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Article

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IZA Journal of Development and Migration

Provided in Cooperation with:

IZA – Institute of Labor Economics

Suggested Citation: Gibbons, Eric M.; Mukhopadhyay, Sankar (2020) : New evidence on international transferability of human capital, IZA Journal of Development and Migration, ISSN 2520-1786, Sciendo, Warsaw, Vol. 11, Iss. 1, pp. 1-39, <https://doi.org/10.2478/izajodm-2020-0009>

This Version is available at:

<https://hdl.handle.net/10419/298680>

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Eric M. Gibbons* and Sankar Mukhopadhyay*

New Evidence on International Transferability of Human Capital

Abstract

This article sheds new light on the portability of human capital. We estimate the returns to source country experiences, viz., general, occupation-specific, and task-specific experiences, using data from the New Immigrant Survey (NIS), conducted in 2003. While the “returns to general experience” has been discussed in the literature, we are not aware of any previous attempt to estimate the returns to source country occupation-specific and task-specific experiences. Our estimates show that even though the returns to source country general experience is negligible, returns to source country occupation-specific experience is economically and statistically significant. We also find that returns to source country abstract (specifically analytical) task-specific experience is substantial and significant. Our results are robust to inclusion of source country wage, which may reflect unobservable characteristics that influence wages. We explore whether returns to work experience vary by income level in the source country or by an immigrant’s skill level.

Current version: April 01, 2020

Keywords: occupation-specific experience, task-specific experience, general experience, source country, immigration

JEL codes: J3, J61, J62

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1 Introduction

The number of immigrants worldwide has increased at a dramatic rate in the past few decades. Grieco and Trevelyan (2010) have reported that the number of foreign-born individuals in the U.S. has increased from 9.6 million (or about 4.7% of the U.S. population) in 1970 to 38 million (or about 12.5% of the U.S. population) in 2009. The economic outcomes of immigrants may depend on the international portability of human capital acquired in their source countries. Current literature suggests that the return to source country education is generally positive (Friedberg, 2000; Schaafsma and Sweetman, 2001; Bratsberg and Ragan, 2002; Ferrer and Rid-dell, 2008; Chiswick and Miller, 2008; Nielson, 2011; Ferrer et al., 2006). On the other hand, the return to source country work experience is small or even negligible (Friedberg, 2000; Cohen-Goldner and Eckstein, 2008; Basilio et al., 2017; Green and Worswick, 2002; Aydemir and Skuterud, 2005).

The literature on international portability has almost exclusively focused on general human capital (education and general work experience [GE]). However, a number of papers in the past three decades have stressed that a large part of human capital is either industry specific or occupation specific, or both (Neal, 1995; Parent, 2000; Dustmann and Meghir, 2005; Kambourov and Manovskii, 2009; Williams, 2009; Sullivan, 2010). More recently, Gibbons and Waldman (2004), Gathmann and Schönberg (2010), and Schulz et al. (2013) have pointed out the importance of task-specific human capital. These papers have established the importance of both occupation-specific experience (OE) and task-specific experience (TE) in wage growth. However, how specific experiences (OE and TE) acquired by immigrants in their source countries are valued in a host country remain unexplored.

In this paper, we use data from the New Immigrant Survey (Guillermina et al. 2006) to estimate the association between source country GE, OE, and TE of immigrants and their U.S. wages in their first U.S. job. We are not aware of any other studies that have estimated how OE and TE acquired in the source countries of the immigrants are valued in a host country.

We estimate wage regressions where GE, OE, and TE simultaneously enter the wage equation in a quartic manner (Murphy and Welch, 1990), along with an extensive set of control variables, including source country and U.S. entry year fixed effects. We check the sensitivity of returns to GE, OE, and TE to different levels of occupational granularity – from the one-digit (least granular) to the three-digit level (most granular) – and different levels of task granularity – from three types of tasks (Abstract, Routine, and Manual) to five types of tasks [nonroutine cognitive: analytical (NRCA), nonroutine cognitive: interpersonal (NRCI), routine cognitive (RCOG), routine manual (RMAN), and nonroutine manual: physical adaptability (NRMN)] (Autor et al., 2003; Autor and Handel, 2013).

Ordinary least squares (OLS) estimates show that an immigrant with 5 years of OE earns between 20.3% and 27.2% more than an immigrant without any OE. The return to OE is the highest when we define occupations in the most granular way. We also find that the return to Abstract TE is positive and significant. An immigrant with 5 years of Abstract TE earns between 16.2% and 20.2% more than a comparable immigrant without any Abstract TE. Returns to Routine and Manual TE are always insignificant. A more disaggregated task-based approach shows that among the abstract tasks, analytical (NRCA) skills are transferable. Other abstract skills, including interpersonal (NRCI) skills, have limited or no transferability.

The remainder of the paper has the following structure. Section 2 discusses the relevant literature, Section 3 presents the data, Section 4 presents the empirical results, and Section 5 concludes.

2 Background

This paper relates to two strands of literature. The first strand is about international portability of human capital. In an influential paper, Friedberg (2000) shows that returns to source country GE are much smaller than returns to host country GE, or even insignificant for immigrants in Israel. Cohen-Goldner and Eckstein (2008) report similar results. Basilio et al. (2017) find small but statistically significant returns to source country GE. Kossoudji (1989) finds negligible returns to source country GE in the case of immigrants to the U.S. Green and Worswick (2002) report similar results for Canada. Aydemir and Skuterud (2005) and Green (2009) report that even though immigrants to Canada enjoyed a substantial return to source country GE in the early 1980s, the return to source country GE declined to zero by the early 1990s. Aydemir and Skuterud (2005) further find that most of the decline was due to a larger presence in Canada of immigrants from “nontraditional” (mostly developing countries) countries. Worswick (2003) suggests that even though the return to source country work experience is negligible at the time of entry, source country work experience may become valuable after immigrants spend time in the host country. However, Chiswick et al. (2005) and Beenstock et al. (2009) find evidence to the contrary.

The second strand relates to the literature on the estimation of OE/TE. Previous studies on returns to specific human capital have established that there are significant wage returns to OE/TE. Many of these studies have noted that OE/TE may be endogenous in the wage equation. Unobserved occupational and firm match, as well as unobserved ability, may bias returns to both OE and TE (Gathmann and Schönberg, 2010). A good-quality occupational or firm match will likely cause returns to OE to be upward biased, whereas, a poor match in one or both job dimensions may cause the worker to switch occupations, resulting in a downward bias on the return to OE and TE. Workers with higher unobserved ability are expected to have greater occupational or firm attachment and will likely yield upward-biased OLS estimates on OE and TE.

Altonji and Shakotko (1987) propose an instrumental variable (IV) approach to account for selection into occupations, which has been used by Kambourov and Manovskii (2009), Sullivan (2010), Williams (2009). Gathmann and Schönberg (2010) apply local labor market and occupational-similarity instruments to address selection on TE. Workers switching occupations are more likely to choose an occupation similar in task composition and have a higher propensity to remain in the same occupation if there are greater employment opportunities in that market. Unfortunately, IV is not feasible with our analysis due to data constraints.

Previous studies on return to experience have encountered similar difficulties using immigrant data. Reinhold and Thom (2013) discuss the endogeneity problems in estimating returns to U.S. experience for workers returning to Mexico. The authors point to similar constraints in constructing instruments using the Mexican Migration Project (MMP). The MMP, like the NIS, contains cross-sectional data and prohibits the construction of the instrument proposed by Altonji and Shakotko (1987). The authors rely on OLS to estimate the return to U.S.

experience using various control strategies. Similar to Reinhold and Thom (2013), we proceed with OLS, utilizing an extensive set of controls to estimate returns to source country experiences. As a robustness check, we control for time-constant heterogeneity by adding, as a control, the wages earned by the immigrants in their source countries before moving to the U.S.

Existing literature notes that OLS and IV estimates on the return to OE are not only qualitatively similar, but the direction of bias is unclear. For example, Sullivan (2010) reports that 5 years of OE (at the one-digit occupational level) increases wages by 10.36% using OLS and 13.30% using IV estimates. Kambourov and Manovskii (2009) report that the return to 5 years of OE (at the two-digit occupation level) is 10.98% using OLS and 8.75% using IV estimates. Dustmann and Meghir (2005) report that one additional year of sector tenure increases wages by 1.4% using OLS and 1.0% using IV estimates. Gathmann and Schönberg (2010) find that the OLS estimates on the return to TE are smaller than the IV estimates. Their findings suggest that OLS estimates may provide a lower bound to returns on TE.

There are some additional complications that are somewhat specific to studies on immigrant earnings. First, we are using data on immigrants and not workers who lost their jobs due to plant closures. Therefore, they may not be what Neal (1995) called “exogenously displaced”. An individual will immigrate to the U.S. if the expected (purchasing power parity [PPP] adjusted) wage is sufficiently higher (compared to the cost of migrating) in the U.S. compared to that in his/her home country. However, the differences in wage levels between the U.S. and most of the source countries do not necessarily imply that an immigrant achieves a better job match (Chiswick and Miller, 2008). The second issue is how to disentangle the effects of U.S. experience and entry cohort heterogeneity. Fortunately, the NIS includes information on the wage in their first job in the U.S. We use this wage because, at that point, immigrants do not have any U.S. work experience. Another added advantage of using immigrants’ first U.S. wage is that job tenure is zero for all immigrants (Topel, 1991). In addition, we use entry year dummies to allow for entry cohort heterogeneity.

The third issue is that immigrants may face occupational downgrading after moving to the host country (Bauer and Zimmerman, 1999; Akresh, 2008; Chiswick and Miller, 2008). In this context, there is no clear consensus on the relationship between immigrants’ skill and occupational downgrading. For example, Bauer and Zimmerman (1999) show that higher-skilled immigrants face sharper occupational downgrading immediately after immigration to Germany. On the other hand, Akresh (2008) shows that more-skilled immigrants experience very little occupational downgrading after migrating to the U.S. Chiswick and Miller (2008) find that greater preimmigration labor market experience leads to poorer job matches in the host country. In a recent paper, Imai et al. (2017) find substantial occupational downgrading among immigrants to Canada. They show that this occupational downgrading leads to reduced wages. They also find that this downgrading, and the consequential reduction in wages, is greater among immigrants with limited language ability. However, these papers do not address the issue of transferability of OE and TE, which is the primary focus of this paper.

3 Data and descriptive statistics

We use data from the NIS, 2003. The NIS provides extensive information on new immigrants to the U.S., who received their permanent residency (green card) in 2002–2003. Thus,

as part of the survey, 8573 adult immigrants completed interviews. If the spouse of a principal immigrant was also an immigrant, then the spouse was also interviewed. In all, 4915 spouses were interviewed. Therefore, the total number of foreign-born immigrants interviewed who received their green card between 2002 and 2003 was 13488. Our study design requires us to focus on immigrants who worked in their source countries before immigrating to the U.S. and worked in the U.S. after immigrating. Out of 13488 immigrants, 6977 (59%) held at least one job in their source countries before moving to the U.S. We focus on only those immigrants who were between the ages of 16 and 65 years (both included) at the time of immigrating to the U.S. This reduces the sample size to 5919 immigrants. We further restrict the sample based on the availability of covariates, those who report participating in the U.S. labor market after immigrating, and those who have an accurate work history in their source countries. The sample size after accounting for the availability of covariates and labor market participation is 2713. However, approximately 9% of immigrants in this sample have work histories where either their stated start date in their first source country job occurs after the conclusion of their last source country job or there is an overlap between start and end dates between first and last source country jobs. We omit these observations from our analysis, which leaves a sample of 2460 for immigrants who participated in the U.S. labor market.

Before we discuss the descriptive statistics, we briefly describe the representativeness aspect of the sample. Since the NIS only interviewed lawful permanent residents (LPRs), it may not be representative of all immigrants to the U.S. However, a comparison with the 2003 immigrant sample using the current population survey (CPS) suggests that average age and gender

Table 1 Sample comparisons between 2003 CPS noncitizen respondents and NIS respondents

Characteristics	CPS		NIS		
	Full sample ^a	Employed ^b	Full sample ^c	Our sample	Our sample w/o employment principal
Age	37.32 (14.25)	35.89 (11.07)	37.38 (10.77)	37.41 (9.12)	37.51 (9.48)
Male	0.52 (0.50)	0.64 (0.48)	0.49 (0.50)	0.60 (0.49)	0.58 (0.59)
Education (in years)	11.14 (4.52)	11.59 (4.46)	13.22 (4.35)	14.38 (4.27)	13.88 (4.17)
% Employed [†]	0.63 (0.48)	1.0	0.62 (0.49)	1.0	1.0
Hourly wage		2.23 ^{††} (0.87)		2.33 (0.67)	2.18 (0.59)
Observations	13078	7521	11601	2460	1976

Note: Standard deviations are reported in parentheses.

^aNoncitizens' age 16+ years. ^bNoncitizens who report being employed and having a strictly positive annual income.

^cNIS full sample includes immigrants between the ages of 16–65 years at the time of entry into the U.S. after accounting for available covariates.

[†]Civilian employment.

^{††}Hourly wage is calculated from a respondent's previous year's annual salary, winsorized at 1%. The reported value is the natural log of the derived hourly wage.

compositions are similar in the CPS and the NIS (see Table 1). However, respondents in the NIS sample are more educated and earn about 10% more in wages. When we exclude immigrants with employer-sponsored LPRs (employment principal), there is little difference in the average wage between the two samples. Therefore, as a robustness check, we exclude the employment principals. Our results are robust to such changes (see Section 4.3).

In the NIS, respondents answered questions regarding their work history in their source countries. They were asked about the starting dates, ending dates, and occupations in their first (after they turned 16) and last (if worked in more than one job) jobs in their source countries. For each job, occupations are reported using 2002 Census three-digit categories. Following standard practices in the literature, we classify occupations in one-, two-, and three-digit Standard Occupational Classification (SOC) coding to construct OE for immigrants.

