core nations may enjoy labor market advantages, but their counterparts from peripheral nations will be penalized.} \]

Moreover, the gap in the labor market outcomes between immigrants from core nations and those from peripheral nations could be further enlarged due to the rapid globalization of the Hong Kong business sector in the study period. Previous research has demonstrated that Hong Kong has grown from a traditional industrial city to an international financial and professional service hub in the past few decades (Hamilton, 1999; Meyer, 2000). Hong Kong has witnessed the burgeoning of the service sector, which accounted for 70% of the local gross domestic product in 1980, but grew to more than 95% in 2014,\(^1\) as well as increasing transactions in travel services, insurance and pension services, financial services, and other professional business services in the 21st century.\(^2\) The rise of Hong Kong as a global city (Chiu et al., 1997; Sassen, 1991, 1998) also led to increasing social polarization in terms of occupations and earnings (Chiu and Lui, 2004; Lam and Liu, 1998, 2002; Lee et al., 2007). Both managerial and professional jobs and elementary occupations are growing while the skilled or semi-skilled sectors are shrinking (Chiu et al., 2005; Chiu and Lui, 2004; Lam and Liu, 1998, 2002). Since managerial and professional jobs enjoy a higher income growth rate (Chiu and Lui, 2004), the earnings gap between the top and bottom jobs has become wider as Hong Kong has become more globalized. Given the potential labor market advantages of those from developed countries and the penalties suffered by those from developing countries in Hong Kong, the gap in their labor market outcomes may have widened even further throughout the process of globalization in Hong Kong. Thus, we hypothesize the following:

\[ H1.2: \text{Other things being equal, the gap in the labor market outcome between immigrants from core nations and those from peripheral nations has widened over time due to the process of globalization.} \]
Nevertheless, despite the possible overall advantage of immigrants from core nations, their outcomes could also differ due to their race/ethnicity. In the labor markets of core nations, such as the United States of America, there has been a long-standing debate about racial privilege for the White population. White privilege refers to the psychological and economic benefits associated with being a White person, regardless of actual awareness of such privileges (Heller, 2010). Specifically, in the labor market, White people usually earn higher wages and have better promotion opportunities compared with racial minorities (Clark and Drinkwater, 2008; Darity et al., 1996). Several theories can explain these advantages. First, the White population is the majority in the United States of America, and is systematically provided greater opportunities in terms of living in good residential neighborhoods, having access to better educational and occupational opportunities, and receiving higher labor market rewards than other ethnic groups due to prejudice and discrimination (Feagin and Vera, 1995; Saenz and Morales, 2005; Wildman and Davis, 1996). Second, White people as a majority group are particularly trained for the USA labor market. For immigrants, however, education in the host country and childhood acculturation are necessary pathways to closing the earnings gap with White people in the labor market (Espenshade and Fu, 1997; Kim and Sakamoto, 2010; Sakamoto et al., 2000; Zeng and Xie, 2004). Yet such privilege may not always manifest itself. For instance, using scientists’ and engineers’ data in the United States of America, Tong (2010) showed that immigrants who obtained their undergraduate degrees in the USA performed no worse than the White majority.

The current study, focusing on Hong Kong, investigates White privilege in the opposite setting, where the White population (immigrants) becomes a racial minority. We argue that White privilege is likely to spread to non-White societies in a globalized labor market in which laborers enjoy more freedom to move across national boundaries. White privilege could be the natural outcome of the global power structure. As the dominant group in the global political and economic system, White immigrants, normally from core nations, may enjoy more privileges than their counterparts from peripheral countries. This is because their White ethnicity means they may have social capital back in their home countries, which are usually more economically advanced. Therefore, their educational attainments, managerial skills, and business networks from the core nations may be more valuable than those of their counterparts in the host society with similar education credentials. On the other hand, however, as argued in the deskilling literature and immigrant assimilation theory (Chiswick et al., 2005; Chiswick and Miller, 2009; Friedberg, 2000), White immigrants may also lack the necessary local knowledge and cultural background in a non-White society. Hence, it may be more challenging for them to adapt to the business culture when doing business with local or regional companies. In contrast, immigrants from the same core nations but with local ethnic and cultural backgrounds may have double advantages: their experiences may be similar to those of their White counterparts, represented by their nationalities of core nations, but they resemble locals. In Hong Kong,
returning overseas Chinese who obtained nationality in core nations are a good example of such a situation. Taken together, we have the following competing hypotheses:

**H2.1:** Other things being equal, White immigrants may continue enjoying labor market privileges over both Hong Kong locals and other Chinese immigrants from core nations in the Hong Kong labor market.

**H2.2:** Other things being equal, immigrants from core nations who share local ethnicity will enjoy more labor market advantages than the White immigrants in the Hong Kong labor market.

**Data, variables, and modeling**

**Data and variables**

This research employs the Hong Kong population census/by-census 5% sample data sets from the years 1991, 1996, 2001, 2006, and 2011. The Hong Kong population census data sets have relatively rich information on demographic, economic, and family characteristics that are important for this research, and they have been widely used to study Hong Kong labor market outcomes and other topics (Chiu and Lui, 2004; Lam and Liu, 1998; Lee et al., 2007; Liu et al., 2004; Zhang and Wu, 2011). We limited our working sample to those aged 25–64. We set the lower age limit at 25 because people above this age usually have already obtained their highest educational level and are thus focused on the labor market. For the upper limit, there is currently no mandatory retirement age in Hong Kong. We set it at age 64 because this is a year prior to the age at which people are first able to withdraw from the Mandatory Provident Fund, a mandatory, privately managed, fully funded contribution scheme that serves as the pension system for 73% of Hong Kong laborers (Mandatory Provident Fund Schemes Authority, 2016). We also excluded foreign domestic workers, full-time students, and prison inmates in our working sample. To investigate the White privilege hypothesis in the Hong Kong labor market, we also grouped those with college degrees into a subsample and categorized these cases by race and ethnicity. Since the Hong Kong census/by-census surveys only started to include racial information after 2001, we can only test the White privilege hypothesis with data from 2001, 2006, and 2011.

We examine the labor market disparities in employment, occupational attainment, and earnings among the nationality groups or nationality–race groups. Employment denotes whether or not an individual has a paid job at the time of interview, and is measured as a dummy variable (yes = 1 vs. no = 0). Among those who have a paid job, we coded their occupation into a dummy variable, indicating whether the respondent is employed in a managerial or professional occupation (yes = 1). In the Hong Kong census/by-census, managers or professional occupations include government administrators and foreign diplomats, corporate
managers, small business managers, physical, mathematical and engineering science (associate) professionals, life science and health (associate) professionals, teaching (associate) professionals, legal, accounting, business and related (associate) professionals, social science and other (associate) professionals, and information technology/computer (associate) professionals. Among the nine broad classifications of occupations in Hong Kong, managers and professionals are ranked the highest. Income, another measure of labor market outcomes, is a continuous variable. We took the natural logarithm of monthly income from main employment, adjusted at the constant price in June 2011, as the dependent variable in the regression analysis.

We categorize individuals by their nationalities into five groups to compare their labor market performances (see Table 1). The first group includes those with right of abode (ROA) in Hong Kong only, including British (ROA in Hong Kong only) and Chinese (place of domicile in Hong Kong only) before the handover in 1997 and Chinese (place of domicile in Hong Kong only) after 1997. The second group includes those with Chinese nationality (other than ROA in Hong Kong). The third group includes those with nationalities of major developed countries, including British (ROA in places other than Hong Kong), American, Canadian, Australian, and Japanese. The fourth group involves those with nationalities of major developing nations, including Filipino, Indian, Bangladeshi, Pakistani, Sri-Lankan, and Thai. The last group includes those with other countries’ nationalities. To test the White privilege argument in the 2001, 2006, and 2011 data, we have a six-category measure of immigrant status based on nationality and race/ethnicity (see Table 2). They include Chinese with ROA in Hong Kong only, Chinese with Chinese nationality other than ROA in Hong Kong, Chinese with nationalities of major developed nations, Chinese nationalities of other nations, White, non-Chinese, and non-White.

