Published in final edited form as:
Demography. 2011 November ; 48(4): 1293–1315. doi:10.1007/s13524-011-0058-8.

Ethnic Enclaves and the Earnings of Immigrants

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Abstract

A large literature in sociology concerns the implications of immigrants' participation in ethnic enclaves for their economic and social well-being. The "enclave thesis" speculates that immigrants benefit from working in ethnic enclaves. Previous research concerning the effects of enclave participation on immigrants' economic outcomes has come to mixed conclusions as to whether enclave effects are positive or negative. In this article, we seek to extend and improve upon past work by formulating testable hypotheses based on the enclave thesis and testing them with data from the 2003 New Immigrant Survey (NIS), employing both residence-based and workplace-based measures of the ethnic enclave. We compare the economic outcomes of immigrants working in ethnic enclaves with those of immigrants working in the mainstream economy. Our research yields minimal support for the enclave thesis. Our results further indicate that for some immigrant groups, ethnic enclave participation actually has a negative effect on economic outcomes.

Keywords

Ethnic enclaves; Immigrants; Assimilation; Earnings

The United States is often described as a country of immigrants. Although this may be true, we need to distinguish between "old" and "new" immigrants. The expression "old immigrants" refers mainly to Europeans who arrived prior to the 1920s, when immigration laws became more restrictive; "new immigrants" refers to those coming to the United States following the passage of the landmark Immigration and Nationality Act of 1965, mostly from Latin America and Asia. Some scholars (e.g., Portes and Rumbaut 2001) have emphasized differences between the two waves of immigrants, in terms of both racial composition and their place within the economic context of the United States. However, other scholars have warned against too readily assuming that classic assimilation theory, which has been applied mainly to old immigrants, has no relevance to new immigrants (Alba and Nee 2003; Greenman and Xie 2008).

Some observers — scholars and laypersons alike — still regard classic assimilation as a realistic path for new immigrants, but others consider it unattainable for those immigrants today who lack competitive skills in the U.S. labor market. It is argued that when they enter the mainstream economy, such immigrants tend to be concentrated in the secondary labor market and suffer negative economic consequences because the secondary sector restricts individuals from the opportunities, activities, and institutions that are available to those in

the primary sector (Piore 1970). The ethnic enclave, as conceptualized by Portes and associates (Portes and Jensen 1987, 1989, 1992; Portes and Zhou 1993), offers a third alternative to the two other segments of the labor market. It has thus been proposed that some immigrants may benefit from working in ethnic enclaves. We call this "the enclave thesis." Over the past two decades, this thesis has captured the attention of many researchers, but empirical support for it has been mixed.

The mixed results of previous research on the economic outcomes of immigrants working in ethnic enclaves may stem from two difficulties, one conceptual and one methodological: (1) the ambiguity of testable hypotheses and (2) varying operationalizations of the ethnic enclave. In this article, we first formulate testable hypotheses informed by the enclave thesis, specifying components in a standard earnings function that should vary under the enclave thesis by economic context for immigrants. We then construct three measures of the ethnic enclave, using both residential characteristics and employer characteristics. Our empirical work is based on data from the New Immigrant Survey (NIS) (Jasso et al. 2007), a data set that is highly attractive for our research aims. The NIS provides adequate coverage even of smaller immigrant groups, offers a wide range of variables, and provides detailed geographic location information for immigrants.

We begin by reviewing the debate on the new wave of immigration, including a discussion of assimilation theories and the segmented labor market. Next, we review the empirical issues encountered in previous work on ethnic enclaves. We then introduce our data and methods, and propose our own testable hypotheses, informed by the enclave thesis. We follow this with a presentation of our results and discuss their robustness to alternative specifications. Finally, we conclude with a discussion of our findings and their implications.

Theoretical Issues

Since the passage of the Immigration and Nationality Act of 1965, the United States has experienced a second wave of mass immigration. Whereas immigrants prior to the 1920s were mainly European in origin, more recent immigrants have come primarily from Asia and Latin America and are often referred to as "new immigrants." A relatively large literature concerned with the economic well-being of these new immigrants and their children centers on the theme of assimilation and its variants (Alba and Nee 2003).

"Economic assimilation" refers to the pattern of immigrants experiencing lower initial earnings but faster growth compared with native workers (although perhaps not immediately) so that they eventually narrow the earnings gap. This stylistic pattern is shown in Fig. 1, where the y-axis represents the logged earnings (say, annual earnings), and the x-axis represents the time since immigration. We emphasize the word "stylistic" because comparing native-born workers with immigrant workers is not a simple matter. The primary difficulty is identifying the appropriate group of natives with whom to compare immigrants, given the absence of a "start time" (e.g., date of arrival in the United States) for native workers.

The phenomenon of immigrant economic assimilation was first systemically examined by Chiswick (1978), who estimated that immigrants will reach earnings parity with native workers after staying 10 to 15 years in the United States. More recent studies on economic assimilation have engaged in a methodological debate over whether cross-sectional analyses (such as Chiswick's study) paint an overly optimistic picture for immigrants. As Borjas and others have pointed out, the decline in the quality of immigrant cohorts since 1980 may introduce an upward bias to cross-sectional estimates of the immigrant earnings growth rate (Borjas 1985, 1989; Duleep and Regets 1997; Longva and Raaum 2003). Although researchers disagree on the rate of convergence and about whether immigrants ever reach

earnings parity with native workers, both longitudinal and cross-sectional empirical studies have invariably found evidence in support of the general pattern of economic assimilation. Immigrants who have stayed longer in the United States face less of an earnings disadvantage than recent immigrants. However, using longitudinal administrative earnings data from the Health and Retirement Survey, a longitudinal survey of Americans over the age of 50 administered since 1992, Hu (2000) showed that the estimation of economic assimilation trajectories using cross-sectional data can involve serious bias.

The theory behind economic assimilation is strong, as summarized by Duleep and Regets (1999). To see this, we first need to recognize that immigrants come to America with a distinct disadvantage: whatever human capital (both formal education and experience) they acquired in their home countries is often discounted in their country of immigration (e.g., Friedberg 2000; Zeng and Xie 2004). It is thus rational for immigrants to invest in acquiring further human capital upon their arrival in order to reap higher earnings returns in the future. During immigrants' initial acquisition of human capital in the U.S. labor market (additional education, improved language skills, and U.S. work experience), they earn less than native-born workers. As they gain more U.S. human capital, immigrant workers improve their earnings capacity, and thus their earnings increase faster over time than those of native workers. Consequently, with time, the earnings gap between immigrant workers and native-born workers narrows or even disappears.

Drawing on insight from Gans (1992) that trajectories of the new second-generation immigrants can diverge depending on local context, Portes and Zhou (1993) proposed the theory of segmented assimilation. This theory asserts that the United States is a stratified and unequal society, and therefore different segments of society are available for immigrants to assimilate into. The theory emphasizes that there is more than one way of "becoming American," and that Americanization is not necessarily beneficial (Zhou 1997). A large empirical literature in sociology has been devoted to testing the segmented assimilation hypothesis (e.g., Bankston and Zhou 1997; Hirschman 2001; Mouw and Xie 1999; Portes et al. 2005; Portes and Fernández-Kelly 2008; Portes and Rumbaut 2001; Xie and Greenman 2011; Zhou 1997).