To construct TE, we first generate task measures following Acemoglu and Autor (2011) using occupational characteristics from O*NET (2003), herein ONET. We include different aggregations of tasks to explore the importance of granularity of task definitions. We use the five task definitions of Acemoglu and Autor (2011) and the more common three-task definitions of Autor et al. (2003).¹

We take U.S.-based task measures and generate ranks of tasks in an occupation. We do this based on the findings of Dicarolo et al. (2016), who show that skill ranks across countries are similar despite differences in production technologies. The relationship between skills and tasks are that workers apply their stock of skills to perform tasks that produce some measure of output (Autor, 2013). Therefore, if the skill profiles of occupations in the source countries are similar to those in the U.S., then the types of tasks performed in a source country may be similar to those in the U.S. The use of U.S. task data for foreign occupations may pose challenges due to differences in production technologies across countries. However, if task ranks (based on the ones that are more pronounced in an occupation) are similar across countries, then we can use U.S. occupational task ranks as a hierarchical rule for occupations in foreign countries. To construct the TE, we take the most predominant task in a source country occupation and allow experience in that task to transfer, if and only if, the next occupational match is predominant in the same task.²

Therefore, TE is only transferable in the predominant occupational task. As an example illustrating the intuition of this methodology, take a worker employed as a welder in his/her source country. This occupation is likely to consist mainly of the welder performing a routine task (welding), but the secondary task may be more manual in nature. The predominant task

1 The five tasks are used to construct the Abstract, Routine, and Manual tasks; see the Appendix of the paper by Autor and Handel (2013) for more details on the construction process.

2 Since we are using U.S. task measures to proxy for source country tasks, we perform robustness checks to our measure of TE using two different approaches in how we define the transferability of task-specific human capital. First, we follow the methodology proposed by Gathmann and Schönberg (2010), constructing a one-dimensional distance measure (angular separation distance metric) for each occupational pair. Under this approach, TE is equal to $(1 - \text{ang sep}_{oo}^I)T_o + (1 - \text{ang sep}_{oUS}^I)T_o^I$, where T_o denotes tenure in the first occupation o and T_o^I denotes tenure in the last occupation. Otherwise, TE is equal to OE for those workers who never switch occupations. The second approach uses the rank of ONET tasks to construct $k \times oo$ measures of distance. To illustrate how TE is constructed using task rank, let us suppose that a worker's first occupation in source country is dominated by an Abstract task and the last occupation in the source country has the Abstract task as a secondary work activity. The normalized distance between occupations in the Abstract task dimension is $\text{distance}_{koo}^I = |1 - 2|/K = 1$, where K denotes the number of tasks. The transferability metric is defined as $(1 - \text{distance}_{koo}^I/K)$. The worker in this example, where $K = 3$, will be able to transfer two-thirds of his/her Abstract-specific task experience from the first job to the second. TE for the worker at the time of employment in his/her first U.S. job is $TE_{ko}^I = (1 - \text{distance}_{koo}^I/K)T_o + (1 - \text{distance}_{koUS}^I/K)T_o^I$. Estimates on returns to specific experience using our alternative measures of TE are qualitatively similar to those presented in the main results.

in the same occupation in the U.S. is likely to be similar. However, a welder in the U.S. may perform an abstract task (using software to design welds) as a secondary task. Therefore, the task ranks comprising secondary, tertiary, and so on in a source country may not be the same as in the U.S.

As discussed above, the selection into occupations may result in upward or downward bias of the OLS estimates on the returns to OE, depending on a worker's unobservables. Return to OE/TE is likely to be biased upward for immigrants who stay in the same occupation upon entry into the U.S. labor market. In contrast, returns to OE/TE for those who switch occupations upon entry may be biased downward. In the NIS, we are able to identify a worker as a stayer, switcher, or nonparticipant in the job market. We estimate each labor market participant type separately to show the possible upper and lower bounds of the returns to OE and TE. Table 2 displays the types of immigrant workers in our NIS sample. We categorize workers as stayers if they were employed in the same occupation in their source country as their first occupation in the U.S. (Type I) or if their last occupation in the source country is the same as their first occupation in the U.S. (Type II). Depending on the granularity of occupational classification, the numbers of immigrants classified as stayers are 1006, 694, and 551 at the one-, two-, and three-digit occupational coding levels (total number of workers in our sample is 2460). A worker is categorized as a switcher if his/her last occupation in the source country differs from his/her first U.S. occupation.

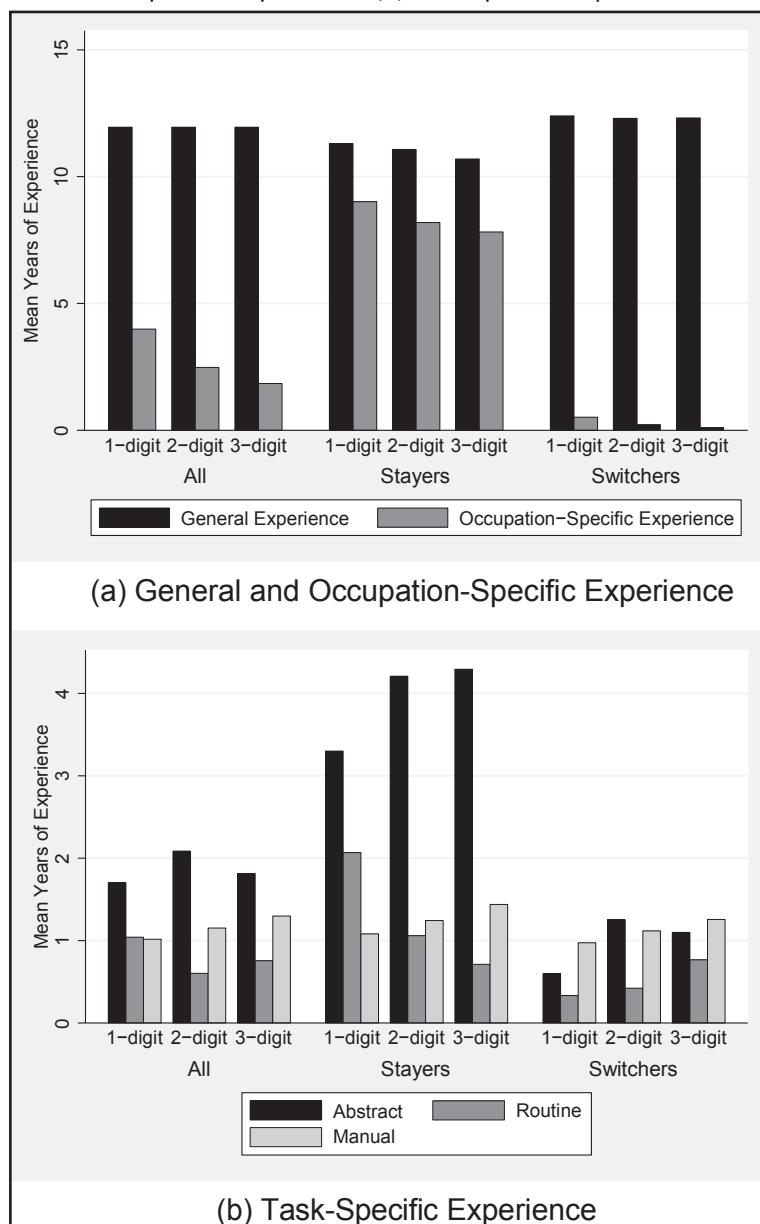
There are three important takeaways from Table 2. First, we can separately estimate returns to specific experience for stayers and switchers. Second, identification of OE from GE is based on workers being employed in multiple source country occupations prior to immigrating (Type I vs Type II). Third, OE in the sample of workers who switched occupations is identified by analyzing workers employed in the same U.S. occupation as their first occupation in the source country (Type I). Furthermore, when we estimate returns to specific experience for the entire NIS sample, the existence of Type I switchers ensures that OE is not solely identified by stayers.

In the NIS, questions regarding immigrants' source country work experience were limited to their first and last jobs. Any gaps in their work history between their first and last jobs could consist of employment in first occupation, employment in last occupation, employment in another occupation that is neither their first nor their last occupation, unemployment, or nonparticipation in the labor market. We assume that any gap in their work history consists of employment when deriving GE. For consistency purposes, if a respondent had the same occupation in their first and last jobs in the source country, their OE includes the gap

Table 2 NIS interview questions and classification as stayer, switcher, and nonparticipant

Occupation in first source country job	Occupation in last source country job	Occupation in first U.S. job	Classification	Type
X	X	X	Stayer	I
X	Y	Y	Stayer	II
X	Y	X	Switcher	I
X	X	Y	Switcher	II
X	Y	Z	Switcher	II
			Not working	Nonparticipant

Figure 1 Average experience by sample and digit. **Note:** (a) General and occupation-specific experience. (b) Task-specific experience.



(number of years) as part of their work experience.³ Type II stayers’ OE is the number of years employed in their last job. OE for Type I switchers is defined as the number of years worked in their first and only job.

Figure 1 reports the mean values of GE, OE, and TE by sample (all, stayers, and switchers) and occupational granularity (digit level). Switchers, on average, have more GE than stayers. The average GE at the two-digit occupational coding level is 11.06 years for stayers and 12.30 years for switchers. There are large differences in OE across groups. Stayers, on average, have 8.19 years of OE, whereas switchers have only 0.23 years of OE at the two-digit level. The pattern of occupational stayers having more OE than switchers is the same as discussed in Neal (1995).

Table 3 presents the summary statistics for all immigrants (Column 1), stayers (Columns 2–4), and switchers (Columns 5–7). There are three samples of stayers (and switchers) because

³ The average gap in work history for stayers is 5.01, 4.85, and 4.61 years at the one-, two-, and three-digit levels respectively.

Table 3 Summary statistics

Parameters	All workers	Stayers			Switchers		
		1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
Hourly wage	13.589 (15.882)	18.087 (19.697)	19.674 (19.717)	21.34 (20.23)	10.477 (11.610)	11.197 (13.359)	11.35 (13.59)
Education	13.820 (4.000)	14.375 (3.969)	14.725 (3.751)	14.898 (3.817)	13.437 (3.975)	13.465 (4.038)	13.509 (3.997)
English (very good)	0.411 (0.492)	0.533 (0.499)	0.597 (0.491)	0.613 (0.487)	0.327 (0.469)	0.338 (0.473)	0.352 (0.478)
English (good)	0.140 (0.347)	0.132 (0.339)	0.120 (0.325)	0.118 (0.323)	0.145 (0.352)	0.148 (0.355)	0.146 (0.353)
English (average)	0.057 (0.232)	0.036 (0.186)	0.029 (0.167)	0.031 (0.173)	0.072 (0.259)	0.069 (0.253)	0.065 (0.247)
English (poor)	0.031 (0.174)	0.029 (0.167)	0.024 (0.155)	0.022 (0.146)	0.033 (0.179)	0.034 (0.181)	0.034 (0.181)
English (very poor)	0.361 (0.480)	0.270 (0.444)	0.231 (0.421)	0.216 (0.412)	0.423 (0.494)	0.412 (0.492)	0.402 (0.490)
Female	0.402 (0.490)	0.377 (0.485)	0.395 (0.489)	0.376 (0.485)	0.420 (0.494)	0.405 (0.491)	0.410 (0.492)
Employment principal	0.197 (0.398)	0.305 (0.461)	0.373 (0.484)	0.437 (0.497)	0.122 (0.327)	0.127 (0.333)	0.127 (0.333)
Spouse of US citizen	0.113 (0.317)	0.098 (0.298)	0.089 (0.285)	0.078 (0.268)	0.124 (0.329)	0.123 (0.328)	0.124 (0.329)
Diversity principal	0.122 (0.328)	0.083 (0.275)	0.053 (0.225)	0.051 (0.220)	0.150 (0.357)	0.149 (0.357)	0.143 (0.350)
Spouse of principal immigrant	0.308 (0.462)	0.304 (0.460)	0.301 (0.459)	0.279 (0.449)	0.310 (0.463)	0.310 (0.463)	0.316 (0.465)
Region of residence (east)	0.369 (0.483)	0.387 (0.487)	0.379 (0.485)	0.377 (0.485)	0.356 (0.479)	0.365 (0.481)	0.366 (0.482)
Region of residence (west)	0.275 (0.447)	0.271 (0.445)	0.261 (0.439)	0.260 (0.439)	0.278 (0.448)	0.281 (0.450)	0.280 (0.449)
Region of residence (south)	0.184 (0.388)	0.183 (0.387)	0.192 (0.394)	0.176 (0.381)	0.185 (0.388)	0.181 (0.385)	0.186 (0.390)
Years between last source job and US job	1.924 (3.709)	1.744 (3.633)	1.643 (3.693)	1.421 (3.130)	2.049 (3.758)	2.035 (3.711)	2.069 (3.849)
Workers	2,460	1,006	694	551	1,454	1,766	1,909

Note: Standard deviations are denoted in parentheses.

we define stayers (and switchers) based on the one-, two-, and three-digit occupational coding. Among all the workers, 40.2% are female. The percentage of female workers varies between 37.6% and 39.5% among the stayers and between 40.5% and 42% in the switcher sample. The average number of years of education among all workers is 13.82 years. Stayers have slightly more education than switchers. Average education varies between 14.9 and 14.38 years among

the stayer samples, and it varies between 13.44 and 13.51 years for the switcher samples. Stayers are more proficient in English than are switchers. In our data, between 53.3% and 61.3% of stayers have “very good” English-speaking skills, whereas, among the switchers, between 32.7% and 35.2% have English proficiency categorized as “very good”. We use interviewer-reported measure for fluency in spoken English, which is available for all interviewees. The measure takes a value of 1–4, with “1” indicating very good English fluency, and “4” indicating poor English. The English proficiency measure is given a value of “5” if the interview was conducted in a language other than English because the interviewees were not comfortable answering questions in English.

We classify the immigrant source countries into two groups: low income and high income. The countries and regions with a per capita income $\geq 30\%$ compared to the U.S. are classified as high income (Canada, South Korea, Europe and Central Asia, and Poland).⁴ The high-income group comprises 23.74% of the entire sample. Therefore, the majority of immigrants are from low-income countries. Stayers, at the two-digit level, consist of approximately the same proportion as the entire sample (23.34%).

Immigrants in this sample have received their green cards in one of the following categories: employment based, spouse of a U.S. citizen, diversity, refugee or asylee, spouse of principal immigrant, and others (family based). There are differences in the distribution of visa types for stayer and switcher samples. For example, between 30.5% and 43.7% of stayer (between 12.2% and 12.7% of switcher) samples are employment principals (their employer sponsored their green card).⁵ Finally, in wage regressions, we control for the number of years between the last source country job and the first U.S. job to account for any potential depreciation of human capital.