The control variables used in the models include: age; age squared; gender; marital status; arrival cohort; educational attainment; language ability; and number of domestic workers in the household. Marital status is a categorical variable with 0 representing ‘never married before’, 1 representing ‘currently married’, and 2 representing ‘widowed/divorced/separated’. We group all the individuals who were not born in Hong Kong into five cohorts based on the year they arrived: before 1991; 1992–1996; 1997–2001; 2002–2006; and 2007–2011. The ‘before 1991’ cohort includes all the immigrants in 1991 and those who had resided in Hong Kong for at least 5 years in the 1996 data, 10 years in the 2001 data, 15 years in the 2006 data, and 20 years in the 2011 data. The 1992–1996 cohorts include those who resided in Hong Kong for fewer than 5 years in the 1996 data, 5–9 years in the 2001 data, 10–14 years in the 2006 data, 15–19 years in the 2011 data, and so on. While census data cannot be used to trace individual trajectories over time, they are all representative samples of the same immigrant population that entered Hong Kong within a certain period. The census/by-census data do not allow us to determine the exact number of years an immigrant had been in Hong Kong among those who claimed that they had been in Hong Kong
Table 1. Descriptive analysis of the labor market performance of nationality groups by year and gender.

|                  | 1991    | 1996    | 2001    | 2006    | 2011    |
|------------------|---------|---------|---------|---------|---------|
|                  | Male    | Female  | Male    | Female  | Male    | Female  | Male    | Female  | Male    | Female  |
| A. Hong Kong (HK) only | 137,762 | 155,684 | 177,190 | 188,619 | 202,609 |
| % employed with paid job | 89.40   | 50.33   | 87.72   | 52.26   | 83.70   | 57.03   | 81.51   | 58.10   | 81.65   | 60.09   |
| % managerial and professional jobs | 25.45   | 20.55   | 30.35   | 27.05   | 35.85   | 32.66   | 37.10   | 34.26   | 40.19   | 38.16   |
| Median income    | 9539.0  | 7019.1  | 11402.5 | 9692.1  | 14623.2 | 11248.6 | 13905.0 | 11587.5 | 14000.0 | 12000.0 |
| Right of abode (ROA) in Male    | 71,988  | 65,774  | 80,363  | 75,321  | 89,057  | 88,133  | 92,377  | 96,242  | 96,714  | 105,895 |
| Female            |         |         |         |         |         |         |         |         |         |         |
| % employed with paid job |         |         |         |         |         |         |         |         |         |         |
| % managerial and professional jobs |         |         |         |         |         |         |         |         |         |         |
| Median income    |         |         |         |         |         |         |         |         |         |         |
| Nationalities of Male     |         |         |         |         |         |         |         |         |         |         |
| Female            |         |         |         |         |         |         |         |         |         |         |
| % employed with paid job |         |         |         |         |         |         |         |         |         |         |
| % managerial and professional jobs |         |         |         |         |         |         |         |         |         |         |
| Median income    |         |         |         |         |         |         |         |         |         |         |
| Nationalities of major Male     |         |         |         |         |         |         |         |         |         |         |
| Female            |         |         |         |         |         |         |         |         |         |         |
| % employed with paid job |         |         |         |         |         |         |         |         |         |         |
| % managerial and professional jobs |         |         |         |         |         |         |         |         |         |         |
| Median income    |         |         |         |         |         |         |         |         |         |         |
| (continued)
Table 1. Continued

| Nationalities of major developing nations | 1155 | 1805 | 1842 | 2009 | 2346 |
|-----------------------------------------|------|------|------|------|------|
| Male         | 368  | 590  | 645  | 710  | 902  |
| Female       | 787  | 1215 | 1197 | 1299 | 1444 |
| % employed with paid job                | 88.86| 92.20| 86.20| 82.54| 84.48|
| % managerial and professional jobs       | 50.46| 54.78| 47.84| 54.27| 56.43|
| Median income  | 10333.9 | 11858.6 | 12373.5 | 16222.5 | 15210.0 |
| Nationalities of other nations | 999  | 1311 | 823  | 1210 | 1056 |
| Male         | 999  | 1311 | 823  | 1210 | 1056 |
| Female       | 1196 | 1748 | 1072 | 1701 | 1305 |
| % employed with paid job                | 92.29| 93.06| 87.36| 80.58| 84.48|
| % managerial and professional jobs       | 54.12| 64.02| 60.08| 55.90| 71.07|
| Median income  | 14228.9 | 20524.5 | 23903.3 | 17381.2 | 30000.0 |

Note: The percentage of managerial and professional jobs and the median income are calculated only among those with paid jobs.
Table 2. Descriptive analysis of the labor market performance of college-educated nationality–race groups by year and gender.

|                          | 2001    | 2006    | 2011    |
|--------------------------|---------|---------|---------|
|                          | Male    | Female  | Male    | Female  | Male    | Female  |
| Chinese with right of abode (ROA) in Hong Kong (HK) only | 11,782  | 8790    | 15,403  | 13,315  | 19,173  | 18,378  |
| % employed with paid job | 92.06   | 85.04   | 90.39   | 83.00   | 90.58   | 85.06   |
| % Managerial and professional jobs | 90.70   | 86.19   | 82.67   | 78.22   | 88.44   | 83.51   |
| Median income            | 32,339.71 | 26,996.63 | 27,520.28 | 23,174.97 | 30,000  | 25,000  |
|                          | 581     | 648     | 988     |
| Chinese with Chinese nationality other than ROA in HK | 360     | 221     | 334     | 314     | 507     | 481     |
| % employed with paid job | 94.44   | 71.04   | 87.43   | 66.88   | 92.11   | 70.69   |
| % managerial and professional jobs | 91.76   | 82.17   | 78.08   | 67.14   | 86.94   | 84.12   |
| Median income            | 28,121.48 | 24,746.91 | 23,174.97 | 21,436.85 | 30,000  | 21,250  |
|                          | 177     | 294     | 424     |
| Chinese with nationalities of major developed nations | 88      | 89      | 164     | 130     | 247     | 177     |
| % employed with paid job | 93.18   | 70.79   | 87.20   | 76.92   | 93.93   | 71.75   |
| % managerial and professional jobs | 97.56   | 90.48   | 93.71   | 87.00   | 92.67   | 85.04   |
| Median income            | 44,994.38 | 26,715.41 | 52,143.68 | 31,865.58 | 45,000  | 32,000  |

(continued)
| Chinese nationalities of other nations | 208 | 341 | 407 |
|----------------------------------------|-----|-----|-----|
| Male | 94  | 153 | 203 |
| Female | 114 | 188 | 204 |
| % employed with paid job | 92.55 | 82.35 | 91.13 |
| % Managerial and professional jobs | 89.66 | 84.92 | 97.30 |
| Median income | 35995.50 | 42004.64 | 49000 |
| White | 643 | 644 | 876 |
| Male | 643 | 644 | 876 |
| Female | 320 | 261 | 408 |
| % employed with paid job | 96.73 | 93.48 | 94.18 |
| % managerial and professional jobs | 96.95 | 92.69 | 97.70 |
| Median income | 78740.16 | 66048.66 | 79999 |
| Non-Chinese and non-White | 818 | 666 | 800 |
| Male | 818 | 666 | 800 |
| Female | 785 | 659 | 751 |
| % employed with paid job | 94.87 | 91.59 | 95.38 |
| % Managerial and professional jobs | 93.43 | 84.92 | 89.12 |
| Median income | 44431.95 | 34762.46 | 40000 |

Note: The percentage of managerial and professional jobs and the median income are calculated only among those with paid jobs.
for 10 years or more in the 1991 census, nor can we obtain the same information for those who had stayed in Hong Kong for 20 years or more in the following census/by-census. As a result, we cannot capture the effect of age at arrival, despite the fact that it has been recognized as an important factor in determining the economic assimilation of immigrants (Myers et al., 2009; Stevens, 1999; Zhang and Wu, 2011). Education is measured by the level of schooling attained. We categorize the educational attainment into ‘high school or below’ (0), ‘some college’ (1), and ‘college completed’ (2). Due to the bilingual culture from the colonial period and the deep influence of the Chinese mainland on Hong Kong, language ability is measured in terms of ease of speaking Cantonese, Putonghua (a term for Standard Mandarin), and English. Cantonese is the Chinese dialect spoken by all the Hong Kong-born Chinese. Putonghua is the national standard Chinese language and English is the written official language in Hong Kong. The number of domestic helpers in the household is used as a proxy for household economic condition, since local regulations on hiring domestic helpers require a minimum wage and special living arrangements. The domestic helpers also greatly ease women’s labor market participation. It is coded 0 if there is no domestic helper in the household, 1 if there is one domestic helper, and 2 if there are more than one domestic helpers. Employment status is also used as an explanatory variable in the earnings equations. Employment status involves three categories: self-employed; employers (e.g., business owners); and employees.