Segmented assimilation theory is mostly concerned with socioeconomic outcomes of immigrant children. For first-generation immigrants, Portes and collaborators (Portes 1981; Portes and Bach 1985; Portes and Jensen 1989; Wilson and Portes 1980) have advanced a provocative proposition concerning the role of ethnic enclaves for immigrants' economic assimilation. To differentiate it from concrete testable propositions that we will develop in this article, we will refer to the general idea first developed by Portes and associates as "the enclave thesis." The initial development of the enclave thesis is based on the assumed duality of the U.S. labor market, with the primary sector providing good jobs and earnings trajectories but the secondary market providing "peripheral employment, including low prestige, low income, job dissatisfaction, and the absence of return to past human capital investments" (Wilson and Portes 1980:301). Because most recent immigrants are labor immigrants lacking competitive skills in the U.S. labor market, it is thought that if they enter the mainstream U.S. economy, they tend to be concentrated in the secondary sector and thus suffer serious disadvantages. Besides the upwardly mobile primary sector (which is not available to most new labor immigrants) and the disadvantaged secondary sector, Portes and his associates point to a third option: ethnic enclaves. They argue that ethnic enclaves, consisting of business entities with both employers and employees from the same immigrant ethnicity, allow enclave workers to "share with those in the primary sector a significant economic return to past human capital investments" (Wilson and Portes 1980:302). The benefits of ethnic enclaves are concrete manifestations of ethnic solidarity.

Portes (1981:290–291) defined ethnic enclaves as "immigrant groups which concentrate in a distinct spatial location and organize a variety of enterprises serving their own ethnic market and/or the general population." For an ethnic enclave to exist, two notable requirements must be met. First, ethnic entrepreneurs must employ their coethnics (Light 1972; Portes 1981; Portes and Bach 1985; Wilson and Portes 1980). This means that an ethnic group needs to be relatively large and diversified in socioeconomic status, including at least a small number of members with sufficient economic resources to be able to establish businesses. Second, an ethnic enclave must be spatially bounded from the main economy so that it can function internally as a labor market. Without a spatially bounded labor market, ethnic entrepreneurs cannot count on the availability of coethnic laborers, and ethnic laborers cannot count on coethnic employers. Certain human capital skills, such as ethnic language, cultural knowledge, and social network ties to the place of origin, are important and marketable only in the internal labor market defined by an ethnic enclave. Portes and his associates have generally associated ethnic enclaves with positive outcomes for immigrants, based on their work on the experiences of Cuban immigrants in Miami, Florida (Portes and Bach 1985; Portes and Jensen 1989; Wilson and Portes 1980).[1]

Sanders and Nee (1987a, 1987b, 1992) have criticized the enclave thesis advanced by Portes and his associates and found empirical evidence against it. At the core of the Sanders and Nee criticism is the phenomenon of a class struggle within an ethnic enclave: the two sides of the labor contract—employers and employees—have divergent and potentially opposing economic interests in ethnic enclave economies, employers being winners and employees emerging as losers. Business owners benefit from ethnic enclaves because they use ethnic solidarity "to insulate and to persuade and reproduce a pliant low-wage immigrant work force, not to help workers to enter into self-employment" (Sanders and Nee 1987b:773). Workers in ethnic enclaves are disadvantaged because owing to residential segregation, they are limited to receiving "undesirable jobs and poor wages" (Sanders and Nee 1987a:747). In other words, entrepreneurs in ethnic enclaves thrive because they exploit their coethnic workers (also see Light and Gold 2000).

The traditional path has been for the immigrant to move directly to an urban enclave from his or her native country, moving to a more integrated area after greater assimilation. For this reason, enclaves ebb and flow as immigrants arrive and assimilate. In New York City, for example, Little Italy was long ago absorbed by Chinatown, and a Russian community emerged in Brighton Beach in the 1980s and 1990s. These ethnic communities retain some cultural distinction particular to their sending countries and also offer employment opportunities to new immigrants within a coethnic setting. Both the causes and the consequences of such ethnic enclaves remain unclear. Small groups might be more likely to assimilate simply because they lack a sufficient population base, while larger groups like Chinese might have an easier time remaining isolated. Although some groups may remain isolated because of racism in the larger community, others may remain isolated by preference. An ethnic enclave might function primarily as a cultural vehicle for the optional exercise of ethnic identity (Waters 1990), but the debate in the sociology literature between Sanders and Nee (1987a, 1987b, 1992) and Portes and his associates (Portes 1981; Portes and Bach 1985; Portes and Jensen 1987, 1989, 1992; Wilson and Portes 1980) suggests that ethnic enclaves may have real consequences for the economic assimilation of immigrant workers.

Beyond the debates between Portes and Jensen (1987, 1989, 1992) and Sanders and Nee (1987a, 1987b, 1992), empirical work on this topic has grown in the past decade. Logan et al. (2003) found mixed results regarding the ethnic enclave's effects on income for both

[1]To proponents of the enclave thesis, the *relative* benefit from ethnic enclaves may vary by ethnicity (Wilson and Martin 1982).

workers and owners. They found that a Chinese self-employed man is likely to work more hours with lower wages in the enclave than outside it. In comparison, Korean women in the ethnic enclaves of New York City and Los Angeles earn more than those in the mainstream economy, although Korean men earn less. Chiswick and Miller (2005) found that enclave employment depresses income, as did Sanders and Nee. Although the majority of studies have shown enclaves' negative effects, one study based on a plausible "natural experiment" actually found positive effects. In Sweden, a government program redistributed immigrants randomly, allowing researchers to test enclave effects independent of selection. The researchers found that enclaves increased earnings of recent refugees between 4% and 5% (Edin et al. 2003). Still other studies have examined the interaction between the effects of enclaves and workers' characteristics on economic outcomes. Zhou and Logan (1989) reported that Chinese immigrant men (albeit not women) in New York City received substantial returns to their human capital, but they found no evidence that the rate of return differed between those who work in New York City (a proxy for working in an ethnic enclave) and those who work in the suburbs. They also found three-way interactions between gender, enclave, and English ability; however, they used a very broad definition of enclave residence. Borjas (2000) found that living in ethnic enclaves impedes economic assimilation of immigrants. In all these studies, residence was treated as a cause, not a consequence, of assimilation.

Empirical Issues

In the past literature, an ethnic enclave has been defined by either residential or employer characteristics. If defined by residential characteristics, an ethnic enclave consists of a high concentration of coethnic immigrants. If defined by employer characteristics, an enclave consists of economic establishments in close proximity that are owned by, and employ, coethnic immigrants. Using either criterion, however, an ethnic enclave has no sharp boundaries because an arbitrary threshold would need to be set before such a boundary could be drawn. A major subject of debate has been the operationalization of ethnic enclaves, which has taken forms that vary widely. Portes and Jensen (1987, 1992) emphasized that the core of the ethnic enclave thesis lies in the employer definition rather than in the residential definition used by Sanders and Nee (1987a, 1992). Of course, the two definitions are related because most workers prefer to live close to where they work (Mouw 2000). The important question is whether the choice of definition would yield different results empirically.