The primary outcome variable of interest is the (log of) hourly wage of the immigrant’s first job in the U.S. – winsorized (replacement of values in the bottom and top tails (outliers) of the distribution equal to the next-nearest value) at the 1% level to reduce the influence of outliers. The winsorized wage distribution has a minimum hourly wage of \$1.93 and maximum hourly wage of \$153.60. All wages are in 2003 prices. The average hourly wage is between \$18.09 and \$21.34 for stayers and between \$10.48 and \$11.35 for switchers across the three levels of occupational aggregation.⁶

4 Results

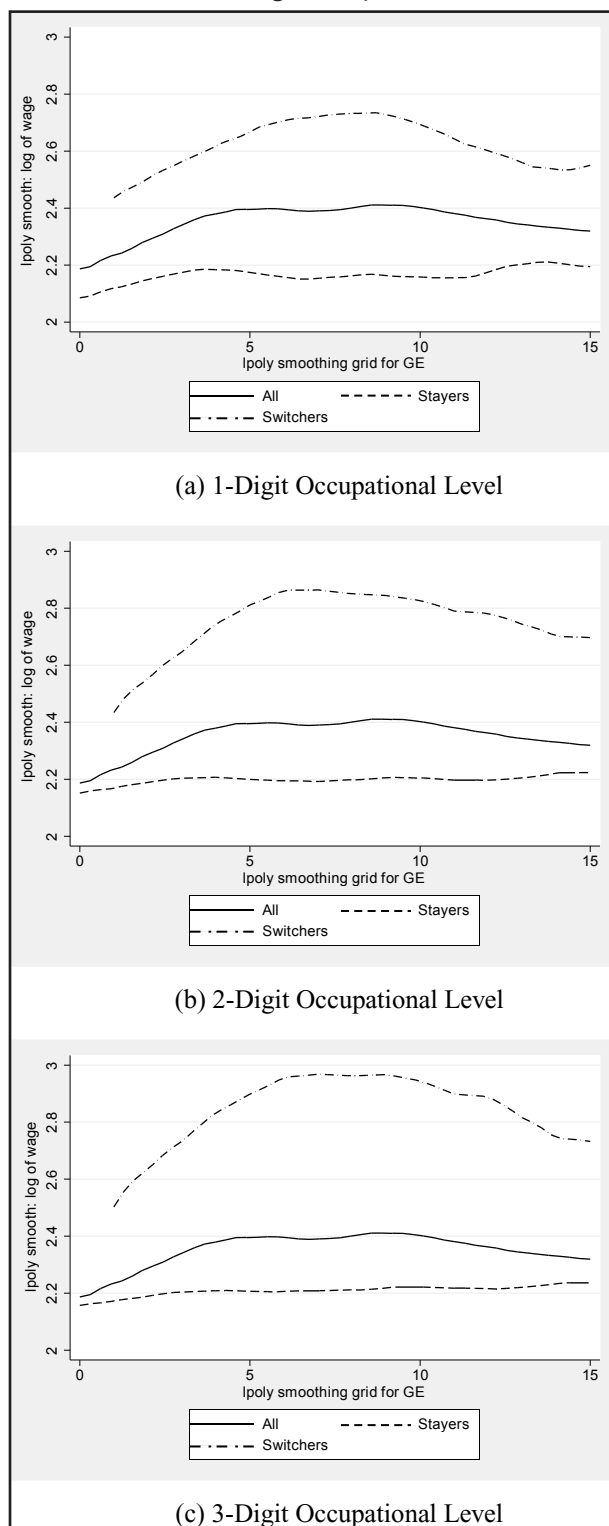
We begin with kernel-weighted local polynomial regressions with (log of) first U.S. wage against source country GE. We focus our discussion on immigrants with ≤ 15 years of source country GE. About 70% of immigrants in our sample have ≤ 15 years of source country GE. Figure 2 displays the results at each of the three levels of occupational granularity that determines the classification of an immigrant as either a stayer or a switcher. Panel (a) is for one-digit, Panel (b) is for two-digit, and Panel (c) is for three-digit occupational granularity.

4 We use 2000 per capita GDP to compare income across countries (Source: <http://databank.worldbank.org/data/views/reports/tableview.aspx>).

5 In Figure S1 in Supplementary Materials, we show results from kernel-weighted local polynomial regressions of wages of immigrants’ first U.S. job against source country GE after excluding employment principals.

6 The average hourly wage when employment principals are excluded from the sample is \$11.22. The average hourly wage for stayers and switchers in this subsample is between \$14.77–\$18.27 and \$9.28–\$9.91, respectively.

Figure 2 Kernel-weighted local polynomial – returns to general experience.
Notes: (a) One-digit occupational level. (b) Two-digit occupational level. (c) Three-digit occupational level.



Each panel shows three lines: the bold line represents all immigrants, the dash-dot line represents stayers (those who did not switch occupation after immigrating to the U.S.), and the dashed line represents switchers. In each panel, the dashed line is almost flat, suggesting that the switchers receive little to no return to their source country GE. The dash-dot line (stayers), on

the other hand, is relatively steep, suggesting a positive association between wages and source country GE (especially for the first 5 years or so) among immigrants who stay in their source country occupation after immigrating to the U.S. The bold line (all immigrants combined) is a combination of these two groups. The results displayed in each of the panels in Figure 1 suggest a positive association between U.S. wage and source country GE for those immigrant workers classified as a stayer. The variation in returns to GE across occupational classifications, especially early in a worker's career, demonstrate that source country OE may be an important determinant of U.S. wage. We further explore these issues below in subsections 4.1 and 4.2.

4.1 Returns to GE

We start by estimating the following wage regression (nonlinear terms not shown in the equation to reduce clutter).

$$w_i = \alpha + \beta GE_i + X_i\psi + \varepsilon_i \quad (1)$$

The dependent variable, w_i , is the (log of) hourly wage rate of immigrant i in the first U.S. job. The vector of individual characteristics is denoted by X_i and includes the immigrant's years of education in source country, gender, proficiency in English, visa type, number of years between last source country job and first U.S. job, region of residence in the U.S., source country fixed effects, and U.S. entry year fixed effects. Since previous literature on transferability of source country work experience has only included returns to GE, we start with a specification where we include only GE. We use a flexible functional form with up to the fourth order work experience terms, as suggested by Murphy and Welch (1990). They show that standard (quadratic) Mincer earnings function may understate the early career earnings growth and may overstate midcareer earnings growth.⁷ In our regressions, we divide squared, cubed, and quartic terms by 1000 to rescale the coefficients.

Table 4 presents the results based on the first U.S. wage regressions. We estimate this equation for all workers (Column 1) and then separately for stayers (Columns 2–4) and switchers (Columns 5–7). The classification of who is a stayer (or switcher) depends on the granularity of occupational definitions. When we define occupation at the one-digit level, we have 1006 stayers and 1454 switchers. At the two-digit level, we have 694 stayers and 1766 switchers. At the three-digit level, we have 551 stayers and 1909 switchers.

We first discuss the estimates for all workers (Column 1). All the control variables have expected signs. For example, each year of source country education increases wage by 3.4%. Female workers earn 11.2% less than male workers. Workers with “very good” English-speaking skills earn 16.7% more than individuals interviewed in a language different from English (presumably because the interviewees were not comfortable in answering questions in English). Next, we discuss returns to work experience.

Since GE enters the wage equation in a quartic way, we present the cumulative returns to 3, 5, and 10 years of GE in order to discuss the magnitude of the association. Table 5 reports the cumulative return estimates to GE. We present the returns for all workers (Column 1) and then separate the samples into stayers (Columns 2–4) and switchers (Columns 5–7). Estimates for all workers (Column 1) suggest that a worker with 3 years of GE will earn 10.6% more than

⁷ For more discussion on the Mincer earnings function, see Mincer (1974).

Table 4 OLS: returns to source country general experience (quartic)

Parameters	All	Stayers			Switchers		
		1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
GE	0.0441*** (0.0165)	0.0671** (0.0308)	0.0968** (0.0394)	0.1091** (0.0461)	0.0220 (0.0183)	0.0182 (0.0177)	0.0191 (0.0170)
Square	-3.1734** (1.5939)	-5.3253* (3.0278)	-7.8664** (3.9854)	-8.4873* (4.6013)	-1.1747 (1.7558)	-0.8613 (1.7095)	-1.0127 (1.6480)
Cubic	0.0798 (0.0572)	0.1577 (0.1100)	0.2429 (0.1493)	0.2601 (0.1714)	0.0149 (0.0627)	0.0053 (0.0608)	0.0117 (0.0590)
Quartic	-0.0007 (0.0007)	-0.0016 (0.0013)	-0.0026 (0.0018)	-0.0029 (0.0021)	0.0000 (0.0007)	0.0001 (0.0007)	0.0001 (0.0007)
Female	-0.1146*** (0.0234)	-0.1306*** (0.0421)	-0.1394*** (0.0505)	-0.1811*** (0.0589)	-0.0833*** (0.0270)	-0.1000*** (0.0255)	-0.0954*** (0.0246)
Education	0.0343*** (0.0035)	0.0425*** (0.0066)	0.0395*** (0.0089)	0.0421*** (0.0111)	0.0282*** (0.0040)	0.0313*** (0.0037)	0.0312*** (0.0036)
English: very good	0.1901*** (0.0370)	0.2190*** (0.0653)	0.3175*** (0.0858)	0.3378*** (0.1110)	0.1424*** (0.0424)	0.1196*** (0.0399)	0.1397*** (0.0382)
English: good	0.0464 (0.0382)	0.1140* (0.0631)	0.2325*** (0.0854)	0.3001*** (0.1075)	0.0098 (0.0478)	0.0101 (0.0432)	0.0127 (0.0409)
English: average	0.0030 (0.0431)	0.1244 (0.1023)	0.1690 (0.1462)	0.1922 (0.1663)	0.0323 (0.0450)	0.0036 (0.0445)	0.0074 (0.0434)
English: poor	-0.0051 (0.0468)	-0.0613 (0.0953)	0.0757 (0.1242)	-0.0095 (0.1597)	0.0339 (0.0494)	-0.0210 (0.0480)	-0.0014 (0.0450)
Constant	1.8596*** (0.1590)	1.5168*** (0.2438)	1.5945*** (0.2741)	1.4258*** (0.2974)	2.2338*** (0.2412)	1.9325*** (0.2461)	1.9323*** (0.2362)
Other controls							
Work gap	X	X	X	X	X	X	X
Visa type	X	X	X	X	X	X	X
Region	X	X	X	X	X	X	X
Entry year	X	X	X	X	X	X	X
Source FE	X	X	X	X	X	X	X
N	2,459	1,006	694	551	1,453	1,765	1,908
R ²	0.41	0.47	0.48	0.48	0.30	0.32	0.32

Note: Robust standard errors are reported in parentheses.

*0.10, **0.05, and ***0.01 denote significance levels.

Control "Work gap" denotes the time between immigration and employment in first U.S. job.

Visa types: employment based, spouse of an U.S. citizen, diversity, refugee or asylee, spouse of principal immigrant, and other (family based).

a worker without any GE. The cumulative effects of 5 and 10 years of GE are 15.1% and 19.7%, respectively. All estimates are significant at the 1% level.

Columns 2–4 in Table 5 show the returns to GE for stayers. Estimates suggest that returns to GE are economically and statistically significant among stayers. For example, return to 3 years of GE is between 15.7% and 25.8% for an immigrant who remains in his/her source

Table 5 OLS estimates of cumulative returns to source country general experience (quartic)

Parameters	All	Stayers			Switchers		
		1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.1059*** (0.0371)	0.1574** (0.0688)	0.2260*** (0.0874)	0.2576** (0.1026)	0.0557 (0.0412)	0.0471 (0.0399)	0.0486 (0.0383)
5 Years of GE	0.1508*** (0.0506)	0.2208** (0.0933)	0.3161*** (0.1180)	0.3638*** (0.1391)	0.0823 (0.0564)	0.0704 (0.0544)	0.0718 (0.0523)
10 Years of GE	0.1969*** (0.0606)	0.2792** (0.1100)	0.3980*** (0.1378)	0.4734*** (0.1639)	0.1175* (0.0683)	0.1029 (0.0651)	0.1021 (0.0627)
N	2,459	1,006	694	551	1,453	1,765	1,908

Note: Standard errors are in parentheses.

*0.10, **0.05, and ***0.01 denote significance levels.

country occupation after immigrating to the U.S. The corresponding return to 5 years of GE is between 22.1% and 36.4% (between 27.9% and 47.2% for 10 years). The returns are highest when we define stayer in the most granular way (they remain in the same three-digit occupation after immigrating to the U.S.). On the other hand, the return to GE is small and almost never significant for those who switch occupations after immigrating to the U.S. (Columns 5–7). The negligible return to GE among switchers is likely driving the relatively low returns to GE in the sample of all workers (Column 1). The results confirm that the univariate association between source country work experience and U.S. wage presented in Figure 2 survives adding an extensive set of control variables. The evidence presented here suggests that low returns to GE reported in the previous literature (discussed in Section 2) may be a result of the large fraction of immigrants switching occupations after immigrating to a host country. In our data, we find that between 59.1% (at one-digit occupational level) and 77.6% (at three-digit occupational level) immigrants switch occupation after immigrating to the U.S.

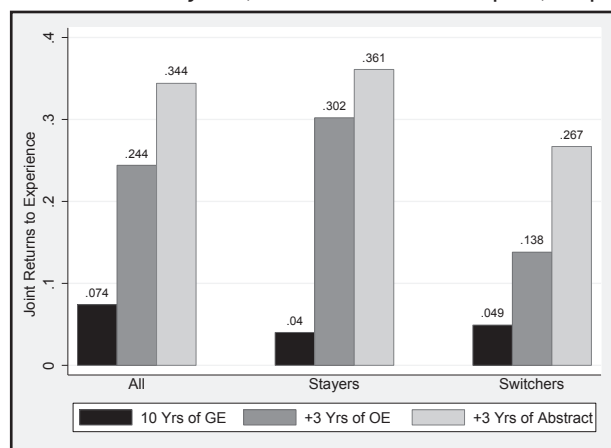
4.2 Returns to Experience GE, OE, and TE

Given the evidence that immigrants who stay in their source country occupation receive significant return to their source country work experience, we explore which component(s) of source country work experience are portable and which are not. To that effect, we estimate a regression equation with GE, OE, and TE (nonlinear terms not shown in the equation to reduce clutter) (Gathmann and Schönberg, 2010).

$$w_i = \alpha + \beta GE_i + \delta OE_i + TE_i \gamma + X_i \psi + \varepsilon_i \quad (2)$$

Each type of experience enters the wage equation in a quartic functional form. In our baseline analysis, we use three-task measures (Abstract, Routine, and Manual) to create source country TE (Autor et al., 2003; Autor and Handel, 2013). We also conduct parallel analysis using five-task measures (NRCA, NRCI, RCOG, RMAN, and NRMN) using the definitions in Acemoglu and Autor (2011). We briefly mention, but do not discuss, estimates on the returns to the five-task measures in detail in the text of this paper as the results provide similar conclusions. We report cumulative return estimates using the five-task approach in Tables S2-S7 in Supplementary Materials.

