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IN THE AMERICAN AND CANADIAN JOB MARKETS:**

**IMPORTANT ROLES OF EDUCATIONAL
ATTAINMENT AND ENTRY AGE**

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QSEP Research Report No. 458

June 2015

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Uneven Performance of Taiwan-born Wage Earners in the American and Canadian Job Markets:

Important Roles of Educational Attainment and Entry Age

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June 2015

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Abstract

For the Taiwan-born male and female wage earners in America and Canada, this paper attempts to find their wage gaps between the two host countries and to explain the wage gaps by three factors (educational attainment, the age at entering the host country, and the recency of the entry) in the context of current age.

We apply an exponential regression model to the micro data of the 2005-2007 American Community Survey and the 2006 Canadian census. Predicted overall wage gaps are separated into two components: structural and compositional.

Our main findings are as follows. The inferiority in mean wage of the Taiwan-born in Canada relative to the Taiwan-born in America is extremely large (by 50% for males and 55% for females). Educational attainment and entry age, but not entry period, are found to be very important in accounting for these wage gaps. From the perspectives of both educational attainment and entry age, the Taiwan-born have not only a lower wage structure but also a less favorable composition in Canada than in America.

Our main findings support the ideas that potential immigrants tend to rank America higher than Canada, and that the severe competition for limited number of immigrant visas results in a sorting process that yields a higher probability of entering America for those of higher quality. They also reflect the fact that a high proportion of the Taiwan-born in Canada escaped from Taiwan in the 1990s in response to the confrontational relation between Taiwanese and Chinese governments and to the military threat of China.

Key Words: Wage, Taiwan-born, Canada, America, Immigrants, Educational Attainment, Entry Age

JEL Code: C18 C51 C87 J31

1. Introduction

In order to perform well in the job markets of America and Canada, foreign-born wage earners from non-English speaking Asian countries have to overcome lingual, cultural, and other handicaps. Their abilities to overcome such handicaps tend to vary with several factors, including the ones at the focus of this study: (1) their level of educational attainment, (2) their age at entering the host country for residence, and (3) the recency of their entry.

An important, if not the most important, reward from employment is wage. In this paper, we postulate that the wage of a foreign-born individual tends (1) to increase with her/his educational attainment, (2) to be relatively low if her/his entry age is too old for adjusting well in a new lingual, cultural, and technological milieu, and (3) to be also relatively low if her/his entry period is most recent so that there is not enough time to develop the skills for overcoming initial obstacles[1].

In addition to the effects of their personal attributes, the wages of foreign-born individuals are conditioned by the overall contexts of the host countries (Portes, 1995). Being more capitalistic and individualistic, the American society has a higher income level and greater income inequality than does the Canadian society. A likely implication of this contextual difference is that the best educated and most capable foreign-born wage earners can be expected to earn substantially more in America than in Canada.

Potential emigrants from Asian countries like Taiwan or China tend to rank host countries in the following order: (1) America, (2) Canada, (3) Australia, and (4) New Zealand. Since these countries strongly restrict the intake of immigrants, the intense competitions among potential immigrants are likely to result in a sorting mechanism that helps make the immigrants entering America to be of higher quality than those entering the other countries. A likely implication of this

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[1] Borjas (1985, p. 466) considered that the lack of host country-specific human capital is a reason for depressing the wages of recently arrived immigrants, and that new immigrants tend to rapidly begin an investment in human capital (e.g. in language training), resulting in further depressing their current wages. He also provided two additional probable reasons for the idea that the wage level of immigrants tend to increase with the duration of stay in the host country: (1) the immigrants who returned to their home countries tend to be negatively selective, and (2) more recently arrived cohorts might be of lower quality.

line of reasoning is that the sorting mechanism can magnify the wage gap of a foreign-born population between the American and Canadian labor markets.

The main purpose of this research is to obtain an in-depth understanding of the different wage performances of Taiwan-born wage earners in the American and Canadian labor markets, using two high-quality micro data sets: (1) the personal records in the 2005-2007 American Community Survey (ACS), and (2) the long-form records of the 2006 Canadian census. To achieve such an understanding, we put them in the context of the wage performance of the "mainstream" of each national labor market, which is represented by the native-born non-Hispanic White wage earners[2].

Two points are worth mentioning here. First, it has long been impossible to use the Public Use Sample data from Canadian censuses to study anything about Taiwan-born individuals, because due to sample size limitation, Statistics Canada has never permitted Taiwan to be coded as a place of birth in the sample data, although the long-form census questionnaire does include Taiwan in the list of birth places to be chosen. Via a research project that proposed to study the internal and international migration processes in Canada, the first author of this paper was given permission by a joint committee between Statistics Canada and the Social Sciences and Humanities Research Council of Canada to access the full set of long-form records of several censuses. We are thankful to these agencies, because this research would be impossible without their permission. Second, the fact that the timings of the 2005-2007 ACS and the 2006 Canadian census are very close enhances the value of this comparative study.

The organization of the rest of the paper is as follows. In section2, we describe the data and contrast the observed wage levels among the populations in question. The method of multivariate data analysis is described in section 3. The roles of the three explanatory factors are assessed in sections 4, 5, and 6. Concluding discussions are made in section 7.

2. The Data and Descriptive Contrasts

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[2] For a conceptually more satisfying and operationally more difficult specification of the mainstream, see Alba and Nee (2003). Based on their line of reasoning, it would be better to include the native-born non-Hispanic Asians into the mainstream. Since this Asian stock is much smaller than the native-born non-Hispanic Whites, the broadening of the mainstream would not have much effect on the big picture.

The ACS is a monthly survey on a sample that is representative of all households and individuals of the United States. Its questionnaire is essentially the same as the long-form questionnaire of the 2000 population census. The cumulative sample size over a year is about 1% of the total population of the United States. The micro data set used in this study was created by the U.S. Census Bureau by merging the records of the surveys conducted in 2005, 2006, and 2007. The number of individual records in the data set is more than 8.8 million, which represent about 3% of the country's total population.

In addition to having an extremely large sample size, the ACS data are considered to be highly reliable, because the receivers of the ACS questionnaires are required by law to complete and mail back the questionnaires, and because the Census Bureau uses a careful follow-up procedure (e.g. using telephone calls) to deal with those who failed to mail back the questionnaires. The importance of the ACS as a major data source for socioeconomic research on many facets and sectors of the American society is greatly enhanced by the fact that the 2010 population census of the United States discontinued the use of long-form questionnaire. However, a shortcoming of the ACS is that all income variables are top-coded (at $666,000 for wage and salary income) so that averages and standard deviations of these variables tend to be understated. For an overview of ACS, see Mather et al. (2005) and U.S. Census Bureau (2009).

The Canadian census was conducted on May 16, 2006. Since the long-form questionnaire of the census was distributed to 20% of all households in Canada, the number of records in the master file is about 6.3 million. Researchers whose research projects were approved were not allowed to access the master file directly. Instead, they were required to select a subset of variables that are considered to be relevant to their projects. With the research goal defined broadly, the first author successfully obtained a file of the long-form records that contains many variables and all residents in Canada. The access to this file is via the Research Data Center at McMaster University.

A nice feature of this data file is that the income variables are not top-coded so that the mean and measures of inequality will not be understated. Another nice feature is that a high proportion of respondents in the 2006 census gave permission

to Statistics Canada to fill in their income information from the 2005 income tax administrative file. Since people tend to use round numbers such as $50,000 and $100,000 in writing down their incomes, this feature contributes substantially to improving the accuracy of income variables (for evidence, see Liaw and Xu, 2013).

The wage earners under study in this research are defined as those whose duration of work in the previous 12 months (in the ACS) or the previous calendar year (in the Canadian Census) is at least 10 weeks, and whose wage (formally "wage and salary incomes") is positive. The wage earners in our sample are restricted to those with the current age being in the 25-64 range. Note that the wage earners include not only cashers and dish washers at the low end but also hedge fund managers and corporate CEOs at the high end of the wage scale.