**Modeling strategy**

To illustrate the effect of the influence of social contextual changes, represented by time periods, on labor market outcomes through the effects of nationality and race/ethnicity, we use a two-level mixed-effects logistic regression model to analyze the likelihood of having a paid job and the likelihood of being in a manager/professional occupation given the status of being in the labor force. We also use a two-level, mixed-effect linear regression model to analyze earnings disparities. We use the full sample to examine the global economic structure effect and the college graduate sample to examine the White privilege hypothesis. All the regressions are estimated separately by gender.

The first level represents individuals, and the second level represents periods in which the effect of one’s nationality or immigrant status is allowed to vary across time. For the labor market participation (we define this as people who have paid jobs) analysis, the level-1 model is as follows

\[
\log \left( \frac{\Pr(Paid \ Job)_{ij}}{\Pr(not \ Paid \ Job)_{ij}} \right) = \beta_0j + \beta_1jNAT_{ij} + BX \quad \text{(Level 1)}
\]

In this equation, the logged odds of having a paid job over not having a paid job for person \(i\) at period \(j\) is modeled as a function of his or her nationality at period \(j\)
and control variables. Here $\beta_{0j}$ represents the intercept or cross-period average level of the logged odds of having a paid job; $\beta_{1j}$ measures the cross-period average effect of one’s nationality or immigrant status on the logged odds of having a paid job; and $B$ is a vector of coefficients representing the cross-period average effects of the vector of other control variables ($X$). Similarly, for the ‘manager/professional occupation’ analysis, the level-1 model is as follows

$$
\log \left( \frac{\text{Pr}(\text{Manager and Professional})_{ij}}{\text{Pr}(\text{not Manager or Professional})_{ij}} \right) = \beta_{0j} + \beta_{1j}NAT_{ij} + BX \quad \text{(Level 1)}
$$

The interpretation of the coefficients is the same as that for the ‘paid job’ analysis. For the ‘earnings attainment’ analysis, the level-1 model is as follows

$$
\log(\text{Personal Income}) = \beta_{0j} + \beta_{1j}NAT_{ij} + BX + e_{ij} \quad \text{(Level 1)}
$$

In this equation, the logged personal income from main employment for person $i$ at period $j$ is modeled as a function of his or her nationality at period $j$ and control variables. The coefficient $\beta_{0j}$ represents the cross-period average logged personal income and $\beta_{1j}$ measures the cross-period average effect of one’s nationality. $B$ is a vector of coefficients representing the cross-period average effects of the vector of other control variables ($X$).

The goal of the level-2 analysis is to detect the inter-period differences of the effect of nationality. Therefore, in all the models, we allow the intercepts and the coefficients for nationality or immigrant status to vary across the periods. Therefore, $\beta_{0j}$ and $\beta_{1j}$ in the level-1 models are further modeled as functions of different periods, which we use to approximate the degree of globalization. The associated coefficients are denoted as $\gamma$ and $u$, where $\gamma_{0j}$ and $u_{0j}$ are the coefficients for the intercept model that include the main effects of period. Note that $\gamma_{1j}$ and $u_{1j}$ are the corresponding coefficients for the changing effects of the nationality in different periods, and they are equivalent to interaction effects of nationality with period.

$$
\beta_{0j} = \gamma_{0j} + u_{0j} \quad \text{(Level 2)}
$$

$$
\beta_{1j} = \gamma_{1j} + u_{1j} \quad \text{(Level 2)}
$$

The models we test with the data sets can be obtained by combining models at Level 1 and Level 2. The combined model for whether the individual had a paid job is

$$
\log \left( \frac{\text{Pr}(\text{Paid Job})_{ij}}{\text{Pr}(\text{not Paid Job})_{ij}} \right) = \gamma_{00} + \gamma_{10}NAT_{ij} + u_{0j} + u_{1j}NAT_{ij} + BX \quad \text{(Combined)}
$$
The combined model for whether the individual had a paid job in the occupation of managers or professionals is

$$\log\left( \frac{\Pr(\text{Manager and Professional})_{ij}}{\Pr(\text{not Manager or Professional})_{ij}} \right) = \gamma_{00} + \gamma_{10} NAT_{ij} + u_{0j} + u_{1j} NAT_{ij} + BX \quad \text{(Combined)}$$

The combined model for the personal income is

$$\log(\text{Personal Income}) = \gamma_{00} + \gamma_{10} NAT_{ij} + u_{0j} + u_{1j} NAT_{ij} + BX \quad \text{(Combined)} + e_{ij}$$

In the combined models above, $\gamma_{00}$ measures the fixed intercept, showing the cross-year average of the dependent variable. Here $\gamma_{10}$ measures the fixed effect, or the cross-year average effect, of nationality on the dependent variable; $u_{0j}$ and $u_{1j}$ measure the random intercepts and the random effects of the nationality in year $j$, indicating the changing effects of nationality on the dependent variables across the years.

**Results**

**Descriptive analysis**

Table 1 and Table 2 describe the labor market outcome variables we focus on in this study. Table 1 shows the descriptive analysis with the full working sample. Generally speaking, those with nationalities of major developed nations were leading in the rate of having paid jobs and having high-rank occupations as well as median monthly earnings, while those with ROA in Hong Kong only and Chinese nationality other than ROA in Hong Kong performed worse. Compared with women, men were more likely to have paid jobs, take managerial and professional jobs, and enjoy higher incomes, regardless of their nationality. Thus, it is necessary to conduct the analysis separately by gender.

Men with nationalities of major developed nations and other nations were usually the most likely to have paid jobs. For women, however, those with ROA in Hong Kong only took the lead, especially in recent years. Men and women with Chinese nationalities other than ROA in Hong Kong were usually left at the bottom among those having a paid job. In general, the gap in the paid job rates for men was widening across periods mainly due to the decreasing rate of men with ROA in Hong Kong only and those with Chinese nationality other than ROA in Hong Kong. The gap in the paid job rates for women remained at a similar level.

Except those with nationalities of major developed nations, the proportion taking managerial and professional jobs among all the other groups increased over time for both genders. However, the percentage of people who took managerial and professional jobs among men and women with nationalities of major
developed countries were always the largest, while those with ROA in Hong Kong only were, surprisingly, the least likely to be managers or professionals, especially among men. The gap in the proportion taking managerial and professional jobs between different nationality groups remained nearly constant for both genders across the 20-year period.

For all nationality groups and both genders, monthly earnings were increasing over time. However, for both genders, those with nationalities of major developed nations were paid much more compared with other groups, while men with ROA in Hong Kong and women with Chinese nationality other than ROA in Hong Kong were paid least. The earnings gaps between those with nationalities of major developed nations and other groups increased a small amount, especially for women.

Table 2 presents descriptive statistics for the college-educated subsample. Compared with the average level of the total working population in Hong Kong as shown in Table 1, a higher proportion of the college-educated population had paid jobs and worked in managerial and professional occupations. They also enjoyed much higher monthly earnings. Although the labor market performance of all the groups fluctuated from 2001 to 2011, White people were always the most likely to take managerial and professional jobs and always earned most among both genders. Chinese men with nationalities of major developed nations and Chinese women with nationalities of other nations followed the White population in terms of labor market performance, indicating a higher status in the local labor market compared with other Chinese. Chinese with ROA in Hong Kong only and with Chinese nationality other than ROA in Hong Kong usually lagged behind their counterparts with foreign passports in terms of the proportion taking managerial and professional jobs as well as median income.