Figure 3 Joint returns to experience – two-digit level. Returns to 10 years of GE and 0 years of OE and TE are not statistically significant at any of the conventional levels for the samples of “All immigrants”, “Stayers”, and “Switchers”. Returns to 10 years of GE, 3 years of OE, and no TE are significant at the 1% and 10% levels for the “All immigrants” and “Stayer” samples, respectively. Returns to 10 years of GE, 3 years of OE, and no TE are not significant at any of the conventional levels for the Switcher sample. Return to 10 years of GE, 3 years of OE, and 3 years of Abstract TE is significant at the 1%, 5%, and 1% levels for the “All immigrants”, “Stayers”, and “Switcher” samples, respectively.



Again, we estimate this regression equation for all workers and then separately for stayers and switchers. In each case, we estimate the returns to various types of work experience for occupations categorized at the one-, two-, and three-digit levels. In regressions, we include the same set of control variables reported in Table 4.⁸

To focus our discussion on cumulative returns to GE, OE, and TE, we ask the following question: how much more would an immigrant with 10 years of GE, 3 years of two-digit OE, and 3 years of abstract TE earn compared to an otherwise-comparable immigrant without any source country work experience? We present these results in Figure 3. For this illustration, we use estimates at two-digit occupational categories. We focus on two-digit occupational categories because the previous literature in this area has noted that one-digit categories may be too coarse and three-digit aggregation may be too noisy or produce small subsamples (Mellow and Sider, 1983; Cortes and Gallipoli, 2017). Analysis at the two-digit level may also help with measurement error due to recall problems, which are more prevalent in retrospective surveys (Kambourov and Manovskii, 2012; Moscarini and Thomsson, 2007).

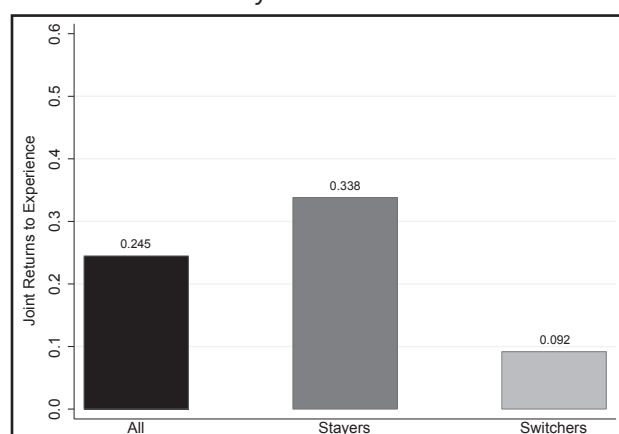
Our estimates suggest that an immigrant with 10 years of GE, but no OE or TE would earn 7.4% (not significant) more than an immigrant without any work experience. An immigrant

⁸ Tables SI in Supplementary Materials present the details on the returns to GE, OE, and TE. We do not discuss the details in the text. Comparing estimates from the three different levels of occupational granularity suggests that some of the results are common across all samples and specifications. However, in other cases, not only does the statistical significance vary, the economic significance varies as well. One result that is always true is that once we account for OE and TE, return to GE is never significant. The return to OE is significant at all levels of occupational granularity among all workers, but only at the two-digit level for stayers and three-digit level among switchers. Return to Abstract TE is almost always significant across all samples, but returns to other types of TE (Routine and Manual) are not significant. One potential reason for such inconsistencies regarding returns to OE may be the misclassification of occupations due to the retrospective nature of the survey. Such misclassification may be more important when there is less variation to start with (within stayer and switcher samples). However, this is not unique to this paper.

with 10 years of GE, 3 years of OE, and no TE would earn 24.4% (significant at 1%) more than an immigrant without any work experience. An immigrant with 10 years of GE, 3 years of OE, and 3 years of Abstract TE would earn 34.4% (significant at 1%) more than an immigrant without any work experience. Our results for stayers (Figure 3) suggest that a stayer with 10 years of GE, no OE, and no TE would earn 4.0% (but not significantly) more than an immigrant without any work experience. A stayer with 10 years of GE, 3 years of OE, and no TE would earn 30.2% (significant at 10%) more than an immigrant without any work experience. A stayer with 10 years of GE, 3 years of OE, and 3 years of Abstract TE would earn 36.1% (significant at 5%) more than an immigrant without any work experience. Our results for switchers (Figure 3) suggest that a switcher with 10 years of GE, no OE, and no TE would earn 4.9% (not significant) more than an immigrant without any work experience. A switcher with 10 years of GE, 3 years of OE, and no TE would earn 13.8% (not significant) more than an immigrant without any work experience. A switcher with 10 years of GE, 3 years of OE, and 3 years of Abstract TE would earn 26.7% (significant at 1%) more than an immigrant without any work experience. Therefore, these results suggest that even the switchers may receive economically and statistically significant return if they have OE and Abstract TE.

To represent the results regarding the returns to GE, OE, and TE in an alternative way, we ask the following question: how much more would an immigrant with average work experience earn compared to an immigrant without any work experience. When we consider all immigrants in our sample, an average immigrant has about 12 years of GE, 2 years of OE, 2 years of Abstract TE, 1 year of Routine TE, and 1 year of Manual TE (all rounded to the nearest integer). An immigrant with such a work experience profile will earn 24.5% more (significant at 1%) more than an immigrant without any work experience (see Figure 4). In the stayer sample, average (rounded to the nearest integer) GE, OE, Abstract TE, Routine TE, and Manual TE is about 11 years, 8 years, 4 years, 1 year, and 1 year, respectively. A stayer with these characteristics will make about 33.8% more (significant at 10%) more than an immigrant without any work experience (see Figure 4). In the switcher sample, average (rounded to nearest integer) GE, OE, Abstract TE, Routine TE, and Manual TE is about 12 years, 0 years, 1 year, 0 years,

Figure 4 Returns to source country experience for the average immigrant – two-digit level. Returns for “All workers” are significant at the 1% level, returns for “Stayers” are significant at the 10% level, and returns for the Switchers sample are not significant at any of the conventional levels.



and 1 year, respectively. A switcher with these characteristics will make about 9.2% more (not significant) more than immigrant without any work experience (see Figure 4).

As we mentioned earlier, we also estimated the wage equation with the five-task specification. The results for GE and OE are similar to those reported above with the three-task specification. Results also indicate that Analytical (NRCA) TE is the only one that is consistently significant across specifications and samples. This is consistent with the results of three-task specification and implies that returns to Abstract TE are mostly coming from Analytical (NRCA) TE but not Interpersonal (NRCI) TE. The detailed results are presented in Tables S2–S7 in Supplementary Materials.

4.3 Robustness

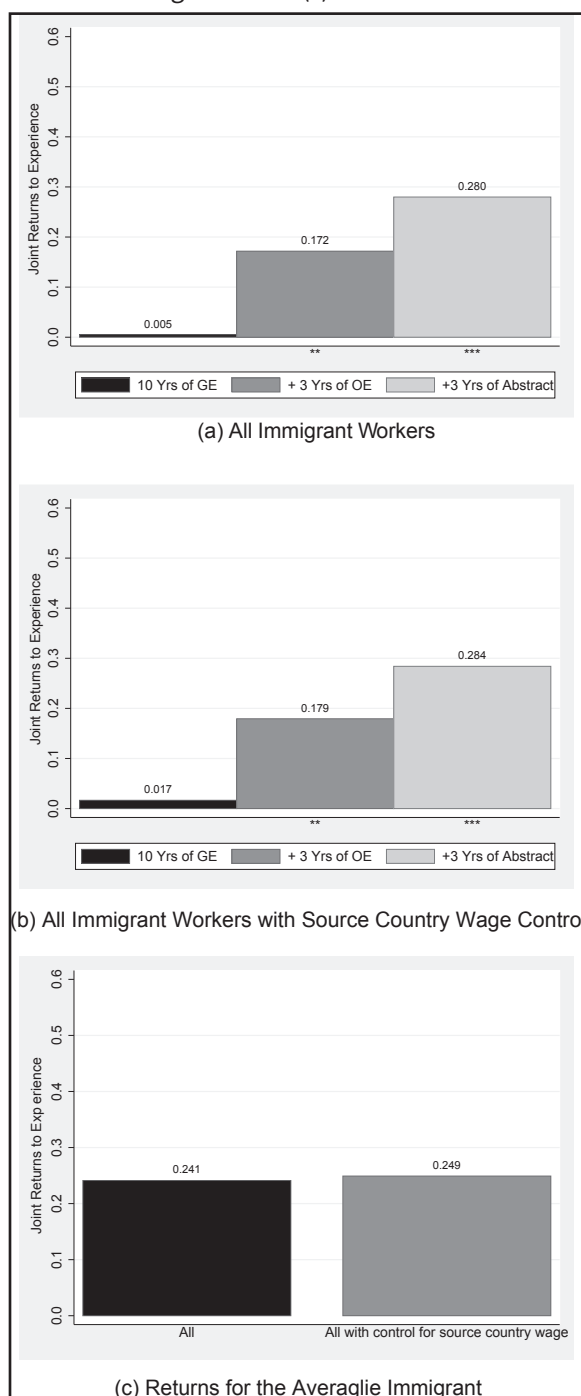
4.3.1 Controlling for source country wage

One concern with OLS estimates is that they do not account for unobserved heterogeneity. As previously discussed, immigrants with more OE may have unobservable differences relative to individuals with less OE. The positive and significant returns to OE and TE reported from the OLS wage regression may reflect underlying ability differentials. To address this, in addition to observable characteristics, we control for an immigrant worker's wage in the first job in his/her source country. An immigrant's source country wage may reflect unobservables (such as ability and motivation) not captured in the set of controls used in the analysis. In the NIS data, source country wages are available at two points in time. The first is at the time when an immigrant started working in their source country and the second is in his/her last source country job before immigrating to the U.S. We use the first source country job wage for two reasons: (1) the GE, OE, and TE at the time of his/her first source country job is zero; therefore, the wage reflects the effects of education and unobservables, but not the effects of GE, OE, and TE; (2) it may best reflect the unobservable traits that are easily observed by employers and, therefore, best reflects the unobservables affecting his/her wage at the first U.S. job. In our sample, the first source country job wage is available for 1693 immigrants out of a total of 2459 immigrants. Estimates for all workers suggest that the returns to GE are statistically insignificant, but the returns to OE and Abstract TE are positive and significant.

Panels (a) and (b) of Figure 5 show the results. Panel (a) presents the results from the wage regression based on the sample of immigrants for whom source country wage is available (1693 immigrants), but it does not control for source country wage. Panel (b) shows the results when we add source country wage as an additional control. Panels (a) and (b) suggest that an immigrant with 10 years of GE, but no OE or TE, would earn 0.5% (1.7%) more than an immigrant without any work experience. Neither is statistically significant. An immigrant with 10 years of GE, 3 years of OE, and no TE would earn 17.2% (17.9%) more than an immigrant without any work experience in Panels (a) and (b). Both estimates are significant at 5%. An immigrant with 10 years of GE, 3 years of OE, and 3 years of Abstract TE would earn 28.0% (28.4%) more than an immigrant without any work experience in Panels (a) and (b). Both estimates are significant at 1%.

An alternative way to illustrate returns to work experience is to show how much more an immigrant with average work experience would earn compared to an immigrant without any

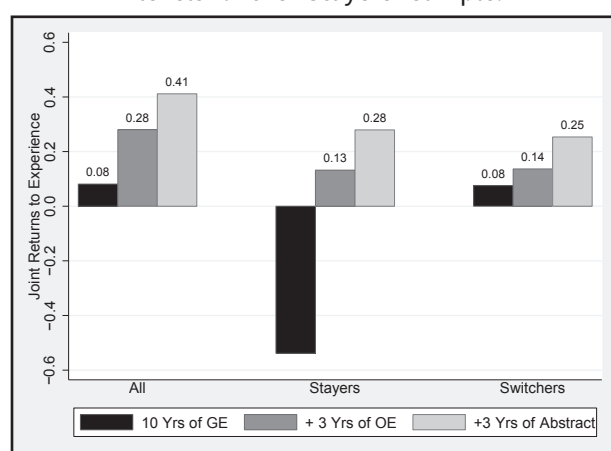
Figure 5 Returns to experience: source country wage sample – two-digit level.
Note: (a) All immigrant workers. (b) All immigrant workers with source country wage control. (c) Returns for the average immigrant.



Note: *0.1, ** 0.05, and *** 0.01 denote significance levels under each bar in panels (a) and (b). In panel (c), estimates are significant at the 0.01 level.

work experience. Average (rounded to nearest integer) GE, TE, Abstract TE, Routine TE, and Manual TE in this sample is 11, 3, 2, 0, and 1 year, respectively. Panel (c) of Figure 5 suggests that when we do not control for source country wage, the total return to this work experience portfolio is 24.1%, and when we do control for source country wage, it is 24.9% (see Panel (c) of Figure 5). The results presented here suggest that unobserved heterogeneity may not have a substantial effect on the estimated returns to experience.

Figure 6 Joint returns to experience, excluding employment principals – two-digit level. Return to 10 years of GE and 0 years of OE and TE are not statistically significant at any of the conventional levels for the “All immigrants” and “Switchers” samples. Return to 10 years of GE and 0 years of OE and TE is significant at the 5% level for the “Stayers” sample. Returns to 10 years of GE, 3 years of OE, and no TE are significant at the 1% level for “All immigrants”. Return to 10 years of GE, 3 years of OE, and 0 years of TE is not significant at any of the conventional levels for the “Stayers” and “Switchers” samples. Return to 10 years of GE, 3 years of OE, and 3 years of Abstract TE is significant at the 1% level for the “All immigrants” and “Switchers” samples. Returns to 10 years of GE, 3 years of OE, and 3 years of Abstract TE are not significant at any of the conventional significance levels for the “Stayers” sample.



4.3.2 Robustness with respect to sample criteria

We discussed in the “Data” section that our sample has higher average education and wage compared to employed immigrants in the CPS. Therefore, as a robustness check, we exclude employment principals from our sample. In the results, subsample average education is still higher compared to that in the CPS, but the average wage is lower. We reestimate the returns to source country work experience using this subsample. First, kernel-weighted local polynomial regressions (see Supplementary Figure S1) suggest that this subsample produces results that are similar to the full sample. Regression estimates with the full set of controls also produces congruent results. Figure 6 shows that an immigrant in this subsample with 10 years of GE, but no OE or TE, would earn 8% more (not significant) than an immigrant without any work experience. An immigrant with 10 years of GE, 3 years of OE, and no TE would earn 28% more (significant at 5%) than an immigrant without any work experience. An immigrant with 10 years of GE, 3 years of OE, and 3 years of Abstract TE would earn 41% more (significant at 1%) than an immigrant without any work experience. Therefore, the positive and significant return to OE and Abstract TE is robust to exclusion of employment principals from the sample.