We measure wage by "weekly wage", which is obtained by dividing the annual wage by the number of weeks worked. To make the wages comparable between the American and Canadian labor markets, we make the following adjustments to both ACS and Canadian Census data. First, for the ACS records, we multiply the weekly wages in each survey year by the inflation adjustment factor of that year so that the common unit is measured in terms of the real US dollar of 2007.[3] Second, we find from the website of Bank of Canada that the high and low exchange rates as of June 30, 2005 are 0.8171 and 0.8110 US dollars per Canadian dollar, yielding an average of 0.8141. Third, we find from the website of US Bureau of Labor Statistics (http://www.bls.gov/data/ inflation_calculator.htm) that the inflation factor from 2005 to 2007 is 1.06166. Fourth, we obtain an adjustment factor of 0.86424 by multiplying the average exchange rate and the inflation factor. Fifth, this adjustment factor is then multiplied to the observed Canadian wage so that all wages are measured in term of the real US dollar of 2007.

It is important to note that the individual records in both ACS and Canadian Census are attached with unequal personal weights. To avoid biases, all computations and tabulations in this analysis are based on these weights.

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[3] The PUMS (Public Use Microdata Sample) of the ACS that we obtained from the US Census Bureau contains a variable for inflation adjustment. Although the in-house master file has monthly values for this variable, the monthly values are averaged into three annual values (1.082467 for 2005, 1.044488 for 2006, 1.016787 and for 2007) in the PUMS because of disclosure issues. Thus, only a somewhat crude inflation adjustment can be made in the PUMS.

The observed sex-specific mean wages of the Taiwan-born populations as well as the mainstream populations in the American and Canadian labor markets reveal several salient features (Table 1).

First, the observed wage level of the Taiwan-born in the American labor market is substantially *higher* than that of their mainstream counterparts, whereas the observed wage level of the Taiwan-born in the Canadian labor market is substantially *lower* than that of their mainstream counterparts. The mean wage of Taiwan-born males in America ($1,548) turns out to be 23.5% *higher* than that of their mainstream counterparts ($1,253), whereas the mean wage of Taiwan-born males in Canada ($775) is 23.4% *lower* than their mainstream counterparts ($1,012). Furthermore, the mean wage of Taiwan-born females in America ($1,064) turns out to be 33.8% *higher* than that of their mainstream counterparts ($796), whereas the mean wage of Taiwan-born females in Canada ($588) is 10.8% *lower* than their mainstream counterparts ($659). It is worth noting that our finding about the Taiwan-born in America contradicts the general conclusion in the literature that in contrast to the earlier waves of European immigrants who had managed to catch up and even surpass the wage level of the native-born in the United States, the post-1960s waves of immigrants from non-European countries are of lower quality and are confronted with much greater obstacles and, thus, can never catch up with the native-born in wage (Borjas, 1999).

Second, the observed wage level of the Canadian mainstream is substantially lower than that of the American mainstream. For males, the mean wage of the Canada-born in the Canadian labor market is 19% lower than that of the US-born in the American labor market. For females, the mean wage of the Canada-born in the Canadian labor market 17% lower than that of the US-born in the American labor market.

Third, the difference in the wage level of the Taiwan-born between the American and Canadian labor markets is *extremely large*. For males, their mean wage in Canada is only 50% of their mean wage in America. For females, their mean wage in Canada is only 55% of their mean wage in America.

Table 1. The observed mean and median wages: Taiwan-born wage earners versus their native-born non-Hispanic White counterparts in the American and Canadian labor markets.

Wage Level	In American Labor Market		In Canadian Labor Market	
	Taiwan-born	US-born	Taiwan-born	Canada-born
Panel A. Male Wage Earners				
Observed Levels of Weekly Wage				
Mean ($)	1,548	1,253	775	1,012
Median ($)	1,249	940	519	817
Deviation from the native-born within the same labor market				
Mean ($)	294	0	-237	0
Median ($)	309	0	-298	0
Deviation from the native-born within the same labor market				
Mean (%)	23.5	0	-23.4	0
Median (%)	32.9	0	-36.5	0
Relative Wage (Reference: US-born)				
Mean	1.23	1.00	0.62	0.81
Median	1.33	1.00	0.55	0.87
Relative Wage (Reference: Taiwan-born in America)				
Mean	1.00	0.81	0.50	0.65
Median	1.00	0.75	0.42	0.65
Sample Size	2,881	1,250,825	1,890	922,151
Panel B. Female Wage Earners				
Observed Levels of Weekly Wage				
Mean ($)	1,064	796	588	659
Median ($)	833	626	454	564
Deviation from the native-born within the same labor market				
Mean ($)	269	0	-71	0
Median ($)	207	0	-110	0
Deviation from the native-born within the same labor market				
Mean (%)	33.8	0	-10.8	0
Median (%)	33.1	0	-19.5	0
Relative Wage (Reference: US-born)				
Mean	1.34	1.00	0.74	0.83
Median	1.33	1.00	0.73	0.90
Relative Wage (Reference: Taiwan-born in America)				
Mean	1.00	0.75	0.55	0.62
Median	1.00	0.75	0.55	0.68
Sample Size	3,126	1,167,589	1,965	858,492

Note: The wage earners are restricted to those who worked for 10 or more weeks in the previous 12 months or the previous calendar year.

Some readers may prefer median wage over mean wage as a measure of wage level, partly because median wage is not affected by the distortion caused by the top-coding of income variables in ACS. We can also see in Table 1 that these three salient features remain clear, irrespective of whether median wage or mean wage is used.

3. Multivariate Modeling and the Distinction between Structural and Compositional Effects

Our strategy to achieve in-depth understanding is to focus on the explanatory roles of (1) the level of educational attainment, (2) the age at entering the host country for residence, and (3) the recency of the entry, while controlling for the effects of current age. The effects of these factors on weekly wage are to be assessed via the following exponential regression model:

$$Y_i = Exp[\beta_o + \boldsymbol{\beta'} \mathbf{X}_i] + \delta_i \tag{1}$$

where Y_i is the observed weekly wage of the ith person, $Exp[\ ]$ is the exponential function, $\mathbf{X}_i$ is a column vector of dummy variables representing the explanatory factors for the ith person, $\boldsymbol{\beta'}$ is a row vector of unknown coefficients associated with $\mathbf{X}_i$, β_o is an unknown intercept, and δ_i is an unobservable random error term. This regression model is applied separately to the sex-specific samples of the four populations in question.

For the Taiwan-born wage earners in each country, the quantification of the explanatory factors by dummy variables is done in the following way.

Educational Attainment: With Bachelor's degree being the reference category, four dummy variables are used to represent the remaining categories: less than high school, high school graduate, some college, and post-graduate degree.[4] For

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[4] Economists have a strong tendency of using the completed years of education to quantify educational attainment, even when the data source is population census or ACS in which the original variable is coded as categories (e.g. Borjas, 1985; Lin, 2013). There are several problems with this approach. First, the category of professional school degree is typically assigned 19 years and the category of doctorate degree is assigned 20 years, but the mean wage of the former is known to be higher than the latter. Second, there is usually a marked jump above the fitted trend line of wage from 15 to 16 years of education because of the so called "sheep skin" effect (Angrist and Pischke, 2009, p. 39). Third, it has been shown that in recent decades in

brevity, we denote post-graduate degree by "Master+". In the ACS, this category includes the following codes: 14="Master's degree", 15="Professional school degree", and 16="Doctorate degree", whereas in the Canadian census, it includes the following codes: 10="University certificate or diploma above bachelor level", 11="Degree in medicine, dentistry, veterinary medicine or optometry", 12="Master's degree", and 13="Doctorate degree".

Entry Age: With the entry age of less than 35 years being the reference category, a dummy variable is used to represent the entry age of 35 years or older. Note that in Canadian census, because foreign-born individuals who did not have the legal status of a permanent immigrant were not asked to answer the question on entry age, we use an additional dummy variable to distinguish their unknown entry age. Our choice of 35 years as a reasonable dividing age is based on our ideas (1) that most immigrants who are interested in attending educational institutions in the United States or Canada would do so in their 20s and early 30s, and (2) that in addition to the enhanced technical and professional skills, this schooling experience can enhance the immigrants' earning potentials in various ways (e.g. via improved English proficiency and social skills).