Hence, the first obstacle in ethnic enclave research is simply defining the enclave. Is an enclave defined by where people work? Their residence? Their workplace? Unfortunately, these questions have not been answered satisfactorily. Wilson and Portes (1980) defined enclave employment of Cuban immigrants by whether they worked in firms owned by Cubans in a specific area of southern Florida. Sanders and Nee (1987a) followed up on studies of Cuban immigrants in the Miami area using census data. Rather than defining the enclave by place of work, Sanders and Nee defined immigrants to be in an enclave if they resided in particular cities with high concentrations of immigrants from the same countries of origin. In their comment on Portes and Jensen (1989), Sanders and Nee (1992) highlighted how causal relationships can change as the definition of the enclave switches from residential to occupational. They found that for Cuban immigrants, the enclave effect is stronger when place of residence defines the enclave. A study by Zhou and Logan (1989) compared results using place of residence, place of work, and ethnic group overrepresentation within industry of work as definitions of the enclave, considering how the different measurements influenced analysis of assimilation. A study from Galbraith et al. (2003) defined the economic enclave based on an input-output analysis by the proportion of

money circulating within ethnic businesses versus that escaping to non-ethnic suppliers or derived from non-coethnic customers.

In contrast, most studies focus on residence (primarily because of data availability), using census tracts or urban/rural definitions. These studies consider an immigrant residing in the city as living in an enclave, and those in the suburbs to be more "assimilated" (Zhou and Logan 1989). Given the recent trend of immigrants moving directly to suburban enclaves rather than settling first in the city, this gross measure has become more problematic (Alba et al. 1999). Previous research has also defined enclaves as locations wherein the share of ethnic group members residing in a particular neighborhood is much larger than the share in the population (Edin et al. 2003). Minority language concentration has also been used, either by residential location or in the workplace, to define ethnic enclaves (Chiswick and Miller 2005; Li and Dong 2007).

The past literature on ethnic enclaves has been narrowly focused on the simple question of whether immigrant workers benefit from an ethnic enclave economy. Another way to conceptualize the problem is to compare earnings streams over time, through a life-course perspective, rather than at a single point. This is a sensible approach because human capital theory in economics has long argued that the long-term gain in returns to education is the rational justification for investment in education (Mincer 1974; Willis and Rosen 1979). Similarly, immigrants may invest in acquiring human capital in the early years after immigration in order to reap higher returns to the investment in later years (Duleep and Regets 1999). We illustrate the trade-off in Fig. 2.

In Fig. 2, we sketch two earnings trajectories for an immigrant. Option A gives him lower earnings at the beginning of immigration, as he accumulates human capital, but higher earnings growth later in his life cycle. Option B gives him higher earnings at the beginning —say by reaping returns on pre-immigration human capital—but a slower rate of growth after immigration. Thus, this is a trade-off situation.

Methods and Data

Our life-course approach leads us to the following reformulation of the enclave thesis: working in an ethnic enclave economy may allow an immigrant worker to have relatively higher earnings in the early years of immigration but a slower growth rate in earnings with work experience. We can express this in a simple baseline earnings model. In this earnings model, the earnings of immigrant worker *i* can be modeled as a function of his/her education and work experience, separately for pre-immigration and post-immigration periods, plus a linear function of control variables:

$$\ln(Y_i)=\beta_0+\beta_1\, edu_{1i}+\beta_2\, edu_{2i}+\beta_3\, exp_{3i}+\beta_4\, exp_{4i}+\delta'\mathbf{x}_i+\varepsilon_i, \quad (1)$$

where ln(*Y*), logged earnings, is the outcome variable; edu_1 and edu_2 are, respectively, pre-immigration and post-immigration educational attainment measured in years of schooling; exp_3 and exp_4 are, respectively, pre-immigration and post-immigration job experience; and **x** denotes a vector of other covariates. We explicitly distinguish between foreign-acquired human capital and U.S.-acquired human capital because the former is much less valued in the U.S. labor market than the latter (Zeng and Xie 2004).

We now introduce our central explanatory variable ethnic enclave, *z* (with $z_i = 1$ if immigrant *i* works in an ethnic enclave, and $z_i = 0$ otherwise). We then write out the following interactive model:

$$\ln(Y_i)=\beta_0+\beta_1\, edu_{1i}+\beta_2\, edu_{2i}+\beta_3\, exp_{3i}+\beta_4\, exp_{4i}+\delta'\mathbf{x}_i+\tau_0\, z_i+\tau_1\, edu_{1i}\, z_i+\tau_2\, edu_{2i}\, z_i+\tau_3\, exp_{3i}\, z_i+\tau_4\, exp_{4i}\, z_i+\varepsilon_i. \quad (2)$$

We will first estimate a simpler, additive version of Eq. 2, with constraints $\tau_1 = \tau_2 = \tau_3 = \tau_4 = 0$, so that we can focus on the overall effect of an ethnic enclave: that is, $_0$. In the next step, we will examine the interaction effects τ_1, τ_2, τ_3, and τ_4. Based on our life-course perspective, we now can precisely state our reformulated enclave thesis in terms of the coefficients of Eq. (2):

> *Hypothesis 1:* The intercept is higher overall for immigrant workers in ethnic enclaves than for immigrant workers in the mainstream economy. In other words, $\tau_0 > 0$. Note that τ_0 will indicate the overall difference in earnings that is due to enclave status only if there are no interaction effects. In the presence of interaction effects, τ_0 represents the difference in earnings by enclave status for an imaginary immigrant with all covariate values being zero.
>
> *Hypothesis 2a:* The estimated effect of pre-immigration education is larger for immigrant workers in ethnic enclaves than for immigrant workers in the mainstream economy. In other words, $\tau_1 > 0$.
>
> *Hypothesis 2b:* Similarly, the estimated effect of pre-immigration experience is larger for immigrant workers in ethnic enclaves than for immigrant workers in the mainstream economy. In other words, $\tau_3 > 0$.
>
> *Hypothesis 3a:* The estimated effect of post-immigration education is smaller for immigrant workers in ethnic enclaves than for immigrant workers in the mainstream economy. That is, $\tau_2 < 0$.
>
> *Hypothesis 3b:* Similarly, the estimated effect of post-immigration experience is smaller for immigrant workers in ethnic enclaves than for immigrant workers in the mainstream economy. In other words, $\tau_4 < 0$.

Given the lower returns to foreign-acquired human capital than to U.S.-acquired human capital (Zeng and Xie 2004) and the fact that those working in ethnic enclaves do not accumulate human capital in the open market, our hypotheses are primarily concerned with the trade-off between a higher intercept (higher starting earnings) and a smaller slope for earnings growth that is associated with enclave employment relative to employment in the mainstream economy.

To test the preceding hypotheses, we analyze data from the restricted version of the baseline round of the NIS, collected in 2003 and 2004, supplemented with contextual data from the 2000 census. The NIS is a nationally representative longitudinal study of new legal immigrants to the United States (Jasso et al. 2007). The data set is appropriate for our analyses because the survey collects information on a wide range of topics, including respondents' background and economic measures, and it includes detailed information on demographics, pre-immigration experiences, employment, income, social variables, and migration history.