Multivariate analysis for the working sample: All education groups

Table 3 shows the fixed effects of our models for the likelihood of having paid jobs, being employed with managerial and professional jobs, and monthly income by gender. Consistent with the results of the descriptive analysis above, those with nationalities of major developed nations were the most advantaged in the Hong Kong labor market. Though they may not be more likely to find paid jobs after a series of sociodemographic characteristics were controlled, they were significantly more likely to take the managerial and professional jobs and enjoyed a significantly higher income. Specifically, other variables being controlled, the likelihood of taking a managerial and professional job for a woman with a nationality of a major developed nation was nearly 2.4 times that for a woman with ROA in Hong Kong only, and the monthly earnings of the former were 35.34% higher than the latter. For men, other variables being controlled, the likelihood of taking a managerial and professional job for those with nationalities of major developed nations was 240.83% higher than that for those with ROA in Hong Kong only. Men with nationalities from major developed nations earned 56.58% more than their counterparts with ROA in Hong Kong only. For other groups, the results
Table 3. Results of multilevel models with full working sample.

|                  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|------------------|---------|---------|---------|---------|---------|---------|
|                  | Paid Job Female | Paid Job Male | Managerial and Professional Female | Managerial and Professional Male | Log (Main Income) Female | Log (Main Income) Male |
| Nationality: right of abode (ROA) in Hong Kong (HK) only as reference |         |         |         |         |         |         |
| Chinese nationality (other than ROA in HK) | -0.2173*** (0.1145) | -0.0718 (0.2082) | 0.1037 (0.1723) | 0.1553 (0.1390) | -0.0763 (0.1576) | -0.2680 (0.2030) |
| Nationalities of major developed nations | -0.4659*** (0.1155) | 0.2368 (0.2076) | 0.8776*** (0.1710) | 1.2262*** (0.1375) | 0.3026*** (0.1577) | 0.4484* (0.2025) |
| Nationalities of major developing nations | -0.2547* (0.1156) | -0.3454 (0.2114) | -1.2368*** (0.1755) | -0.1277 (0.1410) | -0.3025*** (0.1580) | -0.3149 (0.2034) |
| Nationalities of other countries | -0.4647*** (0.1147) | 0.0419 (0.2079) | 0.3544* (0.1699) | 0.3280* (0.1366) | 0.1119 (0.1577) | 0.1666 (0.2028) |
| Age | 0.1339*** (0.0029) | 0.2000*** (0.0037) | 0.1024*** (0.0051) | 0.0672*** (0.0039) | 0.0602*** (0.0018) | 0.0760*** (0.0017) |
| Age2 | -0.0021*** (0.0000) | -0.0031*** (0.0001) | -0.0012*** (0.0000) | -0.0007*** (0.0000) | -0.0007*** (0.0000) | -0.0009 (0.0000) |
| Marital status: never married as reference |         |         |         |         |         |         |
| Currently married | -1.2443*** (0.0113) | 0.8502*** (0.0134) | -0.3701*** (0.0131) | 0.1743*** (0.0122) | -0.0277*** (0.0052) | 0.2374*** (0.0054) |
| Widowed/divorced/separated | -0.8851*** (0.0156) | 0.1552*** (0.0232) | -0.0645*** (0.0242) | -0.0317 (0.0285) | -0.0094 (0.0089) | 0.0961*** (0.0124) |
| Arrival cohort: local-born as reference |         |         |         |         |         |         |
| Before 1991 | -0.0591*** (0.0084) | -0.1025*** (0.0109) | -0.3217*** (0.0153) | -0.2058*** (0.0110) | -0.1681*** (0.0055) | -0.1566*** (0.0048) |
| 1991–1996 | -0.0851*** (0.0166) | -0.1991*** (0.0352) | -0.8039*** (0.0338) | -0.4821*** (0.0347) | -0.2497*** (0.0108) | -0.1677*** (0.0141) |
| 1997–2001 | -0.1594*** (0.0174) | -0.5368*** (0.0401) | -1.1067*** (0.0409) | -0.6768*** (0.0467) | -0.3062*** (0.0116) | -0.2221*** (0.0184) |
| 2002–2006 | -0.4867*** (0.0218) | -0.4876*** (0.0537) | -1.0436*** (0.0511) | -0.6493*** (0.0503) | -0.3421*** (0.0152) | -0.1857*** (0.0240) |
| 2007–2011 | -0.8774*** (0.0356) | -0.5458*** (0.0761) | -0.7426*** (0.0761) | -0.3920*** (0.0787) | -0.3558*** (0.0259) | -0.0839*** (0.0321) |
| Educational attainment: high school or under as reference |         |         |         |         |         |         |
| Some college | 0.5079*** (0.0163) | 0.3091*** (0.0223) | 1.7015*** (0.0167) | 1.8901*** (0.0156) | 0.3982*** (0.0076) | 0.3637*** (0.0078) |
| College completed | 0.6461*** (0.0133) | 0.3684*** (0.0169) | 2.6087*** (0.0153) | 2.6800*** (0.0141) | 0.6766*** (0.0060) | 0.6338*** (0.0059) |
| Language ability: Cantonese, but not Putonghua and English as reference |         |         |         |         |         |         |
| Putonghua, but not Cantonese and English | 0.1110*** (0.0477) | -0.1524* (0.0645) | 0.4709*** (0.0992) | 0.4788*** (0.0700) | 0.0275 (0.0346) | -0.1733*** (0.0314) |

(continued)
show that, other variables being controlled, those with Chinese nationalities other than ROA in Hong Kong did not perform worse than those with ROA in Hong Kong only, while those with nationalities of other nations performed better in terms of obtaining managerial and professional jobs.

For the effects of other variables in the models, special attention should be paid to the significant, positive, strong and constant effects of Putonghua and English compared to Cantonese on labor market outcomes. In a city of immigrants and a global hub of financial flows and population movement, it seems that Cantonese, the local language, yielded a much smaller effect on one’s labor market.

Table 3. Continued

|                | Model 1          | Model 2          | Model 3          | Model 4          | Model 5          | Model 6          |
|----------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                | Paid Job Female  | Paid Job Male    | Managerial and Professional Female | Managerial and Professional Male | Log (Main Income) Female | Log (Main Income) Male |
| English, but not Cantonese and Putonghua | 0.1548*** (0.9334) | 0.8226*** (0.0597) | 1.5348*** (0.0587) | 1.6926*** (0.0482) | 0.5620*** (0.0218) | 0.6502*** (0.0194) |
| Cantonese and Putonghua, but not English | 0.2023*** (0.0097) | 0.1577*** (0.0127) | 0.5017*** (0.0203) | 0.5254*** (0.0139) | 0.0999*** (0.0067) | 0.0493*** (0.0059) |
| Cantonese and English, but not Putonghua | 0.5771*** (0.0108) | 0.3338*** (0.0149) | 1.1850*** (0.0165) | 1.2803*** (0.0125) | 0.4704*** (0.0062) | 0.3420*** (0.0058) |
| Putonghua and English, but not Cantonese | 0.3851*** (0.0630) | 0.8176*** (0.1020) | 1.9625*** (0.0966) | 1.8866*** (0.0847) | 0.6661*** (0.0363) | 0.4917*** (0.0309) |
| Cantonese, Putonghua, and English | 0.7434*** (0.0102) | 0.5636*** (0.0144) | 1.3324*** (0.0154) | 1.6047*** (0.0118) | 0.4635*** (0.0058) | 0.3467*** (0.0056) |
| Not Cantonese, Putonghua, or English | −0.1050*** −0.8414*** −0.2566* | −0.0390 | −0.1240*** −0.174*** | −0.0493*** −0.0503*** | −0.0493*** −0.0503*** | −0.0493*** −0.0503*** |
| Number of domestic workers in household: no domestic workers as reference | | | | | | |
| One domestic workers | 0.4237*** (0.0141) | 0.3724*** (0.0244) | 0.8491*** (0.0174) | 1.0785*** (0.0173) | 0.3441*** (0.0072) | 0.3152*** (0.0076) |
| Two or more domestic workers | −0.2441*** 0.3706*** 1.5821*** 2.2128*** | 0.4869*** 0.5710*** | | | | |
| Employment status: the self-employed as reference | | | | | | |
| Employer | 0.4108*** (0.0156) | 0.4215*** (0.0097) | | | | |
| Employee | 0.8682*** (0.0117) | 0.6302*** (0.0076) | | | | |
| Constant | −0.8351*** −1.3717*** −4.2808*** −3.5875*** | 6.8686*** 6.8976*** | | | | |
| Observations | 461,451 454,253 257,428 385,045 257,428 385,045 | | | | | |