Entry Period (Recency of entry): With the entry period of earlier than 2000 being the reference category, a dummy variable is used to represent the entry period of any year since 2000.

Current Age: With the current age interval of 45-49 years being the reference category, seven dummy variables are used to represent the other five-year age intervals: 25-29, 30-34, 35-39, 40-44, 50-54, 55-59, and 60-64.

For the mainstreams of the two host countries, only two of these explanatory factors (educational attainment and current age) are relevant and are quantified in the same way.

America, the log of wage as a function of schooling year is nearly flat below 12 years and then rises sharply, so that the conventional wage function requires the inclusion of a spline to avoid getting misleading empirical findings (Bratsberg and Ragan, 2002; El-Araby Aly and Ragan, 2010). In light of these problems, we prefer the categorical way to quantify educational attainment.

Because the gaps of average wages among the five levels of educational attainment tend to be substantially smaller in the 25-29 age interval than in other age intervals (Figures 1 and 2 in Liaw and Lin, 2014), we include in the regression model interactions of all educational dummy variables with the dummy variable representing the 25-29 age group.

The unknown coefficients are estimated by a nonlinear weighted least-squares method that minimizes the sum of

$w_i\{Y_i - Exp[B_o + \mathbf{B'} \mathbf{X}_i]\}^2$ across all individuals in the sample, where w_i is the weight of the ith person, and B_o and $\mathbf{B'}$ are guessed value of β_o and $\boldsymbol{\beta'}$, respectively. The estimated coefficients are generated by an iterative Newton-Raphson algorithm with an adjustable step size.[5]

Let $\underline{B}_o$ and $\underline{\mathbf{B}}$ be the best estimates of β_o and $\boldsymbol{\beta'}$, respectively. The predicted values of Y_i, denoted by $\underline{Y}_i$, are computed by the formula

$$\underline{Y}_i = Exp[\underline{B}_o + \underline{\mathbf{B}}' \mathbf{X}_i]. \tag{2}$$

We call the pattern of the predicted wages in the space spanned by the values of the explanatory factors as the predicted *wage structure*.

It is important to note that the conventional approach of using the log of Y_i as the dependent variable of a regression model (e.g. in Borjas, 1985, and Lin, 2013) tends to have a serious shortcoming of systematically under-predicting the wage pattern. To make the matter worse, the severity of the under-prediction by the conventional approach not only varies with the values of the explanatory variables but also can differ substantially between different data sets: mostly about 20% to 30% for the 2005-2007 ACS data and mostly about 5% to 10% for Taiwan's 2001-2010 Manpower Utilization Survey data (for more insights, see Liaw and Lin, 2014).

Actually, we had completed our statistical analysis via the conventional approach and then discovered the seriousness of the under-prediction problem. For example, consider the predicted wages of the males in the reference category of all

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[5] Because the SAS procedure for estimating the unknown coefficients of a nonlinear regression model (PROC NLIN) does not have the flexibility of allowing the use of a weight variable, we wrote a more flexible SAS module for the estimation task. We are happy to provide a free copy of this module to other researchers at request.

explanatory factors, which is the anti-log of the estimated intercept. The magnitudes of the under-prediction by the conventional approach are 25.0% for the American mainstream, 34.0% for the Canadian mainstream, 18.7% for the Taiwan-born in America, and 35.9% for the Taiwan-born in Canada. The under-predictions not only are huge but also differ markedly among the populations in question. In the end, we were compelled by the empirical evidence to abandon the conventional approach. It seems that many researchers, including professional econometricians, are unaware of this problem, because they either do not pay attention to the magnitude of the estimated intercept or choose to look at the *predicted log of wage* instead of the *predicted wage*.[6]

Comparing the wage structure of the Taiwan-born and that of the mainstream of a host country is useful for assessing whether Taiwan-born individuals of specific attributes (say, having a Bachelor's degree, a rather old entry age, or a recent entry period) are better or worse paid than their counterparts in the mainstream. But, the difference in the *overall* wage level between the Taiwan-born and the host country's mainstream depends not only on the difference in wage structure but also on the inter-group difference in the *compositions* with respect to the explanatory factors. For example, we will show later that in the American labor market, the very strong concentration of Taiwan-born males in the highest educational category helps make their overall wage level to be substantially higher than that of their mainstream counterparts, despite the fact that their wage structure is worse than that of the American mainstream. In our assessment of the importance of each explanatory factor in determining the overall wage difference between two groups of wage earners, we keep a clear distinction between the *structural effect* and the *compositional effect*.

To study the structural and compositional effects on the difference in overall wage levels of two populations in question, we choose to assess the role of each factor in turn, while holding each of remaining factors at its reference category. For

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[6] Although the log transformation may appear to be a harmless monotonic transformation, it can lead to a troublesome contradiction. For example, in Pendakur and Pendakur (1998), we find that for females, the mean wage of Visible Minority immigrants in Canada in 1990 ($20,123) is *less* than that of their Canada-born White counterparts ($20,619), whereas the former's mean log of wage (9.60) turned out to be *greater* than the latter's mean log of wage (9.59). A similar contradiction with respect to the change in the wage level of male Taiwanese immigrants in America from 2000 to 2010 is found in Lin (2013).

example, in assessing the role of educational attainment, we deal with the predicted educational wage structure of the wage earners whose entry age is not too old (i.e. less than 35), whose entry period is not recent (i.e. before 2000), and whose current age is around the prime working age (i.e. 45-49).

This way of assessing the role of each explanatory factor in turn has a mathematical advantage in the sense that the *overall effect* via the perspective of the factor in question is exactly equal to the sum of the *structural effect* and the corresponding *compositional effect*. To make these three effects clearly understood, let us assume that we are interested in assessing (1) the structural effect via the perspective of educational attainment and (2) the compositional effect of educational attainment on the overall wage difference between Taiwan-born males in America and the male American mainstream. Let $\underline{Y}_{it}$ be the predicted wage of the Taiwan-born males in the ith educational category and let K_{it} be the proportional share of the Taiwan-born males by this educational category. Also let $\underline{Y}_{ia}$ be the predicted wage of the male American mainstream in the ith educational category and let K_{ia} be the proportional share of the male American mainstream in this educational category. The overall difference in wage level between the two populations via the perspective of educational attainment (i.e. the *overall effect*) is the sum of ($K_{it}\,\underline{Y}_{it}$ - $K_{ia}\,\underline{Y}_{ia}$) across the five levels of education. The corresponding *compositional effect* is the sum of (K_{it} - K_{ia}) $\underline{Y}_{i.}$ across the five levels of education, where $\underline{Y}_{i.} = (\underline{Y}_{it} + \underline{Y}_{ia})/2$. And the corresponding *structural effect* is the sum of ($\underline{Y}_{it}$ - $\underline{Y}_{ia}$) $K_{i.}$ across the five levels of education, where $K_{i.} = (K_{it} + K_{ia})/2$. Note that the *overall predicted wage* of the Taiwan-born in question via the perspective of educational attainment is the sum of $K_{it}\,\underline{Y}_{it}$ across all educational levels, whereas the corresponding overall predicted wage level of the male American mainstream is the sum of $K_{ia}\,\underline{Y}_{ia}$ across all educational levels.

4. The Role of Educational Attainment

For the four populations in question, the estimated intercept and the estimated coefficients of the educational dummy variables, as well as the predicted educational wage structure, are shown in Tables 2 and 3 for males and females, respectively. The estimated coefficients show a reasonable pattern: positive for the

13

Master+ level, and increasingly negative for lower levels of education, with only a minor exception. The exception occurs to the Taiwan-born males in Canada: their coefficient for "high school graduate" turns out to have an unexpectedly small magnitude, but it has a sensible negative sign. Since its associated t-statistic is less than 2.0 in magnitude, this estimated coefficient is less reliable than other estimated coefficients and plays a relatively minor role.