We drop observations with item-missing data for any covariate and also observations in which the respondent reports annual work hours and earnings that imply an hourly wage of

less than $3 per hour (in 2004 U.S. dollars). This is considerably lower than the U.S. federally mandated minimum wage but allows for the possibility of nonstandard income, while minimizing the possibility that low wages are due to measurement error. We also limit our analytic sample to immigrants identifying themselves as Asian or Hispanic and born in Asian (including Central, East, and South Asian) and Central and South American countries because we believe that the enclave thesis may be more applicable to these cases than to others. This results in a total sample size of 1,781.[2]

As we note earlier in the article, measurement of an economic enclave is very difficult. In our study, we develop three crude measures of an ethnic enclave that bear similarity to, but improve upon, operationalizations used in previous research. First, we construct a measure based on the ethnic and foreign-born compositions of respondents' residential neighborhoods. Similar to the method employed by Edin et al. (2003), if the proportion of foreign-born coethnics reaches our ethnicity-specific threshold (discussed later in this section), we consider the neighborhood an ethnic enclave (i.e., $z_i = 1$), with the resulting variable being called the "residential measure." Second, we use as a proxy for the work environment a survey item in the NIS that asks respondents whether they speak a language other than English in the workplace ($z_i = 1$ if yes). Although we call this the "workplace measure," we realize that it is a crude indicator of a coethnic workplace and does not necessarily correspond to a definition of an ethnic enclave on the basis of coethnic ownership.[3] However, a similar measure is used by Li and Dong (2007), who argued that it is a more precise proxy for enclave participation than many alternatives because it fits well with the theoretical understanding of an enclave as a social and economic system with an ethnic basis. Finally, to form a combined measure, we multiply measures of both residential neighborhood composition and language spoken in the workplace. This measure allows us to identify the overlap in the residential and workplace measures of enclave, which we assume from previous research to be significant, both in terms of the number of immigrant workers affected and in terms of theoretical importance.

In constructing the residential measure, we turn to supplementary data from the 2000 census. The restricted version of the NIS includes the ZIP code of residence for each respondent at the time of the survey. This makes it possible to link contextual data from the census to the micro data in the NIS. To achieve this link, we obtained census tract–level racial and ethnic composition measures from the National Historical Geographic Information System (NHGIS).[4] Relevant contextual information from the NHGIS was merged into the NIS data set via ZIP codes.

After the merge of the contextual information about ethnic concentration into the NIS data, we formulate the residential measure by comparing the ethnic concentration in each immigrant worker neighborhood against a threshold specific to his/her ethnicity. After much experimentation, we chose to use a percentage corresponding to the odds ratio that is 7.5 times the odds ratio for the percentage of each particular ethnic group in the U.S. population as a whole in 2000.[5] We hasten to acknowledge that although our measures substantially improve upon those used in past research, we are still unable to construct measures that would allow us to directly test the enclave thesis as formulated by Portes and his associates

[2]Fifty additional cases are lost from the analysis under our workplace and combined measures of ethnic enclave.

[3]Employer ZIP code is collected in the NIS, but coverage is less complete than for residential ZIP code. As a specification check, we replicated our analysis, replacing the residential ZIP code–based definition with an employer ZIP code–based definition. Estimates are unstable, but results using the new measure remain unchanged: they do not support the enclave thesis.

[4]Because census tract numbers are unknown for NIS respondents, ZIP code–level contextual variables were constructed using MABLE/Geocorr2k (http://mcdc2.missouri.edu/websas/geocorr2k.html; accessed December 2008), which provides correspondence between census tracts and ZIP codes through the use of allocation factors. Although this correspondence procedure may introduce some measurement error, the potential measurement error is not expected to affect the substantive results of this study.

because we have too few cases of ethnic entrepreneurship, and we thus cannot identify workers who are employed in coethnic-owned businesses.

As we discuss in connection with Eq. 2, central to our analyses are measures of education and experience, separated into pre-immigration and post-immigration periods. Respondents report on the total years of education obtained as well as the years of education obtained in the United States. Years of education obtained in the United States compose the measure of post-migration education, and the difference between total years of education and years of U.S.-obtained education is the measure of pre-migration education. In the survey, respondents reported directly on their job experiences held prior to migration and after migration. The years of job experience reported prior to migration compose the pre-migration work experience measure, and the years of job experience reported following migration represent the post-migration work experience measure. Clearly, the post-migration measure of experience is also a proxy for duration in the United States in this analysis.

The dependent variable in our analysis is the log of hourly earnings reported in the year prior to interview. We use the log, as is conventional, because raw hourly wages and earnings are positively skewed.[6] We use earnings as the measure of economic outcomes both because it is the most immediate economic outcome for immigrants and because previous research on the economic effects of ethnic enclaves has typically considered the effect of the enclave on earnings. Using hourly earnings allows us to control for level of engagement with the labor force by accounting for hours worked over the course of a year. Because the NIS collects numerous detailed measures of income, the earnings that make up the dependent variable are a sum of multiple potential labor income sources, including wages, salary, professional practice income, and self-employment income.[7] Hourly earnings are calculated based on hours worked, weeks worked, and earnings from labor income, as consistent with other recent research (Akresh 2007; Hersch 2008; Kesler and Hout 2010).

In all statistical analyses, we also include covariates to account for factors other than the ethnic enclave. We include the log-odds of a high-poverty neighborhood as a continuous linear specification to net out the influence of the neighborhood's prosperity or poverty on the respondent's economic outcome. We include an indicator to denote whether the respondent is female. We estimate models for individual as well as aggregated ethnic groups. Using aggregated ethnic groups such as Asians and Hispanics masks considerable heterogeneity. To account for this heterogeneity, we control for the respondent's country of birth using dummy variables in the models with aggregated ethnic groups.

We estimate both Eq. 1 and the two versions of Eq. 2—the additive version and the interaction version—via ordinary least squares (OLS) using the sample weights provided in the NIS.[8] We estimate and report the models for Asian respondents and for Hispanic respondents while allowing for additive effects of country of origin. We repeat the analysis

[5]Thresholds for all ethnic groups are also available from authors upon request. We chose to inflate an odds ratio instead of a percentage because any multiple of an odds ratio is well defined, but a multiple of a percentage may exceed 1. The substantive conclusion does not depend on the choice of an odds-ratio multiple, nor 7.5 as an inflating factor. Alternative thresholds yield similar results, which are available upon request.

[6]We run a specification check using unlogged hourly earnings to address concerns levied against previous research regarding the effect of compressing the earnings distribution by using the log function (Portes and Shafer 2007). The fit of the models, as measured by R^2, is generally worse than for the models using log of hourly earnings, and the pattern of results is consistent with those found in the models using log of hourly earnings.

[7]We attempted to estimate a subgroup analysis that is limited to self-employed respondents to address the literature that focuses on entrepreneurship in ethnic enclaves—in particular, the original formulation of the enclave thesis. However, there were too few self-employed respondents in the sample for a comparison by enclave status, most likely because of the recency of immigration for respondents in the sample.