4.4 Heterogeneity in the returns to experience

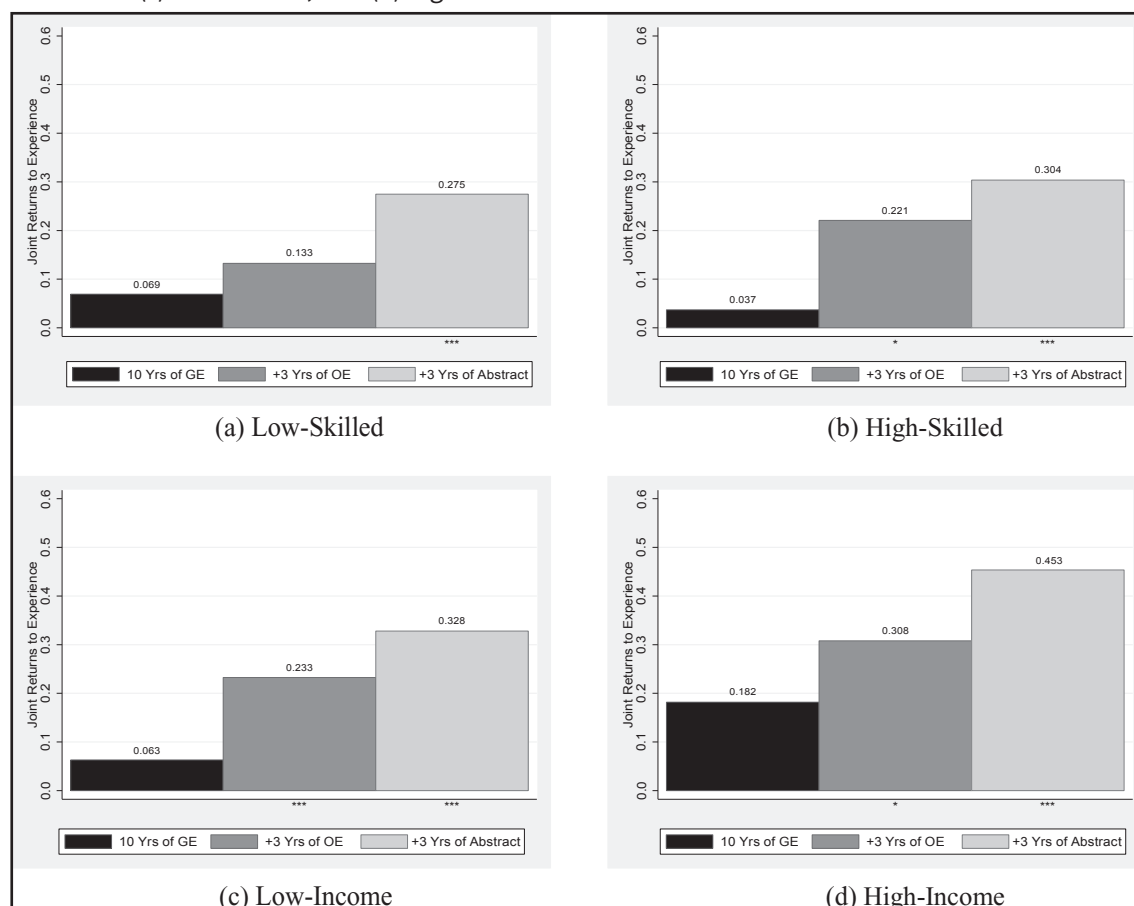
In this section, we explore the heterogeneity in the returns to work experience in two dimensions. First, we estimate the returns to experience by skill level (high vs. low). The second dimension of heterogeneity we explore is by source country income (high vs. low).

4.4.1 High-skilled vs. low-skilled immigrants

Farber and Gibbons (1996) have shown that the return to GE is higher for more-educated individuals. Dustmann and Meghir (2005) show similar results for OE. Kwon and Milgrom (2014) have shown that the value of occupation-specific human capital is higher in occupations requiring higher levels of education. However, these papers focus on native populations. We check whether a similar result holds for source country work experience of immigrants. Immigrants may face occupational downgrading after immigrating to the host country (Bauer and Zimmerman, 1999; Akresh, 2008; Chiswick and Miller, 2008; Imai et al., 2017). There is no consensus on the relationship between immigrants’ skills and occupational downgrading. In our sample, occupation switch rate varies between 65.6% and 84.7% (depending on occupational granularity) for immigrants without a college degree but is between 35.2% and 70.5% for those with a college degree or more. To determine whether the return to work experience varies with the level of educational attainment of the immigrants, we estimate separate regressions for high-skilled (those with a college degree) and low-skilled (those without a college degree) workers.

Panels (a) and (b) in Figure 7 present the cumulative returns to GE, OE, and TE for low-skilled (without a college degree) workers and high-skilled (with college degree) workers, respectively. In our sample, 1229 (49.96%) immigrants have a college degree, and 1231 (50.04%)

Figure 7 Heterogeneity in returns to experience – two-digit level. **Notes:** (a) Low-skilled; (b) high-skilled; (c) low income; and (d) high income.



Notes: *0.1, ** 0.05, and *** 0.01 denote the significance level. Returns shown are for all workers in each subsample.

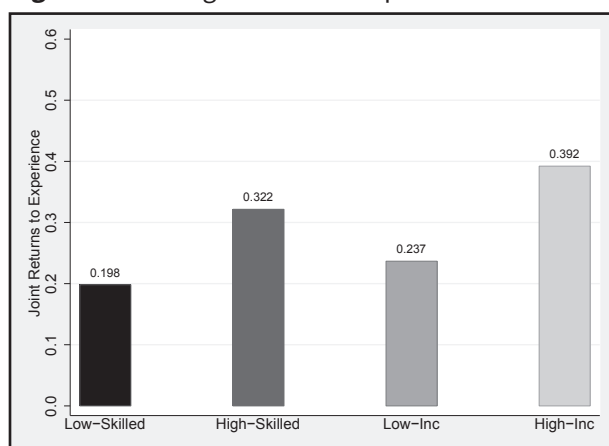
immigrants do not have a college degree. The return to 10 years of GE is 6.9% for low-skilled workers and 3.7% for high-skilled workers. If a low-skilled immigrant has 10 years of GE and 3 years of OE, he/she will earn 13.3% (not significant) more than a comparable low-skilled immigrant without any work experience. On the other hand, if a high-skilled immigrant has 10 years of GE and 3 years of OE, he/she will earn 22.1% (significant at 10%) more than a comparable low-skilled immigrant without any work experience. If a low-skilled immigrant has 10 years of GE, 3 years of OE, and 3 years of Abstract TE, he/she will earn 27.5% (significant at 1%) more than a comparable low-skilled immigrant without any work experience. On the other hand, if a high-skilled immigrant has 10 years of GE, 3 years of OE, and 3 years of Abstract TE, he/she will earn 30.4% (significant at 1%) more than a comparable low-skilled immigrant without any work experience. The cumulative return estimates to experience suggest that low- and high-skilled immigrants with the same amount of GE, OE, and TE receive similar returns. However, the average experience is different across these two groups. Average GE, OE, Abstract TE, Routine TE, and Manual TE for low-skilled workers are 13, 2, 1, 1, and 2 years, respectively. The corresponding numbers for high-skilled workers are 11, 3, 4, 0, and 0 years. Given these, a low-skilled immigrant with average work experience profile earns 19.8% (high-skilled: 32.2%) more than a low-skilled (high-skilled) immigrant without any work experience (see Figure 8).

4.4.2 High-income vs. low-income source countries

Source country heterogeneity may be another important source of worker unobservables (Adsera and Chiswick, 2007). Aydemir and Skuterud (2005) have found that immigrants from “nontraditional” (mostly developing countries) who immigrate to Canada get a lower return to their source country GE. While the analysis above uses source country fixed effects to identify parameters from within-country variation, the estimated parameters still represent the average over all the source countries. To check whether returns to GE, OE, and TE vary by source country characteristics (namely, income), we group the source countries into two categories: low-income and high-income countries, as described in Section 3.

Panels (c) and (d) of Figure 7 show the results for immigrants originating in high-income and low-income countries, respectively. In our sample, 584 (23.74%) immigrants are from high-income countries, and 1876 (76.26%) immigrants are from low-income countries. The

Figure 8 Average returns to experience – worker heterogeneity (two-digit level).



Notes: All returns are significant at the 1% level.

return to 10 years of GE is 6.3% for immigrants from low-income countries and 18.2% for immigrants from high-income countries. Neither is statistically significant. If an immigrant from a low-income country has 10 years of GE and 3 years of OE, he/she will earn 23.3% (significant at 5%) more than a comparable immigrant without any work experience. On the other hand, if an immigrant from a high-income country has 10 years of GE and 3 years of OE, then he/she will earn 30.8% (significant at 10%) more than a comparable immigrant without any work experience. If an immigrant from a low-income country has 10 years of GE, 3 years of OE, and 3 years of Abstract TE, then he/she will earn 32.8% (significant at 1%) more than a comparable immigrant without any work experience. On the other hand, if an immigrant from a high-income country has 10 years of GE, 3 years of OE, and 3 years of Abstract TE, he/she will earn 45.3% (significant at 1%) more than a comparable low-skilled immigrant without any work experience. This suggests that returns to work experience are higher for immigrants from high-income countries compared to those from low-income countries. Average GE, OE, Abstract TE, Routine TE, and Manual TE for immigrants from low-income countries are 12, 2, 2, 1, and 1 years, respectively. The corresponding numbers for high-skilled workers are 13, 3, 3, 1, and 2 years. Given these, an immigrant from a low-income (high-income) country with an average work experience profile earns 23.7% (39.2%) more than an immigrant from a low-income (high-income) country without any work experience (see Figure 8).

5 Discussion and conclusion

This article sheds new light on the portability of human capital using data from new immigrants to the U.S. Using wages earned by immigrants in their first U.S. job, we show that human capital may be more portable across countries than previously reported. In particular, we show that even though the return to source country general experience is small or even negligible, returns to occupation-specific experience accumulated in the source country is statistically and economically significant. Moreover, we find that task-specific human capital is an important component, and human capital associated with Abstract tasks is transferable across countries. We find consistent evidence that Abstract TE, especially NRCA TE acquired in source countries of the immigrants has significant wage returns in the U.S. However, we find that while analytical TE is transferable, interpersonal TE is not. The difference in transferability between the two high-skilled associated measures of TE may stem from the fact that NRCI skills are more closely tied to English communication skills than are those associated with performing NRCA tasks. This evidence of little-to-no transferability of interpersonal task-specific human capital may also explain why a large number of immigrants sort into non-NRCI-intensive occupations after immigrating to a host country (Peri and Sparber, 2009). We also find that routine and manual task-specific work experiences acquired in the source countries of the immigrants do not bring significant wage return in the U.S. labor market. We are not aware of any previous research that has estimated returns to source country OE and TE for immigrants. Our primary results are robust to changes in specification (such as controlling for unobserved heterogeneity by including source country wage as a control) and sample criteria (such as excluding employment principals from our sample).

We should note that, in the context of TE, we are approximating a source country's occupation technologies using U.S. (ONET) data. Although there is some evidence that the rankings

of tasks are similar across countries (Dicarlo et al., 2016), the specificity of technologies and, therefore, their rankings may differ at different levels of occupational coding. It is plausible that at the one-digit level, occupations are too broadly defined, and, given such a broad definition, composite technologies of occupations at this level do vary across countries. Similarly, at the three-digit level, occupation technologies may be too specific, and approximating tasks across countries based on rank may not be the most consistent. Further exploration of the limiting factors discussed here may be addressed by researchers in the future.

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Supplementary Materials

Figure S1 Kernel-weighted local polynomial – returns to general experience, employment principals excluded.

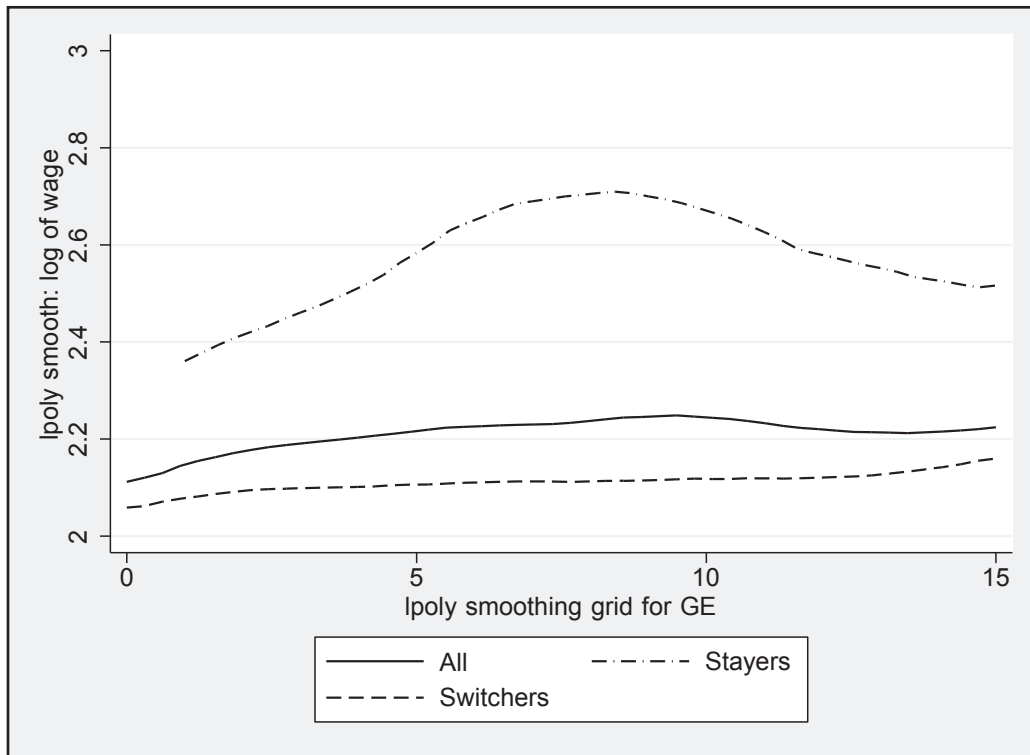


Table S1 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic)