Note: ***, p < 0.001; **, p < 0.01; *, p < 0.05; +, p < 0.1.
performance than Putonghua and English, the two major non-local languages. Other variables being controlled, even if they could not speak Cantonese, men and women who could speak Putonghua and English (for example, many talented immigrants from the Chinese mainland) were 126.51% and 46.98% more likely, respectively, to have paid jobs. Their likelihood of taking managerial and professional jobs was around seven times that of their counterparts who could speak only Cantonese for both genders, and male and female Putonghua and English speakers earned 63.51% and 94.66% more than their Cantonese-speaking counterparts, respectively.

Figures 1–3 illustrate the effects of nationality on labor market performance after taking into consideration the variance of the nationality effect across years. The effect of nationality here combines both the cross-year average effect of nationality over ROA in Hong Kong only and the effect of a specific year for this specific nationality. Therefore, the reference group in Figures 1–3 should be a cross-year average group of people with ROA in Hong Kong only who can be compared with both those with ROA in Hong Kong in each specific year and those with other nationalities in each specific year.

Figure 1 shows that, other variables being controlled, women with ROA in Hong Kong and nationalities of major developed nations were increasingly likely to have paid jobs while the employment rate of women in other nationality groups experienced a downward trend in the 1990s and recovered in the 21st century.
Figure 2. Odds ratio of obtaining managerial and professional jobs by nationality, year, and gender.

Figure 3. Adjusted income of nationality groups by year and by gender (RMB).
Among all women, those with ROA in Hong Kong had the highest likelihood of having a paid job. In 1991, the likelihood of having a paid job for women with ROA in Hong Kong was only 10.60% lower than the cross-year average level; in 2011, their likelihood of having paid jobs was 23.87% higher than the cross-year average level. However, for men with all types of nationalities, the probability of having a paid job plummeted from 1996 to 2006 and started to rise again since then. The largest fall was experienced by men with Chinese nationality other than ROA in Hong Kong. In 1996, they were 72.50% more likely than the cross-year average group of people with ROA in Hong Kong only to have a paid job, while in 2006 they were 41.57% less likely to have a paid job. Men with nationalities of major developed nations were generally the most likely group to have paid jobs, while men with nationalities of major developing nations were the least likely group to have paid jobs.

Figure 2 illustrates the effect of nationality on the likelihood of obtaining managerial and professional jobs among those with paid jobs. Other variables being controlled, men and women with nationalities of major developed nations were more advantaged in terms of their occupational status, although the likelihood of their obtaining managerial and professional jobs fluctuated over the twenty-year study period. They were followed by those with nationalities of other nations and with Chinese nationalities other than ROA in Hong Kong. Those with nationalities of major developing nations had the lowest likelihood of obtaining managerial and professional jobs in the Hong Kong labor market from 1991 to 2011, especially women. The gaps in the likelihood of obtaining managerial and professional jobs between those with nationalities of major developed nations and those with other nationalities were largest in 2001 for both groups. These gaps narrowed significantly in 2006, mainly due to the decreased likelihood of obtaining managerial and professional jobs for those with nationalities of major developed nations.

Figure 3 presents the adjusted income by nationality. Men and women with nationalities of major developed nations earned much more than their counterparts with other nationalities. This advantaged nationality group was followed by those with nationalities of other nations and then those with ROA in Hong Kong only. Men and women with nationalities of developing nations were left at the bottom again. The earnings gap between those with nationalities of major developed nations and those with other nationalities were largest at the turn of the 21st century. However, the earnings of the former group decreased starting in 2001, while the incomes of other groups continued to increase. As a result, the earnings gap narrowed between 2006 and 2011.

Thus, in the analysis for all education groups, the results showed that for all three labor market outcome variables, men and women with nationalities of major developed nations performed much better than their counterparts of other nationalities, especially those with nationalities of developing countries. These findings are consistent with our first hypothesis (H1.1) that people from core nations enjoy a much better labor market outcome than other groups in the Hong Kong labor market, and immigrants from peripheral nations are the most disadvantaged.
group. However, the trends of the gaps between those with nationalities of major developed countries and the rest are not always clear, as the gap between immigrants from core nations and those from peripheral nations widened at the turn of the 21st century but narrowed in 2006. Thus, Hypothesis 1.2 was not firmly supported.

Multivariate analysis for the college-educated sample

We investigated White privilege over Chinese versus the local knowledge better-off hypotheses among the college or above-educated sample. Table 4 presents the fixed effects of the variables used in the models. The results show that among highly-educated people in Hong Kong, Chinese people with developed countries’ nationalities and Whites did better than Chinese people with ROA in Hong Kong only. Chinese women and men with developed countries’ nationalities were more likely to take managerial and professional jobs and were generally better paid. Specifically, Chinese women with developed country nationalities were 99.41% more likely to take managerial and professional jobs and their monthly earnings were 45.41% higher than those of their female counterparts with ROA in Hong Kong only. At the same time, the likelihood of taking managerial and professional jobs for Chinese men with developed country nationality was more than three times that for Chinese men with ROA in Hong Kong only, and the monthly earnings of the former group were 40.68% higher than those of the latter group.

However, compared with Chinese people who have developed country nationalities, White people were more advantaged, especially White men, despite the fact that White people do not share the same racial/ethnic background with the dominant group of Chinese ethnics in Hong Kong, so we assume they are less knowledgeable about the local society. Specifically, we found that White men were 117.58% more likely to have paid jobs. Their likelihood of taking managerial and professional jobs was nearly 3.5 times that of Chinese with ROA in Hong Kong only. And their earnings were 73.08% higher than those of their local counterparts. Although White women were not more likely to have paid jobs, their likelihood of taking managerial and professional jobs was nearly four times that of Chinese women with ROA in Hong Kong only, and they earned 42.46% more than their counterparts with local residency. When comparing White people with Chinese people who have developed country nationality, their likelihood of being in managerial and professional job as well as earnings outcome were also higher. Thus, White privilege in the labor market does exist in a non-White society such as Hong Kong.