[8]All results reported in this article reflect weighted analyses.

separately for five major Asian ethnic groups and seven major Hispanic groups to check for consistency of results at the most detailed ethnic level available, using the NIS data.

Results

We give the descriptive statistics of the NIS data in Table 1, separately for Asians and Hispanics. As expected from past research, the average hourly wage is much higher for Asian immigrants than for Hispanic immigrants. Asians are also much less likely than Hispanics to reside in high-poverty neighborhoods. Relative to Hispanics, Asians have higher average levels of pre-immigration education (12.706 years versus 9.288 years) and pre-immigration work experience (9.065 versus 4.813 years), but they have less post-immigration education (0.490 versus 1.159 years) and work experience (1.483 versus 3.744 years). In the data set, we are able to identify five major Asian ethnic groups: Chinese, Filipino, Indian, Vietnamese, and Korean. We identify seven major Hispanic ethnic groups: Mexican, Salvadoran, Colombian, Cuban, Dominican, Guatemalan, and Peruvian.

We present the results for the baseline model (i.e., Eq. 1), separately for Asians and Hispanics, in Table 2. Given that the dependent variable is logged hourly wage, we can roughly interpret the estimated coefficient as the effect, in percentage, on earnings. The results confirm our expectation that pre-immigration measures of human capital—that is, pre-immigration education and experience—have smaller effects on earnings than the post-immigration measures. The differences between pre-immigration and post-immigration education are relatively small (about 10%) and statistically insignificant. However, we note large differences between Asians and Hispanics in these effects: both pre-immigration education and post-immigration education have much larger effects for Asians (0.108 and 0.119) than for Hispanics (0.038 and 0.048). This means that the wages of Asian immigrants increase at the rate of more than 10% per year of education, but those of Hispanics increase at only one-half the rate—around 4%–5% per year of education. The estimated education return for Asian immigrants is very similar to that reported in a study using the 2000 U.S. census (Zeng and Xie 2004). Although pre-immigration work experience has no effect for either group, post-immigration experience has positive effects, again with effects much larger for Asians than for Hispanics (0.084 versus 0.025).

To evaluate the enclave thesis empirically, we now introduce the measurement of ethnic enclave into the analysis. In Table 3, we present the results of the additive version of Eq. 2, under three operationalizations of the enclave measure, for Asian immigrants. The number of cases across the three panels varies slightly because the measure of the language spoken at the workplace is missing for some respondents, resulting in the deletion of these cases for the last two panels. We observe that the enclave variable is statistically significant in explaining earnings under only one operationalization—the workplace measure—and this estimate points in a direction that contradicts the enclave thesis, thus refuting Hypothesis 1. Instead of being positive, the estimate is negative: −0.176, this estimate indicates that Asian immigrants working in settings where non-English languages are spoken earn 18% less, on average, than other Asian workers. As an example, for the average male Chinese worker, this negative effect translates into a $3.49/hour penalty on earnings.[9]

We report comparable and similar results for Hispanic immigrants in Table 4. Hispanics who work in settings where non-English languages are spoken earn 11% less than other Hispanics who are otherwise comparable. As an example, for the average Mexican male worker this negative effect translates into a penalty of about $1.37/hour. We find no

[9]Predicted values throughout this paper are calculated using average values for education, and experience for the applicable aggregate category of Asians or Hispanics, combined with other coefficients from the models being discussed.

differences in overall earnings by enclave status according to either the residential measure or the combined measure. Altogether, the results of the additive model for both Asians and Hispanics contradict Hypothesis 1: immigrants who work in ethnic enclaves do not enjoy an earnings advantage overall. In fact, they may suffer an earnings disadvantage.

We now turn to the results of the interactive model testing Hypotheses 2 and 3, shown in Table 5, with the results for Asians given in the upper panel and those for Hispanics given in the lower panel. Again, we evaluate the enclave thesis using three alternative measures of ethnic enclaves: the residential measure, the workplace measure, and the combined measure. Of 12 total coefficients in the table that test Hypotheses 2 and 3 for Asians, only one retains some statistical significance. However, it does not point in the expected direction: for the workplace measure, pre-immigration education has a smaller effect for workers in ethnic enclaves than for those in the mainstream economy. Indeed, the estimated difference is so large (−0.086 for the workplace measure) that it reduces the positive effects of pre-immigration education on the earnings of workers in ethnic enclaves by two-thirds. This result directly contradicts Hypothesis 2a. With the workplace measure, the “main” effect of the enclave on earnings is positive and statistically significant. However, there is no real main effect of the enclave variable if there is an interaction coefficient involving the variable in the statistical model. To properly interpret the “main” effect in Table 5, it is necessary to combine it with the interaction effect. In most of our data range, the combined effect of an ethnic enclave is still negative. For example, if we consider the average male Chinese worker, the model predicts that he will earn about $3.44/hour less in the enclave than in the mainstream economy. Overall, results for Asian immigrants in our data yield little support for the enclave thesis.

Results of the interactive model for Hispanics lend no more support to this thesis. Of 12 total coefficients in the table that test Hypotheses 2 and 3 for Hispanics, only one of them is statistically significant. The significant result, the positive coefficient for the interaction between post-immigration education and ethnic enclave (using the workplace measure), provides evidence that contradicts Hypothesis 3a (estimate is 0.041, with $SE = 0.021$).

In the preceding analyses, we grouped different ethnic groups into either Asian or Hispanic categories, while allowing for additive effects of major ethnicities. We know that immigrants differ significantly across ethnic groups. We are concerned that our findings of no support for the ethnic enclave thesis may be an artifact of lumping heterogeneous ethnic groups into either Asian or Hispanic aggregates. In Tables 6–8, we report results of an auxiliary analysis that repeats the earlier analysis for each major ethnic group. In Table 6, we report the results of the additive model for each of the three measures of ethnic enclave. For brevity, we report only the key results of the interactive models for the residential (Table 7) and workplace (Table 8) measures of ethnic enclaves, although the substantive conclusion holds true for the combined measure as well. In sum, we have few significant coefficients. In Table 6, we show that there are only two statistically significant enclave coefficients. The residential measure of enclave yields a positive and statistically significant result for Chinese immigrants only, providing evidence in support of the enclave thesis for that group. By contrast, the workplace measure yields a negative and statistically significant result for Dominicans, providing evidence contrary to the enclave thesis. Substantively, these results are quite large, although the sample sizes are small; Chinese workers’ wages are estimated to be 55% higher for those working in the enclave, but for Dominicans, enclave workers are estimated to have wages that are 98.5% lower than those not working in the enclave.

We now discuss results of the interactive model using the residential measure, shown in Table 7. Given the small sample sizes of many of the ethnic groups, it is not surprising that most of the key coefficients are statistically insignificant. What is far more surprising is that

the majority of significant interaction coefficients point in a direction that contradicts our reformulation of the enclave thesis. Under the residential measure, post-immigration experience has a larger effect for Indian workers in enclaves than for other workers, while pre-immigration education has smaller effects for workers in enclaves than for other workers. Peruvians also experience smaller returns to pre-immigration education in the enclave, but the "main" effect of the enclave is large and statistically significant. However, the sample size is very small, with 48 Peruvians in the sample. Among Dominicans, post-immigration experience has a larger effect for workers in enclaves than for other workers. Only Vietnamese experience larger and significant returns to pre-migration education consistent with Hypothesis 2a.