4.1. Learning from the predicted wage structures via the perspective of educational attainment

Let's start by considering the mainstreams of the American and Canadian labor markets. For both males and females, the predicted wage structures show that *the wage variation by education is much greater in America than in Canada*. The predicted wages of the male American mainstream range from $2,514 at the highest educational level to $824 at the lowest level, whereas the corresponding values of their Canadian counterparts range from $1,925 to $833. The predicted wages of the female American mainstream range from $1,445 at the highest educational level to $480 at the lowest level, whereas the corresponding values of their Canadian counterparts range from $1,195 to $456.

An important feature of the difference in wage variation by education between the American and Canadian mainstreams is that the advantage of completing postgraduate education is much greater for the former than for the latter. Relative to those with Bachelor's degree, the predicted wage level of those with postgraduate degree is much higher for the former than for the latter: among males, 32% higher for the former versus 13% higher for the latter, and among females, 31% higher for the former versus 16% higher for the latter (see the third panel of Tables 2 and 3).

A related feature of the difference in wage variation by education between the American and Canadian mainstreams is that there is relatively little or even no difference in wage level between the two mainstreams at the two lowest levels of education (see the fifth panel of Tables 2 and 3). Thus, the wage gap between the

two mainstreams is mostly limited to upper levels of education and is particularly large at the postgraduate level.

Table 2. The estimated coefficients and predicted wage structures with respect to educational attainment: Taiwan-born **male** wage earners versus their native-born non-Hispanic White counterparts in the American and Canadian labor markets.

Education Category	In American Labor Market		In Canadian Labor Market	
	Taiwan-born	US-born	Taiwan-born	Canada-born
	Estimated Regression Coefficient			
Intercept	7.3712	7.54952	7.1510	7.4366
< High Sch.	-0.7484	-0.83510	*-0.5928*	-0.7113
HS Graduate	-0.6948	-0.64172	*-0.1932*	-0.5253
Some College	-0.3243	-0.43702	-0.4673	-0.4333
Master+	0.3058	0.28024	0.3819	0.1261
	Predicted Wage Structure ($ / Week)			
< High Sch.	752	824	705	833
HS Graduate	794	1,000	1,051	1,004
Some College	1,149	1,227	799	1,100
Bachelor's Degree	1,590	1,900	1,275	1,697
Master+	2,158	2,514	1,868	1,925
	Relative Predicted Wage (Ref: Bachelor's Degree)			
< High Sch.	0.47	0.43	0.55	0.49
HS Graduate	0.50	0.53	0.82	0.59
Some College	0.72	0.65	0.63	0.65
Bachelor's Degree	1.00	1.00	1.00	1.00
Master+	**1.36**	**1.32**	**1.47**	**1.13**
	Education-specific Relative Predicted Wage (Ref: Native born)			
< High Sch.	0.91	1.00	0.85	1.00
HS Graduate	0.79	1.00	1.05	1.00
Some College	0.94	1.00	0.73	1.00
Bachelor's Degree	0.84	1.00	0.75	1.00
Master+	0.86	1.00	0.97	1.00
	Education-specific Relative Predicted Wage (Ref: US-born)			
< High Sch.	0.91	1.00	0.86	1.01
HS Graduate	0.79	1.00	1.05	1.00
Some College	0.94	1.00	0.65	0.90
Bachelor's Degree	0.84	1.00	0.67	0.89
Master+	0.86	1.00	0.74	0.77

Note: The estimated coefficients with a t-statistic less than 2.0 in magnitude are in italic.

Table 3. The estimated coefficients and predicted wage structures with respect to educational attainment: Taiwan-born **female** wage earners versus their native-born non-Hispanic White counterparts in the American and Canadian labor markets.

Education Category	In American Labor Market		In Canadian Labor Market	
	Taiwan-born	US-born	Taiwan-born	Canada-born
	Estimated Regression Coefficient			
Intercept	7.0268	7.0044	6.7384	6.9386
< High Sch.	-0.5154	-0.83050	-0.3598	-0.8156
HS Graduate	-0.6952	-0.61620	-0.3245	-0.5427
Some College	-0.3447	-0.37745	-0.2114	-0.4030
Master+	0.3210	0.27161	0.2897	0.1474
	Predicted Wage Structure ($ / Week)			
< High Sch.	673	480	589	456
HS Graduate	562	595	610	599
Some College	798	755	683	689
Bachelor's Degree	1,126	1,102	844	1,031
Master+	1,553	1,445	1,128	1,195
	Relative Predicted Wage (Ref: Bachelor's Degree)			
< High Sch.	0.60	0.44	0.70	0.44
HS Graduate	0.50	0.54	0.72	0.58
Some College	0.71	0.69	0.81	0.67
Bachelor's Degree	1.00	1.00	1.00	1.00
Master+	**1.38**	**1.31**	**1.34**	**1.16**
	Education-specific Relative Predicted Wage (Ref: Native born)			
< High Sch.	1.40	1.00	1.29	1.00
HS Graduate	0.94	1.00	1.02	1.00
Some College	1.06	1.00	0.99	1.00
Bachelor's Degree	1.02	1.00	0.82	1.00
Master+	1.07	1.00	0.94	1.00
	Education-specific Relative Predicted Wage (Ref: US-born)			
< High Sch.	1.40	1.00	1.23	0.95
HS Graduate	0.94	1.00	1.03	1.01
Some College	1.06	1.00	0.90	0.91
Bachelor's Degree	1.02	1.00	0.77	0.94
Master+	1.07	1.00	0.78	0.83

Since we believe that a high proportion of the Taiwan-born wage earners with a postgraduate degree did their graduate studies either in America or Canada, we are not surprised to find that relative to the Taiwan-born wage earners with a Bachelor's degree in the same labor market, their wage level is markedly higher. Among the males, their relative advantage is 36% in America and 47% in Canada. Among the females, their relative advantage is 38% in America and 34% in Canada (see the third panel of Tables 2 and 3). This large wage advantage is undoubtedly related to the improvement in their language ability and marketable skills achieved in the host country's graduate schools.

With some exceptions, the education-specific wage levels of the Taiwan-born tend to be lower than those of their mainstream counterparts in each of the two labor markets (see the fourth panel of Tables 2 and 3). This pattern is consistent with the idea that immigrants from non-English speaking countries tend to receive lower wages than their mainstream counterparts in both America and Canada. However, we are surprised to find that Taiwan-born females in America have somewhat higher wage levels than their mainstream counterparts at most levels of education. This unexpected finding is partly due to the fact that the Taiwan-born females have somewhat longer average work hours per week than their mainstream counterparts do: 39.46 versus 38.14 hours. When the variable representing work hours is added into the multivariate model for females in America, the Taiwan-born versus the mainstream wage ratios decrease from 1.40 to 1.22 at the lowest education, from 0.94 to 0.81 at the high school level, from 1.06 to 1.02 for some college education, and 1.02 to 0.99 at Bachelor's level, while the ratio remains to be 1.07 at the post-graduate level. It is worth noting that in the expanded regression model, the estimated coefficient of the variable representing work hours per week turns out to be smaller for the Taiwan-born females than for their American mainstream counterparts (0.017 versus 0.020), implying that the former are somewhat disadvantaged in terms of the marginal reward for an additional work hour. This finding suggests that if more factors (e.g. the field of Bachelor's degree) are added to the multivariate model for females, the Taiwan-

born versus the mainstream wage ratios at all education levels may become less than 1.[7]