Among other variables, Putonghua- and English-speakers again outperformed Cantonese-only-speakers even though Cantonese serves as the most popular language in Hong Kong daily life. Men and women who could speak Putonghua and English but not Cantonese were 149.15% and 44.18% more likely to have paid jobs, respectively. Their likelihoods of taking managerial and professional jobs were also nearly three and four times, respectively, those of people who could
Table 4. Results of multilevel models with college-educated subsample.

|                       | Model 1                          | Model 2                          | Model 3                          | Model 4                          | Model 5                          | Model 6                          |
|-----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                       | Paid Job Female                  | Paid Job Male                    | Managerial and Professional Female | Managerial and Professional Male | Log (Main Income*) Female        | Log (Main Income*) Male          |
| Nationality: Chinese with right of abode in Hong Kong only as reference |                                 |                                  |                                  |                                  |                                  |                                  |
| Chinese with Chinese nationality | −0.0675                          | 0.0628                           | −0.1259                          | 0.1322                           | 0.0158                           | −0.0536                          |
|                       | (0.1309)                         | (0.1848)                         | (0.2338)                         | (0.3396)                         | (0.0601)                         | (0.0712)                         |
| Chinese with developed countries’ nationality | −0.0000                          | 0.0795                           | 0.6902**                         | 1.1074***                        | 0.3744***                        | 0.3413***                        |
|                       | (0.1612)                         | (0.2263)                         | (0.2775)                         | (0.3897)                         | (0.0706)                         | (0.0820)                         |
| Chinese with other countries’ nationality | −0.0755                          | 0.2201                           | 0.3732                           | 0.7117+                          | 0.2542***                        | 0.3874***                        |
|                       | (0.1478)                         | (0.2229)                         | (0.2610)                         | (0.3787)                         | (0.0678)                         | (0.0839)                         |
| White                 | 0.2127                           | 0.7774***                        | 1.7474***                        | 1.2499***                        | 0.3539***                        | 0.5486**                         |
|                       | (0.1436)                         | (0.1994)                         | (0.2975)                         | (0.3538)                         | (0.0667)                         | (0.0714)                         |
| Non-Chinese and non-White | −0.4290***                      | 0.4644*                         | −0.8339***                       | 0.2156                           | −0.268***                        | 0.1088                           |
|                       | (0.1259)                         | (0.1873)                         | (0.2267)                         | (0.3386)                         | (0.0589)                         | (0.0699)                         |
| Age                   | 0.0976***                        | 0.1868**                        | 0.1445***                        | 0.1654***                        | 0.1391***                        | 0.1361***                        |
|                       | (0.0120)                         | (0.0129)                         | (0.0137)                         | (0.0126)                         | (0.0045)                         | (0.0047)                         |
| Age2                  | −0.0019***                       | −0.0030***                      | −0.0016***                       | −0.0019***                       | −0.0019***                       | −0.0014***                       |
|                       | (0.0001)                         | (0.0001)                         | (0.0002)                         | (0.0001)                         | (0.0001)                         | (0.0001)                         |
| Marital status: never married as reference |                                 |                                  |                                  |                                  |                                  |                                  |
| Currently married     | −0.9573***                       | 0.7185***                        | 0.1671***                        | 0.2984***                        | 0.0369***                        | 0.1946***                        |
|                       | (0.0342)                         | (0.0449)                         | (0.0328)                         | (0.0375)                         | (0.0103)                         | (0.0133)                         |
| Widowed/divorced/ separated | −0.4641***                      | 0.3988***                        | −0.2330***                       | 0.0336                           | −0.0022                          | 0.1117**                         |
|                       | (0.0689)                         | (0.0954)                         | (0.0771)                         | (0.1013)                         | (0.0257)                         | (0.0364)                         |
| Arrival cohort: local-born as reference |                                 |                                  |                                  |                                  |                                  |                                  |
| Before 1991           | −0.2538***                       | −0.3185***                      | −0.4330***                       | −0.4253***                       | −0.1404***                       | −0.1788***                       |
|                       | (0.0405)                         | (0.0447)                         | (0.0431)                         | (0.0421)                         | (0.0145)                         | (0.0159)                         |
| 1991–1996             | −0.5894***                       | −0.1765+                        | −0.8917***                       | −0.6070***                       | −0.277***                        | −0.2533***                       |
|                       | (0.0617)                         | (0.0976)                         | (0.0679)                         | (0.0770)                         | (0.0252)                         | (0.0296)                         |
| 1997–2001             | −1.0045***                       | −0.3616***                      | −0.694***                        | −0.5612***                       | −0.298***                        | −0.1676***                       |
|                       | (0.0659)                         | (0.1061)                         | (0.0812)                         | (0.0910)                         | (0.0290)                         | (0.0322)                         |
| 2002–2006             | −1.2897***                       | −0.5384***                      | −0.385***                        | −0.4093***                       | −0.1785***                       | −0.0377                          |
|                       | (0.0742)                         | (0.1236)                         | (0.1077)                         | (0.1126)                         | (0.0360)                         | (0.0385)                         |
| 2007–2011             | −1.4482***                       | −0.1219                         | 0.0198                           | −0.1807                         | −0.0029                          | 0.0903**                         |
|                       | (0.0944)                         | (0.1692)                         | (0.1411)                         | (0.1443)                         | (0.0421)                         | (0.0434)                         |
| Language ability: Cantonese, but not Putonghua and English as reference |                                 |                                  |                                  |                                  |                                  |                                  |
| Putonghua, but not    | 0.2950                           | 0.7339**                        | 0.4251                           | −0.0932                          | −0.0080                          | −0.0724                          |
| Cantonese and English | (0.1974)                         | (0.2633)                         | (0.2637)                         | (0.2019)                         | (0.0964)                         | (0.0927)                         |
| English, but not Cantonese and Putonghua | 0.1113**                       | 0.7067***                      | 0.5840***                        | 1.0347***                        | 0.3914***                        | 0.4763***                        |
|                       | (0.0989)                         | (0.1463)                         | (0.1240)                         | (0.1319)                         | (0.0440)                         | (0.0432)                         |
| Cantonese and Putonghua, but not English | −0.0386                        | 0.1131                          | −0.1227                          | −0.3506***                       | −0.091***                        | −0.1716***                       |
|                       | (0.0738)                         | (0.0794)                         | (0.0774)                         | (0.0712)                         | (0.0295)                         | (0.0335)                         |
| Cantonese and English, but not Putonghua | 0.0946                        | 0.3153***                      | 0.5037***                        | 0.4414***                        | 0.2129***                        | 0.2306***                        |
|                       | (0.0615)                         | (0.0648)                         | (0.0596)                         | (0.0566)                         | (0.0218)                         | (0.0250)                         |

(continued)
only speak Cantonese, and they also earned 48.71% and 53.48% more, for men and women, respectively.

Figures 4–6 illustrate the effects of nationality–race/ethnicity status on labor market performance for the college-educated sample after taking into consideration the variance of the nationality–race effect across years. Similar to Figures 1–3, the reference group here should be a cross-year average group of Chinese with ROA in Hong Kong only. It is clear from these graphs that White men and women outperformed all other groups in terms of all three labor market outcomes over the ten years from 2001 to 2011, though the gap may have narrowed during some years. Chinese women and men with developed country nationalities were usually in second or third place in these labor market outcomes over the years, showing a relatively advantaged status over other Chinese in the Hong Kong labor market. For other groups, their performance may not be consistent over time or between different genders. For example, non-Chinese and non-White women usually performed worse than women from other nationality–race groups, but non-Chinese and non-White men usually performed better.

Table 4. Continued

|                  | Model 1          | Model 2          | Model 3          | Model 4          | Model 5          | Model 6          |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                  | Paid Job Female  | Paid Job Male    | Managerial and Professional Female | Managerial and Professional Male | Log (Main Income⁰) Female | Log (Main Income⁰) Male |
| Putonghua and English, but not Cantonese | 0.3659*** (0.1112) | 0.9129*** (0.1679) | 1.3415*** (0.1692) | 1.0829*** (0.1478) | 0.4284*** (0.0485) | 0.3968*** (0.0475) |
| Cantonese, Putonghua, and English | 0.4846*** (0.0594) | 0.6624*** (0.0628) | 0.7700*** (0.0564) | 0.9669*** (0.0552) | 0.2498*** (0.0208) | 0.2946*** (0.0241) |
| Not Cantonese, Putonghua, or English | -1.2832*** (0.2703) | 0.1964 (0.4598) | 0.2201 (0.4705) | 0.1423 (0.3940) | 0.0343 (0.1748) | 0.3045+ (0.1652) |
| Number of domestic workers in household: no domestic workers as reference |               |                  |                  |                  |                  |                  |
| One domestic worker | 0.3099*** (0.0349) | 0.4351*** (0.0500) | 0.4969*** (0.0439) | 0.6132*** (0.0479) | 0.1837*** (0.0120) | 0.2740*** (0.0134) |
| Two or more domestic workers | -0.3690*** (0.0822) | 0.4918*** (0.1415) | 0.9059*** (0.1604) | 1.1453*** (0.1825) | 0.3976*** (0.0354) | 0.5707*** (0.0374) |
| Employment status: the self-employed as reference |               |                  |                  |                  |                  |                  |
| Employer | 1.3038*** (0.2578) | 0.6903* (0.2907) | -2.1052*** (0.3010) | -2.2260*** (0.3397) | 5.7368*** (0.0973) | 5.6927*** (0.1080) |
| Employee | 0.5933*** (0.0366) | 0.6452*** (0.0304) | 1.2039*** (0.0288) | 1.2233*** (0.0263) |                  |                  |
| Constant | -1.0.3088*** (0.2578) | -0.6903* (0.2907) | -2.1052*** (0.3010) | -2.2260*** (0.3397) | 5.7368*** (0.0973) | 5.6927*** (0.1080) |
| Observations | 45,704 | 53,009 | 37,398 | 48,288 | 37,398 | 48,288 |

Note: ***, p < 0.001; **, p < 0.01; *, p < 0.05; +, p < 0.1.
Figure 4. Odds ratio of having paid jobs by nationality–race, year, and gender.