Under the workplace measure, shown in Table 8, the results are somewhat different. Both pre-immigration and post-immigration education have larger effects for Mexican workers in enclaves than for other workers, the former providing evidence for Hypothesis 2a, and the latter providing evidence contradicting Hypothesis 3a. Notice, however, that the "main" effect of the enclave for Mexicans' wages is negative and statistically significant. On balance, the average male Mexican worker in the enclave earns about $1.65/hour less than one working in the mainstream economy. Both Colombian and Dominican workers experience smaller returns to pre-immigration experience in the enclave, in contradiction to Hypothesis 2b. Dominican workers also experience much smaller returns to U.S. experience in the enclave, which is consistent with Hypothesis 3b; and the "main" effect of the enclave is large, positive, and statistically significant. Still, such workers earn about $3/hour less than male Dominicans working in the mainstream economy. The —main effect of the enclave for Chinese is again positive and statistically significant, but returns to education and experience do not vary by enclave status. Although we wish to caution the reader that these statistical results may not be reliable because they are based on relatively small samples, it is safe to conclude that we find only weak support in our ethnicity-specific analyses for the ethnic enclave thesis.

Conclusion

Based on the previous literature, we adopted a life-course approach to the study of the potential role that ethnic enclaves may play in affecting the earnings of immigrant workers. We derived three testable hypotheses conjecturing the following: (a) immigrants working in ethnic enclaves should have higher earnings overall than immigrants working in the mainstream economy; (b) returns to pre-immigration human capital should be higher for immigrants working in ethnic enclaves than for immigrants working in the mainstream economy; and (c) returns to post-immigration human capital should be lower for immigrants working in ethnic enclaves than for immigrants working in the mainstream economy.

Our study analyzed data from the 2003–2004 baseline round of the New Immigrant Survey (NIS). We constructed three alternative measures of ethnic enclaves: one based on ethnic and nativity composition of residential neighborhood, one based on language spoken in the workplace, and a third combining the previous two. Our statistical analyses focused on five key coefficients that correspond to the three hypotheses in two models pertaining to our reformulation of the enclave thesis, estimated separately for Asians and Hispanics and also separately for 12 major ethnic groups. Taken as a whole, our results do not support the enclave thesis. Indeed, some of the results directly contradict our reformulation of it. For example, pre-immigration education was found to have a smaller effect in enclaves than outside enclaves for Asians as a whole, and also for Peruvians.

Some of the ethnic differences we observed may reflect the diverse types of enclave economies these immigrant groups enter, and the scope of opportunities available to them,

that we cannot examine more closely. For example, enclaves studied by Portes and his colleagues in South Florida may be quite different from other enclaves, with the former providing more resources and a wider range of work opportunities for new immigrants than the latter. In other words, the term “enclave” encompasses a range of social and economic structures, differences between which may explain some of the ethnic variation we see in our results.

We recognize that our study suffers from a few data limitations. First, although similar to measures used in previous studies, our three measures of ethnic enclaves are crude. We are still unable to directly test the enclave thesis under the conditions laid forth by Portes and associates. Future studies testing the enclave thesis will benefit from collecting more detailed data on employers of immigrant workers, including ownership and characteristics of suppliers and customers. Second, the number of cases for specific ethnic groups is relatively small. Still, we think that these two data limitations raise issues of statistical inference—in other words, matters of precision—rather than issues of bias. For example, although our measures of ethnic enclaves are not ideal, they should be well correlated with alternative measures. We cannot think of good reasons why the measures that we use would be so biased as to generate opposite results if the ethnic enclave thesis were true.

Third, our sample does not include illegal immigrants. We are sympathetic to arguments that illegal immigrants may experience different outcomes working in the ethnic enclave than legal immigrants. Unfortunately, we cannot test this argument with the data we have. Furthermore, our analysis implicitly assumes that immigrants can choose between work in the mainstream and ethnic economies as two alternatives. Illegal immigrants may have fewer options available to them than legal immigrants and may be constrained to opportunities available within the enclave, thus facing a different choice set than legal immigrants face. For this reason, the enclave may affect legal and illegal immigrants differently. Legal immigrants may have at least some employment opportunities in the mainstream economy if they encounter unfavorable working conditions in the enclave. Illegal immigrants, on the other hand, with their constrained opportunities, may be more vulnerable to exploitation by their coethnic employers. Our results suggest that if data were available to study illegal immigrants, we would see no more positive—if not much worse—outcomes for illegal immigrants than for legal ones with regard to enclave employment. We hope that future researchers will find ways to examine illegal immigrants’ economic outcomes more closely.

Finally, a limitation of our analysis is our inability to control for selection into the enclave. Immigrants who live and work in the enclave may not have a counterfactual in the mainstream economy.

Despite these limitations, however, we believe that the empirical results of this study are informative. We did not attempt to pin down a causal effect of an enclave economy on immigrants’ earnings in this article. Rather, our goal is more limited in examining, empirically, how earnings determination of immigrants differs by three crude measures of ethnic enclave status. If ethnic enclaves are beneficial to immigrant workers in ways that we articulated in the article, we should see empirical patterns consistent with our hypotheses. Our empirical results do not support the thesis that ethnic enclaves provide special advantages to immigrant workers in the form of higher earnings or higher returns to human capital acquired in their native countries.

Acknowledgments

The research is supported by a research grant from the National Institute of Child Health and Development (R01 HD044905). The second author acknowledges support from an NICHD training grant to the Population Studies

Center at the University of Michigan (T32 HD007339). We are grateful to Debra Hevenstone and Lisa Neidert for research assistance; and to Michael Hout, Robert Mare, and Alejandro Portes for comments on an earlier version of the article, which was presented at the 2009 annual meetings of the Population Association of America (April 30–May 2, in Detroit, MI).