The wage structures of the Taiwan-born shown in Tables 2 and 3 are by themselves not helpful for explaining the fact that the sex-specific overall wage levels of the Taiwan-born in America are substantially higher than those of their mainstream counterparts. For such purpose, we have to also consider the educational compositions of the populations in question.
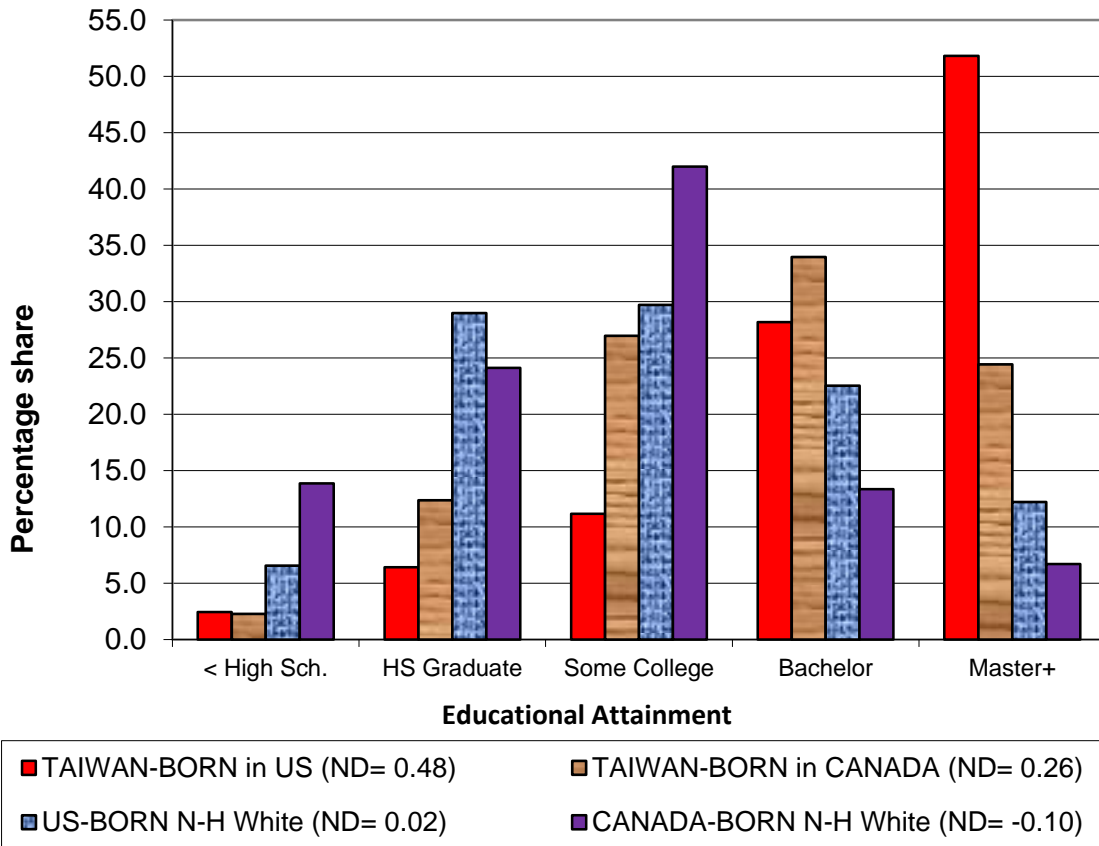
4.2. Differences in educational composition among the populations in question

We see from Figure 1 (for males) and Figure 2 (for females) that the sex-specific educational compositions of the Taiwan-born in both America and Canada are much better than those of their mainstream counterparts. To quantify the quality of an observed educational composition, we compute Lieberson's Net Difference (ND) between it and a reference composition that has 20% of individuals in each of the five educational categories. The ND is a difference of two probabilities. The first is the probability that a randomly selected individual from the observed composition will be better educated than a randomly selected individual from the reference composition, whereas the second is the probability that a randomly selected individual from the observed composition will be less educated than a randomly selected individual from the reference composition (Lieberson, 1976 and 1980). With our chosen reference composition, the maximum value of ND is 0.8 (when the individuals in the composition in question are all concentrated in the highest category), and its minimum is -0.8 (when the individuals in the composition in question are all concentrated in the lowest category).

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[7] Starting in 2009, the ACS questionnaire has an additional question on the field of Bachelor's degree. From the 2009-2013 ACS micro data, we recently found that for the Taiwan-born females who worked for 50-52 weeks in the previous 12 months, reported an annual wage of at least $5000, had at least a Bachelor's degree, and were aged 25-64, the five most popular fields are (1) Accounting (share=8.5%; mean wage=$78,208), (2) Business Management and Administration (5.9%; $66,346), (3) General Business (5.6%; $63,585), (4) Economics (4.5%; $87,428), and (5) English Language and Literature (4.0%; $65,896). For the corresponding US-born Non-Hispanic White females, the five most popular fields are (1) Nursing (7.8%; $71,512), (2) Elementary Education (6.3%; $50,934), (3) Psychology (5.9%;$61,035), (4) Business Management and Administration (5.7%; $67,682), and (5) General Education (5.0%; $54,843). In general, the Taiwan-born females are more concentrated in the fields that are rewarded with higher wages.
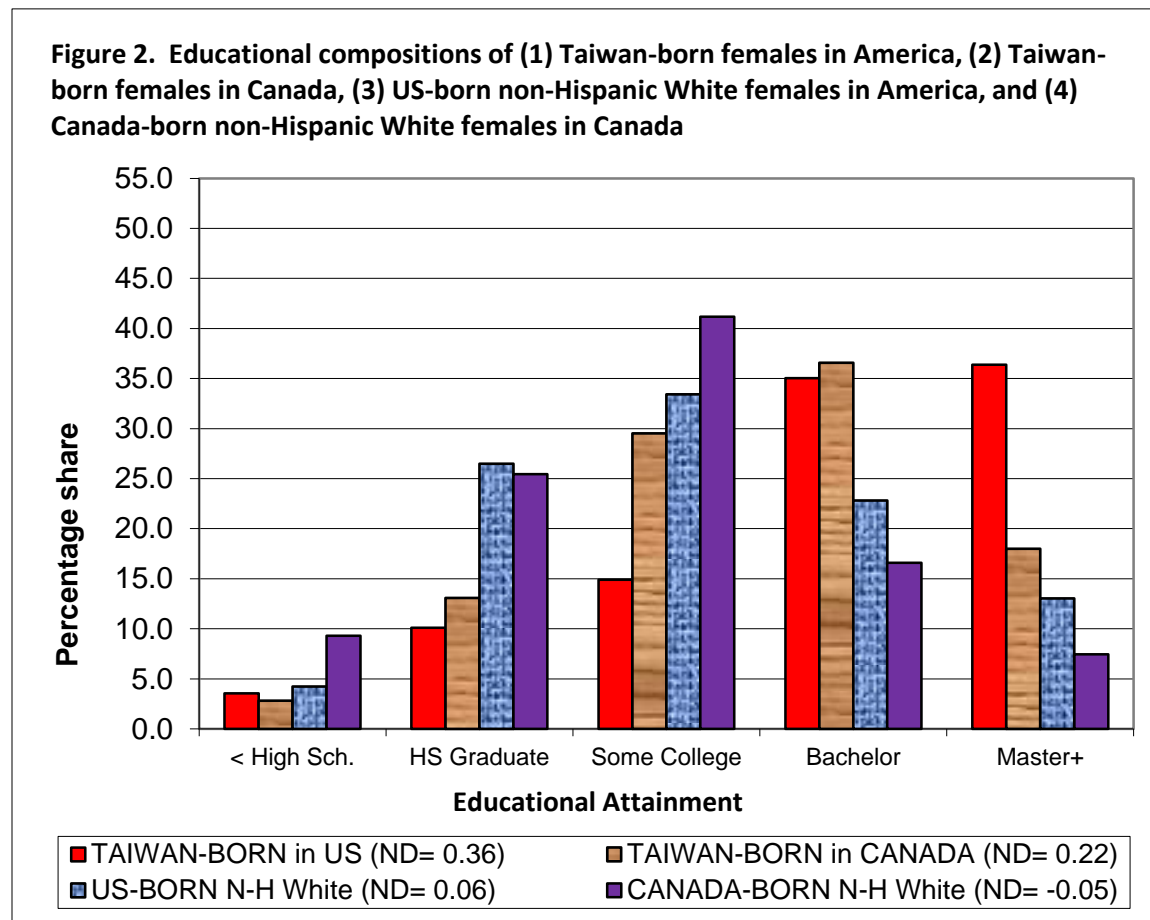
Figure 1. Educational compositions of (1) Taiwan-born males in America, (2) Taiwan-born males in Canada, (3) US-born non-Hispanic White males in America, and (4) Canada-born non-Hispanic White males in Canada