Figure 5. Odds ratio of taking managerial and professional jobs by nationality–race, year, and gender.
Based on the analysis in this section, we found that White privilege does exist in Hong Kong. Among college graduates, Whites were still more likely to take managerial and professional jobs and in general they earned more than Chinese people with nationalities from core nations. These findings are consistent with Hypothesis 2.1 but counter to Hypothesis 2.2. Nevertheless, we still found that Chinese people with nationalities of major developed countries did have a labor market advantage over other Chinese.

**Discussion and conclusion**

Previous literature about immigrant economic assimilation often assumes that immigrants suffer from labor market disadvantages immediately upon arrival, but the gap narrows or even closes as the length of residence increases. This argument has been largely challenged by the extreme heterogeneity found among immigrants due to their different times of arrival and different racial and ethnic backgrounds, indicating the importance of the receiving social context. However, almost all debates about the economic assimilation of immigrants are based on the North American or European experience.

In this research, we further challenge the traditional argument about the linear economic assimilation process with the Asian experience in the global city of Hong Kong, and we focus on the contextual factors at the global level rather than the local level. We assume that, given the unequal global power structure, immigrants
from core nations and their counterparts from the peripheral nations are likely to be rewarded differently in the same host society. Similarly, racial/ethnic inequality, which used to be a local problem, could be present at the global stage, since both the racially advantaged and the racially disadvantaged could move to the same host society. This paper is the very first attempt to examine the non-Chinese immigrants’ economic outcomes in Hong Kong society and their changes over time by testing the influence of the global economic power structure and White privilege hypotheses.

Our results can be summarized as follows: consistent with the global power structure, immigrants from core nations have enjoyed better economic outcomes than both local Chinese and other immigrants from peripheral nations. In fact, immigrants from peripheral nations suffered the most in the Hong Kong labor market. The huge gap between those from the developed countries and those from the peripheral nations largely supports the global power structure hypothesis. However, contrary to our expectations, this gap did not widen over time. We also found that White people in Hong Kong still enjoyed some White privilege. Despite their status as immigrants and their lack of Chinese cultural background, they were still more likely to take top jobs and earn more than both local Chinese and Chinese people with the same nationality from core nations.

Based on these findings, we argue that the global economic and power structures are important factors for immigrants’ economic performance in the host society. This again emphasizes the essential role of contextual factors in immigrants’ assimilation process. However, we extend the traditional focus on the contexts of the receiving society to see how the position of the sending society in the global economic and political structure affects their emigrants’ life chances. Immigrants from the more developed core nations bring their international experiences, advanced managerial expertise, connections with major markets, and communication skills as well as language abilities. All of these qualities are highly valued in the global city of Hong Kong, where the high-end producer service industry is burgeoning. As a result, there should be no doubt that these immigrants are much better rewarded in the local labor market. However, the economic gaps between those from core and peripheral nations are not necessarily widening over time. This could be explained in several ways. First, the economic gaps might be more influenced by global economic fluctuations than by deeper globalization, as we have mentioned above. Second, the degree of globalization may not always be progressing linearly as it is constantly shaped by the global economic situation. Since we only have census and by-census data every five years, we may not be able to catch all the changes and test these potential explanations.

Moreover, our study also shows that not only immigrants’ places of origin, but also their observable characteristics, matter. We found that White people in Hong Kong still enjoyed more advantages than Chinese with nationalities of developed nations, despite the fact that the latter group usually had double advantages from their core-nation experiences and their local cultural backgrounds. Therefore,
White privilege has been extended to the market far away from their home countries. Several explanations are offered for this situation, although we cannot test them with the current data set. First, most existing transnational companies are established by White people in core nations, and White people still take up the higher positions in management and capital possession. Minorities in core nations are still underrepresented at higher positions (perhaps due to discrimination), and the same situation could be extended to the regional headquarters and offices. Second, those White people working in Hong Kong may be highly selected (Findlay et al., 1996). They intentionally request or are intentionally offered higher salaries and occupational ranks so that they can work in culturally distant places like Hong Kong. In contrast, overseas Chinese people may have other considerations, so they are willing to work in Hong Kong for lower pay (Findlay and Li, 1998; Li et al., 1995); or they are purposely employed to work in Hong Kong just because of their ethnic backgrounds (Findlay and Li, 1998; Findlay et al., 1996). People who are neither White nor Chinese may suffer double disadvantages. Thus, it is important that future studies on immigrants' labor market performance take into consideration the economic context as well as the nature of the immigrant stream.

Our research has some limitations. First, as mentioned above, the selection streams for different ethnic and nationality groups may be different and not random, which might bias the results. Second, the results we have found in Hong Kong may not be generalizable to other global cities around the world. However, we speculate that, at least in Asia, the same may be true for global cities such as Tokyo, Singapore, and Shanghai, given their similar position in the global political/economic system. Although we cannot address these limitations with the current data, we believe that our study makes an important contribution to the research on the economic outcomes of international migration in non-Western societies, and we have examined some core theories established in the Western setting. More studies need to be done in other global city settings to enhance our understanding of the relationship between the global power structure and the assimilation of immigrants.

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**Notes**

1. Report on the Gross Domestic Product (Yearly), Census and Statistics Department of Hong Kong Special Administrative Region, 2005, 2015.
2. Report on Hong Kong Trade in Services Statistics, Census and Statistics Department of Hong Kong Special Administrative Region, 2000–2014.
3. The percentage of managerial and professional jobs and the median income are calculated only among those with paid jobs.

References

Adsera A and Chiswick BR (2007) Are there gender and country of origin differences in immigrant labor market outcomes across European destinations? *Journal of Population Economics* 20(3): 495–526.

Alba R and Nee V (2003) *Remaking the American Mainstream: Assimilation and Contemporary Immigration*. Cambridge, MA: Harvard University Press.

Baker M and Benjamin D (1994) The performance of immigrants in the Canadian labor market. *Journal of Labor Economics* 12(3): 369–405.

Becker GS (1993) *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. 3rd edition. New York, NY: National Bureau of Economic Research.

Borjas GJ (1982) The earnings of male Hispanic immigrants in the United States. *Industrial and Labor Relations Review* 35(3): 343–353.

Borjas GJ (1985) Assimilation, changes in cohort quality, and the earnings of immigrants. *Journal of Labor Economics* 3(4): 463–489.

Borjas GJ (1995) Assimilation and changes in cohort quality revisited: What happened to immigrant earnings in the 1980s? *Journal of Labor Economics* 13(2): 201–245.

Bratsberg B and Ragan JF Jr (2002) The impact of host-country schooling on earnings. *Journal of Human Resources* 37(1): 63–105.

Chen YC (2014) Does Hong Kong have standard Cantonese? In: Wah MK (ed.) *The Politics of the Cantonese Language in Hong Kong*. Hong Kong, China: The Chinese University of Hong Kong Press, pp.163–170 [In Chinese.].