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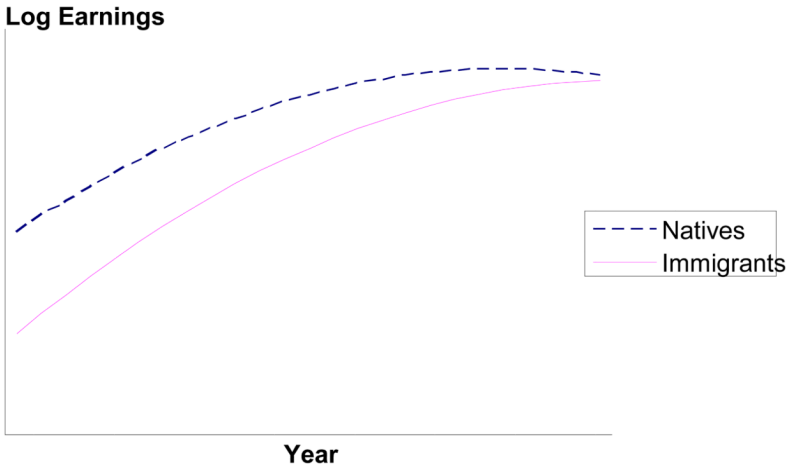

Fig. 1.
Economic assimilation

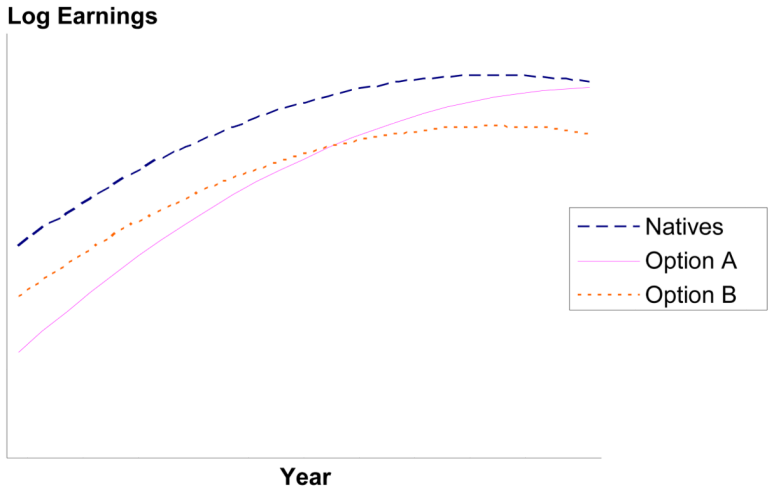

Fig. 2.
Trade-off between a higher intercept and a higher slope

Table 1

Descriptive statistics

	Asians		Hispanics	
Variables	**Mean**	**SD**	**Mean**	**SD**
Hourly Wage (dollars)	19.826		12.667	
Log Hourly Wage	2.987	1.017	2.539	0.751
% Female	61.90		56.30	
Log-Odds of Neighborhood Poverty	−2.373	0.806	−1.732	0.782
Asian Ethnicity				
% Chinese	13.97		—	
% Filipino	18.18		—	
% Indian	14.77		—	
% Vietnamese	8.40		—	
% Korean	3.95		—	
% Other East Asian, South Asian, and Pacific	16.53		—	
Hispanic Ethnicity				
% Mexican	—		42.35	
% Salvadoran	—		14.98	
% Colombian	—		5.89	
% Cuban	—		5.08	
% Dominican	—		5.75	
% Guatemalan	—		5.99	
% Peruvian	—		4.10	
% Other Latin America and Caribbean	—		18.26	
Pre-migration Education	12.706	3.934	9.288	4.723
U.S. Education	0.490	1.561	1.159	2.897
Pre-migration Experience	9.065	12.449	4.813	9.339
U.S. Experience	1.483	2.825	3.744	4.989
N	826		955	

Source: From authors' calculations of The New Immigrant Survey 2003–2004 data.

Table 2

Additive regression model predicting logged hourly wage

	Asians		Hispanics	
Independent Variables	**Coefficient**	**SE**	**Coefficient**	**SE**
Intercept	1.474***	0.178	1.963***	0.100
Female (excluded = male)	−0.256***	0.059	−0.211***	0.049
Log-Odds of Neighborhood Poverty	−0.118**	0.036	−0.060**	0.030
Asian Ethnicity (excluded = Chinese)				
Filipino	−0.542***	0.105	—	—
Indian	−0.284**	0.102	—	—
Vietnamese	−0.740***	0.140	—	—
Korean	−0.183	0.142	—	—
Other East Asian, South Asian, and Pacific	−0.576***	0.103	—	—
Hispanic Ethnicity (excluded = Mexican)				
Salvadoran	—	—	0.055	0.069
Colombian	—	—	−0.229*	0.113*
Cuban	—	—	−0.253*	0.116*
Dominican	—	—	−0.118	0.113
Guatemalan	—	—	0.008	0.099
Peruvian	—	—	0.077	0.122
Other Latin America and Caribbean	—	—	0.004	0.072
Pre-migration Education	0.108***	0.010	0.038***	0.006
U.S. Education	0.119***	0.016	0.048***	0.009
Pre-migration Experience	0.001	0.003	−0.002	0.004
U.S. Experience	0.084***	0.009	0.025***	0.005
df	814		941	
R^2 (%)	39.07		10.43	

*$p < .05$;

** $p < .01$;

*** $p < .001$

Table 3

Additive regression model predicting logged hourly wage under three alternative measures of enclave economy, Asians

	Residential Measure		Workplace Measure		Combined Measure	
Independent Variables	**Coefficient**	**SE**	**Coefficient**	**SE**	**Coefficient**	**SE**
Intercept	1.476***	0.180	1.626***	0.195	1.474***	0.186
Female (excluded = male)	−0.256***	0.059	−0.266**	0.036	−0.262***	0.059
Log-Odds of Neighborhood Poverty	−0.118**	0.036	−0.113**	0.036	−0.120**	0.036
Asian Ethnicity (excluded = Chinese)						
Filipino	−0.543***	0.106	−0.606***	0.109	−0.562***	0.108
Indian	−0.284**	0.103	−0.321**	0.103	−0.292**	0.104
Vietnamese	−0.740***	0.140	−0.729***	0.142	−0.740***	0.142
Korean	−0.183	0.142	−0.134	0.145	−0.183	0.143
Other East Asian, South Asian, and Pacific	−0.577***	0.104	−0.592***	0.103	−0.574***	0.105
Pre-migration Education	0.098***	0.010	0.092***	0.010	0.098***	0.010
U.S. Education	0.117***	0.015	0.110***	0.016	0.116***	0.015
Pre-migration Experience	−0.003	0.003	−0.001	0.003	−0.002	0.003
U.S. Experience	0.089***	0.009	0.088***	0.009	0.090***	0.009
Enclave (excluded = not enclave)	−0.006	0.078	−0.176*	0.083	−0.035	0.122
df	813		805		805	
R^2 (%)	39.07		39.37		39.04	

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 4

Additive regression model predicting logged hourly wage under three alternative measures of enclave economy, Hispanics

Independent Variables	Residential Measure		Workplace Measure		Combined Measure	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
Intercept	1.944***	0.102	2.133***	0.121	2.035***	0.107
Female (excluded = male)	−0.213***	0.049	−0.216***	0.050	−0.215***	0.051
Log-Odds of Neighborhood Poverty	−0.068*	0.032	−0.046	0.032	−0.048	0.033
Hispanic Ethnicity (excluded = Mexican)						
Salvadoran	0.033	0.074	0.034	0.070	0.062	0.072
Colombian	−0.256*	0.117	−0.212	0.115	−0.193	0.117
Cuban	−0.286*	0.122	−0.229	0.118	−0.204	0.124
Dominican	−0.154	0.121	−0.108	0.115	−0.070	0.122
Guatemalan	−0.014	0.102	−0.016	0.101	0.017	0.103
Peruvian	0.059	0.124	0.079	0.124	0.106	0.124
Other Latin America and Caribbean	−0.001	0.073	−0.031	0.081	−0.011	0.080
Pre-migration Education	0.039***	0.006	0.032***	0.007	0.035***	0.007
U.S. Education	0.049***	0.009	0.038***	0.010	0.043***	0.009
Pre-migration Experience	−0.002	0.004	−0.002	0.004	−0.002	0.004
U.S. Experience	0.025***	0.005	0.024***	0.006	0.024***	0.006
Enclave (excluded = not enclave)	0.055	0.064	−0.108*	0.055	−0.088	0.074
df	940		898		898	
R^2 (%)	10.50		10.15		9.91	