Legend:
- TAIWAN-BORN in US (ND= 0.48)
- TAIWAN-BORN in CANADA (ND= 0.26)
- US-BORN N-H White (ND= 0.02)
- CANADA-BORN N-H White (ND= -0.10)

(Y-axis: Percentage share; X-axis: Educational Attainment; categories: < High Sch., HS Graduate, Some College, Bachelor, Master+)

First, consider the male situation. With 51.8% being concentrated in the postgraduate category and the ND being as high as 0.48, the Taiwan-born in America are by far the best educated. In contrast, with only 6.7% being in the postgraduate category and the ND being as low as -0.10, the Canadian mainstream are the least educated. With 24.4% being in the postgraduate category and the ND being 0.26, the Taiwan-born in Canada have the second best educational composition. With 12.2% being in the postgraduate category and the ND being 0.02, the American mainstream has the second lowest educational composition.

Next, consider the female situation. With 36.4% being concentrated in the postgraduate category and the ND being as high as 0.36, the Taiwan-born in America are by far the best educated. In contrast, with only 7.6% being in the postgraduate category and the ND being as low as -0.05, the Canadian mainstream

are the least educated. With 18.0% being in the postgraduate category and the ND being 0.22, the Taiwan-born in Canada have the second best educational composition. With 13.0% being in the postgraduate category and the ND being 0.06, the American mainstream has the second lowest educational composition. Clearly, the rankings of the four populations in terms of the quality of educational composition are completely consistent between the two sexes.

Figure 2. Educational compositions of (1) Taiwan-born females in America, (2) Taiwan-born females in Canada, (3) US-born non-Hispanic White females in America, and (4) Canada-born non-Hispanic White females in Canada

4.3. Assessment of the compositional and structural effects via the perspective of educational attainment

Again, let's start by comparing the two mainstreams. In Panel 1 of Table 4, we find that for males, the overall wage level of the Canadian mainstream is 18.6% lower than that of the American mainstream. We also find that for females, this difference is 15.0%. About half of the overall difference (9.4% for males and 7.4% for females) is structural, and another half (9.2% for males and 7.6% for females) is compositional.

20

Next, let's consider the wage gap between the Taiwan-born in America and the American mainstream. In Panel 2 of Table 4, we find (1) that for males, the overall wage level of the Taiwan-born in America is 22.2% *higher* than that of the American mainstream, and (2) that for females, this difference is a hefty 33.2%.

Table 4. Assessment of overall, structural, and compositional effects of educational attainment on the difference in Overall Predicted Wage between populations

Overall Predicted Wages and three kinds of effects	Males		Females	
	Value ($)	Ratio	Value ($)	Ratio
Panel 1: Contrasting Canadian Mainstream against American Mainstream				
Overall Predicted Wage of Canadian Mainstream	1,175	0.814	739	0.850
Overall Predicted Wage of American Mainstream	1,444	1.000	870	1.000
Structural Effect	-136	-0.094	-65	-0.074
Compositional Effect	-133	-0.092	-66	-0.076
Overall Effect	-269	-0.186	-131	-0.150
Panel 2: Contrasting the Taiwan-born in America against American Mainstream				
Overall Predicted Wage of Taiwan-born in America	1,764	1.222	1,159	1.332
Overall Predicted Wage of American Mainstream	1,444	1.000	870	1.000
Structural Effect	-248	-0.172	46	0.052
Compositional Effect	568	0.394	244	0.280
Overall Effect	320	0.222	289	0.332
Panel 3: Contrasting the Taiwan-born in Canada against Canadian Mainstream				
Overall Predicted Wage of Taiwan-born in Canada	1,251	1.065	810	1.096
Overall Predicted Wage of Canadian Mainstream	1,175	1.000	739	1.000
Structural Effect	-214	-0.182	-50	-0.068
Compositional Effect	290	0.247	121	0.164
Overall Effect	76	0.065	71	0.096
Panel 4: Contrasting the Taiwan-born in Canada against the Taiwan-born in America				
Overall Predicted Wage of Taiwan-born in Canada	1,251	0.709	810	0.699
Overall Predicted Wage of Taiwan-born in America	1,764	1.000	1,159	1.000
Structural Effect	-252	-0.143	-239	-0.206
Compositional Effect	-261	-0.148	-110	-0.095
Overall Effect	-513	-0.291	-349	-0.301

Note: Here all groups of wage earners are restricted to those with the current age being 45-49. Those born in Taiwan are further restricted to those who entered the host country before 2000 and had an entry age of less than 35. In each panel, the denominator for computing the values of "ratio" is the overall predicted wage of the second population

Consistent with the conventional expectation that immigrants tend to encounter various handicaps in the labor market of the host country and hence tend to be rewarded with lower wages (Borjas, 1999), the structural effect is highly negative for Taiwan-born males (-17.2%). However, contrary to the conventional expectation, the structural effect turns out to be positive for Taiwan-born females (5.2%). For males, the negative structural effect is very strongly compensated for by a huge positive compositional effect (39.4%) so that the overall effect becomes highly positive. For females, the moderate positive structural effect is reinforced by another huge positive compositional effect (28.0%) so that the overall effect also becomes highly positive.

Next, let's consider the wage gap between the Taiwan-born in Canada and the Canadian mainstream. In Panel 3 of Table 4, we find (1) that for males, the overall wage level of the Taiwan-born in Canada is 6.5% *higher* than that of the Canadian mainstream, and (2) that for females, this difference is 9.6%. Consistent with the conventional expectation, the structural effects are negative for both sexes (-18.2% for males and -6.8% for female). However, for both sexes, the compositional effects (24.7% for males and 16.4% for females) are positive and greater in magnitude than the corresponding structural effects so that the overall effects become clearly positive.

Finally, let's consider the wage gap of the Taiwan-born between the Canadian and American labor markets. In Panel 4 of Table 4, we find that for each sex, the overall wage level of the Taiwan-born is substantially lower in Canada than in America: the gap is -29.1% for males and -30.1% for females. For each sex, both structural and compositional effects are markedly negative. In short, the fact that the Taiwan-born in Canada not only have a worse wage structure but also are less educated than their counterparts in America is an important reason for the huge difference in their observed wage levels between these two labor markets that we saw previously in Table 1.

5. The Role of Entry Age

For the Taiwan-born in Canada and America, the estimated regression coefficients related to entry age, as well as the corresponding predicted wage structure, are shown for both males and females in Table 5. The estimated coefficients show a reasonable pattern: there is a clear disadvantage of entering the host country at a rather old age (>=35).