Chiswick BR (1982) The economic progress of immigrants: Some apparently universal patterns. In: Chiswick BR (ed.) *The Gateway: U.S. Immigration Issues and Policies*. Washington, DC: The American Enterprise Institute, pp.119–158.

Chiswick BR, Lee YL and Miller PW (2005) A longitudinal analysis of immigrant occupational mobility: A test of the immigrant assimilation hypothesis. *International Migration Review* 39(2): 332–353.

Chiswick BR and Miller PW (2009) The international transferability of immigrants’ human capital. *Economics of Educational Review* 28(2): 162–169.

Chiu SWK, Choi SYP and Ting KF (2005) Getting ahead in the capitalist paradise: Migration from China and socioeconomic attainment in colonial Hong Kong. *International Migration Review* 39(1): 203–227.

Chiu SWK, Ho KC and Lui TL (1997) *City States in the Global Economy: Industrial Restructuring in Hong Kong and Singapore*. Boulder, CO: Westview Press.

Chiu SWK and Lui TL (2004) Testing the global city–social polarization thesis: Hong Kong since the 1990s. *Urban Studies* 41(10): 1863–1888.

Clark K and Drinkwater S (2008) The labor-market performance of recent migrants. *Oxford Review of Economic Policy* 24(3): 495–516.

Darity W Jr, Guilkkey DK and Winfrey W (1996) Explaining differences in economic performance among racial and ethnic groups in the USA: The data examined. *The American Journal of Economics and Sociology* 55(4): 411–425.

Espenshade TJ and Fu HS (1997) An analysis of English-language proficiency among U.S. immigrants. *American Sociological Review* 62(2): 288–305.
Evans S and Green C (2001) Language in post-colonial Hong Kong: The roles of English and Chinese in the public and private sectors. *English World-Wide* 22(2): 247–268.

Feagin JR and Vera H (1995) *White Racism: The Basics*. New York, NY: Routledge.

Findlay AM and Li FLN (1998) A migration channels approach to the study of professionals moving to and from Hong Kong. *International Migration Review* 32(3): 682–703.

Findlay AM, Li FLN, Jowett AJ, et al. (1996) Skilled international migration and the global city: A study of expatriates in Hong Kong. *Transactions of the Institute of British Geographers* 21(1): 49–61.

Fong E and Cao XS (2009) Effects of foreign education on immigrant earnings. *Canadian Studies in Population* 36(1–2): 87–110.

Friedberg RM (2000) You can’t take it with you? Immigrant assimilation and the portability of human capital. *Journal of Labor Economics* 18(2): 221–251.

Friedmann J (1986) The world city hypothesis. *Development and Change* 17(1): 69–83.

Gordon M (1961) Assimilation in America: Theory and reality. *Daedalus* 90(2): 263–285.

Gordon M (1964) *Assimilation in American Life: The Role of Race, Religion, and National Origins*. New York, NY: Oxford University Press.

Hamilton GG (1999) Hong Kong and the rise of capitalism in Asia. In: Hamilton GG (ed.) *Cosmopolitan Capitalists*. Seattle, WA: University of Washington Press, pp.14–34.

Heller J (2010) Emerging themes on aspects of social class and the discourse of white privilege. *Journal of Intercultural Studies* 31(1): 111–120.

Hirschman C (2001) The educational enrollment of immigrant youth: A test of the segmented assimilation hypothesis. *Demography* 38(3): 317–336.

Kim CH and Sakamoto A (2010) Have Asian American men achieved labor market parity with white men? *American Sociological Review* 75(6): 934–957.

Lam KC and Liu PW (1998) *Immigration and the Economy of Hong Kong*. Hong Kong, China: City University of Hong Kong Press.

Lam KC and Liu PW (2002) Earnings divergence of immigrants. *Journal of Labor Economics* 20(1): 86–104.

Lee KM, Wong H and Law KY (2007) Social polarization and poverty in the global city: The case of Hong Kong. *China Report* 43(1): 1–30.

Li FLN, Jowett AJ, Findlay AM, et al. (1995) Discourse on migration and ethnic identity: Interviews with professionals in Hong Kong. *Transactions of the Institute of British Geographers* 20(3): 342–356.

Liu P-W, Zhang JS and Chong SC (2004) Occupational segregation and wage differentials between natives and immigrants: Evidence from Hong Kong. *Journal of Development Economics* 73(1): 395–413.

Mandatory Provident Fund Schemes Authority (2016) Available at: http://www.mpfa.org.hk/eng/main/ (accessed August 2017).

Meyer DR (2000) *Hong Kong as a Global Metropolis*. Cambridge, UK: Cambridge University Press.

Myers D, Gao X and Emeka A (2009) The gradient of immigrant age-at-arrival effects on socioeconomic outcomes in the U.S. *The International Migration Review* 43(1): 205–229.

Oreopoulos P (2011) Why do skilled immigrants struggle in the labor market? A field experiment with thirteen thousand resumes. *American Economic Journal: Economic Policy* 3(4): 148–171.
Pager D and Shepherd H (2008) The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual Review of Sociology* 34: 181–209.

Portes A (1995) Economic sociology and the sociology of immigration: A conceptual overview. In: Portes A (ed.) *The Economic Sociology of Immigration: Essays on Networks, Ethnicity, and Entrepreneurship*. New York, NY: Russell Sage Foundation, pp.1–41.

Portes A and Böröcz J (1989) Contemporary immigration: Theoretical perspectives on its determinants and modes of incorporation. *International Migration Review* 23(3): 606–630.

Portes A and Zhou M (1993) The new second generation: Segmented assimilation and its variants among post-1965 immigrant youth. *Annals of the American Academy of Political and Social Science* 530(1): 74–96.

Preston V and Man G (1999) Employment experiences of Chinese immigrant women: An exploration of diversity. *Canadian Woman Studies* 19(3): 115–122.

Saenz R and Morales MC (2005) Demography of race and ethnicity. In: Poston DL and Micklin M (eds) *Handbook of Population*. New York, NY: Springer, pp.169–208.

Sakamoto A, Wu HH and Tzeng JM (2000) The declining significance of race among American men during the latter half of the twentieth century. *Demography* 37(1): 41–51.

Sassen S (1991) *The Global City: New York, London, Tokyo*. Princeton, NJ: Princeton University Press.

Sassen S (1998) *Globalization and Its Discontents*. New York, NY: New Press.

Schoeni RF (1998) Labor market outcomes of immigrant women in the United States: 1970 to 1990. *International Migration Review* 32(1): 57–77.

Schultz TW (1963) *The Economic Value of Education*. New York, NY: Columbia University Press.

Siu YM (1996) Population and immigration: With a special account on Chinese immigrants. In: Nyaw MK and Li SM (eds) *The Other Hong Kong Report 1996*. Hong Kong, China: The Chinese University of Hong Kong Press, pp.325–347.

Stevens G (1999) Age at immigration and second language proficiency among foreign-born adults. *Language in Society* 28(4): 555–578.

Tong YY (2010) Place of education, gender disparity, and assimilation of immigrant scientists and engineers’ earnings. *Social Science Research* 39(4): 610–626.

Wallenstein I (1974a) The rise and future demise of the world capitalist system: Concepts for comparative analysis. *Comparative Studies in Society and History* 16(4): 387–415.

Wallenstein I (1974b) *The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. New York, NY: Academic Press.

Wildman SM and Davis AD (1996) Making systems of privilege visible. In: Wildman SM, Armstrong M, Davis AD, et al. (eds) *Privilege Revealed: How Invisible Privilege Undermines America*. New York, NY: New York University Press, pp.7–25.

Zeng Z and Xie Y (2004) Asian-Americans’ earnings disadvantage reexamined: The role of place of education. *American Journal of Sociology* 109(5): 1075–1108.

Zhang ZN and Wu XG (2011) Social change, cohort quality, and economic adaptation of Chinese immigrants in Hong Kong, 1991–2006. *Asian and Pacific Migration Journal* 20(1): 1–29.

Zhou M (1997) Segmented assimilation: Issues, controversies, and recent research on the new second generation. *International Migration Review* 31(4): 975–1008.