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 5

Selected coefficients for interactive regression model predicting logged hourly wage under three alternative measures of enclave economy, Asians and Hispanics

	Residential Measure		Workplace Measure		Combined Measure	
Independent Variables	**Coefficient**	**SE**	**Coefficient**	**SE**	**Coefficient**	**SE**
Asian						
Pre-migration education	0.102***	0.011	0.123***	0.012	0.101***	0.010
U.S. education	0.121***	0.016	0.136***	0.017	0.122***	0.016
Pre-migration experience	−0.003	0.004	0.001	0.004	−0.002	0.003
U.S. experience	0.089***	0.010	0.083***	0.010	0.090***	0.009
Enclave (excluded = not enclave)	0.250	0.338	0.977**	0.292	0.320	0.426
Enclave × Pre-migration education	−0.017	0.021	−0.086***	0.020	−0.023	0.027
Enclave × U.S. education	−0.033	0.050	−0.080	0.045	−0.196	0.106
Enclave × Pre-migration experience	−0.001	0.008	−0.005	0.007	−0.001	0.011
Enclave × U.S. experience	0.003	0.027	0.018	0.024	0.002	0.052
R^2 (%)	39.14		40.88		39.38	
Hispanic						
Pre-migration education	0.044***	0.007	0.025*	0.010	0.037***	0.007
U.S. education	0.051***	0.010	0.024	0.013	0.043***	0.010
Pre-migration experience	−0.002	0.004	0.000	0.006	−0.005	0.004
U.S. experience	0.021**	0.006	0.022*	0.008	0.021**	0.006
Enclave (excluded = not enclave)	0.194	0.190	−0.273	0.184	−0.144	0.227
Enclave × Pre-migration education	−0.022	0.014	0.010	0.013	−0.012	0.017
Enclave × U.S. education	−0.010	0.020	0.041*	0.021	0.019	0.041
Enclave × Pre-migration experience	0.001	0.007	−0.003	0.008	0.009	0.008
Enclave × U.S. experience	0.012	0.011	0.003	0.010	0.020	0.014
R^2 (%)	10.96		10.57		10.36	

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 6

Enclave coefficients for additive regression model predicting logged hourly wage under three alternative measures of enclave economy for detailed ethnic groups

	Residential Measure		Workplace Measure		Combined Measure	
Ethnic Group	**Coefficient**	**SE**	**Coefficient**	**SE**	**Coefficient**	**SE**
Asian						
Chinese (*N* =99)	0.551*	0.255	0.221	0.338	0.350	0.322
Filipino (*N* = 174)	−0.233	0.134	−0.032	0.210	−0.267	0.336
Indian (*N* = 281)	−0.022	0.127	0.193	0.167	0.275	0.315
Vietnamese (*N* = 39)	−0.050	0.147	−0.179	0.167	−0.248	0.160
Korean (*N* = 52)	−0.024	0.283	−0.357	0.262	−0.118	0.309
Hispanic						
Mexican (*N* = 339)	−0.003	0.177	−0.089	0.101	−0.136	0.221
Salvadoran (*N* = 197)	0.150	0.125	−0.128	0.125	0.017	0.137
Colombian (*N* = 46)	0.086	0.174	−0.108	0.173	−0.145	0.182
Cuban (*N* = 53)	0.100	0.140	0.210	0.184	0.153	0.135
Dominican (*N* = 53)	0.263	0.343	−0.985**	0.357	−0.335	0.300
Guatemalan (*N* = 67)	−0.143	0.128	0.166	0.112	−0.206	0.140
Peruvian (*N* = 48)	0.246	0.261	0.180	0.282	0.175	0.362

Notes: For workplace and combined measures, three observations are lost from the Filipino group; one observation each is lost from the Indian group, the Vietnamese group, and the Korean group; eight observations are lost from the Mexican group; two observations are lost from the Salvadoran group; and one observation is lost from the Guatemalan group.

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 7

Selected coefficients for interactive model under the residential measure of enclave economy for detailed ethnic groups

Ethnic Group	Enclave	Enclave × Pre-migration Education	Enclave × U.S. Education	Enclave Pre-migration Experience	Enclave U.S. Experience
Asian					
Chinese (*N* = 99)	0.143	0.023	0.021	0.019	−0.040
Filipino (*N* =174)	0.114	−0.002	0.040	−0.021	−0.043
Indian (*N* = 281)	1.932	−0.156*	−0.029	−0.011	0.148*
Vietnamese (*N* = 39)	−0.734	0.083*	0.055	−0.010	−0.024
Korean (*N* = 52)	−1.573	0.060	−0.098	0.036	0.111
Hispanic					
Mexican (*N* = 339)	0.351	−0.052	−0.086	0.011	0.026
Salvadoran (*N* = 197)	0.114	−0.003	−0.006	−0.007	0.009
Colombian (*N* = 46)	−0.710	0.060	0.043	−0.018	0.051
Cuban (*N* = 53)	0.208	0.014	—	0.018	−0.147
Dominican (*N* = 53)	1.540	−0.190	—	0.003	0.366***
Guatemalan (*N* = 67)	−0.261	0.022	−0.015	−0.002	−0.006
Peruvian (*N* = 48)	2.677*	−0.216*	0.181	0.028	0.078

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 8

Selected coefficients for interactive model under the workplace measure of enclave economy for detailed ethnic groups

Ethnic Group	Enclave	Enclave × Pre-migration Education	Enclave × U.S. Education	Enclave × Pre-migration Experience	Enclave × U.S. Experience
Asian					
Chinese (*N* = 99)	2.203*	−0.128	—	0.009	−0.106
Filipino (*N* = 171)	−0.370	−0.002	−0.120	−0.021	0.206
Indian (*N* = 280)	0.582	−0.018	−0.173	−0.012	−0.010
Vietnamese (*N* = 38)	0.070	−0.011	−0.379	−0.017	0.008
Korean (*N* = 51)	1.746	−0.087	−0.205	−0.067	0.015
Hispanic					
Mexican (*N* = 331)	−0.710*	0.058*	0.073*	−0.006	−0.004
Salvadoran (*N* = 195)	−0.228	−0.011	0.033	0.023	0.011
Colombian (*N* = 46)	0.015	0.036	0.019	−0.058*	−0.111
Cuban (*N* = 53)	0.236	−0.017	0.258	0.022	−0.031
Dominican (*N* = 53)	6.781**	−0.082	—	−0.377**	−1.197***
Guatemalan (*N* = 66)	−0.002	0.034	0.048	−0.026	−0.015
Peruvian (*N* = 48)	1.499	−0.150	−0.208	0.068	0.146

* $p < .05$;

** $p < .01$;

*** $p < .001$