Table 5. The estimated coefficients and predicted wage structures with respect to entry age: Taiwan-born **male** and **female** wage earners in the American and Canadian labor markets.
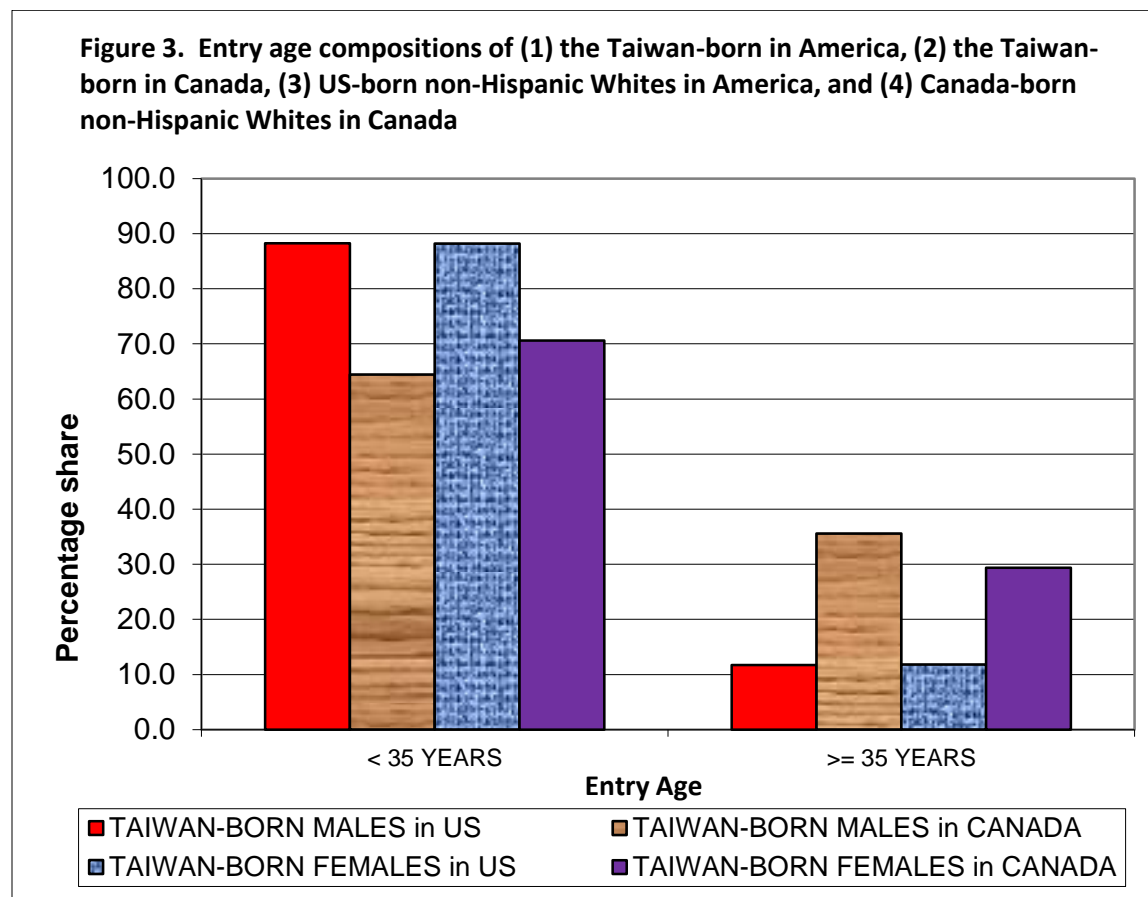
Entry Age Category	In American Labor Market		In Canadian Labor Market	
	Male	Female	Male	Female
Estimated Regression Coefficient				
Intercept	7.3712	7.0268	7.1510	6.7384
Aged 35+	-0.2571	-0.27379	-0.8727	-0.4379
Unknown	-----	-----	*-0.4033*	*0.1029*
Predicted Wage Structure ($ / Week)				
Aged < 35	1,590	1,126	1,275	844
Aged 35+	1,229	857	533	545
Unknown	-----	-----	852	936
Relative Predicted Wage (Ref: Aged < 35)				
Aged < 35	1.00	1.00	1.00	1.00
Aged 35+	**0.77**	**0.76**	**0.42**	**0.65**
Unknown	-----	-----	0.67	1.11
Relative Predicted Wage (Ref: American Labor Market)				
Aged < 35	1.00	1.00	0.80	0.75
Aged 35+	1.00	1.00	**0.43**	**0.64**

Note: The estimated coefficients with a t-statistic less than 2.0 in magnitude are shown in italic. For computing wage structure, all wage earners are restricted to those who had a Bachelor's degree, had the current age of 45-49, and entered the host country before 2000.

From the predicted wage structures in Table 5, we find that in the American labor market, the Taiwan-born with an entry age being >=35 suffer a large penalty

of 23% for males and 24% for females. In the Canadian labor market, the situation is even worse: their wage penalty amounts to 58% for males and 35% for females.

To make the matter worse for the Taiwan-born in Canada, they have much higher proportion being with such an old entry age than their counterparts in America (Figure 3). Among males, those entering the host country at age 35 or older represent 11.7% of the Taiwan-born wage earners in America and 35.6% of the Taiwan-born wage earners in Canada. Among females, the corresponding shares are 11.8% in America and 29.4% in Canada.

Figure 3. Entry age compositions of (1) the Taiwan-born in America, (2) the Taiwan-born in Canada, (3) US-born non-Hispanic Whites in America, and (4) Canada-born non-Hispanic Whites in Canada

We see in Table 6 that from the perspective of entry age, the overall wage gap of the Taiwan-born between the two labor markets is very large: -36.4% for males and -30.9% for females. For both sexes, the negative structural effect (-26.2% for males and -26.3% for females) is reinforced by the negative compositional effect (-8.5% for males and -4.6% for females).

It is worth noting for the Taiwan-born in the two labor markets that the structural effect from the perspective of entry age (-26.2% for males and -26.3% for females) is greater in magnitude than the structural effect from the perspective of educational attainment (-15.8% for males and -20.6% for females), whereas the compositional effect of educational attainment (-12.7% for males and -9.5% for females) is greater in magnitude than the compositional effect of entry age (-8.5% for males and -4.6% for females). Consequently, the overall effects from both perspectives are similarly huge. For the Taiwan-born females, the overall effects are nearly identical (-30.9% from the perspective of entry age and -30.1% from the perspective of educational attainment). In short, both entry age and educational attainment are very important factors in accounting for the observed huge wage gap of the Taiwan-born between the Canadian and American labor markets.

Table 6. Assessment of overall, structural, and compositional effects of entry age on the difference in predicted wage level of the Taiwan-born between America and Canada

Predicted wage levels and three kinds of effects	Males		Females	
	Value ($)	Ratio	Value ($)	Ratio
Overall Predicted Wage of Taiwan-born in Canada	1,011	0.654	756	0.691
Overall Predicted Wage of Taiwan-born in America	1,547	1.000	1,095	1.000
Structural Effect	-405	-0.262	-288	-0.263
Compositional Effect	-131	-0.085	-50	-0.046
Overall Effect	-536	-0.346	-338	-0.309

Note: Here all wage earners are restricted to those who had a Bachelor's degree, had the current age of 45-49, and entered the host country before 2000. The denominator for computing the values of "ratio" is the overall predicted wage of the second population.

6. The Role of Entry Period

For the Taiwan-born in Canada and America, the estimated regression coefficients related to entry period, as well as the corresponding predicted wage structure, are shown for both males and females in Table 7. The estimated coefficients show a reasonable pattern: there is a clear disadvantage of entering the host country in the most recent period (the 2000s).

From the predicted wage structure in Table 7, we find that the Taiwan-born with the most recent entry period suffer a larger disadvantage in America (32% for males and 36% for females) than in Canada (20% for males and 17% for females).

However, there is little difference between the two host countries in the proportion of the Taiwan-born being the most recent entrants: about 10% in both countries (Figure 4). Consequently, from the perspective of entry period, the compositional effect is almost nil for both sexes, and the overall effect (-19.1% for males and -23.9% for females) is almost completely due to structural effect (Table 8).

It is useful to note that the estimated coefficients in Tables 5 and 7 indicate that the detrimental effect of the most recent entry period is clearly more serious in America than in Canada, whereas the detrimental effect of late entry age is much more serious in Canada than in America. From this difference, together with the finding that the compositional effect of entry period is almost nil, we infer that entry period is not useful for accounting for the fact that the observed wage level of the Taiwan-born is much lower in Canada than in America.