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.0291 (0.0368)	0.0478 (0.0373)	0.0421 (0.0368)	0.0658 (0.1165)	0.0507 (0.1336)	0.1632 (0.1556)	0.0449 (0.0429)	0.0254 (0.0401)	0.0114 (0.0386)
5 Years of GE	0.0402 (0.0502)	0.0654 (0.0510)	0.0593 (0.0504)	0.0838 (0.1573)	0.0617 (0.1806)	0.2297 (0.2080)	0.0645 (0.0588)	0.0367 (0.0548)	0.0185 (0.0528)
10 Years of GE	0.0470 (0.0606)	0.0744 (0.0621)	0.0718 (0.0614)	0.0707 (0.1845)	0.0395 (0.2148)	0.3011 (0.2457)	0.0866 (0.0715)	0.0490 (0.0667)	0.0283 (0.0641)
3 Years of OE	0.1526*** (0.0250)	0.1699*** (0.0306)	0.2024*** (0.0337)	0.1043 (0.1199)	0.2623** (0.1255)	0.1176 (0.1449)	0.1109 (0.0754)	0.0891 (0.0577)	0.1184* (0.0660)
5 Years of OE	0.2033*** (0.0316)	0.2251*** (0.0374)	0.2719*** (0.0413)	0.1387 (0.1575)	0.3516** (0.1640)	0.1596 (0.1868)	0.0642 (0.0899)	0.1056 (0.0752)	0.2672** (0.1224)
10 Years of OE	0.2262*** (0.0390)	0.2381*** (0.0414)	0.3059*** (0.0458)	0.1582 (0.1704)	0.3941** (0.1758)	0.1910 (0.1933)	-0.0871 (0.1314)	0.0513 (0.1341)	0.1871 (0.1827)
3 Years of Abstract	0.1239*** (0.0196)	0.0997*** (0.0186)	0.1066*** (0.0186)	0.0911*** (0.0267)	0.0588* (0.0304)	0.0443 (0.0384)	0.1272*** (0.0428)	0.1292*** (0.0295)	0.1541*** (0.0300)
5 Years of Abstract	0.2017*** (0.0311)	0.1623*** (0.0295)	0.1738*** (0.0295)	0.1376*** (0.0450)	0.0846* (0.0500)	0.0609 (0.0628)	0.2065*** (0.0658)	0.2086*** (0.0466)	0.2473*** (0.0470)
10 Years of Abstract	0.3614*** (0.0505)	0.2898*** (0.0478)	0.3104*** (0.0484)	0.1911** (0.0955)	0.0944 (0.1067)	0.0508 (0.1334)	0.3653*** (0.0929)	0.3588*** (0.0736)	0.4141*** (0.0715)
3 Years of Routine	-0.0317 (0.0252)	-0.0380 (0.0292)	-0.0204 (0.0216)	-0.0223 (0.0294)	0.0281 (0.0593)	0.0011 (0.0864)	-0.0452 (0.0725)	-0.0384 (0.0399)	-0.0079 (0.0247)

(Continued)

Table S1 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 Years of Routine	-0.0542 (0.0400)	-0.0593 (0.0460)	-0.0314 (0.0347)	-0.0287 (0.0465)	0.0629 (0.0934)	0.0047 (0.1362)	-0.0247 (0.1029)	-0.0574 (0.0624)	-0.0116 (0.0395)
10 Years of Routine	-0.1124* (0.0638)	-0.0866 (0.0715)	-0.0445 (0.0579)	-0.0124 (0.0799)	0.2059 (0.1498)	0.0217 (0.2213)	0.2636 (0.2620)	-0.0636 (0.0927)	-0.0121 (0.0655)
3 Years of Manual	-0.0273 (0.0194)	-0.0128 (0.0185)	-0.0295* (0.0175)	-0.0262 (0.0336)	-0.0157 (0.0468)	-0.0371 (0.0553)	-0.0281 (0.0357)	-0.0040 (0.0210)	-0.0209 (0.0184)
5 Years of Manual	-0.0437 (0.0313)	-0.0225 (0.0296)	-0.0490* (0.0280)	-0.0389 (0.0563)	-0.0319 (0.0765)	-0.0583 (0.0929)	-0.0411 (0.0552)	-0.0084 (0.0337)	-0.0355 (0.0296)
10 Years of Manual	-0.0744 (0.0533)	-0.0522 (0.0495)	-0.0935** (0.0465)	-0.0458 (0.1135)	-0.0963 (0.1459)	-0.0953 (0.1949)	-0.0426 (0.0797)	-0.0269 (0.0570)	-0.0727 (0.0503)
N	2,459	2,459	2,459	1,006	694	551	1,453	1,765	1,908

Note: Standard errors are in parentheses.

*0.10, **0.05, and ***0.01 denote significance levels.

Table S2 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic)

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.0398 (0.0365)	0.0448 (0.0375)	0.0443 (0.0373)	0.1139 (0.1192)	-0.0043 (0.1380)	0.1525 (0.1543)	0.0575 (0.0424)	0.0319 (0.0404)	0.0245 (0.0394)
5 Years of GE	0.0568 (0.0498)	0.0654 (0.0514)	0.0650 (0.0510)	0.1471 (0.1605)	0.0042 (0.1849)	0.2298 (0.2069)	0.0841 (0.0582)	0.0485 (0.0554)	0.0386 (0.0539)
10 Years of GE	0.0763 (0.0604)	0.0901 (0.0628)	0.0885 (0.0620)	0.1346 (0.1866)	0.0432 (0.2133)	0.3502 (0.2405)	0.1216* (0.0718)	0.0728 (0.0678)	0.0590 (0.0653)
3 Years of OE	0.1492*** (0.0261)	0.1678*** (0.0319)	0.1872*** (0.0349)	0.0394 (0.1216)	0.2944** (0.1288)	0.1157 (0.1437)	0.5501*** (0.1616)	0.0519 (0.0675)	0.0719 (0.0789)
5 Years of OE	0.1981*** (0.0335)	0.2232*** (0.0392)	0.2539*** (0.0431)	0.0558 (0.1598)	0.3836** (0.1675)	0.1505 (0.1852)	1.4284** (0.5558)	0.0544 (0.0844)	0.1610 (0.1443)
10 Years of OE	0.2163*** (0.0419)	0.2388*** (0.0427)	0.2897*** (0.0479)	0.0787 (0.1729)	0.3852** (0.1768)	0.1610 (0.1905)	7.5671** (3.7792)	0.0246 (0.1355)	0.1821 (0.2131)
3 years of NRCA	0.1725*** (0.0301)	0.1693*** (0.0355)	0.1305*** (0.0239)	0.1306*** (0.0346)	0.0892* (0.0456)	0.0376 (0.0406)	0.5014*** (0.1671)	0.5412*** (0.1274)	0.2400*** (0.0690)
5 years of NRCA	0.2708*** (0.0476)	0.2690*** (0.0552)	0.2103*** (0.0379)	0.2026*** (0.0593)	0.1195 (0.0734)	0.0438 (0.0726)	0.1480 (0.2060)	0.7628*** (0.1839)	0.3798*** (0.1065)
10 years of NRCA	0.4272*** (0.0775)	0.4366*** (0.0832)	0.3582*** (0.0628)	0.3089** (0.1448)	0.0711 (0.1445)	-0.0093 (0.1874)	-5.8783** (2.8815)	0.5968** (0.2753)	0.5885*** (0.1538)
3 years of NRCI	0.0708** (0.0291)	-0.0106 (0.0333)	-0.0377 (0.0365)	0.0697** (0.0341)	-0.0733 (0.0628)	-0.1589** (0.0731)	-0.1333 (0.1665)	0.0309 (0.0381)	-0.0246 (0.0500)

(Continued)

Table S2 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 years of NRCI	0.1144** (0.0457)	-0.0153 (0.0520)	-0.0583 (0.0581)	0.0991* (0.0552)	-0.1207 (0.1011)	-0.2650** (0.1216)	-0.7963** (0.3748)	0.0468 (0.0592)	-0.0372 (0.0799)
10 years of NRCI	0.1985*** (0.0719)	-0.0089 (0.0782)	-0.0843 (0.0946)	0.0952 (0.1031)	-0.2041 (0.1819)	-0.4890* (0.2511)	-6.1920** (3.0430)	0.0625 (0.0870)	-0.0477 (0.1333)
3 years of RCOG	-0.0404 (0.0263)	0.0558* (0.0290)	0.0049 (0.0287)	-0.0343 (0.0297)	0.0524 (0.0466)	0.0123 (0.0997)	-0.2918*** (0.1039)	0.0767 (0.0560)	0.0228 (0.0339)
5 years of RCOG	-0.0693* (0.0415)	0.0866* (0.0456)	0.0075 (0.0458)	-0.0513 (0.0467)	0.0888 (0.0769)	0.0204 (0.1564)	-0.8822*** (0.3146)	0.1237 (0.0850)	0.0365 (0.0538)
10 years of RCOG	-0.1430** (0.0656)	0.1274* (0.0714)	0.0100 (0.0745)	-0.0671 (0.0789)	0.1708 (0.1539)	0.0265 (0.2615)	-5.5867** (2.7181)	0.2133* (0.1112)	0.0589 (0.0869)
3 years of RMAN	-0.0713** (0.0361)	-0.1062*** (0.0361)	-0.1233*** (0.0476)	-0.0249 (0.0537)	-0.1196 (0.0770)	-0.1748 (0.1368)	-0.3068*** (0.0990)	-0.0993** (0.0491)	-0.1217** (0.0522)
5 years of RMAN	-0.1086* (0.0572)	-0.1617*** (0.0563)	-0.1869** (0.0734)	-0.0212 (0.0876)	-0.1583 (0.1234)	-0.2506 (0.2118)	-0.9394*** (0.3196)	-0.1500** (0.0746)	-0.1830** (0.0793)
10 years of RMAN	-0.1418 (0.0913)	-0.2143** (0.0850)	-0.2329** (0.1069)	0.0829 (0.1618)	-0.0590 (0.2164)	-0.2258 (0.3226)	-5.8974** (2.8076)	-0.1916* (0.1000)	-0.2180* (0.1151)
3 years of NRMN	-0.0646** (0.0327)	-0.0167 (0.0220)	-0.0482** (0.0219)	-0.0598 (0.0469)	0.0143 (0.0513)	-0.0204 (0.0656)	-0.2996*** (0.1016)	-0.0085 (0.0260)	-0.0368 (0.0251)
5 years of NRMN	-0.0978* (0.0528)	-0.0273 (0.0352)	-0.0771** (0.0349)	-0.0921 (0.0803)	0.0182 (0.0814)	-0.0315 (0.1089)	-0.9177*** (0.3269)	-0.0142 (0.0417)	-0.0594 (0.0397)
10 years of NRMN	-0.1335 (0.0915)	-0.0532 (0.0588)	-0.1314** (0.0577)	-0.1293 (0.1834)	-0.0043 (0.1390)	-0.0566 (0.2267)	-5.7884** (2.8214)	-0.0302 (0.0703)	-0.1055* (0.0637)
N	2,459	2,459	2,459	1,006	694	551	1,453	1,765	1,908

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.

Table S3 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic) – with source country wage

Parameters	All immigrant workers						Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	-0.0195 (0.0466)	-0.0124 (0.0472)	-0.0195 (0.0475)	0.1548 (0.1875)	0.0692 (0.2111)	0.4922* (0.2893)	0.0610 (0.0570)	0.0105 (0.0512)	0.0030 (0.0490)			
5 Years of GE	-0.0150 (0.0624)	-0.0079 (0.0635)	-0.0147 (0.0637)	0.2055 (0.2465)	0.1009 (0.2692)	0.6256* (0.3569)	0.0930 (0.0768)	0.0215 (0.0692)	0.0145 (0.0661)			
10 Years of GE	0.0223 (0.0725)	0.0218 (0.0740)	0.0201 (0.0739)	0.2150 (0.2667)	0.1635 (0.2736)	0.6601* (0.3366)	0.1506* (0.0908)	0.0488 (0.0817)	0.0483 (0.0779)			
3 Years of OE	0.1700*** (0.0317)	0.1568*** (0.0388)	0.1821*** (0.0424)	-0.0341 (0.1853)	0.0601 (0.2104)	-0.4223 (0.2668)	0.4687*** (0.1773)	0.0303 (0.0827)	0.0282 (0.1008)			
5 Years of OE	0.2234*** (0.0399)	0.2191*** (0.0449)	0.2476*** (0.0487)	-0.0315 (0.2398)	0.1028 (0.2628)	-0.4835 (0.3216)	1.0855* (0.5809)	-0.0674 (0.1763)	0.0866 (0.2094)			
10 Years of OE	0.2417*** (0.0520)	0.2639*** (0.0518)	0.2861*** (0.0556)	0.0177 (0.2482)	0.1623 (0.2499)	-0.3262 (0.2772)	4.5032 (4.0280)	-0.0570 (0.3098)	-0.0487 (0.3089)			
3 years of NRCA	0.1722*** (0.0402)	0.2147*** (0.0418)	0.1882*** (0.0386)	0.1136** (0.0551)	0.0826 (0.0591)	-0.0102 (0.0554)	0.5413*** (0.2176)	0.5159*** (0.1154)	0.4403*** (0.1195)			
5 years of NRCA	0.2670*** (0.0612)	0.3316*** (0.0627)	0.2905*** (0.0566)	0.1859* (0.1126)	0.0860 (0.1038)	-0.0858 (0.0958)	0.3632** (0.1756)	0.7872*** (0.1675)	0.6519*** (0.1678)			
10 years of NRCA	0.3993*** (0.0902)	0.4748*** (0.0862)	0.4102*** (0.0734)	0.3450 (0.3805)	-0.1110 (0.2727)	-0.5139** (0.2445)	-3.7969 (3.0452)	1.0420*** (0.2512)	0.7375*** (0.1912)			
3 years of NRCI	0.0703* (0.0413)	-0.0159 (0.0424)	-0.0646 (0.0435)	0.0570 (0.0481)	-0.1298 (0.0892)	-0.1282 (0.1335)	-0.0536 (0.1866)	0.0248 (0.0483)	-0.0847 (0.0526)			

(Continued)

Table S3 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 years of NRCI	0.1142* (0.0629)	-0.0231 (0.0662)	-0.0984 (0.0688)	0.0939 (0.0776)	-0.1964 (0.1427)	-0.2305 (0.2044)	-0.8242** (0.3591)	0.0373 (0.0754)	-0.1310 (0.0835)
10 years of NRCI	0.2047** (0.0865)	-0.0119 (0.0994)	-0.1251 (0.1081)	0.1756 (0.1595)	-0.2299 (0.2893)	-0.5080 (0.3149)	15.9488*** (5.0011)	0.0514 (0.1122)	-0.1809 (0.1354)
3 years of RCOG	-0.0689** (0.0318)	0.0629 (0.0408)	-0.0102 (0.0300)	-0.0581 (0.0425)	0.0015 (0.0633)	-0.0134 (0.1919)	-0.2584** (0.1222)	0.1217* (0.0705)	0.0005 (0.0329)
5 years of RCOG	-0.1164** (0.0501)	0.1019 (0.0631)	-0.0154 (0.0480)	-0.0880 (0.0737)	0.0123 (0.1063)	0.0314 (0.2811)	-0.7541** (0.3393)	0.2015* (0.1069)	0.0014 (0.0526)
10 years of RCOG	-0.2326*** (0.0792)	0.1798* (0.0937)	-0.0191 (0.0800)	-0.1195 (0.1832)	0.0798 (0.2485)	0.3691 (0.3505)	-3.8501 (2.9752)	0.3832*** (0.1406)	0.0071 (0.0876)
3 years of RMAN	-0.0437 (0.0776)	-0.0712 (0.0475)	-0.0618 (0.0870)	-0.0184 (0.1052)	-0.1597* (0.0887)	-0.1242 (0.1785)	-0.2327 (0.1509)	-0.0430 (0.0633)	-0.0344 (0.1042)
5 years of RMAN	-0.0673 (0.1193)	-0.1047 (0.0743)	-0.0936 (0.1347)	0.0003 (0.1669)	-0.2173 (0.1449)	-0.1384 (0.2681)	-0.6033* (0.3569)	-0.0568 (0.0973)	-0.0476 (0.1590)
10 years of RMAN	-0.0935 (0.1640)	-0.1166 (0.1122)	-0.1152 (0.1916)	0.1843 (0.2899)	-0.1249 (0.2959)	0.1254 (0.3855)	-3.3147 (2.9932)	-0.0182 (0.1346)	-0.0265 (0.2162)
3 years of NRMN	-0.0572 (0.0372)	-0.0058 (0.0291)	-0.0639* (0.0369)	-0.0786 (0.0673)	0.1113 (0.1020)	-0.0907 (0.1091)	-0.3180*** (0.1201)	0.0026 (0.0366)	-0.0662* (0.0355)
5 years of NRMN	-0.0865 (0.0597)	-0.0134 (0.0463)	-0.1033* (0.0556)	-0.1596 (0.1370)	0.1618 (0.1617)	-0.1241 (0.1697)	-0.7497** (0.3457)	0.0007 (0.0587)	-0.1041* (0.0544)
10 years of NRMN	-0.1181 (0.1025)	-0.0519 (0.0766)	-0.1805** (0.0726)	-0.4455 (0.4207)	0.1418 (0.3003)	-0.0717 (0.2907)	-3.5858 (3.0164)	-0.0231 (0.0983)	-0.1593** (0.0784)
N	1,693	1,693	1,693	745	528	436	948	1,165	1,257

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.

Table S4 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic): low-skilled workers

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.0321 (0.0424)	0.0111 (0.0435)	0.0281 (0.0432)	0.0204 (0.2204)	-0.0784 (0.2901)	0.1812 (0.4032)	0.0492 (0.0552)	0.0050 (0.0471)	0.0024 (0.0453)
5 Years of GE	0.0487 (0.0582)	0.0226 (0.0600)	0.0456 (0.0596)	0.0415 (0.2914)	-0.1135 (0.3826)	0.2176 (0.5436)	0.0751 (0.0763)	0.0153 (0.0653)	0.0106 (0.0627)
10 Years of GE	0.0744 (0.0713)	0.0548 (0.0745)	0.0805 (0.0737)	0.0851 (0.3240)	-0.1422 (0.4218)	0.1868 (0.6501)	0.1250 (0.0954)	0.0519 (0.0823)	0.0393 (0.0783)
3 Years of OE	0.0021 (0.0345)	0.0469 (0.0446)	0.0690 (0.0513)	-0.0337 (0.2391)	0.2275 (0.2964)	0.1953 (0.4180)	0.1271 (0.1631)	-0.0590 (0.0867)	-0.0385 (0.1096)
5 Years of OE	-0.0031 (0.0435)	0.0633 (0.0548)	0.0938 (0.0625)	-0.0673 (0.3101)	0.2975 (0.3933)	0.2536 (0.5641)	0.0668 (0.2445)	-0.0619 (0.0995)	-0.1182 (0.2185)
10 Years of OE	-0.0099 (0.0505)	0.0753 (0.0560)	0.1122* (0.0635)	-0.1301 (0.3230)	0.2918 (0.4352)	0.2250 (0.6658)	-0.0404 (0.5675)	0.0352 (0.1542)	0.2721** (0.1153)
3 Years of NRCA	0.4488*** (0.1081)	0.3350** (0.1662)	0.3329*** (0.0781)	0.4362*** (0.1004)	0.4590*** (0.1700)	0.3877*** (0.1298)	1.3619 (1.2122)	0.0272 (0.2084)	-1.8790 (1.8057)
5 Years of NRCA	0.6995*** (0.1664)	0.5224** (0.2519)	0.5329*** (0.1233)	0.6630*** (0.1676)	0.6845** (0.2638)	0.6143*** (0.2115)	1.7608 (1.5745)	0.0427 (0.2720)	-13.5495 (12.1213)
10 Years of NRCA	1.0409*** (0.2348)	0.7750** (0.3232)	0.8846*** (0.1933)	0.8944** (0.3570)	0.8183* (0.4395)	0.9816** (0.4049)	-1.2174 (1.2194)	0.0629 (0.2713)	-124.7749 (109.8213)
3 Years of NRCI	0.1920*** (0.0649)	0.1447** (0.0650)	0.0464 (0.0523)	0.1659* (0.0860)	0.0843 (0.1811)	0.0650 (0.1587)	-0.6430 (1.0663)	0.0837 (0.0640)	0.0127 (0.0663)

(Continued)

Table S4 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 Years of NRCI	0.3022*** (0.1021)	0.2188** (0.0982)	0.0752 (0.0835)	0.2506* (0.1362)	0.1210 (0.2850)	0.0573 (0.2501)	-4.2488 (5.5933)	0.1220 (0.0973)	0.0229 (0.1063)
10 Years of NRCI	0.4650*** (0.1574)	0.2744** (0.1293)	0.1316 (0.1388)	0.3238 (0.2206)	0.1206 (0.4585)	-0.1886 (0.4406)	-18.0374 (22.5806)	0.1154 (0.1301)	0.0594 (0.1780)
3 Years of RCOG	0.0695** (0.0319)	0.1542** (0.0687)	0.0210 (0.0368)	0.0784** (0.0397)	0.2713*** (0.0954)	-0.2451 (0.2045)	-0.1316 (0.1350)	0.1670 (0.2104)	0.0292 (0.0437)
5 Years of RCOG	0.1081** (0.0505)	0.2450** (0.1081)	0.0362 (0.0580)	0.1357* (0.0709)	0.4236** (0.1641)	-0.3285 (0.3469)	-0.1305 (0.2233)	0.2679 (0.2912)	0.0509 (0.0682)
10 Years of RCOG	0.1597** (0.0810)	0.3911** (0.1659)	0.0799 (0.0902)	0.2807 (0.1931)	0.6208* (0.3596)	-0.1600 (0.7545)	0.3139 (0.6260)	0.4407* (0.2657)	0.1167 (0.1020)
3 Years of RMAN	0.0223 (0.0406)	-0.0267 (0.0402)	-0.0564 (0.0523)	0.0023 (0.0672)	0.0399 (0.1097)	-0.0587 (0.2125)	0.0302 (0.1273)	-0.0398 (0.0538)	-0.0611 (0.0585)
5 Years of RMAN	0.0362 (0.0644)	-0.0413 (0.0630)	-0.0830 (0.0808)	0.0111 (0.1113)	0.0981 (0.1833)	-0.0493 (0.3372)	0.0243 (0.2105)	-0.0617 (0.0813)	-0.0889 (0.0903)
10 Years of RMAN	0.0610 (0.1031)	-0.0606 (0.0954)	-0.0836 (0.1190)	0.0660 (0.2241)	0.3485 (0.3701)	0.1781 (0.5942)	-0.1116 (0.5349)	-0.0878 (0.1080)	-0.0823 (0.1336)
3 Years of NRMN	0.0451 (0.0370)	0.0393 (0.0251)	0.0093 (0.0225)	0.0608 (0.0558)	0.0528 (0.0600)	0.0084 (0.0990)	-0.0012 (0.1388)	0.0344 (0.0301)	0.0230 (0.0250)
5 Years of NRMN	0.0777 (0.0597)	0.0599 (0.0402)	0.0117 (0.0360)	0.1188 (0.1093)	0.0850 (0.0990)	-0.0344 (0.1636)	0.0055 (0.2321)	0.0512 (0.0484)	0.0317 (0.0398)
10 Years of NRMN	0.1545 (0.1032)	0.0785 (0.0677)	-0.0010 (0.0601)	0.3158 (0.3388)	0.1344 (0.2402)	-0.3411 (0.3839)	0.0492 (0.4685)	0.0603 (0.0828)	0.0185 (0.0655)
N	1,230	1,230	1,230	423	251	188	807	979	1,042

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.

Table S5 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic): high-skilled workers

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.0423 (0.0613)	0.0579 (0.0647)	0.0487 (0.0631)	0.1302 (0.1642)	0.1119 (0.1854)	0.2343 (0.2139)	0.0340 (0.0713)	0.0601 (0.0732)	0.0577 (0.0701)
5 Years of GE	0.0613 (0.0834)	0.0796 (0.0881)	0.0696 (0.0860)	0.1705 (0.2212)	0.1479 (0.2460)	0.3446 (0.2852)	0.0530 (0.0973)	0.0826 (0.0993)	0.0818 (0.0953)
10 Years of GE	0.0824 (0.1023)	0.0906 (0.1070)	0.0829 (0.1046)	0.1500 (0.2588)	0.1623 (0.2803)	0.4883 (0.3233)	0.0874 (0.1204)	0.0911 (0.1192)	0.0930 (0.1148)
3 Years of OE	0.2438*** (0.0406)	0.2027*** (0.0499)	0.2390*** (0.0517)	0.1312 (0.1702)	0.2045 (0.2173)	0.2030 (0.2467)	0.4011* (0.2423)	0.0811 (0.1263)	0.1384 (0.1223)
5 Years of OE	0.3249*** (0.0511)	0.2753*** (0.0579)	0.3170*** (0.0601)	0.1838 (0.2193)	0.2857 (0.2640)	0.2550 (0.2964)	0.5252 (0.7759)	0.0791 (0.1918)	0.1467 (0.1956)
10 Years of OE	0.3598*** (0.0657)	0.3231*** (0.0691)	0.3559*** (0.0792)	0.2491 (0.2275)	0.3471 (0.2343)	0.2623 (0.2472)	-1.8924 (6.0921)	0.0520 (0.2221)	0.1421 (0.3705)
3 Years of NRCA	0.0974*** (0.0349)	0.1193*** (0.0398)	0.0819*** (0.0265)	0.0540 (0.0458)	0.0802 (0.0545)	-0.0774 (0.0553)	0.3670* (0.1877)	0.4823*** (0.1485)	0.1625*** (0.0735)
5 Years of NRCA	0.1509*** (0.0551)	0.1891*** (0.0623)	0.1320*** (0.0425)	0.0735 (0.0895)	0.0963 (0.0913)	-0.1754* (0.1007)	0.5738 (0.3603)	0.6747*** (0.2191)	0.2585*** (0.1140)
10 Years of NRCA	0.2305** (0.0915)	0.3050*** (0.0957)	0.2177*** (0.0753)	0.0633 (0.2778)	-0.0232 (0.2112)	-0.5464** (0.2492)	0.8697 (4.3292)	0.4930 (0.3183)	0.4028** (0.1679)
3 Years of NRCI	0.0162 (0.0333)	-0.0716 (0.0449)	-0.1577** (0.0738)	0.0280 (0.0463)	-0.1441 (0.0875)	-0.3815** (0.1541)	-0.0802 (0.2275)	-0.0096 (0.0520)	-0.0705 (0.1040)

(Continued)

Table S5 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 Years of NRCI	0.0281 (0.0528)	-0.1128 (0.0704)	-0.2451** (0.1127)	0.0399 (0.0825)	-0.2501* (0.1399)	-0.5796** (0.2328)	-0.7691 (0.4741)	-0.0165 (0.0809)	-0.1131 (0.1602)
10 Years of NRCI	0.0630 (0.0867)	-0.1668 (0.1076)	-0.3592** (0.1536)	0.0427 (0.2151)	-0.5063** (0.2573)	-0.7201** (0.3350)	10.9744 (8.7966)	-0.0271 (0.1203)	-0.1993 (0.2293)
3 Years of RCOG	-0.1492*** (0.0433)	0.0115 (0.0413)	-0.0114 (0.0493)	-0.1664*** (0.0579)	-0.0353 (0.0772)	-0.0696 (0.3235)	-0.2244 (0.1660)	0.0343 (0.0619)	-0.0110 (0.0568)
5 Years of RCOG	-0.2445*** (0.0678)	0.0179 (0.0623)	-0.0197 (0.0783)	-0.2632*** (0.0892)	-0.0480 (0.1191)	-0.0967 (0.4602)	-0.4034 (0.4411)	0.0589 (0.0941)	-0.0179 (0.0903)
10 Years of RCOG	-0.4438*** (0.1042)	0.0316 (0.0851)	-0.0472 (0.1260)	-0.4201*** (0.1373)	-0.0254 (0.2005)	-0.0584 (0.4174)	0.6228 (4.3398)	0.1290 (0.1245)	-0.0359 (0.1456)
3 Years of RMAN	-0.4502*** (0.1383)	-0.3661*** (0.0750)	-0.4460*** (0.1238)	-0.3804** (0.1640)	-0.3015 (0.1998)	-1.1005 (0.8093)	-0.5958*** (0.2085)	-0.3799** (0.1478)	-0.4468*** (0.1422)
5 Years of RMAN	-0.6460*** (0.1986)	-0.5367*** (0.1131)	-0.6527*** (0.1772)	-0.5204** (0.2375)	-0.4058 (0.2865)	-1.5851 (1.1642)	-0.9189* (0.4862)	-0.5363** (0.2090)	-0.5378*** (0.1701)
10 Years of RMAN	-0.5692*** (0.2193)	-0.5387*** (0.1488)	-0.6689*** (0.1997)	-0.2808 (0.2893)	-0.1717 (0.3203)	-1.4468 (1.0872)	0.7358 (4.3437)	-0.3697 (0.2373)	-0.2453 (0.1909)
3 Years of NRMN	-0.4705*** (0.0912)	-0.1811*** (0.0570)	-0.2608*** (0.0632)	-0.5581*** (0.1313)	-0.3921*** (0.1247)	-0.3708 (0.2681)	-0.4584*** (0.1676)	-0.1374** (0.0695)	-0.2441*** (0.0758)
5 Years of NRMN	-0.7159*** (0.1344)	-0.2863*** (0.0894)	-0.4073*** (0.0974)	-0.8678*** (0.2000)	-0.6327*** (0.1989)	-0.5690 (0.4329)	-0.5130 (0.5157)	-0.2160** (0.1087)	-0.3776*** (0.1163)
10 Years of NRMN	-0.9025*** (0.1434)	-0.4533*** (0.1346)	-0.6119*** (0.1379)	-1.2103*** (0.2992)	-1.0613*** (0.3252)	-0.8278 (0.7594)	1.3055 (5.0752)	-0.3355** (0.1630)	-0.5412*** (0.1624)
N	1,229	1,229	1,229	583	443	363	646	786	866

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.