Table 7. The estimated coefficients and predicted wage structures with respect to entry period: Taiwan-born **male** and **female** wage earners in the American and Canadian labor markets

Entry Period Category	In American Labor Market		In Canadian Labor Market	
	Male	Female	Male	Female
Estimated Regression Coefficient				
Intercept	7.3712	7.0268	7.1510	6.7384
Since 2000	-0.3864	-0.45063	*-0.2201*	-0.1913
Predicted Wage Structure ($ / Week)				
Before 2000	1,590	1,126	1,275	844
Since 2000	1,080	718	1,023	697
Relative Predicted Wage (Ref: Aged < 35)				
Before 2000	1.00	1.00	1.00	1.00
Since 2000	0.68	0.64	0.80	0.83
Relative Predicted Wage (Ref: American Labor Market)				
Before 2000	1.00	1.00	0.80	0.75
Since 2000	1.00	1.00	0.95	0.97

Note: The estimated coefficients with a t-statistic less than 2.0 in magnitude are shown in italic. All wage earners are restricted to those who had a Bachelor's degree, and had the current age of 45-49 and the entry age of less than 35.

Figure 4. Entry period compositions of (1) the Taiwan-born in America, (2) the Taiwan-born in Canada, (3) US-born non-Hispanic Whites in America, and (4) Canada-born non-Hispanic Whites in Canada
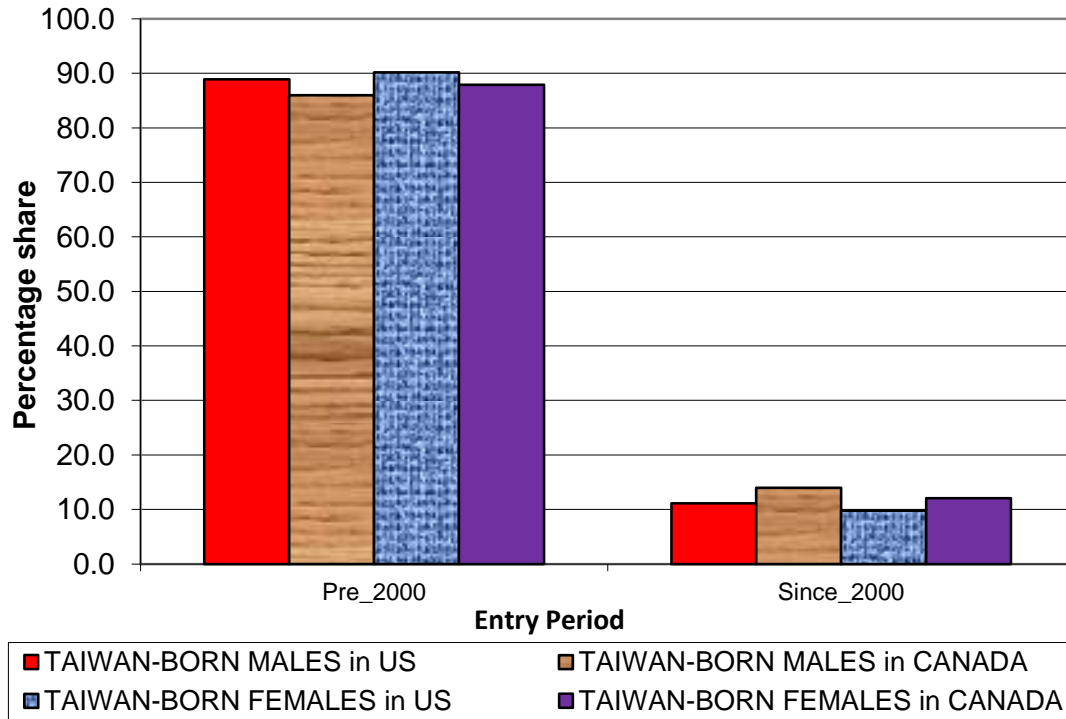
Table 8. Assessment of overall, structural, and compositional effects of entry period on the difference

in predicted wage level between populations

Predicted wage levels and three kinds of effects	Males		Females	
			Value	
	Value ($)	Ratio	($)	Ratio
Overall Predicted Wage of Taiwan-born in Canada	1,240	0.809	826	0.761
Overall Predicted Wage of Taiwan-born in America	1,533	1.000	1,086	1.000
Structural Effect	-282	-0.184	-254	-0.233
Compositional Effect	-11	-0.007	-6	-0.006
Overall Effect	-293	-0.191	-260	-0.239

Note: Here all wage earners are restricted to those who had a Bachelor's degree, had the current

age of 45-49 and the entry age of less than 35. The denominator for computing the

values of "ratio" is the overall predicted wage of the second population.

27

7. Concluding Discussion

From the 2005-2007ACS micro data and the long-form records of the 2006 Canadian census, we have found that the difference in the wage level of the Taiwan-born between the American and Canadian labor markets is *extremely large*. For males, their mean wage in Canada is only 50% of their mean wage in America. For females, their mean wage in Canada is only 55% of their mean wage in America. Through multivariate analysis, we have learned that this extremely large wage gap can be well explained from the perspectives of educational attainment and entry age.

From the perspective of educational attainment, our examination of the mainstreams of the two host countries reveals that achieving higher education tends to be more rewarding in America than in Canada, and that the wage structure of the Canadian mainstream is lower than that of the American mainstream (by 9.4% for males and 7.4% for females). For the Taiwan-born, the gap in wage structure between the two host countries is magnified to 14.3% for males and 20.6% for females. On top of this magnified structural wage gap, the much better educational composition of the Taiwan-born in America than in Canada results in a compositional wage gap of 14.8% for males and 9.5% for females, so that their overall wage gap between the two host countries becomes very large (29.1% for males and 30.1% for females).

Form the perspective of entry age, we find that the wage disadvantage of entering the host country at age 35 or older is much greater in Canada than in the US, and that the Taiwan-born in Canada have a much higher proportion with such disadvantageous entry age than the Taiwan-born in America do. These two disadvantages also substantially magnify their overall wage gap between America and Canada (34.6% for males and 30.9% for females).

Our finding that among Taiwan-born wage earners, those entering Canada tend to be of lower quality (i.e. having less education and rather old entry age) than those entering America seems to support the ideas that potential immigrants tend to rank America higher than Canada, and that the severe competition for limited number of immigrant visas results in a sorting process that yields a higher probability of entering America to those with higher quality. The general

applicability of these ideas to the immigrants from other countries is supported by the similar finding of our analysis of the data on the China-born wage earners: the proportion with postgraduate degree is much higher for those entering America than for those entering Canada (41.0% versus 26.9% for males, and 31.4% versus 17.0% for females); and the proportion with the entry age being greater than 34 is lower for those entering America than for those entering Canada (23.3% versus 34.7% for males, and 23.0% versus 28.5% for females). Reflecting this big difference in quality, their Canada/America average wage ratio turns out to be very low (0.66 for males and 0.63 for females).

Finally, the finding that the extremely large differences in quality and in wage between the American and Canadian labor markets for the Taiwan-born seems to partly reflect the fact that a high proportion of those in Canada escaped from Taiwan in the 1990s in response to the confrontational relation between Taiwanese and Chinese governments and to the military threat of China, although all the missiles fired by China towards Taiwan in 1996 landed harmlessly in the sea around Taiwan.[8] Somewhat like the real refugees from other Asian countries, these escapees are not as strongly positively selective as the so-called economic immigrants. In short, the fear of war with China is also an underlying reason for the extremely large wage gap of the Taiwan-born between America and Canada.[9]

Acknowledgement

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[8] Based on CIC (2013) and earlier similar publications, the average annual intake of permanent residents from Taiwan is 3,356 for the period from 1974 to 2012. It is 7,799 in the 1990s. In response to China's firing of missiles towards Taiwan in 1996, the annual intake jumps up to 13,207 in 1996 and 13,324 in 1997.

[9] In Taiwan, all healthy young males have the legal obligation to be soldiers. To reduce the avoidance of military service via the movement to foreign countries, the law prohibits young males older than 15 from leaving Taiwan. From the sex by entry age tabulation of the 1980-2001 landing records of Taiwan-born permanent residents in Canada, we find that the greatest number of them is in the cell of male at age 15. In contrast, a similar tabulation of Taiwan-born individuals in the 2005-2007 ACS reveals that for both males and females in America, those with the entry age being the mid-20s are by far the most numerous. These findings suggest that the voidance of military service for sons is an important reason for migrating to Canada but not for migrating to America.

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