Table S6 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic): high income source countries

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.0180 (0.0411)	0.0266 (0.0417)	0.0307 (0.0414)	0.0277 (0.1459)	-0.0723 (0.1544)	0.2615 (0.1816)	0.0658 (0.0462)	0.0145 (0.0444)	0.0204 (0.0434)
5 Years of GE	0.0310 (0.0558)	0.0431 (0.0572)	0.0489 (0.0566)	0.0393 (0.1943)	-0.0863 (0.2050)	0.3481 (0.2401)	0.0993 (0.0634)	0.0284 (0.0610)	0.0368 (0.0595)
10 Years of GE	0.0593 (0.0669)	0.0732 (0.0702)	0.0784 (0.0689)	0.0345 (0.2188)	-0.0617 (0.2326)	0.3828 (0.2718)	0.1545** (0.0780)	0.0627 (0.0753)	0.0704 (0.0726)
3 Years of OE	0.1531*** (0.0305)	0.1718*** (0.0380)	0.2031*** (0.0444)	0.0287 (0.1528)	0.3280*** (0.1474)	-0.1074 (0.1829)	0.6426*** (0.2021)	0.0545 (0.0819)	0.0597 (0.1031)
5 Years of OE	0.2035*** (0.0391)	0.2281*** (0.0469)	0.2722*** (0.0536)	0.0424 (0.1986)	0.4316** (0.1884)	-0.1012 (0.2280)	1.6618** (0.6835)	-0.0088 (0.1130)	0.0935 (0.1837)
10 Years of OE	0.2266*** (0.0494)	0.2423*** (0.0512)	0.2989*** (0.0601)	0.0715 (0.2082)	0.4554** (0.1905)	0.0150 (0.2178)	9.1869** (4.5871)	0.0798 (0.1503)	0.1186 (0.2858)
3 Years of NRCA	0.1756*** (0.0386)	0.1786*** (0.0418)	0.1396*** (0.0320)	0.1183** (0.0510)	0.0969* (0.0561)	0.0679 (0.0565)	0.5889*** (0.2100)	0.4800*** (0.1504)	0.3998*** (0.1181)
5 Years of NRCA	0.2747*** (0.0603)	0.2827*** (0.0650)	0.2214*** (0.0489)	0.1815** (0.0855)	0.1395 (0.0900)	0.1016 (0.0941)	0.1511 (0.2535)	0.7524*** (0.1960)	0.5892*** (0.1632)
10 Years of NRCA	0.4220*** (0.0937)	0.4513*** (0.0972)	0.3505*** (0.0718)	0.2626 (0.1768)	0.1489 (0.1697)	0.1317 (0.2001)	-6.7602* (3.4645)	0.9597** (0.4552)	0.6208*** (0.1697)
3 Years of NRCI	0.0880** (0.0412)	-0.0595 (0.0431)	-0.0809* (0.0426)	0.1123** (0.0478)	-0.2228*** (0.0753)	-0.2877** (0.1180)	0.0174 (0.2173)	0.0830* (0.0492)	-0.0588 (0.0627)

(Continued)

Table S6 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 Years of NRCI	0.1356** (0.0635)	-0.0955 (0.0655)	-0.1306* (0.0677)	0.1597** (0.0757)	-0.3620*** (0.1218)	-0.4878** (0.2057)	-0.7791* (0.4380)	0.1176 (0.0755)	-0.0953 (0.1000)
10 Years of NRCI	0.1865** (0.0893)	-0.1547* (0.0883)	-0.2281** (0.1100)	0.1387 (0.1291)	-0.6065*** (0.2201)	-0.9448** (0.4450)	-7.7002** (3.6392)	0.0908 (0.1038)	-0.1704 (0.1644)
3 Years of RCOG	-0.0691** (0.0307)	0.0718** (0.0349)	-0.0321 (0.0345)	-0.0939*** (0.0344)	0.0547 (0.0573)	-0.0772 (0.0958)	-0.3377*** (0.1301)	0.1110* (0.0634)	-0.0010 (0.0427)
5 Years of RCOG	-0.1161** (0.0485)	0.1115** (0.0550)	-0.0519 (0.0549)	-0.1490** (0.0606)	0.0995 (0.0933)	-0.1288 (0.1539)	-1.0500*** (0.3978)	0.1792* (0.0965)	-0.0016 (0.0679)
10 Years of RCOG	-0.2268*** (0.0767)	0.1614* (0.0860)	-0.0877 (0.0890)	-0.2404 (0.1619)	0.2271 (0.1864)	-0.2512 (0.2990)	-6.7981** (3.3230)	0.3069** (0.1304)	-0.0022 (0.1092)
3 Years of RMAN	-0.0969** (0.0437)	-0.1025** (0.0451)	-0.1291** (0.0580)	-0.0441 (0.0612)	-0.1279 (0.0928)	0.4435 (0.5220)	-0.4116*** (0.1274)	-0.0773 (0.0578)	-0.1443** (0.0592)
5 Years of RMAN	-0.1507** (0.0693)	-0.1560** (0.0706)	-0.1954** (0.0902)	-0.0480 (0.1013)	-0.1715 (0.1480)	0.7323 (0.8107)	-1.1908*** (0.4040)	-0.1221 (0.0881)	-0.2212** (0.0896)
10 Years of RMAN	-0.2158* (0.1114)	-0.2072* (0.1072)	-0.2399* (0.1362)	0.0641 (0.2030)	-0.0787 (0.2539)	1.3198 (1.1685)	-7.1982** (3.4165)	-0.2003 (0.1232)	-0.2970** (0.1327)
3 Years of NRMN	-0.0475 (0.0369)	-0.0337 (0.0276)	-0.0595** (0.0302)	-0.0090 (0.0543)	-0.0168 (0.0795)	0.0084 (0.1077)	-0.3276*** (0.1232)	-0.0213 (0.0328)	-0.0580* (0.0339)
5 Years of NRMN	-0.0702 (0.0597)	-0.0563 (0.0442)	-0.0964** (0.0475)	-0.0083 (0.0956)	-0.0396 (0.1252)	0.0112 (0.1712)	-1.0685*** (0.4053)	-0.0358 (0.0527)	-0.0920* (0.0527)
10 Years of NRMN	-0.0867 (0.1044)	-0.1128 (0.0738)	-0.1717** (0.0741)	0.0252 (0.2303)	-0.1458 (0.2056)	-0.0054 (0.3009)	-7.0638** (3.4280)	-0.0728 (0.0890)	-0.1499* (0.0805)
N	1,875	1,875	1,875	779	532	426	1,096	1,343	1,449

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.

Table S7 OLS estimates of cumulative returns to source country GE, OE, and TE (quartic): low income source countries

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
3 Years of GE	0.1760* (0.0923)	0.1846* (0.1041)	0.1500 (0.0948)	0.4061* (0.2311)	0.3633 (0.4090)	0.1398 (0.6474)	0.0831 (0.1229)	0.1185 (0.1230)	0.0798 (0.1103)
5 Years of GE	0.2305* (0.1254)	0.2469* (0.1400)	0.2016 (0.1287)	0.5301* (0.3123)	0.5082 (0.5486)	0.2693 (0.8239)	0.1101 (0.1676)	0.1547 (0.1646)	0.1022 (0.1489)
10 Years of GE	0.2472 (0.1515)	0.2745* (0.1626)	0.2245 (0.1540)	0.5553 (0.3731)	0.6785 (0.6325)	0.6249 (0.8101)	0.1226 (0.2040)	0.1559 (0.1881)	0.0898 (0.1751)
3 Years of OE	0.0987* (0.0526)	0.1500** (0.0655)	0.0937 (0.0654)	0.0756 (0.2357)	0.5110 (0.3857)	0.5710 (0.4987)	0.6353* (0.3402)	0.1689 (0.1401)	-0.0209 (0.2099)
5 Years of OE	0.1441** (0.0673)	0.2115*** (0.0754)	0.1642** (0.0764)	0.1103 (0.3068)	0.6086 (0.4993)	0.6925 (0.6220)	1.1647** (0.5758)	0.1131 (0.2205)	-0.0394 (0.2622)
10 Years of OE	0.1960** (0.0812)	0.2680*** (0.0816)	0.3069*** (0.0874)	0.1567 (0.3279)	0.4459 (0.5255)	0.5522 (0.6007)	-7.5834 (6.6156)	0.1198 (0.2012)	-0.0221 (0.2296)
3 Years of NRCA	0.1723*** (0.0523)	0.1410** (0.0672)	0.1517*** (0.0533)	0.2172** (0.0888)	0.0608 (0.1396)	0.0792 (0.1496)	-0.0269 (0.3994)	0.3468 (0.2272)	0.1511 (0.1445)
5 Years of NRCA	0.2676*** (0.0836)	0.2311** (0.1043)	0.2454*** (0.0851)	0.3888** (0.1783)	0.1367 (0.2369)	0.1243 (0.2941)	0.1969 (1.0138)	0.4681 (0.3039)	0.2497 (0.2300)
10 Years of NRCA	0.4144*** (0.1432)	0.4183*** (0.1583)	0.4202*** (0.1434)	0.8856 (0.5842)	0.4486 (0.5449)	0.1879 (0.8443)	0.7902 (3.9783)	0.2194 (0.3063)	0.4688 (0.3723)
3 Years of NRCI	0.1345** (0.0582)	0.0440 (0.0606)	-0.0247 (0.0850)	0.1439 (0.0889)	0.0879 (0.1111)	-0.1406 (0.1372)	-0.3496 (0.3881)	-0.0334 (0.0898)	-0.1156 (0.1134)

(Continued)

Table S7 Continued

Parameters	All immigrant workers			Stayers			Switchers		
	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit	1-Digit	2-Digit	3-Digit
5 Years of NRCI	0.2115** (0.0926)	0.0794 (0.0951)	-0.0282 (0.1330)	0.2344 (0.1420)	0.1776 (0.1814)	-0.2412 (0.2131)	-2.4397 (2.4121)	-0.0488 (0.1405)	-0.1663 (0.1778)
10 Years of NRCI	0.3247** (0.1511)	0.1974 (0.1490)	0.0336 (0.2000)	0.3979 (0.2515)	0.5180 (0.4038)	-0.4738 (0.3974)	-71.7340 (121.2068)	-0.0476 (0.2160)	-0.1348 (0.2685)
3 Years of RCOG	0.0276 (0.0499)	0.0365 (0.0562)	0.1361* (0.0766)	0.0657 (0.0715)	0.0443 (0.1214)	0.5681* (0.3288)	-0.3210 (0.2633)	-0.0994 (0.1271)	0.0686 (0.0818)
5 Years of RCOG	0.0412 (0.0789)	0.0519 (0.0889)	0.2159* (0.1178)	0.0976 (0.1130)	0.0502 (0.1990)	0.8328* (0.4768)	-0.9807* (0.5243)	-0.1457 (0.1921)	0.1130 (0.1253)
10 Years of RCOG	0.0554 (0.1251)	0.0487 (0.1412)	0.3447** (0.1620)	0.1191 (0.1890)	-0.0423 (0.3736)	0.8509 (0.5677)	3.5206 (3.6925)	-0.1366 (0.2496)	0.2125 (0.1678)
3 Years of RMAN	-0.0849 (0.0705)	-0.2065*** (0.0704)	-0.1132 (0.0823)	-0.2363 (0.2273)	-0.6024* (0.3363)	-1.2319*** (0.4279)	-0.2865 (0.2435)	-0.2539 (0.1583)	-0.0172 (0.1004)
5 Years of RMAN	-0.1167 (0.1077)	-0.3115*** (0.1061)	-0.1732 (0.1242)	-0.3285 (0.3321)	-0.7913 (0.4966)	-1.8159*** (0.6387)	-1.0651** (0.5105)	-0.3592* (0.2123)	-0.0099 (0.1522)
10 Years of RMAN	-0.0699 (0.1500)	-0.3810*** (0.1407)	-0.2265 (0.1630)	-0.2156 (0.4088)	-0.2468 (0.6613)	-1.9637** (0.9023)	3.3255 (3.6683)	-0.2931* (0.1712)	0.1144 (0.2037)
3 Years of NRMN	-0.2291** (0.1133)	0.0164 (0.0358)	-0.0255 (0.0378)	-0.5392*** (0.1923)	-0.0428 (0.1098)	-0.1844 (0.1508)	-0.4149 (0.2724)	0.0315 (0.0473)	0.0074 (0.0452)
5 Years of NRMN	-0.3224** (0.1537)	0.0298 (0.0577)	-0.0381 (0.0607)	-0.8002*** (0.2754)	-0.1575 (0.1932)	-0.2577 (0.2623)	-0.6793 (0.4553)	0.0542 (0.0742)	0.0130 (0.0715)
10 Years of NRMN	-0.2811 (0.3164)	0.0660 (0.0992)	-0.0518 (0.1034)	-0.9859 (0.6329)	-0.7656 (0.4689)	-0.2248 (0.6095)	-1.2970 (0.9176)	0.0997 (0.1156)	0.0210 (0.1151)
N	584	584	584	227	162	125	357	422	459

Note: Standard errors are in parentheses.

* 0.10, ** 0.05, and *** 0.01 denote significance levels.